



Investing for the Future

2017 ANNUAL REPORT

Transformational Growth

\$24.8 billion Capital investment planned from 2018 through 2022, including the \$9.45 billion acquisition of a majority stake in Oncor.

\$7.7 billion Invested in assets in Mexico by subsidiary IEnova, one of the largest energy companies in Mexico.

\$16.4 billion Value generated for our shareholders over the past 10 years.*

42% Increase in dividend on common shares since 2013.

FELLOW SHAREHOLDERS:

Twenty years ago, we experienced the most transformational year in our history with the creation of Sempra Energy. The past year also was transformational. We embarked on our largest acquisition ever, executed on a robust capital plan to reinforce our California utilities' infrastructure, continued our business expansion in Mexico and moved our most ambitious project – the Cameron LNG joint-venture liquefaction-export project – closer to completion.

Since our formation in 1998, we have been successful in developing a balanced portfolio of businesses comprised of top-tier utilities and long-term-contracted energy infrastructure assets. These infrastructure assets have a utility-like risk profile and a visible earnings stream.

Over the next four years, we expect to grow our earnings at a rate above our peer utilities and our goal is to continue increasing our dividend as our earnings grow. Key to accomplishing this will be an effective capital-allocation strategy – we are focused on investing wisely for the future.

Oncor Acquisition to Facilitate New Growth

On March 9, 2018, we completed our \$9.45 billion acquisition of Energy Future Holdings Corp. (EFH), including its approximate 80-percent indirect ownership interest in Dallas-based Oncor Electric Delivery Company LLC (Oncor).

Serving more than 10 million people, Oncor is the largest electric utility in Texas and sixth largest in the U.S. Texas not only holds a national leadership position in energy production, but also features above-average energy growth with a population



DEBRA L. REED
Chairman, President and Chief Executive Officer

that is forecasted to expand by nearly 25 percent through 2030. Additionally, Texas has a constructive business and regulatory climate, and its economy (in terms of gross state product) is forecasted to grow 150 percent by 2030.

We expect the addition of Oncor, which has a sterling reputation, to enhance our growth platforms and broaden our base of U.S. utility earnings. Our majority interest in Oncor expands our presence in the U.S. Gulf Coast and cross-border regions, where we already have a strong foothold with our existing LNG projects, and natural gas and Mexican operations.

Under its approved rate case, Oncor plans to spend approximately \$8.4 billion over the next five years to provide safe, reliable and affordable service to its growing customer base. Oncor management also has identified additional areas of potential investment beyond the base capital plan to benefit customers.

“We expect the addition of Oncor to enhance our growth platforms and broaden our base of utility earnings.”

Strengthening the SDG&E and SoCalGas Systems

San Diego Gas & Electric (SDG&E) and Southern California Gas Co. (SoCalGas) have robust capital programs underway to strengthen and modernize their systems, procure green energy and promote clean transportation.

The devastating California wildfires in late 2017 and early 2018 were an unwelcome reminder that our communities in the state are at risk during extreme fire conditions. Over the past decade, SDG&E has taken a series of proactive steps to implement a comprehensive fire-risk-mitigation program to help protect its customers, replacing wood power poles with steel, adding higher-strength conductors, increasing spacing between – and aggressively trimming vegetation near – power lines, and developing the largest utility weather network in the nation. SDG&E’s weather stations provide real-time weather data, enhancing situational awareness for SDG&E operations personnel and increasing fire preparedness. Additionally, SDG&E provides this weather data to regional firefighting agencies, while contracting for supplemental firefighting resources, including a massive heli-tanker.

These investments in system hardening and improved fire preparedness are critical in helping to reduce SDG&E’s risk exposure as worsening drought conditions and climate change increase the probability of fires in California.

Another major initiative is the Pipeline Safety Enhancement Plan (PSEP), an ongoing program under which SoCalGas and SDG&E are pressure-testing, repairing and, in some cases, replacing

older natural gas transmission pipelines in their 117,000-mile network. Our California utilities have spent approximately \$1.7 billion on the program since 2011, and major PSEP investments are expected to continue over the next decade.

In July 2017, state regulators deemed SoCalGas’ Aliso Canyon storage facility safe to operate, allowing the first re-injections of natural gas at the facility in nearly two years. While Aliso Canyon is still only permitted to operate at less than one-third of its capacity, it remains a critical link in Southern California’s energy supply chain. Since SoCalGas sealed the leaking well at the facility in February 2016, the utility has conducted the most comprehensive safety testing in the industry, as well as implemented a broad range of safety measures, including new metal tubing in every operating well, around-the-clock pressure monitoring and an infrared methane detection system. SoCalGas also is conducting rigorous safety tests and implementing new safety enhancements at its three other natural gas storage facilities.

Advancing Clean Energy

Clean energy is an increasing area of investment for both SoCalGas and SDG&E. California law calls for carbon emissions in the state to be reduced to 40 percent below 1990 levels by the year 2030 and, over the same period, for California’s investor-owned electric utilities to source 50 percent of their power from renewable energy. SDG&E already has increased the renewable energy in its supply portfolio to 43 percent, ranking it among the highest in the industry.



Enhancing Pipeline Safety

As part of the pipeline safety program, SoCalGas and SDG&E are modernizing the natural gas transmission pipelines in their 117,000-mile network.

"I take a great amount of pride in the work our crews are doing to modernize the natural gas system to help ensure that our customers can safely and reliably access the natural gas they prefer to use for heating, cooking and more."

*Rick Phillips, senior director of SoCalGas,
Pipeline Safety Enhancement Plan*



Mitigating Fire Risk

Over the past decade, SDG&E has made significant strategic investments to harden its electric system and improve its fire preparedness. This includes building the largest utility weather network in the nation with 170 weather stations.

"We were on a mission to make a positive impact on the entire region in terms of reducing the threat of wildfires. Integrating weather science, big data and situational awareness into the operation of the power grid gives us an advantage in wildfire preparedness."

*Brian D'Agostino, SDG&E's
meteorology program manager*



Dynamic Growth in Mexico

Sempra Energy's Mexican subsidiary, IEnova, has grown to become one of the largest energy companies in Mexico.

"We are currently building eight energy projects in Mexico, from natural gas pipelines, to wind and solar plants and liquids storage terminals. Our position as a strategic partner in Mexico's new energy market is just beginning. IEnova is eagerly working to capitalize on some of the \$45 billion in potential market opportunities in Mexico's energy sector."

Tania Ortiz Mena, IEnova's chief development officer

SoCalGas is pursuing increased development of renewable natural gas, which is natural gas produced by capturing methane emissions from organic sources, such as animal and food waste, garden and lawn clippings, paper and wood. Some studies estimate that California could supply as many as 20 percent of the residential gas customers in the state using renewable natural gas.

“The investments we are making are fueling superior growth opportunities.”

Since the transportation sector currently accounts for approximately 40 percent of California’s carbon emissions, SDG&E and SoCalGas have implemented aggressive programs to promote alternative-fuel vehicles. SDG&E is working to expand the infrastructure to support electric vehicles with a network of charging stations. Both utilities also have ambitious programs to encourage the conversion of heavy-duty vehicles – trucks and buses – from diesel fuel to natural gas or electricity.

Finally, SDG&E is working with third parties to develop large battery storage technology to help store the power from renewable energy during times of excess generation, so it can be used later when energy demand is high. In early 2017, SDG&E completed a 30-megawatt (MW) battery-storage facility – one of the largest of its kind – as well as a smaller facility.

The Market Opportunity in Mexico

On the infrastructure side of our business, our Mexican subsidiary, IEnova, has authored a dynamic growth story. With Mexico opening up its energy sector to private investment in 2014, IEnova now has more than \$7.7 billion invested in assets in the country and ranks among the largest energy companies in Mexico.

IEnova is working to capitalize on some of the \$45 billion in potential market opportunities in Mexico’s energy sector. The company continues to develop and operate an expanding network of natural gas pipelines. In November, IEnova completed the acquisition of Pemex’s 25-percent indirect equity interest in the Los Ramones II Norte natural gas pipeline. IEnova’s total indirect ownership in the 281-mile pipeline now is 50 percent. The pipeline is operational and one of the largest pipelines bringing U.S. natural gas to Mexico.

In July 2017, IEnova won a bid to develop its first liquid fuels terminals, part of what is expected to be a \$10 billion market in Mexico. IEnova plans to develop three liquid fuels terminals, two of which will be in the high-consumption areas of Mexico City and Puebla, with the third located in the Port of Veracruz. IEnova has negotiated a long-term, firm, U.S. dollar-denominated capacity agreement with a Valero Energy Corp. subsidiary for these three terminals.

Global Export of U.S. Natural Gas

For the first time in 60 years, the U.S. has become a net exporter of natural gas. This trend is driven by the plentiful supplies of domestic natural gas unearthed in shale formations and the development of technology to extract this gas economically. As Asia and Europe have become major consumers for U.S. natural gas, we and other companies have moved to develop LNG export terminals to process and ship domestic natural gas overseas.

We expect our Cameron LNG joint-venture project, located in Louisiana, to be one of the first new U.S. LNG liquefaction-export facilities to come online when it begins producing LNG in 2019. While the primary project contractor notified us and our partners last summer of construction delays, we expect Cameron LNG to generate significant earnings for Sempra Energy in 2020.

Industry analysts predict higher global demand for U.S. natural gas beyond 2020, especially in China. We currently have several developmental opportunities for new LNG export facilities in Louisiana, Texas and Mexico, with commercial discussions ongoing.

A Look Back...and Ahead

The investments we are making in our utility and infrastructure businesses are fueling superior growth opportunities that should create long-term value for our shareholders.

Over the past 10 years, we have generated \$16.4 billion in value for our shareholders through share appreciation and dividend growth. Our total return to shareholders, including reinvested dividends, during this period was 134 percent, better than both the Standard & Poor's 500 Index and Standard & Poor's 500 Utilities Index. Also, over the past decade, we have increased our dividend on common shares 165 percent. In February 2018, our board of directors approved another increase in our common dividend of approximately 9 percent.

In 2018, we are celebrating Sempra Energy's 20th anniversary. What began as a combination of two proud, century-old Southern California utility franchises has blossomed into a diversified, global energy company. With the addition of Oncor, we now have more than 20,000 employees serving approximately 43 million consumers worldwide. And, we have remained committed to making positive contributions to the many communities where we operate.

"An investment of \$10,000 in Sempra Energy in 1998 was worth more than \$75,000 as of March 2018."

*As of March 9, 2018.

**Closing stock price on June 29, 1998.

***Number of employees includes Oncor.

20 Years of Growth

	1998	2018*
Stock Price	\$28.56**	\$109.08
Annualized Dividend	\$1.56	\$3.58
Employees	12,000	20,000***
Market Value	\$6.1 billion	\$28.8 billion

Since 1998, we have nearly quadrupled our market value – approximately \$29 billion as of March 9, 2018. Including the reinvestment of our dividends, an investment of \$10,000 in Sempra Energy in 1998 was worth more than \$75,000 as of March 9, 2018. We not only have created lasting value for you, our shareholders, but we have built a world-class organization. In the past year, Sempra Energy was recognized among Fortune magazine's "World's Most Admired Companies" and the Wall Street Journal's "Management Top 250" best-managed companies.

On March 9, 2018, I notified our board of directors that I plan to step down as president and CEO in May 2018 and retire in December 2018. Our board has appointed Jeff Martin, our chief financial officer, to be my successor as CEO. Jeff will be a tremendous leader for Sempra Energy going forward. As I reflect on my 40 years at the company, including the past seven years as CEO, I could not be prouder of what we have collectively accomplished, nor could I be more excited about the opportunities ahead of us. I, too, am proud of the quality and depth of the management team that we have built to lead us in the future. Of course, none of our success would be possible without your investment in our company – so, thank you for your continued confidence in us and our mission, and your support of me during my tenure as CEO. It has been an honor and a privilege to serve you.

Sincerely,



DEBRA L. REED

Chairman, President and Chief Executive Officer

About Sempra

Sempra Energy®, based in San Diego, is a Fortune 500 energy services holding company with 2017 revenues of more than \$11 billion. With the addition of Oncor, the Sempra Energy companies' more than 20,000 employees serve approximately 43 million consumers worldwide.

Sempra Utilities

Southern California Gas Company

SoCalGas has the largest customer base of any U.S. natural gas distribution utility, providing safe, reliable and affordable service to 21.8 million consumers.

San Diego Gas & Electric

SDG&E is an electric and natural gas utility that provides safe, reliable and clean energy to 3.6 million consumers in San Diego and southern Orange Counties.

Oncor Electric Delivery Company LLC[†]

Oncor is a regulated electric transmission and distribution company and the largest utility in Texas. Dallas-based Oncor provides safe and reliable service to more than 10 million Texans.

Sempra South American Utilities

The Sempra South American Utilities are Chilquinta Energía in Chile and Luz del Sur in Peru. Sempra South American Utilities invest in electric generation and transmission to provide energy service to approximately 7 million consumers.

Sempra Infrastructure

Sempra Mexico

Sempra Mexico includes IEnova, one of the largest private energy companies in Mexico. IEnova develops, builds, operates and invests in energy infrastructure in Mexico.

Sempra LNG & Midstream

Sempra LNG & Midstream develops, builds and invests in liquefied natural gas facilities and natural gas pipelines and storage.

Sempra Renewables

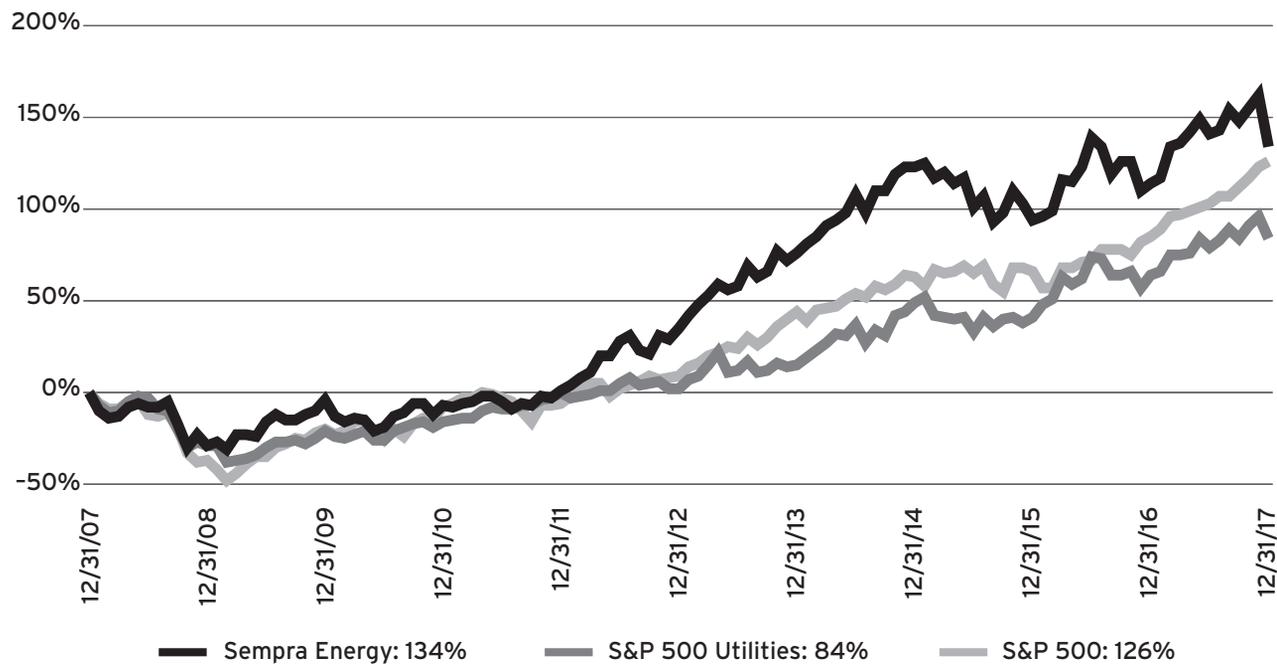
Sempra Renewables is a leading U.S. developer of renewable energy. Together with its partners, the company owns, operates or has under construction nearly 2,600 megawatts of renewable capacity.

[†]The acquisition of Sempra Energy's indirect, approximate 80-percent interest in Oncor was completed on March 9, 2018. Sempra Energy's investment in Oncor will be included in a new reportable segment within the Sempra Utilities operating unit.

FINANCIAL HIGHLIGHTS

Comparative Total Returns

Ten years ended 12/31/17



Consolidated Data

Dollars in millions, except per-share amounts

	2015	2016	2017
Revenues	\$ 10,231	\$ 10,183	\$ 11,207
Earnings	\$ 1,349	\$ 1,370	\$ 256
Adjusted Earnings ¹	\$ 1,298	\$ 1,267	\$ 1,368
Earnings Per Share of Common Stock:			
Basic	\$ 5.43	\$ 5.48	\$ 1.02
Diluted	\$ 5.37	\$ 5.46	\$ 1.01
Adjusted Diluted ¹	\$ 5.17	\$ 5.05	\$ 5.42
Weighted Average Number of Common Shares Outstanding (Diluted, in millions)	250.9	251.2	252.3
Total Assets	\$41,150	\$47,786	\$50,454
Common Dividends Declared Per Share	\$ 2.80	\$ 3.02	\$ 3.29
Debt to Total Capitalization	54%	53%	56%
Book Value Per Share	\$ 47.56	\$ 51.77	\$ 50.40
Capital Expenditures & Investments	\$ 3,354 ²	\$ 5,718 ²	\$ 4,219

¹ Sempra Energy adjusted earnings and adjusted diluted earnings per share are non-GAAP financial measures (GAAP represents accounting principles generally accepted in the United States of America). For an explanation and reconciliation of these non-GAAP financial measures to Sempra Energy earnings and diluted earnings per common share, the most directly comparable financial measures calculated in accordance with GAAP, please see "Management's Discussion and Analysis of Financial Condition and Results of Operations – Results of Operations – Adjusted Earnings and Adjusted Earnings Per Share" in the "Sempra Energy 2017 Form 10-K" included herein.

² As adjusted for the adoption of Accounting Standards Update (ASU) 2016-15 and ASU 2016-18, which we discuss in Note 2 of the Notes to our Consolidated Financial Statements in the "Sempra Energy 2017 Form 10-K" included herein.



2017 FORM 10-K

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended

December 31, 2017

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from

to

Commission File No.	Exact Name of Registrants as Specified in their Charters, Address and Telephone Number	State of Incorporation	I.R.S. Employer Identification Nos.
1-14201	SEMPRA ENERGY 488 8th Avenue San Diego, California 92101 (619) 696-2000	California	33-0732627
1-03779	SAN DIEGO GAS & ELECTRIC COMPANY 8326 Century Park Court San Diego, California 92123 (619) 696-2000	California	95-1184800
1-01402	SOUTHERN CALIFORNIA GAS COMPANY 555 West Fifth Street Los Angeles, California 90013 (213) 244-1200	California	95-1240705

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Title of Each Class	Name of Each Exchange on Which Registered
Sempra Energy Common Stock, without par value	NYSE
Sempra Energy 6% Mandatory Convertible Preferred Stock, Series A, \$100 liquidation preference	NYSE

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

Southern California Gas Company Preferred Stock, \$25 par value
6% Series A, 6% Series

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Sempra Energy	Yes <u> X </u>	No <u> </u>
San Diego Gas & Electric Company	Yes <u> </u>	No <u> X </u>
Southern California Gas Company	Yes <u> </u>	No <u> X </u>

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Sempra Energy	Yes <u> </u>	No <u> X </u>
San Diego Gas & Electric Company	Yes <u> </u>	No <u> X </u>
Southern California Gas Company	Yes <u> </u>	No <u> X </u>

Indicate by check mark whether the registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) have been subject to such filing requirements for the past 90 days.

Yes X No

Indicate by check mark whether the registrants have submitted electronically and posted on their corporate Websites, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrants were required to submit and post such files).

Yes X No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrants' knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Sempra Energy	<u> X </u>
San Diego Gas & Electric Company	<u> X </u>
Southern California Gas Company	<u> X </u>

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

	Large accelerated filer	Accelerated filer	Non-accelerated filer	Smaller reporting company	Emerging growth company
Sempra Energy	[X]	[]	[]	[]	[]
San Diego Gas & Electric Company	[]	[]	[X]	[]	[]
Southern California Gas Company	[]	[]	[X]	[]	[]

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Sempra Energy	Yes <u> </u>	No <u> </u>
San Diego Gas & Electric Company	Yes <u> </u>	No <u> </u>
Southern California Gas Company	Yes <u> </u>	No <u> </u>

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Sempra Energy	Yes _____	No <u>X</u>
San Diego Gas & Electric Company	Yes _____	No <u>X</u>
Southern California Gas Company	Yes _____	No <u>X</u>

Aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2017:

Sempra Energy	\$28.3 billion (based on the price at which the common equity was last sold as of the last business day of the most recently completed second fiscal quarter)
San Diego Gas & Electric Company	\$0
Southern California Gas Company	\$0

Common Stock outstanding, without par value, as of February 22, 2018:

Sempra Energy	255,324,212 shares
San Diego Gas & Electric Company	Wholly owned by Enova Corporation, which is wholly owned by Sempra Energy
Southern California Gas Company	Wholly owned by Pacific Enterprises, which is wholly owned by Sempra Energy

SAN DIEGO GAS & ELECTRIC COMPANY MEETS THE CONDITIONS OF GENERAL INSTRUCTIONS I(1)(a) AND (b) OF FORM 10-K AND IS THEREFORE FILING THIS REPORT WITH A REDUCED DISCLOSURE FORMAT AS PERMITTED BY GENERAL INSTRUCTION I(2).

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the Sempra Energy Proxy Statement to be filed for its May 2018 annual meeting of shareholders are incorporated by reference into Part III of this annual report on Form 10-K.

Portions of the Southern California Gas Company Information Statement to be filed for its May 2018 annual meeting of shareholders are incorporated by reference into Part III of this annual report on Form 10-K.

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SEMPRA ENERGY FORM 10-K
SAN DIEGO GAS & ELECTRIC COMPANY FORM 10-K
SOUTHERN CALIFORNIA GAS COMPANY FORM 10-K
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This combined Form 10-K is separately filed by Sempra Energy, San Diego Gas & Electric Company and Southern California Gas Company. Information contained herein relating to any individual company is filed by such company on its own behalf. Each company makes representations only as to itself and makes no other representation whatsoever as to any other company.

You should read this report in its entirety as it pertains to each respective reporting company. No one section of the report deals with all aspects of the subject matter. Separate Item 6 and 8 sections are provided for each reporting company, except for the Notes to Consolidated Financial Statements in Item 8. The Notes to Consolidated Financial Statements for all of the reporting companies are combined. All Items other than Items 6 and 8 are combined for the reporting companies.

The following terms and abbreviations appearing in the text of this report have the meanings indicated below.

GLOSSARY

2016 GRC FD	final decision in the California Utilities' 2016 General Rate Case
AB	Assembly Bill
AFUDC	allowance for funds used during construction
ALJ	administrative law judge
AOCI	accumulated other comprehensive income (loss)
ARO	asset retirement obligation
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
Bankruptcy Court	U.S. Bankruptcy Court for the District of Delaware
Bay Gas	Bay Gas Storage Company, Ltd.
Bcf	billion cubic feet
BP	British Petroleum
bps	basis points
CAISO	California Independent System Operator
California Utilities	San Diego Gas & Electric Company and Southern California Gas Company, collectively
Cameron LNG JV	Cameron LNG Holdings, LLC
CARB	California Air Resources Board
CCA	Community Choice Aggregation
CCC	California Coastal Commission
CCM	cost of capital adjustment mechanism
CEC	California Energy Commission
CENAGAS	Centro Nacional de Control de Gas
CEQA	California Environmental Quality Act
CFCA	Core Fixed Cost Account
CFE	Comisión Federal de Electricidad (Federal Electricity Commission in Mexico)
Chilquinta Energía	Chilquinta Energía S.A. and its subsidiaries
CLF	Chilean Unidad de Fomento
CNE	Comisión Nacional de Energía (National Energy Commission) (Chile)
CNF	Cleveland National Forest
COFECE	Comisión Federal de Competencia Económica (Mexican Competition Commission)
CPCN	Certificate of Public Convenience and Necessity
CPED	Consumer Protection and Enforcement Division
CPI	Consumer Price Index
CPUC	California Public Utilities Commission
CRE	Comisión Reguladora de Energía (Energy Regulatory Commission in Mexico)
CRR	congestion revenue right
DA	Direct Access
DEN	Ductos y Energéticos del Norte, S. de R.L. de C.V.
DOE	U.S. Department of Energy
DOGGR	California Department of Conservation's Division of Oil, Gas, and Geothermal Resources
DOT	U.S. Department of Transportation
DPH	Los Angeles County Department of Public Health
ECA	Energía Costa Azul
Ecogas	Ecogas México, S. de R.L. de C.V.
Edison	Southern California Edison Company, a subsidiary of Edison International
EFH	Energy Future Holdings Corp.
EFIH	Energy Future Intermediate Holding Company LLC
EIR	environmental impact report
Eletrans	Eletrans S.A., Eletrans II S.A. and Eletrans III S.A., collectively
EMA	energy management agreement
EnergySouth	EnergySouth Inc.
Enova	Enova Corporation
EPA	U.S. Environmental Protection Agency

GLOSSARY (CONTINUED)

EPC	engineering, procurement and construction
EPS	earnings per common share
ERR	eligible renewable energy resource
ERRA	Energy Resource Recovery Account
ETR	effective income tax rate
EV	electric vehicle
FASB	Financial Accounting Standards Board
FERC	Federal Energy Regulatory Commission
FTA	Free Trade Agreement
Gazprom	Gazprom Marketing & Trading Mexico
GCIM	Gas Cost Incentive Mechanism
GdC	Gasoductos de Chihuahua, S. de R.L. de C.V. (now known as IEnova Pipelines)
GHG	greenhouse gas
GRC	General Rate Case
HLBV	hypothetical liquidation at book value
HMRC	United Kingdom's Revenue and Customs Department
IEnova	Infraestructura Energética Nova, S.A.B. de C.V.
IEnova Pipelines	IEnova Pipelines, S. de R.L. de C.V. (formerly known as GdC)
IMG	Infraestructura Marina del Golfo
IOU	investor-owned utility
IRS	Internal Revenue Service
ISFSI	independent spent fuel storage installation
IRC	U.S. Internal Revenue Code of 1986 (as amended)
ITC	investment tax credit
Joint Application	Joint Report and Application for Regulatory Approvals of Sempra Energy and Oncor Pursuant to PURA Sections 14.101, 39.262 and 39.915
JP Morgan	J.P. Morgan Chase & Co.
kV	kilovolt
kW	kilowatt
kWh	kilowatt hour
LA Storage	LA Storage, LLC
LA Superior Court	Los Angeles County Superior Court
LIFO	last in first out
LNG	liquefied natural gas
LPG	liquid petroleum gas
Luz del Sur	Luz del Sur S.A.A. and its subsidiaries
Merger	The merger of EFH with an indirect subsidiary of Sempra Energy, with EFH continuing as the surviving company and as an indirect, wholly owned subsidiary of Sempra Energy
Merger Agreement	Agreement and Plan of Merger dated August 21, 2017, as supplemented by a Waiver Agreement dated October 3, 2017 and an amendment dated February 15, 2018, between Sempra Energy, EFH, EFIH and an indirect subsidiary of Sempra Energy
Merger Consideration	Under the Merger Agreement, Sempra Energy will pay consideration of \$9.45 billion in cash
Mexican Stock Exchange	La Bolsa Mexicana de Valores, S.A.B. de C.V., or BMV
MHI	Mitsubishi Heavy Industries, Ltd., Mitsubishi Nuclear Energy Systems, Inc., and Mitsubishi Heavy Industries America, Inc., collectively
Mississippi Hub	Mississippi Hub, LLC
MMBtu	million British thermal units (of natural gas)
MMcf	million cubic feet
Mobile Gas	Mobile Gas Service Corporation
Moody's	Moody's Investor Service
Mtpa	million tonnes per annum
MW	megawatt
MWh	megawatt hour
NAFTA	North American Free Trade Agreement
NDT	nuclear decommissioning trusts
NEIL	Nuclear Electric Insurance Limited

GLOSSARY (CONTINUED)

NEM	net energy metering
NEPA	National Environmental Policy Act
NOL	net operating loss
NRC	Nuclear Regulatory Commission
OCI	other comprehensive income (loss)
OII	Order Instituting Investigation
O&M	operation and maintenance expense
OMEC	Otay Mesa Energy Center
OMEC LLC	Otay Mesa Energy Center LLC
OMI	Oncor Management Investment LLC
Oncor	Oncor Electric Delivery Company LLC
Oncor Holdings	Oncor Electric Delivery Holdings Company LLC
ORA	CPUC Office of Ratepayer Advocates
OSINERGMIN	Organismo Supervisor de la Inversión en Energía y Minería (Energy and Mining Investment Supervisory Body) (Peru)
Otay Mesa VIE	OMEC LLC VIE
PBOP	postretirement benefits other than pension
PE	Pacific Enterprises
PEMEX	Petróleos Mexicanos (Mexican state-owned oil company)
PG&E	Pacific Gas and Electric Company
PHMSA	Pipeline and Hazardous Materials Safety Administration
PPA	power purchase agreement
PP&E	property, plant and equipment
PRP	Potentially Responsible Party
PSEP	Pipeline Safety Enhancement Plan
PTC	production tax credit
PUCT	Public Utility Commission of Texas
PURA	Public Utility Regulatory Act
QF	Qualifying Facility
RAMP	Risk Assessment Mitigation Phase
RBS	The Royal Bank of Scotland plc
RBS SEE	RBS Sempra Energy Europe
RBS Sempra Commodities	RBS Sempra Commodities LLP
REC	renewable energy certificate
REX	Rockies Express pipeline
Rockies Express	Rockies Express Pipeline LLC
ROE	return on equity
RPS	Renewables Portfolio Standard
RSA	restricted stock award
RSU	restricted stock unit
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDCA	U.S. District Court for the Southern District of California
SDG&E	San Diego Gas & Electric Company
SEC	U.S. Securities and Exchange Commission
SEDATU	Secretaría de Desarrollo Agrario, Territorial y Urbano (Mexican agency in charge of agriculture, land and urban development)
Sempra Global	holding company for Sempra Energy subsidiaries not subject to California or Texas utility regulation
SFP	secondary financial protection
SGRP	Steam Generator Replacement Project
Shell	Shell México Gas Natural
SoCalGas	Southern California Gas Company
SONGS	San Onofre Nuclear Generating Station
SONGS OII	CPUC's Order Instituting Investigation into the SONGS Outage
the Stipulation	settlement agreement between Sempra Energy, Oncor and key stakeholders in the PUCT proceeding regarding the Joint Application

GLOSSARY (CONTINUED)

S&P	Standard & Poor's
TAG	TAG Pipelines Norte, S. de R.L. de C.V.
Tangguh PSC	Tangguh PSC Contractors
TCJA	Tax Cuts and Jobs Act of 2017
TdM	Termoeléctrica de Mexicali
Tecnored	Tecnored S.A.
Tecsur	Tecsur S.A.
TO4	Electric Transmission Formula Rate, effective through December 31, 2018
TO5	Electric Transmission Formula Rate, new application
TOU	time-of-use
TransCanada	TransCanada Corporation
Tribunal	International Chamber of Commerce International Court of Arbitration Tribunal
TTI	Texas Transmission Investment LLC
TURN	The Utility Reform Network
U.S. GAAP	accounting principles generally accepted in the United States of America
Valero Energy	Valero Energy Corporation
VaR	value at risk
VAT	value-added tax
Ventika	Ventika, S.A.P.I. de C.V. and Ventika II, S.A.P.I. de C.V., collectively
VIE	variable interest entity
Vistra	Vistra Energy Corp.
Willmut Gas	Willmut Gas Company

INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

We make statements in this report that are not historical fact and constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based upon assumptions with respect to the future, involve risks and uncertainties, and are not guarantees of performance. Future results may differ materially from those expressed in the forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the filing date of this report. We assume no obligation to update or revise any forward-looking statement as a result of new information, future events or other factors.

In this report, when we use words such as “believes,” “expects,” “anticipates,” “plans,” “estimates,” “projects,” “forecasts,” “contemplates,” “assumes,” “depends,” “should,” “could,” “would,” “will,” “confident,” “may,” “can,” “potential,” “possible,” “proposed,” “target,” “pursue,” “outlook,” “maintain,” or similar expressions, or when we discuss our guidance, strategy, plans, goals, opportunities, projections, initiatives, objectives or intentions, we are making forward-looking statements.

Factors, among others, that could cause our actual results and future actions to differ materially from those described in any forward-looking statements include risks and uncertainties relating to:

- actions and the timing of actions, including decisions, new regulations, and issuances of permits and other authorizations by the CPUC, DOE, DOGGR, FERC, EPA, PHMSA, DPH, states, cities and counties, and other regulatory and governmental bodies in the U.S. and other countries in which we operate;
- the timing and success of business development efforts and construction projects, including risks in obtaining or maintaining permits and other authorizations on a timely basis, risks in completing construction projects on schedule and on budget, and risks in obtaining the consent and participation of partners;
- the resolution of civil and criminal litigation and regulatory investigations;
- deviations from regulatory precedent or practice that result in a reallocation of benefits or burdens among shareholders and ratepayers; approvals of proposed settlements or modifications of settlements; and delays in, or disallowance or denial of, regulatory agency authorizations to recover costs in rates from customers (including with respect to amounts associated with the SONGS facility and 2007 wildfires) or regulatory agency approval for projects required to enhance safety and reliability;
- the greater degree and prevalence of wildfires in California in recent years and risk that we may be found liable for damages regardless of fault, such as in cases where the doctrine of inverse condemnation applies, and risk that we may not be able to recover any such costs in rates from customers in California;
- the risk that rulings by the CPUC such as denying recovery for wildfire damages may raise our cost of capital and materially impair our ability to finance our operations;
- the availability of electric power, natural gas and liquefied natural gas, and natural gas pipeline and storage capacity, including disruptions caused by failures in the transmission grid, moratoriums or limitations on the withdrawal or injection of natural gas from or into storage facilities, and equipment failures;
- changes in energy markets; volatility in commodity prices; moves to reduce or eliminate reliance on natural gas; and the impact on the value of our investments in natural gas storage and related assets from low natural gas prices, low volatility of natural gas prices and the inability to procure favorable long-term contracts for storage services;
- risks posed by actions of third parties who control the operations of our investments, and risks that our partners or counterparties will be unable or unwilling to fulfill their contractual commitments;
- weather conditions, natural disasters, accidents, equipment failures, computer system outages, explosions, terrorist attacks and other events that disrupt our operations, damage our facilities and systems, cause the release of GHG, radioactive materials and harmful emissions, cause wildfires and subject us to third-party liability for property damage or personal injuries, fines and penalties, some of which may not be covered by insurance (including costs in excess of applicable policy limits), may be disputed by insurers or may otherwise not be recoverable through regulatory mechanisms or may impact our ability to obtain satisfactory levels of insurance, to the extent that such insurance is available or not prohibitively expensive;
- cybersecurity threats to the energy grid, storage and pipeline infrastructure, the information and systems used to operate our businesses and the confidentiality of our proprietary information and the personal information of our customers and employees;
- capital markets and economic conditions, including the availability of credit and the liquidity of our investments; and fluctuations in inflation, interest and currency exchange rates and our ability to effectively hedge the risk of such fluctuations;
- the impact of recent federal tax reform and uncertainty as to how it may be applied, and our ability to mitigate any adverse impacts;
- actions by rating agencies to downgrade our credit ratings or those of our subsidiaries or to place those ratings on negative outlook;

- changes in foreign and domestic trade policies and laws, including border tariffs, and revisions to international trade agreements, such as NAFTA, that make us less competitive or impair our ability to resolve trade disputes;
- the ability to win competitively bid infrastructure projects against a number of strong and aggressive competitors;
- expropriation of assets by foreign governments and title and other property disputes;
- the impact on reliability of SDG&E's electric transmission and distribution system due to increased amount and variability of power supply from renewable energy sources;
- the impact on competitive customer rates due to the growth in distributed and local power generation and the corresponding decrease in demand for power delivered through SDG&E's electric transmission and distribution system and from possible departing retail load resulting from customers transferring to DA and CCA or other forms of distributed and local power generation and the potential risk of nonrecovery for stranded assets and contractual obligations; and
- other uncertainties, some of which may be difficult to predict and are beyond our control.

Forward-looking statements also include statements about the anticipated benefits of the proposed Merger involving Sempra Energy, EFH, and EFH's 80.03 percent indirect interest in Oncor, including future financial or operating results of Sempra Energy or Oncor, Sempra Energy's, EFH's or Oncor's plans, objectives, expectations or intentions, the anticipated impact of the Merger, if consummated, on the credit ratings of Sempra Energy or Oncor, the expected timing of completion of the Merger, plans regarding future capital investments by Sempra Energy or Oncor, future ROE or capital structure of Sempra Energy or Oncor, and other statements that are not historical facts.

Additional factors, among others, that could cause our actual results and future actions to differ materially from those described in any forward-looking statements include risks and uncertainties relating to:

- the risk that Sempra Energy, EFH or Oncor may be unable to satisfy all closing conditions including obtaining governmental and regulatory approvals required for the Merger, or that required governmental and regulatory approvals may delay the Merger or result in the imposition of conditions that could cause the parties to abandon the Merger or be onerous to Sempra Energy;
- the risk that the Merger may not be completed for other reasons, or may not be completed on the terms or timing currently contemplated;
- the risk that the anticipated benefits from the Merger may not be fully realized or may take longer to realize than expected and that liabilities that survive the bankruptcy will be greater than we anticipate;
- the risk that Sempra Energy may be unable to obtain additional permanent equity financing for the Merger on favorable terms;
- the risk that indebtedness Sempra Energy incurs in connection with the Merger may make it more difficult for Sempra Energy to repay or refinance its debt or take other actions, which may decrease business flexibility and increase borrowing costs;
- the diversion of management time and attention to Merger-related issues and related costs, whether or not the Merger is completed, as well as disruptions to our business; and
- the risk that Oncor will eliminate or reduce its quarterly dividends due to its requirement to meet and maintain its new regulatory capital structure, or because any of the three major rating agencies rates Oncor's senior secured debt securities below BBB (or the equivalent) or Oncor's independent directors or a minority member director determine that it is in the best interest of Oncor to retain such amounts to meet future capital expenditures.

We caution you not to rely unduly on any forward-looking statements. You should review and consider carefully the risks, uncertainties and other factors that affect our business as described herein and other reports that we file with the SEC.

PART I.

ITEM 1. BUSINESS

This report on Form 10-K includes information for the following separate registrants:

- Sempra Energy and its consolidated entities
- SDG&E and its consolidated VIE
- SoCalGas

References in this report to “we,” “our,” “us,” “our company” and “Sempra Energy Consolidated” are to Sempra Energy and its consolidated entities, collectively, unless otherwise indicated by the context. SDG&E and SoCalGas are collectively referred to as the California Utilities.

OVERVIEW

We are a Fortune 500 energy-services holding company. Our operating units invest in, develop and operate energy infrastructure, and provide electric and gas services to customers in North and South America. We were formed in 1998 through a business combination of Enova and PE, the holding companies of our regulated public utilities in California: SDG&E, which began operations in 1881, and SoCalGas, which began operations in 1867. Since our formation in 1998, we have expanded our investment in regulated utility operations through business acquisitions in 2011 in South America. Additionally, in response to changes in Mexican gas regulation in 1995, we entered the energy infrastructure business in Mexico through what is now known as IEnova, the first energy infrastructure company to be listed on the Mexican Stock Exchange. Our energy infrastructure footprint continues to expand across the U.S., through renewable energy generation projects and LNG and natural gas midstream projects and assets. In August 2017, we entered into the Merger Agreement to acquire an indirect ownership interest in Oncor, a regulated electric distribution and transmission business that operates the largest distribution and transmission system in Texas. We expect the Merger to close in the first half of 2018.

We have two principal operating units, Sempra Utilities and Sempra Infrastructure. Sempra Utilities includes SDG&E, SoCalGas and Sempra South American Utilities. Sempra Infrastructure includes Sempra Mexico, Sempra Renewables and Sempra LNG & Midstream. If the Merger is consummated, our investment in Oncor will be included in a new reportable segment within the Sempra Utilities operating unit.

All references to “Sempra Utilities” and “Sempra Infrastructure” and their respective reportable segments are not intended to refer to any legal entity with the same or similar name. Sempra Infrastructure also owns or owned (during periods presented in this report) regulated utilities that are not included in our references to the Sempra Utilities. We provide financial information about all our reportable segments and about the geographic areas in which we do business in Note 16 of the Notes to Consolidated Financial Statements.

Business Strategy

Our objective is to increase shareholder value by developing, investing in and operating utilities and long-term-contracted energy infrastructure assets and operating our companies in a safe and reliable manner.

The key components of our strategy include the following disciplined growth platforms:

- U.S. and South American regulated utilities
- U.S. and Mexican energy infrastructure

Operating within these areas, we are focused on generating stable, predictable earnings and cash flows by investing in assets that are primarily regulated or contracted on a long-term basis. We have a robust capital program and take a disciplined approach to deploying this capital to areas that fit our strategy and are designed to create shareholder value.

PENDING ACQUISITION

Energy Future Holdings Corp.

On August 21, 2017, Sempra Energy entered into an Agreement and Plan of Merger, as supplemented by a Waiver Agreement dated October 3, 2017 and an amendment dated February 15, 2018 (together referred to as the Merger Agreement), with Energy Future Holdings Corp., the indirect owner of 80.03 percent of Oncor Electric Delivery Company LLC. Oncor is a regulated electric distribution and transmission business that operates the largest distribution and transmission system in Texas. Following closing, this acquisition will expand our regulated earnings base, while serving as a platform for future growth in the Texas energy market and U.S. Gulf Coast region. Under the Merger Agreement, we will pay the Merger Consideration of \$9.45 billion in cash. Pursuant to the Merger Agreement and subject to the satisfaction of certain closing conditions described below, EFH will be merged with an indirect subsidiary of Sempra Energy, with EFH continuing as the surviving company and an indirect, wholly owned subsidiary of Sempra Energy (the Merger). The terms and conditions of the Merger Agreement (and a related letter agreement with Oncor) are described in more detail in Sempra Energy's current reports on Form 8-K filed with the SEC on August 25, 2017, August 28, 2017 and October 6, 2017. The amendment dated February 15, 2018 (the Amendment) was made in connection with a settlement agreement, dated as of February 5, 2018, by and among the parties to the Merger Agreement and certain of their subsidiaries. The Amendment amends certain merger terms, in accordance with the settlement agreement, that relate to Oncor dividend payments and certain adjustments to the Merger Consideration. The Amendment is provided in its entirety by reference to Exhibit 2.1.3, filed herewith.

Ring-Fencing

In April 2014, EFH and the substantial majority of its subsidiaries filed voluntary petitions for relief under Chapter 11 of the U.S. Bankruptcy Code in the Bankruptcy Court. The bankruptcy does not include Oncor or Oncor Holdings. Oncor Holdings owns 80.03 percent of Oncor and is indirectly wholly owned by EFH. Certain existing "ring-fencing" measures, governance mechanisms and restrictions will remain in effect following the Merger, which are intended to enhance Oncor Holdings' and Oncor's separateness from their owners and to mitigate the risk that these entities would be negatively impacted by the bankruptcy of, or other adverse financial developments affecting, EFH or its other subsidiaries or the owners of EFH. In accordance with the ring-fencing measures and commitments made by Sempra Energy as part of the Joint Application to the PUCT for regulatory approval of the Merger, Sempra Energy and Oncor will be subject to certain restrictions following the Merger. Sempra Energy will not control Oncor Holdings or Oncor, and the ring-fencing measures, governance mechanisms and restrictions, as well as the Stipulation discussed below and elsewhere herein, will limit our ability to direct the management, policies and operations of Oncor Holdings and Oncor, including the deployment or disposition of their assets, declarations of dividends, strategic planning and other important corporate issues and actions. Thus, Oncor Holdings and Oncor will continue to be managed independently (i.e., ring-fenced). Upon consummation of the Merger, although we will consolidate EFH, EFH will continue to account for its ownership in Oncor Holdings as an equity method investment.

Settlement Agreement Regarding Joint Application

On October 5, 2017, Sempra Energy and Oncor filed a Joint Application with the PUCT and an application with the FERC seeking approval of the Merger. In December 2017, Sempra Energy and Oncor entered into a comprehensive Stipulation with the Staff of the PUCT, the Office of the Public Utility Counsel, the Steering Committee of Cities Served by Oncor and the Texas Industrial Energy Consumers, reflecting the parties' settlement of all issues in the PUCT proceeding regarding the Joint Application. Pursuant to the Stipulation, the parties have agreed that Sempra Energy's acquisition of EFH is in the public interest and will bring substantial benefits. The parties to the Stipulation also agreed to ask the PUCT to approve the Merger, consistent with the governance, regulatory and operating commitments outlined in the Stipulation.

The Stipulation includes regulatory commitments by us, as described below and elsewhere herein, most of which are similar to the regulatory commitments made by us as part of the Joint Application and are consistent with the "ring-fencing" measures currently in place. Sempra Energy and Oncor are entitled to seek modifications of the PUCT order to be entered in the proceedings regarding the Joint Application, which modifications would be subject to PUCT approval.

While Oncor's Limited Liability Company Agreement generally provides that Oncor will make quarterly distributions to its members equal to the net income of Oncor, subject to certain exceptions, and Oncor Holdings' Limited Liability Company Agreement generally provides that Oncor Holdings will make quarterly distributions to its member equal to the dividends received by Oncor, subject to certain exceptions, the Stipulation provides a number of circumstances in which Oncor is not permitted to make dividends or other distributions (except for contractual tax payments). In addition, the Stipulation provides that the respective boards of Oncor and Oncor Holdings will control each respective company's dividend policy (and any changes to such policy must be approved by a majority of its independent directors), issuances of dividends and other distributions (except

for contractual tax payments). The Stipulation also provides that the respective boards of Oncor and Oncor Holdings will control each respective company's debt issuances, capital expenditures, operation and maintenance expenditures, management and service fees, and, subject to certain limitations, appointment or removal of board members.

If the PUCT does not accept the Stipulation as presented, or issues an order inconsistent with the terms of the Stipulation, the parties have agreed that any party adversely affected by the alteration has the right to withdraw from the Stipulation and to exercise all rights available to such party under the law.

On January 5, 2018, Oncor, Sempra Energy and Staff of the PUCT jointly filed with the PUCT, requesting that the PUCT approve the Merger consistent with the Stipulation. As of January 31, 2018, all 10 intervening parties, including the Staff of the PUCT, agreed to the Stipulation.

We discuss the Merger and financing of the Merger Consideration, ring-fencing measures, additional regulatory commitments, governance mechanisms and restrictions, as well as the Stipulation, in Notes 3 and 18 of the Notes to Consolidated Financial Statements, "Item 1A. Risk Factors" and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance."

Closing Conditions

The Merger is subject to customary closing conditions, including the approval of the PUCT. Certain conditions, such as approval from the Bankruptcy Court, the FERC, the Vermont Department of Financial Regulation and receipt of a private letter ruling from the IRS, have been satisfied. If the required governmental consents and approvals are not received, or if they are not received on terms that satisfy the closing conditions in the Merger Agreement, the Merger could be abandoned, delayed or restructured.

The Merger Agreement provides that it will terminate if the Merger is not consummated by April 18, 2018, subject to limited exceptions. One of those exceptions provides that, if the Merger is not consummated because the requisite PUCT approval has not been obtained by April 18, 2018, but such approval is still capable of being obtained within 90 days thereafter, the April 18, 2018 date shall be extended for 90 days for purposes of continuing to pursue such approval, unless otherwise agreed by EFH and EFIH (acting together) and Sempra Energy.

We currently expect that the Merger will close in the first half of 2018, although there can be no assurance that the Merger will be completed on that timetable, or at all.

OUR SEGMENTS

No single customer accounted for 10 percent or more of Sempra Energy's consolidated revenues in 2017, 2016 or 2015.

SDG&E

SDG&E is a regulated public utility that provides electric services to a population of approximately 3.6 million and natural gas services to approximately 3.3 million of that population, covering a 4,100 square mile service territory in Southern California that encompasses San Diego County and an adjacent portion of southern Orange County.

Electric Utility Operations

Customers and Demand. SDG&E provides electric services through the generation, transmission and distribution of electricity to the following customer classes:

SDG&E – ELECTRIC CUSTOMER METERS AND VOLUMES

	Customer meter count	Volumes ⁽¹⁾ (millions of kWh)		
		Years ended December 31,		
	December 31, 2017	2017	2016	2015
Residential	1,286,200	6,577	6,685	7,143
Commercial	152,000	6,763	6,700	6,877
Industrial	400	2,198	2,189	2,161
Street and highway lighting	2,000	79	75	83
	1,440,600	15,617	15,649	16,264
Direct access	4,900	3,394	3,515	3,652
Total	1,445,500	19,011	19,164	19,916

⁽¹⁾ Includes intercompany sales.

No single customer accounted for 10 percent or more of SDG&E’s revenues from electricity sold in 2017, 2016 or 2015.

SDG&E’s system average rate is based on authorized revenue requirements divided by authorized sales volumes. SDG&E’s system average rate was \$0.238, \$0.206 and \$0.218 per kWh in 2017, 2016 and 2015, respectively. The 2017 increase compared to 2016 was primarily the result of undercollected power costs in 2016. The 2016 decrease compared to 2015 was driven by the inclusion in 2015 of undercollections associated with activities prior to 2015, including the delay in implementing into rates the increases associated with the 2012 GRC. A significant proportion of SDG&E’s costs to operate are independent of sales volumes, which can contribute to system average rate variances as sales volumes change.

An electric utility’s system average rate can be affected by numerous factors, which are not necessarily common to other utilities regionally or nationally. In general, the utilization of a typical electric utility’s distribution assets is significantly less than their capacity because the assets are designed to meet peak needs. Compared to the typical utility in the U.S., SDG&E delivers a higher relative percentage of its total power sold to residential customers, who on average consume less power than an average commercial customer. San Diego’s mild climate and SDG&E’s robust energy efficiency programs also contribute to lower consumption by our customers. In addition, rooftop solar installations, especially in recent years, have reduced residential and commercial volumes sold by SDG&E. As of December 31, 2017, 2016 and 2015, the residential and commercial rooftop solar capacity in SDG&E’s territory totaled 836 MW, 694 MW and 496 MW, respectively. All these factors contribute to generally higher system average rates, where the cost of building and operating our assets is spread over a relatively smaller sales volume.

In addition to these factors, SDG&E’s CPUC-approved rate design includes a tiered residential pricing structure. We discuss electric rate reform further in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance.”

Demand for electricity is dependent on the health and expansion of the Southern California economy, prices of alternative energy products, consumer preference, environmental regulations, legislation, renewable power generation, the effectiveness of energy efficiency programs, demand-side management goals and distributed generation resources. California’s energy policy supports increased electrification, particularly electrification of vehicles, which could result in significant increases in sales volumes in the coming years. Other external factors, such as the price of purchased power, the use of hydroelectric power, development of renewable energy resources, development of new natural gas supply sources, demand for natural gas, and general economic conditions, can also result in significant shifts in the market price of electricity, which may in turn impact demand. Demand for electricity is also impacted by seasonal weather patterns (or “seasonality”), tending to increase in the summer months to meet cooling load and in the winter months to meet heating load.

Electric Resources. To meet customer demand, SDG&E procures power from its own electric generation facilities and from other suppliers through CPUC-approved purchased-power contracts or through purchases on a spot basis. SDG&E's supply as of December 31, 2017 is as follows:

SDG&E – ELECTRIC RESOURCES⁽¹⁾			
	Contract expiration date	Net operating capacity (MW)	% of total
Owned generation facilities, natural gas ⁽²⁾		1,193	22 %
Purchased-power contracts:			
Qualifying facilities	2019 to 2026	246	5
Renewables:			
Wind	2018 to 2035	1,234	23
Solar	2030 to 2041	1,306	24
Other	2018 and thereafter	53	1
Tolling and other ⁽³⁾	2019 to 2042	1,341	25
Total		5,373	100 %

⁽¹⁾ Excludes approximately 114 MW of battery storage owned (including 70 MW pending CPUC approval) and approximately 13.5 MW of battery storage contracted (all pending CPUC approval).

⁽²⁾ SDG&E owns and operates four natural gas-fired power plants, three of which are in California and one of which is in Nevada.

⁽³⁾ Includes Otay Mesa VIE.

SDG&E is required to interconnect with and purchase power from QFs, a class of generating facilities established by the Public Utility Regulatory Policies Act of 1978, at rates that do not exceed SDG&E's avoided cost. For SDG&E, QFs include cogeneration facilities, which produce electricity and another form of useful thermal energy (such as heat or steam) used for industrial, commercial, residential or institutional purposes. Charges under most of the contracts with QFs are based on what it would incrementally cost SDG&E to produce the power or procure it from other sources. Charges under the contracts with other suppliers are for firm and as-generated energy, and are based on the amount of energy received or are tolls based on available capacity. Tolling contracts are purchased-power contracts under which SDG&E provides natural gas for generation to the energy supplier. The prices under these contracts include 193 MW at prices that are based on the market value at the time the contracts were negotiated.

SDG&E provides bundled electric procurement service through various resources that are typically procured on a long-term basis, as shown above. While SDG&E provides such procurement service for the majority of its customer load, customers do have the ability to receive procurement service from a load serving entity other than SDG&E, through programs such as DA and CCA. DA is currently closed to new entrants, but utility customers can receive procurement through CCA, if the customer's local jurisdiction (city) offers such a program. A number of cities in our service territory have expressed interest in CCA, which, if widely adopted, could result in substantial reductions in the load we are required to serve. For example, Solana Beach (representing less than 1 percent of SDG&E's customer accounts) has elected to begin CCA service in 2018. When customers are served by another load serving entity, SDG&E no longer serves this departing load and the associated costs of the utility's procured resources are otherwise borne by its remaining bundled procurement customers. The CPUC has tried to address this issue by adopting rate mechanisms that attempt to ensure bundled customer indifference in the event of departing load, but these existing mechanisms may not be sufficient to address the full extent of the potential cost shift in the event of significant departing load, and SDG&E bears some risk that its procured resources could become stranded without recovery of the associated costs.

Natural Gas Supply for Generation Facilities. SDG&E procures natural gas under short-term contracts for its owned generation facilities and for certain tolling contracts associated with purchased-power arrangements. Purchases are from various southwestern U.S. suppliers and are primarily priced based on published monthly bid-week indices.

Power Pool. SDG&E is a participant in the Western Systems Power Pool, which includes an electric-power and transmission-rate agreement that allows access to power trading with more than 300 member utilities, power agencies, energy brokers and power marketers located throughout the U.S. and Canada. Participants can make power transactions on standardized terms, including market-based rates, preapproved by the FERC. Participation in the Western Systems Power Pool is intended to assist members in managing power delivery and price risk.

Electric Transmission and Distribution System. Service to SDG&E's customers is supported by its electric transmission and distribution system. At December 31, 2017, SDG&E's electric transmission and distribution facilities included substations and overhead and underground lines. These electric facilities are in San Diego, Imperial and Orange counties of California, and in Arizona and Nevada. The facilities consist of 2,090 miles of transmission lines, 23,479 miles of distribution lines and 160 substations. Periodically, various areas of the service territory require expansion to accommodate customer growth, reliability and safety.

SDG&E's 500-kV Southwest Powerlink transmission line, which is shared with Arizona Public Service Company and Imperial Irrigation District, extends from Palo Verde, Arizona to San Diego, California. SDG&E's share of the line is 1,162 MW, although it can be less under certain system conditions. SDG&E's Sunrise Powerlink is a 500-kV transmission line constructed and operated by SDG&E with import capability of 1,000 MW of power.

Mexico's Baja California transmission system is connected to SDG&E's system via two 230-kV interconnections with combined capacity of up to 408 MW in the north-to-south direction and 800 MW in the south-to-north direction, although it can be less under certain system conditions.

Edison's transmission system is connected to SDG&E's system via five 230-kV transmission lines.

Competition. SDG&E faces competition to serve its customer load from the growth in distributed and local power generation, including rooftop solar installations, battery storage, and the corresponding decrease in demand for power delivered through SDG&E's electric transmission and distribution system and from possible departing retail load resulting from customers transferring to DA and CCA. SDG&E does not earn any return on commodity sales.

Natural Gas Utility Operations

We discuss SDG&E's natural gas utility operations below in "California Utilities' Natural Gas Utility Operations."

Key Noncash Performance Indicators

We use certain financial and non-financial metrics to measure how effective our businesses are in achieving their key business objectives. For SDG&E, these key noncash performance indicators include number of customers, electricity sold, system average rate and natural gas volumes transported and sold. Additional noncash performance indicators include goals related to safety, customer service, customer reputation, environmental considerations (including quantities of renewable energy purchases), on-time and on-budget completion of major projects and initiatives, and service reliability.

SoCalGas

SoCalGas is a regulated public utility that owns and operates a natural gas distribution, transmission and storage system that supplies natural gas to a population of approximately 21.8 million, covering a 24,000 square mile service territory that encompasses Southern California and portions of central California (excluding San Diego County, the city of Long Beach and the desert area of San Bernardino County).

Natural Gas Utility Operations

We provide additional information on SoCalGas' natural gas utility operations below in "California Utilities' Natural Gas Utility Operations."

Key Noncash Performance Indicators

Key noncash performance indicators for SoCalGas include number of customers and natural gas volumes transported and sold. Additional noncash performance indicators include goals related to safety, customer service, customer reputation, environmental considerations, natural gas demand by customer segment, on-time and on-budget completion of major projects and initiatives, and service reliability.

California Utilities Natural Gas Utility Operations

Customers and Demand

SoCalGas and SDG&E sell, distribute and transport natural gas. SoCalGas purchases and stores natural gas for its core customers and SDG&E's core customers on a combined portfolio basis and provides natural gas storage services for others.

CALIFORNIA UTILITIES – NATURAL GAS CUSTOMER METERS AND VOLUMES

	Customer meter	Volumes (Bcf) ⁽¹⁾		
	count	Years ended December 31,		
	December 31, 2017	2017	2016	2015
SDG&E:				
Residential	850,800			
Commercial	28,700			
Electric generation and transportation	3,700			
Natural gas sales		40	40	38
Transportation		35	31	35
Total	883,200	75	71	73
SoCalGas:				
Residential	5,689,400			
Commercial	247,700			
Industrial	25,600			
Electric generation and wholesale	40			
Natural gas sales		301	294	291
Transportation		603	610	634
Total	5,962,740	904	904	925

⁽¹⁾ Includes intercompany sales.

For regulatory purposes, end-use customers are classified as either core or noncore customers. Core customers are primarily residential and small commercial and industrial customers.

Most core customers purchase natural gas directly from SoCalGas or SDG&E. While core customers are permitted to purchase directly from producers, marketers or brokers, the California Utilities are obligated to provide reliable supplies of natural gas to serve the requirements of their core customers. A substantial portion of SoCalGas' revenues are from core customers.

Noncore customers at SoCalGas consist primarily of electric generation, wholesale, large commercial and industrial, and enhanced oil recovery customers. A portion of SoCalGas' noncore customers are non-end-users. SoCalGas' non-end-users include wholesale customers consisting primarily of other IOUs, including SDG&E, or municipally owned natural gas distribution systems. Noncore customers at SDG&E consist primarily of electric generation and large commercial customers.

Noncore customers are responsible for the procurement of their natural gas requirements, as the regulatory framework does not allow us to recover the actual cost of natural gas procured and delivered to noncore customers.

No single customer accounted for 10 percent or more of SoCalGas' or SDG&E's revenues from natural gas operations in 2017, 2016 or 2015.

Demand for natural gas largely depends on the health and expansion of the Southern California economy, prices of alternative energy products, consumer preference, environmental regulations, legislation, California's energy policy supporting increased electrification and renewable power generation, and the effectiveness of energy efficiency programs. Other external factors such as weather, the price of electricity, the use of hydroelectric power, development of renewable energy resources, development of new natural gas supply sources, demand for natural gas outside the state of California, and general economic conditions, can also result in significant shifts in market price, which may in turn impact demand.

One of the larger sources for natural gas demand is electric generation. Natural gas-fired electric generation within Southern California (and demand for natural gas supplied to such plants) competes with electric power generated throughout the western U.S. Natural gas transported for electric generating plant customers may be affected by the overall demand for electricity, growth

in renewable generation (including rooftop solar), the addition of more efficient gas technologies, new energy efficiency initiatives, and the extent that regulatory changes in electric transmission infrastructure investment divert electric generation from the California Utilities' respective service areas. The demand for natural gas may also fluctuate due to volatility in the demand for electricity due to climate change, weather conditions and other impacts, and the availability of competing supplies of electricity such as hydroelectric generation and other renewable energy sources. Given the significant quantity of natural gas-fired generation, natural gas is the dispatchable fuel of choice to help ensure electric reliability in our California service territories.

The natural gas distribution business is seasonal, and cash provided from operating activities generally is greater during and immediately following the winter heating months. As is prevalent in the industry, but subject to current regulatory limitations, SoCalGas usually injects natural gas into storage during the summer months (April through October), which reduces cash provided by operating activities during this period, and usually withdraws natural gas from storage during the winter months (November through March), which increases cash provided by operating activities, when customer demand is higher.

Natural Gas Procurement and Transportation

At December 31, 2017, SoCalGas' natural gas facilities include 2,964 miles of transmission and storage pipelines, 50,577 miles of distribution pipelines, 47,779 miles of service pipelines and nine transmission compressor stations, while SDG&E's natural gas facilities consist of 168 miles of transmission pipelines, 8,928 miles of distribution pipelines, 6,503 miles of service pipelines and one compressor station.

SoCalGas purchases natural gas under short-term and long-term contracts for the California Utilities' residential and smaller business customers. SoCalGas purchases natural gas from various sources, including from Canada, the U.S. Rockies and the southwestern regions of the U.S. Purchases of natural gas are primarily priced based on published monthly bid-week indices.

To help ensure the delivery of natural gas supplies to its distribution system and to meet the seasonal and annual needs of customers, SoCalGas has firm interstate pipeline capacity contracts that require the payment of fixed reservation charges to reserve firm transportation rights. Pipeline companies, primarily El Paso Natural Gas Company, Transwestern Pipeline Company, PG&E and Kern River Gas Transmission Company, provide transportation services into SoCalGas' intrastate transmission system for supplies purchased by SoCalGas or its transportation customers from outside of California.

Natural Gas Storage

SoCalGas owns four natural gas storage facilities. These facilities have a combined working gas capacity of 137 Bcf and have over 200 injection, withdrawal and observation wells that provide natural gas storage services for core, noncore and non-end-use customers. SoCalGas' and SDG&E's core customers are allocated a portion of SoCalGas' storage capacity. SoCalGas offers the remaining storage capacity for sale to others, including SDG&E for its non-core customer requirements, through an open bid process. Natural gas withdrawn from storage is important for ensuring service reliability during peak demand periods, including heating needs in the winter, as well as peak electric generation needs in the summer. The Aliso Canyon natural gas storage facility represents 63 percent of SoCalGas' natural gas storage capacity. SoCalGas discovered a natural gas leak at one of its wells at the Aliso Canyon natural gas storage facility in October 2015, and permanently sealed the well in February 2016. SoCalGas ceased injecting natural gas into the Aliso Canyon natural gas storage facility on October 25, 2015, pursuant to orders from DOGGR and the Governor of California, and SB 380. Limited withdrawals and injections of natural gas at the Aliso Canyon natural gas storage facility were authorized to recommence in 2017. We discuss the Aliso Canyon natural gas leak in Note 15 of the Notes to Consolidated Financial Statements, in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance" and in "Item 1A. Risk Factors."

Sempra South American Utilities

Sempra South American Utilities develops, owns and operates, or holds interests in electric transmission, distribution and generation infrastructure through its two utilities, Chilquinta Energía in Chile and Luz del Sur in Peru. It also owns interests in two energy-services companies, Tecnored and Tecsur, that provide electric construction and infrastructure services to Chilquinta Energía and Luz del Sur, respectively, as well as third parties. Tecnored also sells electricity to non-regulated customers.

Chilquinta Energía S.A.

Chilquinta Energía, a wholly owned subsidiary of Sempra South American Utilities, is an electric distribution utility serving a population of approximately two million in the region of Valparaíso in central Chile, with a service area covering 4,400 square miles. Chilquinta Energía also serves a population of approximately 130,000 in the communities of Parral and Linares in the south-central region of Maule in Chile. Chilquinta Energía is the third largest distributor of electricity in Chile, with close to a 10-percent share of the market.

Customers and Demand. Chilquinta Energía provides electric services through the transmission and distribution of electricity to the following customer classes:

CHILQUINTA ENERGÍA – ELECTRIC CUSTOMER METERS AND VOLUMES

	Customer meter count	Volumes (millions of kWh)		
	December 31,	Years ended December 31,		
	2017	2017	2016	2015
Residential	650,133	1,136	1,104	1,097
Commercial	44,212	1,211	1,178	1,175
Industrial	1,438	500	527	520
Street and highway lighting	8,016	89	91	95
	703,799	2,936	2,900	2,887
Tolling	14	98	90	74
Total	703,813	3,034	2,990	2,961

In Chile, customers are classified as regulated and non-regulated customers based on installed capacity. Regulated customers are those whose installed capacity is less than 500 kW. Non-regulated customers are those whose installed capacity is greater than 5,000 kW. Customers with installed capacity between 500 kW and 5,000 kW may choose to be classified as regulated or non-regulated. Non-regulated customers that can buy power from other sources, such as directly from the generator, are classified as tolling customers. Both regulated and non-regulated customers pay transmission and distribution tariffs for the transportation of their electricity through the system. There is no risk of stranded costs for Chilquinta Energía because PPAs with generators are not take-or-pay contracts; rather, Chilquinta Energía only purchases power taken by its customers.

Chilquinta Energía's system average rate (excluding tolling customers) was \$0.164, \$0.168 and \$0.165 per kWh in 2017, 2016 and 2015, respectively.

Demand for electricity depends on the growth and stability of the Chilean economy, customer growth and preferences, prices, policies and environmental regulations driving the substitution of alternative energy products for wood and coal, legislation and energy policy supporting increased electrification of the public and private transportation sector, and the effectiveness and expansion of energy efficiency programs and distributed generation resources.

The price of electricity can be affected by the growth of renewable power generation, the amount of hydroelectric power, the market price of oil and natural gas, and transmission and distribution service tariffs, which may, in turn, also impact demand for electricity.

Other factors that can affect the demand for electricity include weather and seasonality. Demand for electricity at Chilquinta Energía is higher in the winter months to meet heating load, and tends to decrease during the mild temperatures in the summer months.

Electric Resources. The supply of electric power available to Chilquinta Energía comes from purchased-power contracts currently in place with various suppliers. The supply as of December 31, 2017 was as follows:

CHILQUINTA ENERGÍA – ELECTRIC RESOURCES

	Contract expiration date	Net operating capacity (MW)	% of total
Purchased-power contracts:			
Thermal ⁽¹⁾	2023 to 2026	291	62%
Hydro	2023 to 2036	141	30
Wind/solar	2023 to 2036	32	7
Biomass	2023 to 2036	7	1
Total		471	100%

⁽¹⁾ Contracts with fuel sources that include natural gas, coal or diesel are collectively referred to as thermal.

Power Generation System. The National Electric System is operated and coordinated by the National Electric Coordinator (Coordinador Eléctrico Nacional). This institution is managed by a Directive Council (Consejo Directivo) formed by five members designated through a public tender. This entity coordinates the operation of the nationwide interconnected electric system.

Transmission System and Access. At December 31, 2017, Chilquinta Energía’s electric facilities include 10,227 miles of distribution lines, 352 miles of transmission lines and 49 substations. Chilquinta Energía also owns a 50-percent interest in Eletrans, which operates a 97-mile, double circuit 220-kV transmission line in the Atacama region of northern Chile, and a 46-mile, double circuit 220-kV transmission line in the Los Rios region of southern Chile.

Transmission lines in Chile are either part of the main transmission system (the national system) or the sub-transmission system (the zonal system). Sub-transmission systems, including those owned by Chilquinta Energía, are comprised of infrastructure that is interconnected to the electricity system to supply non-regulated and regulated end-users located in the distribution service area.

We discuss ongoing transmission line projects at Chilquinta Energía’s joint ventures in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance.”

Competition. Chilquinta Energía faces limited competition from the growth in rooftop solar installations, as electricity prices remain competitive and tariffs compensate self-generators only for the commodity component of the energy delivered to the grid. Presently, there are no public programs or incentives promoting the adoption of distributed energy generation.

In addition, the National Electric Coordinator will be tendering a significant number of projects, divided between extension work and new development work, for sub-transmission systems. The new development projects in these tenders will be opened to independent developers, allowing such developers to compete with incumbent utilities for their construction and operation.

Luz del Sur S.A.A.

Sempra South American Utilities owns 83.6 percent of Luz del Sur, an electric distribution utility that serves a population of approximately 4.9 million in the southern zone of metropolitan Lima, Peru, with a service area covering approximately 1,394 square miles. Luz del Sur delivers approximately one-third of all power used in Peru. The remaining shares of Luz del Sur are held by noncontrolling interests and trade on the Lima Stock Exchange (Bolsa de Valores de Lima) under the symbol LUSURC1. The shares are subject to regulation by the Superintendencia del Mercado de Valores (Superintendency of Securities Market).

Customers and Demand. Luz del Sur provides electric services through the generation, transmission and distribution of electricity to the following customer classes:

LUZ DEL SUR – ELECTRIC CUSTOMER METERS AND VOLUMES

	Customer meter count	Volumes (millions of kWh)		
	December 31,	Years ended December 31,		
	2017	2017	2016	2015
Residential	993,784	2,930	2,896	2,845
Commercial	98,516	2,416	2,647	2,700
Industrial	4,050	784	1,021	1,229
Street and highway lighting	5,246	206	201	194
Free	143	663	622	581
	1,101,739	6,999	7,387	7,549
Tolling	253	1,922	1,365	974
Total	1,101,992	8,921	8,752	8,523

In Peru, customers are classified as regulated and non-regulated customers based on capacity demand. Regulated customers are those whose capacity demand is less than 200 kW and their energy supply is considered public service. Non-regulated customers, which are free and tolling customers, are those whose capacity demand is greater than 2,500 kW. Customers with capacity demand between 200 kW and 2,500 kW may choose to be classified as regulated or non-regulated. Free customers purchase power directly from a utility and pay the utility a fee for generation, transmission (primary and secondary) and distribution services. Tolling customers purchase power from alternate suppliers and pay only a tolling fee to the utility for secondary transmission and distribution services. Utilities in Peru, including Luz del Sur, generally have PPAs with generators to serve their regulated and free customers’ load. Because the power purchased by Luz del Sur from generators is generally based on take-or-

pay contracts, Luz del Sur is exposed to the risk of stranded costs associated with capacity charges, as we discuss in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations - Factors Influencing Future Performance.”

Luz del Sur’s system average rate (excluding free and tolling customers) was \$0.130, \$0.122 and \$0.117 per kWh in 2017, 2016 and 2015, respectively.

Demand for electricity depends on the stability and growth of the Peruvian economy, customer growth and usage preferences, electricity prices, legislation and energy policy supporting increased electrification within our service territory. The price of electricity can be affected by changes in energy policy, volatility of spot market prices, the amount of hydroelectric power, the market price of oil and natural gas, changes in inflation and foreign exchange rates, new technologies and transmission and distribution service tariffs, which may also impact demand for electricity. Other factors that can affect the demand for electricity include weather and seasonality. Demand for electricity at Luz del Sur is higher in the summer months to meet cooling load, and tends to decrease during the colder temperatures in the winter months.

Electric Resources. The supply of electric power available to Luz del Sur comes from purchased-power contracts currently in place with various suppliers, its own electric generation facility or purchases made on an as-needed basis. This supply as of December 31, 2017 was as follows:

LUZ DEL SUR – ELECTRIC RESOURCES			
	Contract expiration date	Firm contracted capacity (MW)	% of total
Owned generation facility, hydro ⁽¹⁾		61	4 %
Purchased-power contracts:			
Thermal ⁽²⁾	2021-2025	413	27
Hydro	2021-2025	233	15
Combined thermal/hydro	2019-2025	832	54
Total		1,539	100 %

⁽¹⁾ Santa Teresa has a nameplate capacity of 100 MW with an associated firm capacity estimated at 61 MW based on guidelines established by the system operator in Peru and historical water flows. Available excess capacity is sold in the spot market.

⁽²⁾ Contracts with fuel sources that include natural gas, coal or diesel are collectively referred to as thermal.

Power Generation System. The Sistema Eléctrico Interconectado Nacional (SEIN) is the Peruvian national interconnected system. The OSINERGMIN, in addition to setting tariffs, supervises the bidding processes for energy purchases between distribution companies and generators.

The Committee of Economic Operation of the National Interconnected System (Comité de Operación Económica del Sistema Interconectado Nacional) coordinates the operation and dispatch of electricity of the SEIN.

Transmission System and Access. At December 31, 2017, Luz del Sur’s electric facilities consisted of 13,966 miles of distribution lines, 216 miles of transmission lines and 40 substations. Luz del Sur also owns and operates Santa Teresa, a 100-MW hydroelectric power plant located in the Cusco region of Peru.

Transmission lines in Peru are divided into principal and secondary systems. The principal system lines are accessible by all generators and allow the flow of energy through the national grid. The secondary system lines connect principal transmission with the network of distribution companies or connect directly to certain final customers. The transmission company receives tariff revenues and collects tolls based on a charge per unit of electricity.

We discuss ongoing transmission line and substation projects at Luz del Sur in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance.”

Competition. While electric distribution companies in Peru are considered natural monopolies, users consuming more than 200 kW are free to choose the company of their preference, including Luz del Sur, to provide them with electric power.

Key Noncash Performance Indicators

Key noncash performance indicators for our South American electric distribution utilities’ operations are customer count and consumption and transmission line losses. Additional noncash performance indicators include goals related to safety, environmental considerations, electric reliability, and regulatory compliance.

Sempra Mexico

Our Sempra Mexico segment includes the operating companies of our subsidiary, IEnova, as well as certain holding companies and risk management activity. IEnova develops, builds and operates energy infrastructure in Mexico, and owns or holds interests in:

- natural gas transmission pipelines
- LPG and ethane systems
- a natural gas distribution utility
- electric generation facilities, including wind, solar and a natural gas-fired power plant (presently held for sale)
- a terminal for the import of LNG
- a terminal for the storage of LPG
- marine and inland terminal projects for the receipt, storage and delivery of liquid fuels
- marketing operations for the purchase of LNG and the purchase and sale of natural gas

Sempra Energy owns 66.4 percent of IEnova, with the remaining shares held by noncontrolling interests and traded on the Mexican Stock Exchange under the symbol IENOVA. The Mexican National Banking and Securities Commission (Comisión Nacional Bancaria y de Valores, or CNBV), regulates the shares, which are registered with the Mexican National Securities Registry (Registro Nacional de Valores) maintained by the CNBV. We discuss IEnova's noncontrolling interests and its acquisition and divestiture activities in Notes 1 and 3, respectively, of the Notes to Consolidated Financial Statements.

The following table provides information about Sempra Mexico's facilities, excluding its Ecogas natural gas distribution facilities, that were operational as of December 31, 2017.

SEMPRA MEXICO OPERATING FACILITIES				
Name	Length of system (miles)	Compression available (horsepower)	First in service	
<u>Pipelines:</u>				
Aguaprieta	8	N/A	2002	
Empalme Lateral	12	N/A	2017	
Ethane	139	N/A	2015	
Los Ramones I	73	123,000	2014	
Los Ramones Norte ⁽¹⁾	281	123,000	2016	
Ojinaga-El Encino	137	N/A	2017	
Rosarito	188	30,000	2002	
Samalayuca	23	N/A	1997	
San Fernando	71	95,670	2003	
San Isidro-Samalayuca	14	46,000	2017	
<u>Sonora:</u>				
Guaymas-El Oro segment	205	N/A	2017	
Sásabe-Guaymas segment	313	N/A	2014	
TDF LPG	118	N/A	2007	
Transportadora de Gas Natural de Baja California	28	8,000	2000	
<u>Compressor stations:</u>				
Gloria a Dios		14,300	2001	
Naco		14,340	2001	
<u>Storage:</u>				
		Storage capacity	First in service	
ECA LNG terminal		320,000 cubic meters	2008	
Guadalajara LPG terminal		80,000 barrels	2013	
<u>Generation:</u>				
		Generating capacity (MW)	First in service	
Energía Sierra Juárez wind generation ⁽¹⁾		155	2015	
TdM natural gas-fired generation (presently held for sale)		625	2003	
Ventika wind generation		252	2016	

⁽¹⁾ Sempra Mexico has a 50-percent interest in each of these facilities and accounts for them as equity method investments. The information presented herein represents the full nameplate capacity.

Gas Business

Pipelines and Related Assets/Facilities. At December 31, 2017, Sempra Mexico's assets/facilities consisted of 1,353 miles of natural gas transmission pipelines, 11 compressor stations, 139 miles of ethane pipelines, 118 miles of LPG pipelines and one LPG storage terminal in Mexico. These assets are contracted under long-term, U.S. dollar-based agreements with major industry participants such as the CFE, CENAGAS, PEMEX, Shell, Gazprom, InterGen N.V. and other similar counterparties.

In 2017, our pipeline assets in Mexico had design capacity of approximately 16,501 MMcf per day of natural gas, 204 MMcf per day of ethane gas, 106,000 barrels per day of ethane liquid, 34,000 barrels per day of LPG transmission and 80,000 barrels of LPG storage.

LNG. Sempra Mexico operates its ECA LNG regasification terminal on land it owns in Baja California, Mexico. The ECA LNG regasification terminal is capable of processing 1 Bcf of natural gas per day and generates revenues from reservation and usage fees under terminal capacity agreements and nitrogen injection service agreements with Shell and Gazprom, expiring in 2028, that permit them, together, to use one-half of the terminal's capacity.

In connection with Sempra LNG & Midstream's LNG purchase agreement with Tangguh PSC, Sempra Mexico purchases from Sempra LNG & Midstream the LNG delivered to ECA by Tangguh PSC. Sempra Mexico uses the natural gas produced from this LNG and from natural gas purchased in the market or through Sempra LNG & Midstream's marketing operations to supply a contract for the sale of natural gas to Mexico's national electric company, the CFE, at prices that are based on the SoCal Border index. If LNG volumes received from Tangguh PSC are not sufficient to satisfy the commitment to the CFE, Sempra Mexico may purchase natural gas from Sempra LNG & Midstream's natural gas marketing operations.

The LNG business is impacted by worldwide LNG market prices. High LNG prices in markets outside the market in which IEnova's LNG terminal operates have resulted and could continue to result in lower than expected deliveries of LNG cargoes to the ECA LNG terminal from third parties under existing supply agreements, which could increase costs if IEnova is instead required to obtain LNG in the open market at prevailing prices. Any inability to obtain expected LNG cargoes could also impact IEnova's ability to maintain the minimum level of LNG required to keep the ECA LNG terminal in operation at the proper temperature. LNG market prices also affect IEnova's LNG marketing operations, through which IEnova must purchase natural gas in the international market to meet its contractual obligations to deliver natural gas to customers, but which could have an adverse impact on its earnings, which may be mitigated in part by the indemnity payments discussed below.

Sempra Mexico's LNG marketing operations sell natural gas to the CFE and other customers under supply agreements. Sempra Mexico recognizes the revenue from the sale of natural gas upon transfer of the natural gas via pipelines to the customers at the agreed upon delivery points, and in the case of the CFE, at its thermoelectric power plants.

Sempra LNG & Midstream has an agreement with Sempra Mexico to supply LNG to the ECA LNG terminal. Although the LNG purchase agreement specifies a number of cargoes to be delivered annually, actual cargoes delivered have been significantly lower than the maximum specified under the agreement. As a result, Sempra LNG & Midstream is contractually required to make monthly indemnity payments to Sempra Mexico for failure to deliver the contracted LNG. The revenues from the indemnity payments, along with an amount for profit sharing, allow Sempra Mexico to recover the costs of operating the ECA LNG terminal.

Natural Gas Distribution. Sempra Mexico's natural gas distribution utility, Ecogas, operates in three separate distribution zones in Mexico with approximately 2,394 miles of pipeline, and had approximately 120,000 customer meters (serving more than 400,000 residential, commercial and industrial consumers) with sales volume of approximately 81 MMcf per day in 2017.

Ecogas relies on affiliates, Sempra LNG & Midstream and SoCalGas, for the supply and transportation of natural gas that it distributes to its customers. If these affiliates fail to perform and IEnova is unable to obtain supplies of natural gas from alternate sources, IEnova could lose customers and sales volume and could also be exposed to commodity price risk and volatility.

Ecogas had been entitled to a 12-year period of exclusivity with respect to each of its three distribution zones in Mexicali, Chihuahua and La Laguna-Durango. As the last of these exclusivity periods expired in 2011, Ecogas could face competition from other distributors of natural gas in all of these distribution zones as other distributors of natural gas are now legally permitted to build natural gas distribution systems and compete with Ecogas for customers.

Power Business

Wind Power Generation. Sempra Mexico develops, invests in and operates renewable energy generation facilities that have long-term PPAs to sell the electricity they generate to its customers, which are generally load serving entities, and industrial and other customers. Load serving entities sell electric service to their end-users and wholesale customers immediately upon receipt of

our power delivery, while industrial and other customers consume the electricity to run their facilities. In 2017, Sempra Mexico had contracted capacity of 330 MW for its ownership share of fully operating wind energy generation facilities.

Natural Gas-Fired Generation. TdM is a 625-MW natural gas-fired power plant located in Mexicali, Baja California, Mexico that generates revenue from selling electricity and/or resource adequacy to the CAISO and to governmental, public utility and wholesale power marketing entities. It also has an EMA with Sempra LNG & Midstream for energy marketing, scheduling and other related services to support its sales of generated power into the California electricity market. Under the EMA, TdM pays fees to Sempra LNG & Midstream for these revenue-generating services. TdM also purchases fuel from Sempra LNG & Midstream. Sempra Mexico records revenue for the sale of power generated by TdM, and records cost of sales for the purchases of natural gas and energy management services provided by Sempra LNG & Midstream.

In February 2016, management approved a plan to market and sell TdM. As a result, we stopped depreciating the plant and classified the plant as held for sale. We continue to actively pursue the sale of TdM, which we expect to be completed in 2018. We discuss TdM further in Notes 3 and 10 of the Notes to Consolidated Financial Statements.

TdM competes daily with other generating plants that supply power into the California electricity market. Several of the wholesale markets supplied by merchant power plants have experienced significant pricing declines due to excess supply. IEnova manages commodity price risk at TdM by optimizing a mix of forward on-peak energy sales, daily and hourly spot market sales of capacity, energy and ancillary services, and longer-term structured transactions, as well as avoiding short positions.

Demand and Competition

The overall demand for natural gas distribution services increases during the winter months. Conversely, in the power business, the overall demand for electricity is greater during the summer months.

IEnova competes with Mexican and foreign companies for certain new energy infrastructure projects in Mexico and some of its competitors (including but not limited to, public or state-operated companies, their subsidiaries and affiliates) may have better access to capital and greater financial and other resources, which could give them a competitive advantage in bidding for such projects. We discuss Sempra Mexico's demand and competition further below.

Key Noncash Performance Indicators

Key noncash performance indicators for Sempra Mexico include sales volume, plant or facility availability, capacity utilization and, for its distribution operations, customer count and consumption. Additional noncash performance indicators include obtaining and completing (on time and on budget) major projects, compliance with reliability and regulatory standards, and goals related to safety, environmental considerations and regulatory performance.

Sempra Renewables

Sempra Renewables develops, owns and operates, or holds interests in, solar and wind energy generation facilities in the U.S. that have long-term PPAs to sell the electricity and the related green energy attributes they generate to its customers, which are generally load serving entities. Load serving entities sell electric service to their end-users and wholesale customers immediately upon receipt of our power delivery.

The majority of Sempra Renewables' wind farm assets earn PTCs based on the number of megawatt hours of electricity they generate. A PTC is a federal subsidy that provides an income tax incentive to wind-energy producers at a flat rate for generating clean energy. Because PTCs last for ten years after project completion, any wind turbine that is under construction before the end of 2019 will earn a full decade of PTCs at phased-out rates beginning with construction starting in 2017 through 2019. For each of the years ended December 31, 2017, 2016, and 2015, PTCs represented a large portion of our wind farm earnings, often exceeding earnings from operations.

Certain of Sempra Renewables' wind and solar power facilities are held by limited liability companies whose members include financial institutions. These financial institutions are noncontrolling tax equity investors to which earnings, tax attributes and cash flows are allocated in accordance with the respective limited liability company agreements. We discuss these tax equity arrangements in "Variable Interest Entities" and in "Noncontrolling Interests" in Note 1 of the Notes to Consolidated Financial Statements.

The following table provides information about the Sempra Renewables wind and solar energy generation facilities that were operational as of December 31, 2017. The generating capacity of these facilities is fully contracted under long-term PPAs for the periods indicated in the table.

SEMPRA RENEWABLES OPERATING FACILITIES					
Name	Generating capacity (MW)	PPA term in years	First in service ⁽¹⁾	Location	
<u>Wholly owned facility:</u>					
Copper Mountain Solar 1	58	20	2008	Boulder City, Nevada	
Total	<u>58</u>				
<u>Tax equity-owned facilities⁽²⁾:</u>					
Apple Blossom Wind	100	15	2017	Huron County, Michigan	
Black Oak Getty Wind	78	20	2016	Stearns County, Minnesota	
Copper Mountain Solar 4	94	20	2016	Boulder City, Nevada	
Great Valley Solar portfolio ⁽³⁾	100	15 to 20	2017	Fresno County, California	
Mesquite Solar 2	100	20	2016	Maricopa County, Arizona	
Mesquite Solar 3	150	25	2016	Maricopa County, Arizona	
Total	<u>622</u>				
<u>Jointly owned facilities⁽⁴⁾:</u>					
Auwahi Wind	11	20	2012	Maui, Hawaii	
Broken Bow 2 Wind	38	25	2014	Custer County, Nebraska	
Cedar Creek 2 Wind	125	25	2011	New Raymer, Colorado	
Flat Ridge 2 Wind	235	20 and 25	2012	Wichita, Kansas	
Fowler Ridge 2 Wind	100	20	2009	Benton County, Indiana	
Mehoopany Wind	71	20	2012	Wyoming County, Pennsylvania	
Total wind	<u>580</u>				
California solar partnership	55	25	2013	Tulare and Kings Counties, California	
Copper Mountain Solar 2	75	25	2012	Boulder City, Nevada	
Copper Mountain Solar 3	125	20	2014	Boulder City, Nevada	
Mesquite Solar 1	75	20	2011	Maricopa County, Arizona	
Total solar	<u>330</u>				
Total MW in operation	1,590				

⁽¹⁾ If placed in service in phases, indicates the year the first phase went into service.

⁽²⁾ Represents facilities that we own through tax equity arrangements. We consolidate these entities and report noncontrolling interests.

⁽³⁾ Total expected generating capacity for Great Valley Solar is 200 MW, of which three phases totaling 100 MW went into service in 2017; we expect the remaining 100-MW phase to be in service in the first half of 2018.

⁽⁴⁾ Sempra Renewables has a 50-percent interest in each of these facilities and accounts for them as equity method investments. The generating capacity shown herein represents Sempra Renewables' share only.

Demand and Competition

Generation from Sempra Mexico's and Sempra Renewables' renewable energy assets is susceptible to fluctuations in naturally occurring conditions such as wind, inclement weather and hours of sunlight.

Sempra Renewables' future performance and the demand for renewable energy are impacted by various market factors, most notably state mandated requirements to deliver a portion of total energy load from renewable energy sources. The rules governing these requirements in California are generally known as the RPS Program. In California, certification of a generation project by the CEC as an ERR allows the purchase of output from such generation facility to be counted towards fulfillment of the RPS Program requirements, if such purchase meets the provisions of California SB X1-2. The RPS Program may affect the demand for output from renewables projects developed by Sempra Renewables and Sempra Mexico, particularly the demand from California's utilities. We expect to receive ERR certification for all our renewable facilities operating in and/or providing power to California, including those at Sempra Mexico, as they become operational. Additionally, the phase out or extension of U.S. federal income tax incentives, primarily ITCs and PTCs, could significantly impact future renewable energy resource availability and investment decisions. Certain provisions of the TCJA could reduce the value of tax benefits generated by our renewable projects and therefore make investments less attractive, as well as reducing the size of the tax equity financing market, which could lead to increased financing costs. These impacts may be offset by a lower overall federal tax rate.

Sempra Renewables primarily competes for wholesale contracts for the generation and sale of electricity through its development of and investments in wind and solar power generation facilities. Sempra Renewables also competes with other non-utility generators, regulated utilities, unregulated subsidiaries of regulated utilities, and other energy service companies for sales of non-

contracted renewable energy. The number and type of competitors may vary based on location, generation type and project size. Also, regulatory initiatives designed to enhance energy consumption from renewable resources for regulated utility companies may increase competition from these types of institutions. These utilities may have a cost of capital that differs from most independent renewable power producers and often are able to recover fixed costs through rate mechanisms. This allows them to build, buy and upgrade renewable generation projects without relying exclusively on market clearing prices to recover their investments.

Because Sempra Mexico sells the power that it generates at its Energía Sierra Juárez wind power generation facility into California, it is also impacted by these competitive factors.

Our renewable energy competitors include, among others:

- EDF Energy
- First Solar
- Invenergy
- MidAmerican Energy
- NextEra Energy Resources
- Southern Company

Key Noncash Performance Indicators

Key noncash performance indicators for Sempra Renewables include capacity factors, plant availability and sales volume at our renewable energy facilities. Additional noncash performance indicators include goals related to safety, environmental considerations, and compliance with reliability standards.

Sempra LNG & Midstream

Sempra LNG & Midstream develops, owns and operates, or holds interests in, LNG and natural gas midstream assets and operations in Alabama, Louisiana, Mississippi and Texas, including:

- a terminal in the U.S. for the import and export of LNG and sale of natural gas
- natural gas pipelines and storage facilities
- marketing operations

LNG

Sempra LNG & Midstream and three project partners hold interests in the Cameron LNG JV for the development, construction and operation of a three-train natural gas liquefaction export facility at the existing Cameron LNG, LLC regasification terminal in Hackberry, Louisiana, a project developed and permitted by Sempra LNG & Midstream.

Beginning from the October 1, 2014 joint venture effective date, Cameron LNG, LLC was no longer wholly owned, and Sempra LNG & Midstream began accounting for its 50.2-percent equity interest in the joint venture under the equity method. The joint venture began construction in the second half of 2014 on the natural gas liquefaction export facility using the existing regasification infrastructure contributed by Sempra LNG & Midstream. The joint venture has authorization to export LNG to both FTA and non-FTA countries.

The existing regasification terminal is capable of processing 1.5 Bcf of natural gas per day, and from 2009 through 2017, it generated revenue under a terminal services agreement for approximately 3.75 Bcf of natural gas storage and associated send-out rights of approximately 600 MMcf of natural gas per day. The agreement allowed the customer to pay capacity reservation and usage fees to use the facilities to receive, store and regasify the customer's LNG. In December 2017, Cameron LNG JV terminated the regasification terminal services agreement, as progress on the construction of the three-train liquefaction project requires that certain terminal infrastructure be taken offline. The revenues associated with the terminal services agreement have been included in the equity earnings generated from Cameron LNG JV.

The three liquefaction trains are designed to a nameplate capacity of 13.9 Mtpa of LNG with an expected export capability of 12 Mtpa of LNG, or approximately 1.7 Bcf per day. Cameron LNG JV has 20-year liquefaction and regasification tolling capacity agreements in place with ENGIE S.A. and affiliates of Mitsubishi Corporation and Mitsui & Co., Ltd., which subscribe the full nameplate capacity of three trains at the facility. In addition, Cameron LNG JV is working on the development of up to two additional trains. We discuss Cameron LNG JV in Note 4 of the Notes to Consolidated Financial Statements and the construction of the first three trains and the potential for an additional two trains in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance" and in "Item 1A. Risk Factors."

Sempra Energy is also taking steps to explore the development of additional LNG export facilities at Sempra LNG & Midstream's Port Arthur, Texas property and Sempra Mexico's ECA regasification facility. We discuss these opportunities in "Item 7.

Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance” and in “Item 1A. Risk Factors.”

Demand and Competition. Technological advances associated with shale gas and tight oil production have significantly reduced the need for North American LNG import facilities and increased interest in liquefaction and export opportunities.

At current forward gas prices, U.S. Gulf Coast liquefaction is among the most price competitive potential LNG supply in the world. Brownfield liquefaction is particularly price competitive, resulting from many factors, including:

- high levels of developed and undeveloped North American unconventional natural gas and tight oil resources relative to domestic consumption levels;
- increasing gas and oil drilling productivity and decreasing unit costs of gas production;
- low breakeven prices of marginal North American unconventional gas production;
- proximity to ample existing gas transmission pipeline and underground gas storage capacity; and
- existing LNG tankage and berths.

Global LNG competition may limit U.S. LNG exports, as international liquefaction projects attempt to match U.S. Gulf Coast LNG production costs and customer contractual rights such as volume and destination flexibility. Host governments for international liquefaction projects are altering fiscal and tax regimes in an effort to make projects in their jurisdictions competitive relative to U.S. projects; however, sustained low oil prices may cause some of the international projects to become unfeasible due to their LNG price formulas’ link to oil prices. It is expected that U.S. LNG exports will increase competition for current and future global natural gas demand, and thereby facilitate development of a global commodity market for natural gas and LNG.

Our LNG liquefaction business’ major domestic and international competitors will include, among others, the following companies and their related LNG affiliates:

- | | |
|-------------------|---------------------|
| ▪ BP | ▪ Petronas |
| ▪ Cheniere Energy | ▪ Qatar Petroleum |
| ▪ Chevron | ▪ Royal Dutch Shell |
| ▪ ConocoPhillips | ▪ Total |
| ▪ ExxonMobil | ▪ Woodside |
| ▪ Kinder Morgan | |

Additionally, our Cameron LNG JV partners, affiliates of ENGIE S.A., Mitsubishi Corporation (through a related company jointly established with Nippon Yusen Kabushiki Kaisha), and Mitsui & Co., Ltd., compete globally to market and sell LNG to end users, including gas and electric utilities located in LNG importing countries around the world. By providing liquefaction services, Cameron LNG JV will compete indirectly with liquefaction projects currently operating and those under development in the global LNG market. In addition to the U.S., these competitors are located in the Middle East, Southeast Asia, Africa, South America, Australia and Europe.

Midstream

Sempra LNG & Midstream has 42 Bcf of operational working natural gas storage capacity and a development project as follows:

- Bay Gas is a facility located 40 miles north of Mobile, Alabama, that provides underground storage (20 Bcf of operational working natural gas storage capacity) and delivery of natural gas. Sempra LNG & Midstream owns approximately 91 percent of the facility. It is the easternmost salt dome storage facility on the Gulf Coast, with direct service to the Florida market and markets across the Southeast, Mid-Atlantic and Northeast regions.
- Mississippi Hub is an underground salt dome with 22 Bcf of operational working natural gas storage capacity located 45 miles southeast of Jackson, Mississippi. It has access to natural gas from shale basins of East Texas and Louisiana, traditional Gulf Coast supplies and LNG, with multiple interconnections to serve the Southeast and Northeast regions.
- Liberty Gas Storage, LLC owns a 77-percent interest in LA Storage, a salt cavern development project in Cameron Parish, Louisiana, and ProLiance Transportation LLC owns the remaining 23 percent. The project’s location provides access to several LNG facilities in the area and could be positioned to support LNG export from various liquefaction terminals. Future development will require approval of a new construction permit by the FERC, if anticipated cash flows support further investment. The LA Storage project also includes an existing 23.3-mile pipeline header system, the LA Storage pipeline, that is not currently contracted.

Demand and Competition. The natural gas storage business depends on market forecasts of seasonal natural gas prices, and cash provided from operating activities generally is greater during and immediately following the winter heating months. As is

prevalent in the industry, Sempra LNG & Midstream customers usually inject natural gas into storage during the summer months (April through October) and usually withdraw natural gas from storage during the winter months (November through March) when customer demand is higher.

Within their respective market areas, Sempra LNG & Midstream's and Sempra Mexico's pipeline businesses and Sempra LNG & Midstream's storage facilities businesses compete with other regulated and unregulated storage facilities and pipelines. They compete primarily on the basis of price (in terms of storage and transportation fees), available capacity and interconnections to downstream markets.

Sempra LNG & Midstream's competitors include, among others:

- Boardwalk Pipeline Partners
- Cardinal Gas Storage Partners
- Columbia Energy
- Enbridge
- Energy Transfer Partners
- Enterprise Products Partners
- Kinder Morgan
- Macquarie Infrastructure Partners
- Plains All American Pipeline
- Southern Company Gas
- Tellurian
- TransCanada
- The Williams Companies

Sempra Mexico's competitors include, among others:

- Carso Energy
- Enagas
- ENGIE S.A.
- Fermaca
- Kinder Morgan
- TransCanada

Marketing Operations

Sempra LNG & Midstream provides natural gas marketing, trading and risk management services through the utilization and optimization of contracted natural gas supply, transportation and storage capacity, as well as optimizing its assets in the short-term services market. Additionally, it sells electricity under short-term and long-term contracts and into the spot market and other competitive markets.

Sempra LNG & Midstream's marketing operations have an LNG purchase agreement with Tangguh PSC for the supply of the equivalent of 500 MMcf of natural gas per day from Tangguh PSC's Indonesian liquefaction facility with delivery to Sempra Mexico's ECA LNG receipt terminal at a price based on the SoCal Border index for natural gas. The LNG purchase agreement allows Tangguh PSC to divert deliveries to other global markets in exchange for cash differential payments to Sempra LNG & Midstream. Sempra LNG & Midstream also may enter into short-term supply agreements to purchase LNG to be received, stored and regasified at the terminal for sale to other parties.

In addition to LNG, if deliveries of LNG cargoes are not sufficient, Sempra LNG & Midstream is also contracted to sell natural gas to Sempra Mexico that allows Sempra Mexico to satisfy its obligation under supply agreements with the CFE and other customers, and to supply the TdM power plant. These revenues are adjusted for indemnity payments and profit sharing, as discussed in "Sempra Mexico – Gas Business – LNG" above.

Sempra LNG & Midstream also has an EMA with Sempra Mexico to provide energy marketing, scheduling and other related services to Sempra Mexico's TdM power plant to support its sales of generated power into the California electricity market. We discuss the EMA in "Sempra Mexico – Power Business – Natural Gas-Fired Generation" above.

Key Noncash Performance Indicators

Key noncash performance indicators at Sempra LNG & Midstream include natural gas sales volume, plant or facility availability and capacity utilization. Additional noncash performance indicators include goals related to safety, environmental considerations and regulatory compliance, and on-time and on-budget completion of development projects.

REGULATION

California State Utility Regulation

The California Utilities are principally regulated at the state level by the CPUC, the CEC and the CARB.

The CPUC:

- consists of five commissioners appointed by the Governor of California for staggered, six-year terms;
- regulates SDG&E's and SoCalGas' rates and conditions of service, sales of securities, rates of return, capital structure, rates of depreciation, and long-term resource procurement, except as described below in "U.S. Utility Regulation;"
- has jurisdiction over the proposed construction of major new electric generation, transmission and distribution, and natural gas storage, transmission and distribution facilities in California;
- conducts reviews and audits of utility performance and compliance with regulatory guidelines, and conducts investigations into various matters, such as safety, deregulation, competition and the environment, to determine its future policies; and
- regulates the interactions and transactions of the California Utilities with Sempra Energy and its other affiliates.

The CPUC also oversees and regulates new products and services, including solar and wind energy, bioenergy, alternative energy storage and other forms of renewable energy. In addition, the CPUC's safety and enforcement role includes inspections, investigations and penalty and citation processes for safety violations.

The CEC publishes electric demand forecasts for the state and for specific service territories. Based on these forecasts, the CEC:

- determines the need for additional energy sources and conservation programs;
- sponsors alternative-energy research and development projects;
- promotes energy conservation programs to reduce demand within the state of California for electricity and natural gas;
- maintains a statewide plan of action in case of energy shortages; and
- certifies power-plant sites and related facilities within California.

The CEC conducts a 20-year forecast of available supplies and prices for every market sector that consumes natural gas in California. This forecast includes resource evaluation, pipeline capacity needs, natural gas demand and wellhead prices, and costs of transportation and distribution. This analysis is one of many resource materials used to support the California Utilities' long-term investment decisions.

The state of California requires certain California electric retail sellers, including SDG&E, to deliver a percentage of their retail energy sales from renewable energy sources. The rules governing this requirement, administered by both the CPUC and the CEC, are generally known as the RPS Program. We discuss this requirement as it applies to SDG&E in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance."

California AB 32, the California Global Warming Solutions Act of 2006, assigns responsibility to CARB for monitoring and establishing policies for reducing GHG emissions. The bill requires CARB to develop and adopt a comprehensive plan for achieving real, quantifiable and cost-effective GHG emission reductions, including a statewide GHG emissions cap, mandatory reporting rules, and regulatory and market mechanisms to achieve reductions of GHG emissions. CARB is a department within the California Environmental Protection Agency, an organization that reports directly to the Governor's Office in the Executive Branch of California State Government. Sempra LNG & Midstream and Sempra Mexico are also subject to the rules and regulations of CARB. We provide further discussion of GHG allowances and emissions in Note 1 of the Notes to Consolidated Financial Statements.

The operation and maintenance of SoCalGas' natural gas storage facilities are regulated by DOGGR, as well as various other state and local agencies. We provide further discussion of DOGGR's increased regulations in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance."

U.S. Utility Regulation

The California Utilities are also regulated at the federal level by the FERC, the NRC, the EPA, the DOE and the DOT.

The FERC regulates the California Utilities' interstate sale and transportation of natural gas and the application of the uniform systems of accounts. In the case of SDG&E, the FERC also regulates the transmission and wholesale sales of electricity in interstate commerce, transmission access, rates of return on transmission investment, rates of depreciation and electric rates involving sales for resale. The Energy Policy Act governs procedures for requests for transmission service. The FERC approved the California IOUs transfer of operation and control of their transmission facilities to the CAISO in 1998.

The NRC oversees the licensing, construction, operation and decommissioning of nuclear facilities in the U.S., including SONGS, in which SDG&E owns a 20-percent interest and which has been permanently retired since 2013. NRC and various state regulations require extensive review of the safety, radiological and environmental aspects of these facilities. We provide further discussion of SONGS matters, including the closure and pending decommissioning of the facility, in Note 13 of the Notes to Consolidated Financial Statements.

The DOT, through PHMSA, has established regulations regarding engineering standards and operating procedures applicable to the California Utilities' natural gas transmission and distribution pipelines. The DOT has certified the CPUC to administer oversight and compliance with these regulations for the entities they regulate in California. The PHMSA also is in the process of promulgating regulations applicable to the California Utilities' natural gas storage facilities. See "Other U.S. Regulation" below and further discussion in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance."

Other State and Local Regulation Within the U.S.

The SCAQMD is the air pollution control agency responsible for regulating stationary sources of air pollution in the South Coast Air Basin in Southern California. The district's territory covers all of Orange County and the urban portions of Los Angeles, San Bernardino and Riverside counties.

SoCalGas has natural gas franchises with the 12 counties and the 223 cities in its service territory. These franchises allow SoCalGas to locate, operate and maintain facilities for the transmission and distribution of natural gas. Most of the franchises have indefinite lives with no expiration date. Some franchises have fixed expiration dates, ranging from 2018 to 2062.

SDG&E has electric franchises with the two counties and the 27 cities in or adjoining its electric service territory; and natural gas franchises with the one county and the 18 cities in its natural gas service territory. These franchises allow SDG&E to locate, operate and maintain facilities for the transmission and distribution of electricity and/or natural gas. Most of the franchises have indefinite lives with no expiration dates. Some natural gas and some electric franchises have fixed expiration dates that range from 2021 to 2035.

Other U.S. Regulation

The FERC regulates certain Sempra Renewables and Sempra LNG & Midstream assets pursuant to the Federal Power Act and Natural Gas Act, which provide for FERC jurisdiction over, among other things, sales of wholesale power in interstate commerce, transportation and storage of natural gas in interstate commerce, and siting and permitting of LNG terminals. In addition, certain Sempra Renewables power generation assets are required under the Federal Power Act to comply with reliability standards developed by the North American Electric Reliability Corporation. Bay Gas' natural gas storage operations are also regulated by the Alabama Public Service Commission.

Sempra LNG & Midstream's investment in Cameron LNG JV is subject to regulations of the DOE regarding the export of LNG.

The FERC may regulate rates and terms of service based on a cost-of-service approach or, in geographic and product markets determined by the FERC to be sufficiently competitive, rates may be market-based. FERC-regulated rates at the following businesses are

- Sempra Renewables and Sempra LNG & Midstream: market-based for wholesale electricity sales
- Sempra LNG & Midstream: cost-based for the transportation of natural gas
- Sempra LNG & Midstream: market-based for the storage of natural gas, as well as the purchase and sale of LNG and natural gas

The California Utilities, Sempra LNG & Midstream and businesses that Sempra LNG & Midstream invests in are subject to the DOT rules and regulations regarding pipeline safety. PHMSA, acting through the Office of Pipeline Safety, is responsible for administering the DOT's national regulatory program to assure the safe transportation of natural gas, petroleum and other hazardous materials by pipelines, including pipelines associated with natural gas storage, and develops regulations and other approaches to risk management to assure safety in design, construction, testing, operation, maintenance, and emergency response of pipeline facilities. The California Utilities, Sempra LNG & Midstream, Sempra Renewables and Sempra Mexico are also subject to regulation by the U.S. Commodity Futures Trading Commission.

Foreign Regulation

Sempra South American Utilities has two utilities in South America that are subject to laws and regulations in the localities and countries in which they operate. These utilities serve primarily regulated customers, and their revenues are based on tariffs that are

set by the CNE in Chile and the OSINERGMIN in Peru, as we discuss below in “Ratemaking Mechanisms – Sempra South American Utilities.”

Operations and projects in our Sempra Mexico segment are subject to regulation by the CRE, the Mexican Safety, Energy and Environment Agency (Agencia de Seguridad, Energía y Ambiente), the Mexican Secretary of Energy (Secretaría de Energía) and other labor and environmental agencies of city, state and federal governments in Mexico.

Licenses and Permits

The California Utilities obtain numerous permits, authorizations and licenses for the transmission and distribution of natural gas and electricity and the operation and construction of related assets, including electric generation and natural gas storage facilities, some of which may require periodic renewal.

Sempra South American Utilities and Sempra Mexico obtain numerous permits, authorizations and licenses for their electric and natural gas distribution, generation and transmission systems from the local governments where the service is provided. The respective energy ministries in Chile or Peru granted the concessions to operate Chilquinta Energía’s and Luz del Sur’s distribution operations for indefinite terms, not requiring renewal. The permits for generation, transportation, storage and distribution operations at Sempra Mexico are generally for 30-year terms, with options for renewal under certain regulatory conditions.

Sempra Mexico and Sempra LNG & Midstream obtain licenses and permits for the construction, operation and expansion of LNG facilities, and the import and export of LNG and natural gas. Sempra Mexico also obtains licenses and permits for the construction and operation of terminals for the receipt, storage and delivery of liquid fuels.

Sempra Renewables obtains permits, authorizations and licenses for the construction and operation of power generation facilities, and for the wholesale distribution of electricity.

Sempra LNG & Midstream obtains permits, authorizations and licenses for the construction and operation of natural gas storage facilities and pipelines, and in connection with participation in the wholesale electricity market.

Most of the permits and licenses associated with construction and operations within the Sempra Renewables and Sempra LNG & Midstream businesses are for periods generally in alignment with the construction cycle or life of the asset and in many cases are greater than 20 years.

RATEMAKING MECHANISMS

California Utilities

General Rate Case Proceedings. A CPUC GRC proceeding is designed to set sufficient base rates to allow the California Utilities to recover their reasonable cost of operations and maintenance and to provide the opportunity to realize their authorized rates of return on their investment. The proceeding generally establishes the test year revenue requirements, which authorizes how much the California Utilities can collect from their customers, and provides for attrition, or annual increases in revenue requirements, for each year following the test year. The CPUC generally conducts a GRC every three years.

Cost of Capital Proceedings. A CPUC cost of capital proceeding determines a utility’s authorized capital structure and authorized return on rate base, which is a weighted-average of the authorized returns on debt, preferred stock, and common equity (referred to as return on equity or ROE), weighted on a basis consistent with the authorized capital structure. The authorized return on rate base approved by the CPUC is the rate that the California Utilities use to establish customer rates to recover costs incurred to finance investments in CPUC-regulated electric distribution and generation, as well as natural gas distribution and transmission assets.

A cost of capital proceeding also addresses the automatic CCM, which applies market-based benchmarks to determine whether an adjustment to the authorized return on rate base is required during the interim years between cost of capital proceedings. The CCM did not operate in 2017, but could operate in 2018 to change the rates effective for January 1, 2019. The market-based benchmark for SDG&E’s and SoCalGas’ CCM is the 12-month average monthly A-rated utility bond index, as published by Moody’s for the 12-month period from October 1st through September 30th (CCM Period) of each calculation year. Remaining unchanged from the last cost of capital proceeding, SDG&E’s and SoCalGas’ CCM benchmark rate was set at 4.24 percent. If at the end of the CCM Period the monthly average benchmark rate falls outside of the established range of 3.24 percent to 5.24 percent, SDG&E’s and SoCalGas’ authorized ROE would be adjusted, upward or downward, by one-half of the difference between the 12-month average and the benchmark rate. In addition, the authorized recovery rate for SDG&E’s and SoCalGas’ cost of debt and preferred stock would be adjusted to their respective actual weighted-average costs, with no change to the

authorized capital structure. All three adjustments with the new rate would become effective on January 1st of the following year in which the benchmark range was exceeded.

The CCM only applies during the intervening years between scheduled cost of capital proceedings. In the year the cost of capital proceeding is scheduled, the cost of capital proceeding takes precedence over the CCM and will set new rates for the following year. The next cost of capital proceeding is scheduled to be filed in April 2019 for a January 1, 2020 implementation.

We also discuss the cost of capital and CCM in Note 14 of the Notes to Consolidated Financial Statements.

Transmission Rate Cases. SDG&E files separately with the FERC for its authorized ROE on FERC-regulated electric transmission operations and assets. The TO4 settlement agreement, approved by the FERC in May 2014 and in effect through December 31, 2018, established a 10.05 percent ROE. The settlement also established 1) a process whereby rates are determined using a base period of historical costs and a forecast of capital investments and 2) a true-up period similar to balancing account treatment that is designed to provide SDG&E earnings of no more and no less than its actual cost of service including its authorized return on investment. SDG&E makes annual information filings on December 1 of each year to update rates for the following calendar year. SDG&E also has the right to file for any ROE incentives that might apply under FERC rules. SDG&E's debt-to-equity ratio will be set annually based on the actual ratio at the end of each year.

Incentive Mechanisms. The CPUC applies performance-based measures and incentive mechanisms to all California IOUs, under which the California Utilities have earnings potential above authorized CPUC base operating margin if they achieve or exceed specific performance and operating goals. Generally, for performance-based awards, if performance is above or below specific benchmarks, the utility is eligible for financial awards or subject to financial penalties.

SDG&E has incentive mechanisms associated with:

- operational incentives (electric reliability)
- energy efficiency

SoCalGas has incentive mechanisms associated with:

- energy efficiency
- natural gas procurement
- unbundled natural gas storage and system operator hub services

Other Cost-Based Recovery. The CPUC authorizes the California Utilities to collect additional revenue requirements to recover costs that they have been authorized to pass on to customers, including the costs to purchase electricity and natural gas and those associated with administering public purpose, demand response, and customer energy efficiency programs. Actual costs are recovered as the commodity or service is delivered or, to the extent actual amounts vary from forecasts, generally recovered or refunded within a subsequent period based on the nature of the account. Overcollections and undercollections represent differences between cash collected in current rates and amounts due for specified components (including costs, depreciation and return on rate base) probable of recovery from ratepayers. The lagging aspect of overcollections and undercollections impacts cash flows until these respective amounts are tried up with collections from customers.

Because changes in SDG&E's and SoCalGas' cost of electricity and/or natural gas is substantially recovered in rates through a balancing account mechanism, changes in these costs are offset in revenues, and therefore do not impact earnings.

We also discuss regulatory matters in Note 14 of the Notes to Consolidated Financial Statements.

Sempra South American Utilities

Chilquinta Energía and Luz del Sur, our electric distribution utilities in South America, recognize revenues based on tariffs that are set by government agencies in their respective countries based on an efficient model distribution company defined by those agencies. The tariffs are based on a model and are intended to cover the costs of the model company. Because the tariffs are not based on the costs of the specific utility, they may not result in full cost recovery. The tariffs are designed to provide for a pass-through to customers of transmission and energy charges, recovery of reasonable operating and administrative costs, incentives to reduce costs and make needed capital investments and a regulated rate of return on the distributor's regulated asset base.

Chilquinta Energía's revenues are based on tariffs that are set by the CNE. The CNE's review process for authorized distribution and transmission rates generally remains in effect for a period of four years. The CNE reviews rates for four-year periods related to distribution and transmission separately on an alternating basis every two years.

Luz del Sur's revenues are based on tariffs that are set by the OSINERGMIN. The components of tariffs for Luz del Sur are reviewed and adjusted every four years.

Sempra Mexico

Ecogas' revenues are derived from service and distribution fees charged to its customers in pesos. The price Ecogas pays to purchase natural gas, which is based on international price indices, is passed through directly to its customers. The service and distribution fees charged by Ecogas are regulated by the CRE, which performs a review of rates every five years and monitors prices charged to end-users. The tariffs operate under a return-on-asset-base model. In the annual tariff adjustment, rates are adjusted to account for inflation or fluctuations in exchange rates, and inflation indexing includes separate U.S. and Mexican cost components, so that U.S. costs can be included in the final distribution rates.

ENVIRONMENTAL MATTERS

We discuss environmental issues affecting us in Note 15 of the Notes to Consolidated Financial Statements and "Item 1A. Risk Factors." You should read the following additional information in conjunction with those discussions.

Hazardous Substances

The CPUC's Hazardous Waste Collaborative mechanism allows California's IOUs to recover hazardous waste cleanup costs for certain sites, including those related to certain Superfund sites. This mechanism permits the California Utilities to recover in rates 90 percent of hazardous waste cleanup costs and related third-party litigation costs, and 70 percent of the related insurance-litigation expenses. In addition, the California Utilities have the opportunity to retain a percentage of any recoveries from insurance carriers and other third parties to offset the cleanup and associated litigation costs not recovered in rates.

We record estimated liabilities for environmental remediation when amounts are probable and estimable. In addition, we record amounts authorized to be recovered in rates under the Hazardous Waste Collaborative mechanism as regulatory assets.

Air and Water Quality

The electric and natural gas industries are subject to increasingly stringent air quality and GHG standards, such as those established by the CARB and SCAQMD. The California Utilities generally recover in rates the costs to comply with these standards. We discuss GHG standards and credits further in Note 1 of the Notes to Consolidated Financial Statements.

We discuss environmental matters concerning SoCalGas' Aliso Canyon natural gas storage facility in Note 15 of the Notes to Consolidated Financial Statements, in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance" and in "Item 1A. Risk Factors."

OTHER MATTERS

Executive Officers of the Registrants

EXECUTIVE OFFICERS OF SEMPRA ENERGY			
Name	Age ⁽¹⁾	Positions held over last five years	Time in position
Debra L. Reed	61	Chairman Chief Executive Officer President	December 2012 to present June 2011 to present March 2017 to present
Joseph A. Householder	62	Corporate Group President - Infrastructure Businesses Executive Vice President and Chief Financial Officer	January 2017 to present October 2011 to December 2016
Steven D. Davis ⁽²⁾	62	Corporate Group President - Utilities Executive Vice President - External Affairs and Corporate Strategy President and Chief Operating Officer, SDG&E Senior Vice President - External Affairs	January 2017 to present September 2015 to December 2016 January 2014 to September 2015 March 2012 to December 2013
J. Walker Martin	56	Executive Vice President and Chief Financial Officer Chairman, SDG&E President, SDG&E Chief Executive Officer, SDG&E President and Chief Executive Officer, Sempra U.S. Gas & Power	January 2017 to present November 2015 to December 2016 October 2015 to December 2016 January 2014 to December 2016 October 2011 to December 2013
Martha B. Wyrsh	60	Executive Vice President and General Counsel	September 2013 to present
Dennis V. Arriola	57	Executive Vice President - Corporate Strategy and External Affairs Chairman, SoCalGas Chief Executive Officer, SoCalGas President, SoCalGas Chief Operating Officer, SoCalGas	January 2017 to present November 2015 to December 2016 March 2014 to December 2016 August 2012 to September 2016 August 2012 to January 2014
Trevor I. Mihalik	51	Senior Vice President Controller and Chief Accounting Officer	December 2013 to present July 2012 to present
G. Joyce Rowland	63	Senior Vice President, Chief Human Resources Officer and Chief Administrative Officer Senior Vice President - Human Resources, Diversity and Inclusion	September 2014 to present May 2010 to September 2014

⁽¹⁾ Ages are as of February 27, 2018.

⁽²⁾ Mr. Davis will retire as of March 1, 2018.

EXECUTIVE OFFICERS OF SDG&E

Name	Age ⁽¹⁾	Positions held over last five years	Time in position
Scott D. Drury	52	President	January 2017 to present
		Chief Energy Supply Officer	June 2015 to December 2016
		Vice President - Human Resources, Diversity and Inclusion	March 2011 to June 2015
J. Chris Baker ⁽²⁾	58	Chief Information Officer	June 2015 to present
		Senior Vice President and Chief Information Technology Officer	January 2014 to June 2015
		Senior Vice President - Strategic Planning and Technology	September 2012 to January 2014
Lee Schavrien ⁽³⁾	63	Chief Regulatory Officer	March 2017 to present
		Chief Administrative Officer	June 2015 to March 2017
		Senior Vice President of Regulatory Affairs and Operations Support	February 2015 to June 2015
		Senior Vice President - Finance, Regulatory and Legislative Affairs	April 2010 to February 2015
Caroline A. Winn	54	Chief Operating Officer	January 2017 to present
		Chief Energy Delivery Officer	June 2015 to December 2016
		Vice President - Customer Services	April 2010 to June 2015
Bruce A. Folkmann	50	Vice President, Controller, Chief Financial Officer, Chief Accounting Officer and Treasurer	March 2015 to present
		Vice President and Chief Financial Officer, Sempra U.S. Gas & Power	July 2013 to March 2015
		Vice President and Controller, Sempra U.S. Gas & Power	August 2012 to September 2013
Randall L. Clark	48	Chief Human Resources and Administrative Officer	March 2017 to present
		Vice President - Human Resources, Diversity and Inclusion	October 2015 to March 2017
		Vice President - Human Resources Services, Sempra Energy	September 2014 to October 2015
		Vice President - Compliance and Governance, Sempra Energy	January 2014 to September 2014
		Vice President - Corporate Responsibility, Sempra Energy	March 2012 to January 2014

⁽¹⁾ Ages are as of February 27, 2018.

⁽²⁾ Mr. Baker will retire as of May 1, 2018.

⁽³⁾ Mr. Schavrien will retire as of April 1, 2018.

EXECUTIVE OFFICERS OF SOCALGAS

Name	Age ⁽¹⁾	Positions held over last five years	Time in position
Patricia K. Wagner	55	Chief Executive Officer Executive Vice President, Sempra Energy President and Chief Executive Officer, Sempra U.S. Gas & Power Vice President of Audit Services, Sempra Energy	January 2017 to present September 2016 to December 2016 January 2014 to September 2016 February 2012 to December 2013
J. Bret Lane	58	President Chief Operating Officer Senior Vice President - Gas Operations and System Integrity, SDG&E and SoCalGas	September 2016 to present January 2014 to present August 2012 to January 2014
J. Chris Baker ⁽²⁾	58	Chief Information Officer Senior Vice President and Chief Information Technology Officer Senior Vice President - Strategic Planning and Technology	June 2015 to present January 2014 to June 2015 September 2012 to January 2014
Lee Schavrien ⁽³⁾	63	Chief Regulatory Officer Chief Administrative Officer Senior Vice President of Regulatory Affairs and Operations Support Senior Vice President - Finance, Regulatory and Legislative Affairs	March 2017 to present June 2015 to March 2017 February 2015 to June 2015 April 2010 to February 2015
Sharon L. Tomkins	52	Vice President and General Counsel Assistant General Counsel	August 2014 to present April 2010 to August 2014
Bruce A. Folkmann	50	Vice President, Controller, Chief Financial Officer, Chief Accounting Officer and Treasurer Vice President and Chief Financial Officer, Sempra U.S. Gas & Power Vice President and Controller, Sempra U.S. Gas & Power	March 2015 to present July 2013 to March 2015 August 2012 to September 2013
Hal Snyder ⁽⁴⁾	57	Chief Human Resources and Administrative Officer Vice President - Human Resources, Diversity and Inclusion	March 2017 to present November 2012 to March 2017

⁽¹⁾ Ages are as of February 27, 2018.

⁽²⁾ Mr. Baker will retire as of May 1, 2018.

⁽³⁾ Mr. Schavrien will retire as of April 1, 2018.

⁽⁴⁾ Mr. Snyder will retire as of June 1, 2018.

Employees of the Registrants

The table below shows the number of employees for each of our registrants at December 31, 2017. Employees represented by labor unions are covered under various collective bargaining agreements that generally cover wages, benefits, working conditions, and other terms and conditions of employment.

NUMBER OF EMPLOYEES			
	Number of employees	% of employees covered under collective bargaining agreements	% of employees covered under collective bargaining agreements expiring within one year
Sempra Energy Consolidated ⁽¹⁾	16,046	43%	33%
SDG&E ⁽¹⁾	4,116	30%	—%
SoCalGas	7,546	61%	61%

⁽¹⁾ Excludes employees of variable interest entities as defined by U.S. GAAP.

COMPANY WEBSITES

Company website addresses are

- Sempra Energy – www.sempra.com
- SDG&E – www.sdge.com
- SoCalGas – www.socalgas.com

We make available free of charge on the Sempra Energy website, and for SDG&E and SoCalGas, via a hyperlink on their websites, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. The charters of the audit, compensation and corporate governance committees of the Sempra Energy board of directors, Sempra Energy's corporate governance guidelines, and Sempra Energy's code of business conduct and ethics for directors and officers (which also applies to directors and officers of SDG&E and SoCalGas) are posted on Sempra Energy's website.

Printed copies of these materials may be obtained by writing to our Corporate Secretary at Sempra Energy, 488 8th Avenue, San Diego, CA 92101-7123.

The SEC also maintains a website that contains reports, proxy and information statements and other information we file with the SEC at www.sec.gov. Copies of these reports, proxy and information statements and other information may also be obtained, after paying a duplicating fee, by electronic request at certified@sec.gov, or by writing the SEC's Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330.

The information on the websites of Sempra Energy, SDG&E and SoCalGas is not part of this report or any other report that we file with or furnish to the SEC, and is not incorporated herein by reference.

ITEM 1A. RISK FACTORS

When evaluating our company and its subsidiaries, you should consider carefully the following risk factors and all other information contained in this report. These risk factors could materially adversely affect our actual results and cause such results to differ materially from those expressed in any forward-looking statements made by us or on our behalf. We may also be materially harmed by risks and uncertainties not currently known to us or that we currently deem to be immaterial. If any of the following occurs, our businesses, cash flows, results of operations, financial condition and/or prospects could be materially negatively impacted. In addition, the trading prices of our securities and those of our subsidiaries could substantially decline due to the occurrence of any of these risks. These risk factors should be read in conjunction with the other detailed information concerning our company set forth in, or attached as an exhibit to, this annual report on Form 10-K, including, without limitation, the information set forth in the Notes to Consolidated Financial Statements and in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.” In this section, when we state that a risk or uncertainty may, could or will have a “material adverse effect” on us, or may, could or will “materially adversely affect” us, we mean that the risk or uncertainty may, could or will, as the case may be, have a material adverse effect on our businesses, cash flows, results of operations, financial condition, prospects and/or the trading prices of our securities or those of our subsidiaries.

Risks Related to Sempra Energy

Sempra Energy’s cash flows, ability to pay dividends and ability to meet its debt obligations largely depend on the performance of its subsidiaries and joint ventures and the ability to utilize the cash flows from those subsidiaries and joint ventures.

We are a holding company and substantially all of our assets are owned by our subsidiaries. Our ability to pay dividends and to meet our debt and other obligations depends almost entirely on cash flows from our subsidiaries and joint ventures and other entities in which we have invested and, in the short term, our ability to raise capital from external sources. In the long term, cash flows from our subsidiaries and joint ventures and other entities in which we have invested depend on their ability to generate operating cash flows in excess of their own expenditures, common and preferred stock dividends, and debt or other obligations. In addition, the subsidiaries are separate and distinct legal entities that are not obligated to pay dividends or make loans or distributions to us, whether to enable us to pay principal and interest on our debt securities, our other obligations or dividends on our common stock or our preferred stock, and could be precluded from paying any such dividends or making any such loans or distributions under certain circumstances, including, without limitation, as a result of legislation, regulation, court order, contractual restrictions or in times of financial distress.

A significant portion of our worldwide cash reserves are generated by, and therefore held in, foreign jurisdictions. As a result of the TCJA enacted in December 2017, the cumulative undistributed earnings of our foreign entities were deemed repatriated and subjected to a one-time U.S. federal income tax. Based on current assumptions, when we repatriate these foreign earnings to the U.S. in 2018 or later, they will not be subject to additional U.S. federal income taxes. However, some foreign jurisdictions and U.S. states impose taxes on dividends repatriated to their U.S. parent, which will reduce the cash available to us.

The TCJA may materially adversely affect our financial condition, results of operations and cash flows, the value of investments in our common stock, preferred stock and debt securities, and our credit ratings.

The TCJA has significantly changed the U.S. Internal Revenue Code, including taxation of U.S. corporations by, among other things, reducing the U.S. corporate income tax rate, altering the expensing of capital expenditures, limiting interest deductions, adopting elements of a territorial tax system, assessing a one-time deemed repatriation tax on cumulative undistributed earnings of U.S.-owned foreign entities at the time of enactment, and introducing certain anti-base erosion provisions. The legislation is unclear in certain respects and will require interpretations and implementing regulations by the U.S. Department of the Treasury, as well as state tax authorities, and the legislation could be subject to potential amendments and technical corrections, any of which could lessen or increase certain adverse impacts of the legislation. In addition, the regulatory treatment of the impacts of this legislation will be subject to the discretion of the FERC and state public utility commissions.

We recorded a noncash income tax expense of \$870 million in the fourth quarter of 2017 for the effects of the enactment of the TCJA. We recorded the effects using our best estimates and the information available to us through the date the financial statements were issued. However, our analysis of this legislation is ongoing, and the effects recorded are provisional. As permitted by and in accordance with guidance issued by the SEC, we may adjust our provisional estimates in reporting periods throughout 2018 as we complete our analysis and as more information becomes available, which could result in a material change in our provisional estimates. We discuss the events and information that may result in adjustments to our provisional estimates in Note 6

of the Notes to Consolidated Financial Statements and in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Results of Operations.”

Although it is unclear when or how capital markets, credit rating agencies, the FERC or state public utility commissions may respond to the TCJA, we do expect that certain financial metrics used by credit rating agencies, such as our funds from operations-to-debt percentage, will be negatively impacted as a result of an anticipated decrease in required income tax reimbursement payments to us from our domestic utility subsidiaries due to the decrease in the U.S. statutory corporate income tax rate. Certain provisions of the TCJA, such as 100-percent expensing of capital expenditures and impacts on utilization of our NOLs, may influence how we fund capital expenditures, the timing of capital expenditures and possible redeployment of capital through sales or monetization of assets, the timing of repatriation of foreign earnings and the use of equity financing to reduce our future use of debt, although there can be no assurance that these strategies will reduce any potential adverse impact from these provisions of the TCJA. In addition, although we are not currently expecting the deductibility of our interest costs to affect future earnings based on our method of allocation across our businesses, the interest deduction limitation under the TCJA is subject to potential additional guidance or interpretation from the U.S. Department of the Treasury, and there can be no assurance that any such additional guidance will not impact our current assessment.

It is also uncertain how credit rating agencies will treat the impacts of this legislation in their credit rating metrics, and whether additional avenues will evolve for companies to manage the adverse aspects of this legislation. We believe that these strategies, to the extent available and if successfully applied, could lessen the negative impacts on certain credit metrics, such as our funds from operations-to-debt percentage, although there can be no assurance in this regard.

If we are unable to successfully take actions to manage the potentially adverse impacts of the TCJA, or if additional interpretations, regulations, amendments or technical corrections exacerbate any adverse impacts of the legislation, it could have a material adverse effect on our financial condition, results of operations and cash flows and on the value of investments in our common stock, preferred stock and debt securities, and could result in credit rating agencies placing our credit ratings on negative outlook or downgrading our credit ratings. Any such actions by credit rating agencies may make it more difficult and costly for us to issue debt securities and certain other types of financing and could increase borrowing costs under our credit facilities.

We discuss the effects of the TCJA further in Note 6 of the Notes to Consolidated Financial Statements and in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Results of Operations.”

Certain credit rating agencies may downgrade our credit ratings or place those ratings on negative outlook, which may adversely affect the market price of our common stock, preferred stock and debt securities.

On December 20, 2017, Moody’s placed Sempra Energy’s credit ratings on negative outlook. Moody’s indicated that this action was triggered by us having entered into a comprehensive stipulation with the Staff of the PUCT and other key stakeholders with respect to our Joint Application with Oncor to the PUCT for regulatory approval of the Merger, which Moody’s described as a significant milestone in our attaining regulatory approval for the Merger. In addition, Moody’s indicated that a downgrade of our credit ratings over the 12 to 18 months after December 20, 2017 is likely if they anticipate that our consolidated credit metrics will remain weak, relative to our current credit rating, beyond 2019, specifically if our consolidated ratio of cash flow from operations before changes in working capital to debt remains below 18 percent (assuming successful completion of the Merger) for an extended period of time. Moody’s also indicated that a downgrade could also be considered if there is a further delay in the completion of our Cameron LNG project. S&P has indicated that it could downgrade its rating of Sempra Energy’s senior unsecured debt securities within 12 months following October 9, 2017 if we do not complete the Merger or if the aggregate indebtedness of our subsidiaries continues to exceed 50 percent of our consolidated debt. Moody’s also issued a public comment on December 20, 2017 regarding recent wildfires in northern California and Ventura County, California indicating that the December 6, 2017 decision issued by the CPUC denying SDG&E’s request to recover approximately \$379 million of pretax costs associated with the 2007 wildfires (based on the CPUC’s finding that SDG&E did not reasonably operate the facilities involved in the wildfires) is credit negative for SDG&E, for Sempra Energy and for other California utilities seeking to recover costs from wildfires. We discuss the 2007 wildfires further in Note 15 of the Notes to Consolidated Financial Statements.

Moody’s further indicated that it may reassess its view of the California regulatory framework if it determines that the credit supportiveness of California’s regulatory environment has weakened (including as a result of the CPUC’s discretion in denying recovery of wildfire costs), which would also be credit negative and could lead to a downgrade of the credit ratings of California IOUs, including SDG&E, or those ratings being placed on negative outlook. Also, as described in the preceding risk factor, the TCJA could materially adversely affect our credit ratings. The negative outlook by Moody’s, any downgrade of our credit ratings by S&P, Fitch Ratings or Moody’s, or any additional negative outlook on our credit ratings may adversely affect the market price of our common stock, preferred stock and debt securities, and could make it more costly for us to issue debt securities, to borrow under our credit facilities and to raise certain other types of financing. As a result, any additional negative outlook on Sempra Energy, or any downgrade of Sempra Energy’s credit ratings by S&P, Fitch Ratings or Moody’s could be a credit negative for

SDG&E or SoCalGas, or both, and result in a downgrade of the credit ratings of SDG&E or SoCalGas, or both. The negative outlook or downgrade of Sempra Energy's credit ratings by S&P, Fitch Ratings or Moody's, or any additional negative outlook on Sempra Energy's credit ratings may adversely affect the market price of SoCalGas' preferred stock, and both SDG&E's and SoCalGas' debt securities, and could make it more costly for SDG&E and SoCalGas to issue debt securities, to borrow under their credit facilities and to raise other types of financing.

Conditions in the financial markets and economic conditions generally may materially adversely affect us.

Our businesses are capital intensive and we rely significantly on long-term debt to fund a portion of our capital expenditures and repay outstanding debt, and on short-term borrowings to fund a portion of day-to-day business operations.

Limitations on the availability of credit and increases in interest rates or credit spreads may materially adversely affect our businesses, cash flows, results of operations, financial condition and/or prospects, as well as our ability to meet contractual and other commitments. In difficult credit market environments, we may find it necessary to fund our operations and capital expenditures at a higher cost or we may be unable to raise as much funding as we need to support new or ongoing business activities. This could cause us to reduce capital expenditures and could increase our cost of servicing debt, both of which could significantly reduce our short-term and long-term profitability.

The availability and cost of credit for our businesses may be greatly affected by credit ratings. If SoCalGas or SDG&E were to have their credit ratings downgraded, their cash flows, results of operations and financial condition could be materially adversely affected, and any downgrades of Sempra Energy's credit ratings could materially adversely affect the cash flows and results of operations of Sempra Energy. If the credit ratings of Sempra Energy or any of its subsidiaries were downgraded, especially below investment grade, financing costs and the principal amount of borrowings would likely increase due to the additional risk of our debt and because certain counterparties may require collateral in the form of cash, a letter of credit or other forms of security for new and existing transactions. Such amounts may be material and could adversely affect our cash flows, results of operations and financial condition. We discuss our credit ratings further in "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" and also above under "– Certain credit rating agencies may downgrade our credit ratings or place those ratings on negative outlook, which may adversely affect the market price of our common stock, preferred stock and debt securities."

Sempra Energy has substantial investments in Mexico and South America which expose us to foreign currency, inflation, legal, tax, economic, geo-political and management oversight risk.

We have significant foreign operations in Mexico and South America. Our foreign operations pose complex management, foreign currency, inflation, legal, tax and economic risks. Certain of these risks differ from and potentially may be greater than those associated with our domestic businesses. All of our international businesses are sensitive to geo-political uncertainties, and our non-utility international businesses are sensitive to changes in the priorities and budgets of international customers, all of which may be driven by changes in their environments and potentially volatile worldwide economic conditions, and various regional and local economic and political factors, risks and uncertainties, as well as U.S. foreign policy. Foreign currency exchange and inflation rates and fluctuations in those rates may have an impact on our revenue, costs or cash flows from our international operations, which could materially adversely affect our financial performance. Our currency exposures are to the Mexican, Peruvian and Chilean currencies. Our Mexican subsidiaries have U.S. dollar-denominated monetary assets and liabilities that give rise to Mexican currency exchange rate movements for Mexican income tax purposes. They also have deferred income tax assets and liabilities, which are significant, denominated in the Mexican peso that must be translated to U.S. dollars for financial reporting purposes. In addition, monetary assets and liabilities and certain nonmonetary assets and liabilities are adjusted for Mexican inflation for Mexican income tax purposes. Our primary objective in reducing foreign currency risk is to preserve the economic value of our foreign investments and to reduce earnings volatility that would otherwise occur due to exchange rate fluctuations. We may attempt to offset material cross-currency transactions and earnings exposure through various means, including financial instruments and short-term investments. Because we generally do not hedge our net investments in foreign countries, we are susceptible to volatility in OCI caused by exchange rate fluctuations, primarily related to our South American subsidiaries, whose functional currency is not the U.S. dollar. We generally do not hedge our deferred income tax assets and liabilities, which makes us susceptible to volatility in income tax expense. We discuss our foreign currency exposure at our Mexican subsidiaries in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 7A. Quantitative and Qualitative Disclosures About Market Risk."

Mexico developed a legal framework for the regulation of the hydrocarbons and electric power sectors based on a package of constitutional amendments approved by the Mexican Congress in December 2013 and implementing legislation enacted in 2014 and the issuance of new regulations thereunder. We have made significant investments in Mexico based on this legal framework and should the legal framework be modified or withdrawn, it may significantly reduce the value of our existing investments, reduce investment opportunities, and impact our decision to make further investments in Mexico.

The current U.S. administration indicated its intention to renegotiate trade agreements, such as NAFTA, and implement U.S. immigration policy changes by reviewing various options, including tariffs, for funding new Mexico-U.S. border security infrastructure. Such actions could result in changes in the Mexican, U.S. and other markets. In addition, if this occurs, the Mexican government could implement retaliatory actions, such as the imposition of restrictions or import fees on Mexican imports of natural gas from the U.S. or imports and exports of electricity to and from the U.S. Any of these actions by either or both governments could adversely affect imports and exports between Mexico and the U.S. and negatively impact the U.S. and Mexican economies and the companies with whom we conduct business in Mexico, which could materially adversely affect our business, financial condition, results of operations, cash flows, or prospects.

Risks Related to All Sempra Energy Subsidiaries

Severe weather conditions, natural disasters, accidents, equipment failures, explosions or acts of terrorism could materially adversely affect our businesses, financial condition, results of operations, cash flows and/or prospects.

Like other major industrial facilities, ours may be damaged by severe weather conditions, natural disasters such as earthquakes, hurricanes, tsunamis, floods, mudslides and fires, accidents, equipment failures, explosions or acts of terrorism. Because we are in the business of using, storing, transporting and disposing of highly flammable and explosive materials, as well as radioactive materials, and operating highly energized equipment, the risks such incidents may pose to our facilities and infrastructure, as well as the risks to the surrounding communities, are substantially greater than the risks such incidents may pose to a typical business. The facilities and infrastructure that we own or in which we have interests that may be subject to such incidents include, but are not limited to:

- natural gas, propane and ethane pipelines, storage and compressor facilities;
- electric transmission and distribution;
- power generation plants, including renewable energy and natural gas-fired generation;
- marine and inland liquid fuels, LNG and LPG terminals and storage;
- nuclear fuel and nuclear waste storage facilities; and
- nuclear power facilities (currently being decommissioned).

Such incidents could result in severe business disruptions, prolonged power outages, property damage, injuries or loss of life, significant decreases in revenues and earnings, and/or significant additional costs to us. Such incidents that do not directly affect our facilities may impact our business partners, supply chains and transportation, which could negatively impact construction projects and our ability to provide natural gas and electricity to our customers. Any such incident could have a material adverse effect on our businesses, financial condition, results of operations, cash flows and/or prospects.

Depending on the nature and location of the facilities and infrastructure affected, any such incident also could cause catastrophic fires; natural gas, natural gas odorant, propane or ethane leaks; releases of other greenhouse gases; radioactive releases; explosions, spills or other significant damage to natural resources or property belonging to third parties; personal injuries, health impacts or fatalities; or present a nuisance to impacted communities. Any of these consequences could lead to significant claims against us. In some cases, we may be liable for damages even though we are not at fault, such as in cases where the doctrine of inverse condemnation applies. We discuss how the application of this doctrine in California has impacted SDG&E's ability to recover certain costs associated with the 2007 wildfires in SDG&E's territory and the proceedings related thereto in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance," in Note 15 of the Notes to Consolidated Financial Statements and below under "Risks Related to the California Utilities – Insurance coverage for future wildfires may be unobtainable, prohibitively expensive, or insufficient to cover losses we may incur, and we may be unable to recover costs in excess of insurance through regulatory mechanisms." Insurance coverage may significantly increase in cost or become prohibitively expensive, may be disputed by the insurers, or may become unavailable for certain of these risks or at sufficient levels, and any insurance proceeds we receive may be insufficient to cover our losses or liabilities due to the existence of limitations, exclusions, high deductibles, failure to comply with procedural requirements, and other factors, which could materially adversely affect our businesses, financial condition, results of operations, cash flows and/or prospects. In addition, any inability to recover uninsured costs associated with wildfires, or the perception that such costs may not be recoverable, could materially adversely affect the trading prices of our common stock, preferred stock and debt securities.

Severe weather conditions may also impact our businesses, including our international operations. Frequent drought conditions and unseasonably warm temperatures have increased the degree and prevalence of wildfires in California including in SDG&E's and SoCalGas' service territories, which could place third party property and our electric and natural gas infrastructure in jeopardy and reduce the availability of hydroelectric generators, which could result in temporary power shortages in SDG&E's

and SoCalGas' service territories. In addition, severe weather conditions could result in delays and/or cost increases to our capital projects.

Additionally, severe rainstorms and associated high winds, as well as flooding and mudslides where vegetation has been destroyed as result of human modification or wildfires, along the coastal areas in our service territories could damage our electric and natural gas infrastructure, resulting in increased expenses, including higher maintenance and repair costs, and interruptions in electricity and natural gas delivery services. As a result, these events can have significant financial consequences, including regulatory penalties and disallowances if the California Utilities or our utilities in Mexico or South America encounter difficulties in restoring service to their customers on a timely basis. Further, the cost of storm restoration efforts may not be fully recoverable through the regulatory process. Any such events could have a material adverse effect on our businesses, financial condition, results of operations and cash flows.

Our businesses are subject to complex government regulations and tax requirements and may be materially adversely affected by changes in these regulations or requirements or in their interpretation or implementation.

In recent years, the regulatory environment that applies to the electric power and natural gas industries has undergone significant changes, on the federal, state and local levels. These changes have affected the nature of these industries and the manner in which their participants conduct their businesses. These changes are ongoing, and we cannot predict the future course of changes in this regulatory environment or the ultimate effect that this changing regulatory environment will have on our businesses. Moreover, existing regulations, laws and tariffs may be revised or reinterpreted, and new regulations, laws and tariffs may be adopted or become applicable to us and our facilities. Special tariffs may also be imposed on components used in our businesses that could increase costs.

Our businesses are subject to increasingly complex accounting and tax requirements, and the regulations, laws and tariffs that affect us may change in response to economic or political conditions. Compliance with these requirements could increase our operating costs. In addition to the TCJA described above, any new tax legislation, regulations or other interpretations in the U.S. and other countries in which we operate could materially adversely affect our tax expense and/or tax balances, and changes in tax policies could materially adversely impact our business. Changes in regulations, laws and tariffs and how they are implemented and interpreted may have a material adverse effect on our businesses, cash flows, financial condition, results of operations and/or prospects.

Our operations are subject to rules relating to transactions among the California Utilities and other Sempra Energy businesses. These rules are commonly referred to as "affiliate rules," which primarily impact commodity and commodity-related transactions. These businesses could be materially adversely affected by changes in these rules or to their interpretations, or by additional CPUC or FERC rules that further restrict our ability to sell electricity or natural gas to, or to trade with, the California Utilities and with each other. Affiliate rules also restrict these businesses from entering into any such transactions with the California Utilities. Any such restrictions on or approval requirements for transactions among affiliates could materially adversely affect the LNG terminals, natural gas pipelines, electric generation facilities, or other operations of our subsidiaries, which could have a material adverse effect on our businesses, results of operations and/or prospects.

Our businesses require numerous permits, licenses, franchise agreements, and other governmental approvals from various federal, state, local and foreign governmental agencies; any failure to obtain or maintain required permits, licenses or approvals could cause our sales to materially decline and/or our costs to materially increase, and otherwise materially adversely affect our businesses, cash flows, financial condition, results of operations and/or prospects.

All of our existing and planned development projects require multiple approvals. The acquisition, construction, ownership and operation of marine and inland liquid fuels, LNG and LPG terminals and storage; natural gas pipelines and distribution and storage facilities; electric generation, transmission and distribution facilities; and propane and ethane systems require numerous permits, licenses, franchise agreements, certificates and other approvals from federal, state, local and foreign governmental agencies. Once received, approvals may be subject to litigation, and projects may be delayed or approvals reversed or modified in litigation. In addition, permits, licenses, franchise agreements, certificates, and other approvals may be modified, rescinded or fail to be extended by one or more of the governmental agencies and authorities that oversee our businesses. SoCalGas' franchise agreements with Los Angeles County and the City of Los Angeles, where the Aliso Canyon natural gas storage facility is located, are due to expire in 2018 and 2019, respectively. If there is a delay in obtaining required regulatory approvals or failure to obtain or maintain required approvals or to comply with applicable laws or regulations, we may be precluded from constructing or operating facilities, or we may be forced to incur additional costs. Further, accidents beyond our control may cause us to violate the terms of conditional use permits, causing delays in projects. Any such delay or failure to obtain or maintain necessary permits, licenses, certificates and other approvals could cause our sales to materially decline, and/or our costs to materially increase, and otherwise materially adversely affect our businesses, cash flows, financial condition, results of operations and/or prospects.

Our businesses have significant environmental compliance costs, and future environmental compliance costs could have a material adverse effect on our cash flows and results of operations.

Our businesses are subject to extensive federal, state, local and foreign statutes, rules and regulations and mandates relating to environmental protection, including, air quality, water quality and usage, wastewater discharge, solid waste management, hazardous waste disposal and remediation, conservation of natural resources, wetlands and wildlife, renewable energy resources, climate change and GHG emissions. We are required to obtain numerous governmental permits, licenses, certificates and other approvals to construct and operate our businesses. Additionally, to comply with these legal requirements, we must spend significant amounts on environmental monitoring, pollution control equipment, mitigation costs and emissions fees. The California Utilities may be materially adversely affected if these additional costs for projects are not recoverable in rates. In addition, we may be ultimately responsible for all on-site liabilities associated with the environmental condition of our marine and inland liquid fuels, LNG and LPG terminals and storage; natural gas transmission, distribution and storage facilities; electric generation, transmission and distribution facilities; and other energy projects and properties; regardless of when the liabilities arose and whether they are known or unknown, which exposes us to risks arising from contamination at our former or existing facilities or with respect to offsite waste disposal sites that have been used in our operations. In the case of our California and other regulated utilities, some of these costs may not be recoverable in rates. Our facilities, including those in our joint ventures, are subject to laws and regulations protecting migratory birds, which have been the subject of increased enforcement activity with respect to wind farms. Failure to comply with applicable environmental laws, regulations and permits may subject our businesses to substantial penalties and fines and/or significant curtailments of our operations, which could materially adversely affect our cash flows and/or results of operations.

Increasing international, national, regional and state-level environmental concerns as well as related new or proposed legislation and regulation may have substantial negative effects on our operations, operating costs, and the scope and economics of proposed expansions, which could have a material adverse effect on our results of operations, cash flows and/or prospects. In particular, state-level laws and regulations, as well as proposed state, national and international legislation and regulation relating to the control and reduction of GHG emissions, may materially limit or otherwise materially adversely affect our operations. The implementation of recent and proposed California legislation and regulation may materially adversely affect our non-utility businesses by imposing, among other things, additional costs associated with emission limits, controls and the possible requirement of carbon taxes or the purchase of emissions credits. Similarly, California SB 350 requires all load-serving entities, including SDG&E, to file integrated resource plans that will ultimately enable the electric sector to achieve reductions in GHG emissions of 40 percent compared to 1990 levels by 2030. Our California Utilities may be materially adversely affected if these additional costs are not recoverable in rates. Even if recoverable, the effects of existing and proposed GHG emission reduction standards may cause rates to increase to levels that substantially reduce customer demand and growth and may have a material adverse effect on the California Utilities' cash flows. SDG&E may also be subject to significant penalties and fines if certain mandated renewable energy goals are not met.

In addition, existing and future laws, orders and regulations regarding mercury, nitrogen and sulfur oxides, particulates, methane or other emissions could result in requirements for additional monitoring, pollution monitoring and control equipment, safety practices or emission fees, taxes or penalties that could materially adversely affect our results of operations and/or cash flows. Moreover, existing rules and regulations may be interpreted or revised in ways that may materially adversely affect our results of operations and/or cash flows.

We provide further discussion of these matters in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and in Note 15 of the Notes to Consolidated Financial Statements.

Our businesses, results of operations, financial condition and/or cash flows may be materially adversely affected by the outcome of litigation against us.

Sempra Energy and its subsidiaries are defendants in numerous lawsuits and arbitration proceedings. We have spent, and continue to spend, substantial amounts of money and time defending these lawsuits and proceedings, and in related investigations and regulatory proceedings. We discuss pending proceedings in Note 15 of the Notes to Consolidated Financial Statements and in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations." The uncertainties inherent in lawsuits, arbitrations and other legal proceedings make it difficult to estimate with any degree of certainty the costs and effects of resolving these matters. In addition, juries have demonstrated a willingness to grant large awards, including punitive damages, in personal injury, product liability, property damage and other claims. Accordingly, actual costs incurred may differ materially from insured or reserved amounts and may not be recoverable in whole or in part by insurance or in rates from our customers, which in each case could materially adversely affect our businesses, cash flows, results of operations and/or financial condition.

We cannot and do not attempt to fully hedge our assets or contract positions against changes in commodity prices. In addition, for those contract positions that are hedged, our hedging procedures may not mitigate our risk as planned.

To reduce financial exposure related to commodity price fluctuations, we may enter into contracts to hedge our known or anticipated purchase and sale commitments, inventories of natural gas and LNG, natural gas storage and pipeline capacity and electric generation capacity. As part of this strategy, we may use forward contracts, physical purchase and sales contracts, futures, financial swaps, and options. We do not hedge the entire exposure to market price volatility of our assets or our contract positions, and the coverage will vary over time. To the extent we have unhedged positions, or if our hedging strategies do not work as planned, fluctuating commodity prices could have a material adverse effect on our results of operations, cash flows and/or financial condition. Certain of the contracts we use for hedging purposes are subject to fair value accounting. Such accounting may result in gains or losses in earnings for those contracts. In certain cases, these gains or losses may not reflect the associated losses or gains of the underlying position being hedged.

Risk management procedures may not prevent losses.

Although we have in place risk management and control systems that use advanced methodologies to quantify and manage risk, these systems may not prevent material losses. Risk management procedures may not always be followed as intended by our businesses or may not work as planned. In addition, daily value-at-risk and loss limits are based on historic price movements. If prices significantly or persistently deviate from historic prices, the limits may not protect us from significant losses. As a result of these and other factors, there is no assurance that our risk management procedures will prevent losses that would materially adversely affect our results of operations, cash flows and/or financial condition.

The operation of our facilities depends on good labor relations with our employees.

Several of our businesses have entered into and have in place collective bargaining agreements with different labor unions. Our collective bargaining agreements are generally negotiated on a company-by-company basis. Any failure to reach an agreement on new labor contracts or to negotiate these labor contracts might result in strikes, boycotts or other labor disruptions. Labor disruptions, strikes or significant negotiated wage and benefit increases, whether due to union activities, employee turnover or otherwise, could have a material adverse effect on our businesses, results of operations and/or cash flows.

New business technologies implemented by us or developed by others present a risk for increased attacks on our information systems and the integrity of our energy grid and our natural gas pipeline and storage infrastructure.

In addition to general information and cyber risks that all Fortune 500 corporations face (e.g. malware, malicious intent by insiders and inadvertent disclosure of sensitive information), the utility industry faces evolving cybersecurity risks associated with protecting insensitive and confidential customer information, Smart Grid infrastructure, and natural gas pipeline and storage infrastructure. Deployment of new business technologies represents a new and large-scale opportunity for attacks on our information systems and confidential customer information, as well as on the integrity of the energy grid and the natural gas infrastructure. While our computer systems have been, and will likely continue to be, subjected to computer viruses or other malware, unauthorized access attempts, and cyber- or phishing-attacks, to date we have not detected a material breach of cybersecurity. Addressing these risks is the subject of significant ongoing activities across Sempra Energy's businesses, but we cannot assure that a successful attack has not occurred and will not occur. An attack on our information systems, the integrity of the energy grid, our natural gas, ethane, or propane pipeline and storage infrastructure or one of our facilities, or unauthorized access to confidential customer information, could result in energy delivery service failures, financial loss, violations of privacy laws, customer dissatisfaction and litigation, any of which, in turn, could have a material adverse effect on our businesses, cash flows, financial condition, results of operations and/or prospects.

In the ordinary course of business, Sempra Energy and its subsidiaries collect and retain sensitive information, including personal identification information about customers and employees, customer energy usage and other information. The theft, damage or improper disclosure of sensitive electronic data can subject us to penalties for violation of applicable privacy laws, subject us to claims from third parties, require compliance with notification and monitoring regulations, and harm our reputation.

Further, as seen with recent cyber-attacks around the world, the goal of a cyber-attack may be primarily to inflict large-scale harm on a company and the places where it operates. Any such cyber-attack could cause widespread disruptions to our operating, financial and administrative systems, including the destruction of critical information and programming that could materially adversely affect our business operations and the integrity of the power grid, negatively impact our ability to produce accurate and timely financial statements or comply with ongoing disclosure obligations or other regulatory requirements, and/or release confidential information about our company and our customers, employees and other constituents, any of which could lead to sanctions or negatively affect the general perception of our business in the financial markets and which could have a material adverse effect on our businesses, cash flows, financial condition, results of operations and/or prospects.

Our businesses will need to continue to adapt to technological change which may cause us to incur significant expenditures to adapt to these changes and which efforts may not be successful or such expenditures may not be recovered.

Emerging technologies may be superior to, or may not be compatible with, some of our existing technologies, investments and infrastructure, and may require us to make significant expenditures to remain competitive, or may result in the obsolescence of certain of our operating assets or the operating assets of our investees. Our future success will depend, in part, on our ability and our investment partners' abilities to anticipate and successfully adapt to technological changes, to offer services that meet customer demands and evolving industry standards and to recover all, or a significant portion of, any unrecovered investment in obsolete assets. If we incur significant expenditures in adapting to technological changes, fail to adapt to significant technological changes, fail to obtain access to important new technologies, fail to recover a significant portion of any remaining investment in obsolete assets, or if implemented technology fails to operate as intended, our businesses, operating results and financial condition could be materially and adversely affected. Examples of technological changes that could negatively impact our businesses include

- Sempra Utilities – Technologies that could change the utilization of natural gas distribution and electric generation, transmission and distribution assets, including:
 - the expanded cost-effective utilization of distributed generation (e.g., rooftop solar and community solar projects), and
 - energy storage technology.
- Sempra Infrastructure
 - At Sempra Renewables, technological advances in distributed and local power generation and energy storage could reduce the demand for large-scale renewable electricity generation. Sempra Renewables' customers' ability to perform under long-term agreements could be impacted by changes in utility rate structures and advances in distributed and local power generation.
 - At Sempra LNG & Midstream, technological advances could reduce the demand for natural gas. These technologies include cost-effective batteries for renewable electricity generation, economic improvements to gas-to-liquids conversion processes, and advances in alternative fuels and other alternative energy sources.

Risks Related to the California Utilities

The California Utilities are subject to extensive regulation by state, federal and local legislative and regulatory authorities, which may materially adversely affect us.

The CPUC regulates the California Utilities' rates, except SDG&E's electric transmission rates which are regulated by the FERC. The CPUC also regulates the California Utilities':

- conditions of service;
- capital structure;
- rates of return;
- rates of depreciation;
- long-term resource procurement; and
- sales of securities.

The CPUC conducts various reviews and audits of utility performance, safety standards and practices, compliance with CPUC regulations and standards, affiliate relationships and other matters. These reviews and audits may result in disallowances, fines and penalties that could materially adversely affect our financial condition, results of operations and/or cash flows. SoCalGas and SDG&E may be subject to penalties or fines related to their operation of natural gas pipelines and storage and, for SDG&E, electric operations, under regulations concerning natural gas pipeline safety and citation programs concerning both gas and electric safety, which could have a material adverse effect on their results of operations, financial condition and/or cash flows. We discuss various CPUC proceedings relating to the California Utilities' rates, costs, incentive mechanisms, and performance-based regulation in Notes 13, 14 and 15 of the Notes to Consolidated Financial Statements and in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

The CPUC periodically approves the California Utilities' rates based on authorized capital expenditures, operating costs, including income taxes, and an authorized rate of return on investment. Delays by the CPUC on decisions authorizing recovery, after-the-fact reasonableness reviews with unclear standards or authorizations for less than full recovery may adversely affect the working capital, cash flows and financial condition of each of the California Utilities. If the California Utilities receive an adverse CPUC decision and/or actual capital expenditures and/or operating costs were to exceed the amounts approved by the CPUC, our results of operations, financial condition, cash flows and/or prospects could be materially adversely affected. Reductions in key

benchmark interest rates may trigger automatic adjustment mechanisms which would reduce the California Utilities' authorized rates of return, changes in which could materially adversely affect their results of operations, financial condition, cash flows and/or prospects.

SoCalGas and SDG&E have significantly invested and continue to invest in major programs, such as PSEP, under an approved CPUC decision tree framework. However, the total investment to date is substantially subject to CPUC reasonableness review. Although we believe these costs have been prudently incurred, the standards applied by the CPUC could result in the disallowance of certain of these historical costs, which could adversely affect SDG&E's, SoCalGas' and Sempra Energy's results of operations, financial condition and cash flows.

The CPUC now incorporates a risk-based decision-making framework in its review of GRC applications for major natural gas and electric utilities in California. We cannot estimate whether its application in the 2019 GRC or future GRC applications will result in full recovery of costs. We discuss this further in Note 14 of the Notes to Consolidated Financial Statements.

In California, there are laws that establish rules governing, among other subjects, communications between CPUC officials, CPUC staff and regulated utilities. Rules and processes around *ex parte* communications could result in delayed decisions, increased investigations, enforcement actions and penalties. In addition, the CPUC or other parties may initiate investigations of past communications between public utilities and CPUC officials and staff that could result in reopening completed proceedings for reconsideration.

The FERC regulates electric transmission rates, the transmission and wholesale sales of electricity in interstate commerce, transmission access, the rates of return on investments in electric transmission assets, and other similar matters involving SDG&E.

The California Utilities may be materially adversely affected by new legislation, regulations, decisions, orders or interpretations of the CPUC, the FERC or other regulatory bodies. In addition, existing legislation or regulations may be revised or reinterpreted. New, revised or reinterpreted legislation, regulations, decisions, orders or interpretations could change how the California Utilities operate, could affect their ability to recover various costs through rates or adjustment mechanisms, or could require them to incur substantial additional expenses.

The construction and expansion of the California Utilities' natural gas pipelines, SoCalGas' storage facilities, and SDG&E's electric transmission and distribution facilities require numerous permits, licenses, rights-of-way and other approvals from federal, state and local governmental agencies, including approvals and renewals of rights-of-way over Native American tribal land held in trust by the federal government. Successfully maintaining or renewing any or all of these approvals could result in higher costs or, in the event one or more of these approvals were to expire, could require us to remove the associated assets from service, construct new assets intended to bypass the impacted area, or both, and our ability to recover higher costs associated with these events cannot be assured. If there are delays in obtaining these approvals, failure to obtain or maintain these approvals, difficulties in renewing rights-of-way and other property rights, or failure to comply with applicable laws or regulations, the California Utilities' businesses, cash flows, results of operations, financial condition and/or prospects could be adversely affected.

Successfully coordinating and completing expansion and construction projects requires good execution from our employees and contractors, cooperation of third parties and the absence of litigation and regulatory delay. In the event that one or more of these projects is delayed or experiences significant cost overruns, this could have a material adverse effect on the California Utilities. The California Utilities may invest a significant amount of money in a major capital project prior to receiving regulatory approval. If the project does not receive regulatory approval, if the regulatory approval is conditioned on major changes, or if management decides not to proceed with the project, they may be unable to recover any or all amounts invested in that project, which could materially adversely affect their financial condition, results of operations, cash flows and/or prospects.

Our California Utilities are also affected by the activities of organizations such as TURN, Utility Consumers' Action Network, Sierra Club and other stakeholder, advocacy and activist groups. Operations that may be influenced by these groups include

- the rates charged to our customers;
- our ability to site and construct new facilities;
- our ability to purchase or construct generating facilities;
- our ability to shut down power for safety reasons, including potentially dangerous wildfire conditions;
- general safety;
- accounting and income tax matters, including changes in tax law;
- transactions between affiliates;
- the installation of environmental emission controls equipment;

- our ability to decommission generating and other facilities and recover the remaining carrying value of such facilities and related costs;
- our ability to recover costs incurred in connection with nuclear decommissioning activities from trust funds established to pay for such costs;
- the amount of certain sources of energy we must use, such as renewable sources; limits on the amount of certain energy sources we can use, such as natural gas; and programs to encourage reductions in energy usage by customers; and
- the amount of costs associated with these and other operations that may be recovered from customers.

SoCalGas has incurred and may continue to incur significant costs and expenses related to remediating the natural gas leak at its Aliso Canyon natural gas storage facility and to mitigate local community and environmental impacts from the leak, some or a substantial portion of which may not be recoverable through insurance, and SoCalGas also may incur significant liabilities for damages, restitution, fines, penalties and other costs, and GHG mitigation activities as a result of this incident, some or a significant portion of which may not be recoverable through insurance.

In October 2015, SoCalGas discovered a leak at one of its injection-and-withdrawal wells, SS25, at its Aliso Canyon natural gas storage facility (the Leak), located in the northern part of the San Fernando Valley in Los Angeles County, California. The Aliso Canyon natural gas storage facility has been operated by SoCalGas since 1972. SS25 is one of more than 100 injection-and-withdrawal wells at the storage facility. SoCalGas worked closely with several of the world's leading experts to stop the Leak, and in February 2016, DOGGR confirmed that the well was permanently sealed.

Local Community Mitigation Efforts

Pursuant to a stipulation and order by the LA Superior Court, SoCalGas provided temporary relocation support to residents in the nearby community who requested it before the well was permanently sealed, at significant cost to SoCalGas. Following the permanent sealing of the well and the completion of the DPH's indoor testing of certain homes in the Porter Ranch community, which concluded that indoor conditions did not present a long-term health risk and that it was safe for residents to return home, the LA Superior Court issued an order in May 2016 ruling that currently relocated residents be given the choice to request residence cleaning prior to returning home, with such cleaning to be performed according to the DPH's proposed protocol and at SoCalGas' expense. SoCalGas completed the cleaning program, and the relocation program ended in July 2016.

In May 2016, the DPH also issued a directive that SoCalGas professionally clean (in accordance with the proposed protocol prepared by the DPH) the homes of all residents located within the Porter Ranch Neighborhood Council boundary, or who participated in the relocation program, or who are located within a five-mile radius of the Aliso Canyon natural gas storage facility and have experienced symptoms from the Leak (the Directive). SoCalGas disputes the Directive, contending that it is invalid and unenforceable, and has filed a petition for writ of mandate to set aside the Directive.

The costs incurred to remediate and stop the Leak and to mitigate local community impacts have been significant and may increase, and we may be subject to potentially significant damages, restitution, and civil, administrative and criminal fines, penalties and other costs. To the extent any of these costs are not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Insurance and Estimated Costs

Excluding directors' and officers' liability insurance, we have four kinds of insurance policies that together provide between \$1.2 billion and \$1.4 billion in insurance coverage, depending on the nature of the claims. These policies are subject to various policy limits, exclusions and conditions. We intend to pursue the full extent of our insurance coverage for the costs we have incurred or may incur. Through December 31, 2017, we have received \$469 million of insurance proceeds for portions of control-of-well expenses, lost gas and temporary relocation costs. There can be no assurance that we will be successful in obtaining additional insurance recovery for costs related to the Leak under the applicable policies, and to the extent we are not successful in obtaining additional recovery or these costs exceed the amount of our coverage, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial conditions and results of operations.

At December 31, 2017, SoCalGas estimates that its costs related to the Leak are \$913 million, which includes \$887 million of costs recovered or probable of recovery from insurance. This estimate may rise significantly as more information becomes available. In addition, costs not included in the cost estimate of \$913 million could be material. As described in "Governmental Investigations and Civil and Criminal Litigation" below, the actions against us seek compensatory and punitive damages, restitution, and civil, administrative and criminal fines, penalties and other costs, which except for the amounts paid or estimated to settle certain actions, are not included in the \$913 million cost estimate as it is not possible at this time to predict the outcome of these actions or reasonably estimate the amount of damages, restitution or civil, administrative or criminal fines, penalties or

other costs. The recorded amounts above also do not include costs to clean additional homes pursuant to the Directive, future legal costs to defend litigation, and other potential costs that we currently do not anticipate incurring or that we cannot reasonably estimate. Furthermore, the cost estimate of \$913 million does not include certain other costs expensed by Sempra Energy through December 31, 2017 associated with defending shareholder derivative lawsuits. There can be no assurance that we will be successful in obtaining insurance coverage for these costs under the applicable policies, and to the extent we are not successful in obtaining coverage or these costs exceed the amount of our coverage, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Governmental Investigations and Civil and Criminal Litigation

Various governmental agencies, including DOGGR, DPH, SCAQMD, CARB, Los Angeles Regional Water Quality Control Board, California Division of Occupational Safety and Health, CPUC, PHMSA, EPA, Los Angeles County District Attorney's Office and California Attorney General's Office, have investigated or are investigating this incident. Other federal agencies (e.g., the DOE and U.S. Department of the Interior) investigated the incident as part of a joint interagency task force. In January 2016, DOGGR and the CPUC selected Blade Energy Partners to conduct, under their supervision, an independent analysis of the technical root cause of the Leak, to be funded by SoCalGas. The timing of completion of the root cause analysis is under the control of Blade Energy Partners, DOGGR and the CPUC.

As of February 22, 2018, 373 lawsuits, including over 45,000 plaintiffs, are pending in the LA Superior Court against SoCalGas, some of which have also named Sempra Energy.

These various lawsuits have been coordinated before a single court and will be managed under a Second Amended Master Complaint for Individual Actions, and two consolidated class action complaints. In addition, a federal securities class action alleging violation of the federal securities laws has been filed against Sempra Energy and certain of its officers and directors in the SDCA. Five shareholder derivative actions alleging breach of fiduciary duties have been filed against certain officers and directors of Sempra Energy and/or SoCalGas, four of which were joined in a Consolidated Shareholder Derivative Complaint in August 2017. Three complaints have also been filed by public entities, including the California Attorney General and the County of Los Angeles. These complaints seek various remedies, including injunctive relief, abatement of the public nuisance, civil penalties, payment of the cost of a longitudinal health study, and money damages, as well as punitive damages and attorneys' fees. Additional litigation may be filed against us in the future related to the Leak or our responses thereto. For a more detailed description of the governmental investigations and civil and criminal lawsuits brought against us, see Note 15 of the Notes to Consolidated Financial Statements.

The costs of defending against the civil and criminal lawsuits, cooperating with the various investigations, and any damages, restitution, and civil, administrative and criminal fines, penalties and other costs, if awarded or imposed, as well as the costs of mitigating the actual natural gas released, could be significant and to the extent not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Regulatory Proceedings

In February 2017, the CPUC opened a proceeding pursuant to SB 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility while still maintaining energy and electric reliability for the region. The order establishing the scope of the proceeding expressly excludes issues with respect to air quality, public health, causation, culpability or cost responsibility regarding the Leak.

Section 455.5 of the California Public Utilities Code, among other things, directs regulated utilities to notify the CPUC if all or any portion of a major facility has been out of service for nine consecutive months. Although SoCalGas does not believe the Aliso Canyon natural gas storage facility or any portion of that facility was out of service for nine consecutive months, SoCalGas provided notification out of an abundance of caution to demonstrate its commitment to regulatory compliance and transparency, and because obtaining authorization to resume injection operations at the facility required more time than initially contemplated. In response, and as required by section 455.5, the CPUC issued an OII to address whether the Aliso Canyon natural gas storage facility or any portion of that facility was out of service for nine consecutive months within the meaning of section 455.5, and if so, whether the CPUC should disallow costs for such period from SoCalGas' rates. Under section 455.5, hearings on the investigation are to be held, if necessary, in conjunction with SoCalGas' 2019 GRC proceeding. If the CPUC determines that all or any portion of the facility was out of service for nine consecutive months, the amount of any refund to ratepayers and the inability to earn a return on those assets could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Governmental Orders and Additional Regulation

In December 2015, SoCalGas made a commitment to mitigate the actual natural gas released from the Leak and has been working on a plan to accomplish the mitigation. In March 2016, the CARB issued its recommended approach to achieve full mitigation of the emissions from the Leak, which includes recommendations that:

- reductions in short-lived climate pollutants and other greenhouse gases be at least equivalent to the amount of the emissions from the Leak,
- a 20-year global warming potential be used in deriving the amount of reductions required (rather than the 100-year term the CARB and other state and federal agencies use in regulating emissions), and
- all of the mitigation occur in California over the next five to ten years without the use of allowances or offsets.

In October 2016, CARB issued its final report concluding that the incident resulted in total emissions from 90,350 to 108,950 metric tons of methane, and asserting that SoCalGas should mitigate 109,000 metric tons of methane to fully mitigate the greenhouse gas impacts of the Leak. Although we have not agreed with CARB's estimate of methane released, we continue to work with CARB on developing a mitigation plan.

PHMSA, DOGGR, SCAQMD, EPA and CARB have each commenced separate rulemaking proceedings to adopt further regulations covering natural gas storage facilities and injection wells. DOGGR has issued new draft regulations for all storage fields in California, and in 2016, the California Legislature enacted four separate bills providing for additional regulation of natural gas storage facilities. Additional hearings in the California Legislature, as well as with various other federal and state regulatory agencies, may be scheduled, and additional laws, orders, rules and regulations may be adopted.

Higher operating costs and additional capital expenditures incurred by SoCalGas as a result of new laws, orders, rules and regulations arising out of this incident or our responses thereto could be significant and may not be recoverable through insurance or in customer rates, and SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations may be materially adversely affected by any such new laws, orders, rules and regulations.

Natural Gas Storage Operations and Reliability

Natural gas withdrawn from storage is important for service reliability during peak demand periods, including peak electric generation needs in the summer and heating needs in the winter. The Aliso Canyon natural gas storage facility, with a storage capacity of 86 Bcf (which represents 63 percent of SoCalGas' natural gas storage inventory capacity), is the largest SoCalGas storage facility and an important element of SoCalGas' delivery system. Beginning October 24, 2015, pursuant to orders by DOGGR and the Governor of the State of California, and SB 380, SoCalGas suspended injection of natural gas into the Aliso Canyon natural gas storage facility. Limited withdrawals of natural gas from the Aliso Canyon natural gas storage facility were made in 2017 to augment natural gas supplies during critical demand periods. In July 2017, DOGGR issued an order lifting the prohibition on injection at Aliso Canyon, subject to certain operational requirements, and SoCalGas resumed limited injections.

If the Aliso Canyon natural gas storage facility were to be taken out of service for any meaningful period of time, it could result in an impairment of the facility, significantly higher than expected operating costs and/or additional capital expenditures, and natural gas reliability and electric generation could be jeopardized. At December 31, 2017, the Aliso Canyon natural gas storage facility has a net book value of \$644 million, including \$252 million of construction work in progress for the project to construct a new compressor station. Any significant impairment of this asset could have a material adverse effect on SoCalGas' and Sempra Energy's results of operations for the period in which it is recorded. Higher operating costs and additional capital expenditures incurred by SoCalGas may not be recoverable in customer rates, and SoCalGas' and Sempra Energy's results of operations, cash flows and financial condition may be materially adversely affected.

Additional Information

We discuss Aliso Canyon natural gas storage facility matters further in Note 15 of the Notes to Consolidated Financial Statements and in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance."

Natural gas pipeline safety assessments may not be fully or adequately recovered in rates.

Pending the outcome of various regulatory agency evaluations of natural gas pipeline safety regulations, practices and procedures, Sempra Energy, including the California Utilities, may incur incremental expense and capital investment associated with their natural gas pipeline operations and investments. The California Utilities filed implementation plans with the CPUC to test or replace natural gas transmission pipelines located in populated areas that either have not been pressure tested or lack sufficient documentation of a pressure test, to enhance existing valve infrastructure and to retrofit pipelines to allow for the use of in-line inspection technology, referred to as SoCalGas' and SDG&E's PSEP.

In June 2014, the CPUC issued a final decision approving the utilities' plan for implementing PSEP, and established criteria to determine the amounts related to PSEP that may be recovered from ratepayers and the processes for recovery of such amounts, including providing that such costs are subject to a reasonableness review. In the future, certain PSEP costs may be subject to recovery as determined by separate regulatory filings with the CPUC, including GRC filings.

Various PSEP-related proceedings are regularly pending before the CPUC regarding the California Utilities' reasonableness review and cost recovery requests, which are often challenged by intervening parties. These proceedings are described in more detail in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance." In the future, consumer advocacy groups may similarly challenge the California Utilities' petitions for recovery and recommend disallowances in whole or in part with respect to applications to recover PSEP costs.

From 2011 through 2017, SoCalGas and SDG&E have invested approximately \$1.3 billion and \$355 million, respectively, in PSEP, with substantial additional expenditures planned. As of December 31, 2017, SoCalGas has received approval for recovery of \$33 million. If the CPUC denies or significantly delays rate recovery for PSEP and other gas pipeline safety costs incurred by SoCalGas and SDG&E, it could materially adversely affect the respective company's cash flows, financial condition, results of operations and prospects.

The California Utilities are subject to increasingly stringent safety standards and the potential for significant penalties if regulators deem either SDG&E or SoCalGas to be out of compliance.

California SB 291 requires the CPUC to develop and maintain a safety enforcement program that includes procedures for monitoring, data tracking and analysis, and investigations, and delegates citation authority to CPUC staff personnel under the direction of the CPUC Executive Director. In exercising this citation authority, the CPUC staff is to take into account voluntary reporting of potential violations, voluntary resolution efforts undertaken, prior history of violations, the gravity of the violation, and the degree of culpability. The CPUC previously implemented both electric and gas safety enforcement programs whereby electric and gas utilities may be cited by CPUC staff for violations of the CPUC's safety requirements or applicable federal standards.

Under each enforcement program, each day of an ongoing violation may be counted as an additional offense. The maximum penalty is \$50,000 per offense. CPUC staff has authority to issue citations up to an administrative limit of \$8 million per citation under either program and such citations may be appealed to the CPUC. Although citations issued under these enforcement programs do include an administrative limit, penalties issued by the CPUC can exceed this limit, having exceeded \$1.5 billion in one instance for an unrelated third party.

If the CPUC or its staff determine that either of SDG&E's or SoCalGas' operations and practices are not in compliance with applicable safety standards and operating procedures, the corrective or mitigation actions required to be in conformance, if not sufficiently funded in customer rates, and any penalties imposed, could materially adversely affect that company's cash flows, financial condition, results of operations and prospects.

The failure by the CPUC to continue reforms of SDG&E's rate structure, including the implementation of a more significant fixed charge, could have a material adverse effect on its business, cash flows, financial condition, results of operations and/or prospects.

The current electric rate structure in California is primarily based on consumption volume, which places an undue burden on residential customers with higher electric use while subsidizing lower use customers. As higher electric use residential customers switch to self-generation or obtain local off-the-grid sources of power, such as rooftop solar, the burden on the remaining higher electric use customers increases, which in turn encourages more self-generation, further increasing rate pressure on existing customers. In July 2015, the CPUC adopted a decision that establishes comprehensive reform and a framework for rates that are more transparent, fair and sustainable. The decision provides for a minimum monthly bill, fewer rate tiers and a gradual reduction in the differences between the tiered rates, directs the utilities to pursue expanded TOU rates, and implemented a super-user electric surcharge in 2017 for usage that exceeds average customer usage by approximately 400 percent within each climate zone. The decision is being implemented over a five-year period from 2015 to 2020, and should result in significant relief for higher-use

customers that do not exceed the super-user threshold and a rate structure that better aligns rates with actual costs to serve customers. The decision also establishes a process for utilities to seek implementation of a fixed charge for residential customers in 2020 (but it also sets certain conditions for the implementation of a fixed charge), after the initial reforms are implemented. The establishment of a fixed charge for residential customers may become more critical to help ensure rates are fair for all customers as distributed energy resources could generally reduce delivered volumes and increase fixed costs.

If the CPUC fails to continue to reform SDG&E's rate structure to maintain reasonable, cost-based electric rates that are competitive with alternative sources of power and adequate to maintain the reliability of the electric transmission and distribution system, such failure could have a material adverse effect on SDG&E's business, cash flows, financial condition, results of operations and/or prospects.

Meaningful NEM reform must continue to progress to ensure that SDG&E is authorized to recover its costs in providing services to NEM customers while minimizing the cost shift (or subsidy) being borne by non-solar customers.

Due to current rate structures and state policies, customers who self-generate their own electricity using eligible renewable resources (primarily solar installations) currently do not pay their proportionate cost of maintaining and operating the electric transmission and distribution system, subject to certain limitations, while they still receive electricity from the system when their self-generation is inadequate to meet their electricity needs. The proportionate costs not paid by NEM customers are therefore subsidized by consumers not participating in NEM. In addition, the continuing increase of self-generated solar, other forms of self-generation and other local off-the-grid sources of power adversely impacts the reliability of the electric transmission and distribution system.

Appropriate NEM reforms are necessary to help ensure that SDG&E is authorized to recover, from NEM customers, the costs incurred in providing grid and energy services, as well as mandated legislative and regulatory public policy programs. SDG&E believes this design would be preferable to recovering these costs from customers not participating in NEM. If NEM self-generating installations were to increase substantially between 2016 and when more significant reforms take effect in 2019 or later, as described below, the rate structure adopted by the CPUC could have a material adverse effect on SDG&E's business, cash flows, financial condition, results of operations and/or prospects.

In July 2014, the CPUC initiated a rulemaking proceeding to develop a successor tariff to the state's existing NEM program pursuant to the provisions of AB 327. The NEM program was originally established in 1995 and is an electric billing tariff mechanism designed to promote the installation of on-site renewable generation. Under NEM, qualifying customer-generators receive a full retail rate for the energy they generate that is fed back to the utility's power grid. This occurs during times when the customer's generation exceeds their own energy usage. In addition, if a NEM customer generates any electricity over the annual measurement period that exceeds its annual consumption, they receive compensation at a rate equal to a wholesale energy price.

In January 2016, the CPUC adopted a decision making modest changes to the NEM program, which require NEM customers to pay some costs that would otherwise be borne by non-NEM customers and moves new NEM customers to TOU rates. Together with a reduction in tiered rate differentials and the potential implementation of a fixed charge component in 2020, these changes to the NEM program begin a process of reducing the cost burden on non-NEM customers, but SDG&E believes that further reforms are necessary and appropriate. SDG&E implemented the adopted successor NEM tariff in July 2016, after reaching the 617-MW cap established for the prior NEM program.

The electricity industry is undergoing significant change, including increased deployment of distributed energy resources, technological advancements, and political and regulatory developments.

Electric utilities in California are experiencing increasing deployment of distributed energy resources, such as solar, energy storage, energy efficiency and demand response technologies. This growth will eventually require modernization of the electric distribution grid to, among other things, accommodate two-way flows of electricity and increase the grid's capacity to interconnect distributed energy resources. The CPUC is conducting proceedings to: evaluate various demonstration projects and pilots; implement changes to the planning and operation of the electric distribution grid in order to prepare for higher penetration of distributed energy resources; consider future grid modernization and grid reinforcement investments; evaluate if traditional grid investments can be deferred by distributed energy resources, and if feasible, what, if any, compensation would be appropriate; and clarify the role of the electric distribution grid operator. These proceedings may result in new regulations, policies and/or operational changes that could materially adversely affect SDG&E's and Sempra Energy's businesses, cash flows, financial condition, results of operations and/or prospects.

SDG&E provides bundled electric procurement service through various resources that are typically procured on a long-term basis. While SDG&E provides such procurement service for most of its customer load, customers do have the ability to receive procurement service from a load serving entity other than SDG&E, through programs such as DA and CCA. DA is currently closed, but utility customers could receive procurement through CCA, if the customer's local jurisdiction (city) offers such a

program. Several local political jurisdictions, including the City of San Diego and a few other municipalities are considering the formation of a CCA, which, if implemented, could result in the departure of more than half of SDG&E's bundled load. For example, Solana Beach (representing less than one percent of SDG&E's customer accounts) has elected to begin CCA service in 2018. When customers are served by another load serving entity, SDG&E no longer serves this departing load and the associated costs of the utility's procured resources could be borne by its remaining bundled procurement customers. State law requires that customers opting to have a CCA procure their electricity must absorb the cost of above-market electricity procurement commitments already made by SDG&E on their behalf, though appropriate mechanisms to ensure that such costs are properly absorbed are not yet in place. If mechanisms to ensure compliance with state law are not in place at the time of these potentially significant reductions in SDG&E's served load, remaining bundled customers of SDG&E could potentially experience large increases in rates for commodity costs under commitments made on behalf of these CCA customers prior to their departure, which may not be fully recoverable in rates by SDG&E. If legislative, regulatory or legal action were taken to prevent the timely recovery of these procurement costs or if mechanisms are not in place to ensure compliance with state law, the unrecovered costs could have a material adverse effect on SDG&E's and Sempra Energy's cash flows, financial condition and results of operations.

Furthermore, California legislators and stakeholder, advocacy and activist groups have expressed a desire to further limit or eliminate reliance on natural gas as an energy source by advocating increased use of renewable energy and electrification in lieu of the use of natural gas. A substantial reduction or the elimination of natural gas as an energy source in California, could have a material adverse effect on SDG&E's, SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Insurance coverage for future wildfires may be unobtainable, prohibitively expensive, or insufficient to cover losses we may incur, and we may be unable to recover costs in excess of insurance through regulatory mechanisms.

We have experienced increased costs and difficulties in obtaining insurance coverage for wildfires that could arise from the California Utilities' operations, particularly SDG&E's operations. In addition, the insurance that has been obtained for wildfire liabilities may not be sufficient to cover all losses that we may incur. Uninsured losses and increases in the cost of insurance may not be recoverable in customer rates. For example, California courts have invoked the doctrine of inverse condemnation for wildfire damages, whereby if a utility company's facilities, such as its electric distribution and transmission lines, are determined to be the cause of one or more fires, the utility could be liable for damages, as well as attorneys' fees, without having been found negligent. As a result of the strict liability standard applied to wildfires, recent losses recorded by insurance companies, and the risk of an increase of wildfires (several catastrophic wildfires occurred in California in late 2017) for reasons such as drought conditions, insurance for wildfire liabilities may not be available or may be available only at rates that are prohibitively expensive. In addition, even if insurance for wildfire liabilities is available, it may not be available in such amounts as are necessary to cover potential losses. A loss which is not fully insured or cannot be recovered in customer rates could materially adversely affect Sempra Energy's and the affected California Utility's financial condition, cash flows and results of operations. In addition, we are unable to predict whether we would be allowed to recover in rates the increased costs of insurance or the costs of any uninsured losses.

SDG&E incurred CPUC-related costs to resolve 2007 wildfire claims in excess of its liability insurance coverage and amounts recovered from third parties. In December 2012, the CPUC issued a final decision allowing SDG&E to maintain an authorized memorandum account, enabling SDG&E to file applications with the CPUC requesting recovery of amounts properly recorded in the memorandum account, subject to reasonableness review, at a later date. In September 2015, SDG&E filed an application with the CPUC seeking authority to recover such costs in rates over a six- to ten-year period. On December 6, 2017, the CPUC issued a final decision denying SDG&E's request to recover the 2007 wildfire costs submitted in our application. If SDG&E is unsuccessful in its efforts to reverse the final decision through the rehearing and appeals process, the 2007 wildfire costs or costs associated with any future wildfires may not be recoverable. In addition, pending legislation may prohibit recovery of any uninsured wildfire costs in cases of inverse condemnation where California utilities are strictly liable. The failure to recover for the 2007 wildfires or future wildfires could materially adversely affect Sempra Energy's and the affected California Utility's financial condition, cash flows and results of operations.

We discuss these cost recovery proceedings in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance" and in Note 15 of the Notes to Consolidated Financial Statements.

SDG&E may incur substantial costs and liabilities as a result of its partial ownership of a nuclear facility that is being decommissioned.

SDG&E has a 20-percent ownership interest in SONGS, formerly a 2,150-MW nuclear generating facility near San Clemente, California, that is in the process of being decommissioned by Edison, the majority owner of SONGS. SONGS is subject to the jurisdiction of the NRC and the CPUC. On June 6, 2013, Edison notified SDG&E that it had reached a decision to permanently retire SONGS and seek approval from the NRC to start the decommissioning activities for the entire facility. SDG&E, and each of

the other owners, holds its undivided interest as a tenant in common in the property, and each owner is responsible for financing its share of expenses and capital expenditures, including decommissioning activities. Although the facility is being decommissioned, SDG&E's ownership interest in SONGS continues to subject it to the risks of owning a partial interest in a nuclear generation facility, which include

- the potential that a natural disaster such as an earthquake or tsunami could cause a catastrophic failure of the safety systems in place that are designed to prevent the release of radioactive material. If such a failure were to occur, a substantial amount of radiation could be released and cause catastrophic harm to human health and the environment;
- the potential harmful effects on the environment and human health resulting from the prior operation of nuclear facilities and the storage, handling and disposal of radioactive materials;
- limitations on the amounts and types of insurance commercially available to cover losses that might arise in connection with operations and the decommissioning of the facility; and
- uncertainties with respect to the technological and financial aspects of decommissioning the facility.

In addition, SDG&E maintains nuclear decommissioning trusts for the purpose of providing funds to decommission SONGS. Trust assets have been generally invested in equity and debt securities, which are subject to significant market fluctuations. A decline in the market value of trust assets or an adverse change in the law regarding funding requirements for decommissioning trusts could increase the funding requirements for these trusts, which in each case may not be fully recoverable in rates. Furthermore, CPUC approval is required in order to make withdrawals from these trusts. CPUC approval for certain expenditures may be denied by the CPUC altogether if the CPUC determines that the expenditures are unreasonable. Finally, decommissioning may be materially more expensive than we currently anticipate and therefore decommissioning costs may exceed the amounts in the trust funds. Rate recovery for overruns would require CPUC approval, which may not occur.

Interpretations of tax regulations could impact access to nuclear decommissioning trust funds for reimbursement of spent nuclear fuel management costs. Depending on how the IRS or the U.S. Department of Treasury ultimately interprets or alters regulations addressing the taxation of a qualified nuclear decommissioning trust, SDG&E may be restricted from withdrawing amounts from its qualified decommissioning trusts to pay for spent fuel management while Edison and SDG&E are seeking, or plan to seek, recovery of spent fuel management costs in litigation against, or in settlements with, the DOE. In December 2016, the IRS and the U.S. Department of Treasury issued proposed regulations that clarify the definition of "nuclear decommissioning costs," which are costs that may be paid for or reimbursed from a qualified fund. These proposed regulations will be effective prospectively once they are finalized. SDG&E is waiting for the adoption of, or additional refinement to, the proposed regulations before determining whether the proposed regulations will allow SDG&E to access the NDT funds for reimbursement or payment of the spent fuel management costs that were or will be incurred in 2016 and subsequent years. Until the DOE litigation is resolved, and/or IRS regulations regarding spent fuel management costs are confirmed to apply, SDG&E expects to continue to pay for its share of such spent fuel management costs. If SDG&E is unable to obtain timely access to the trusts for these costs, SDG&E's cash flows could be negatively impacted.

In November 2014, the CPUC approved the Amended Settlement Agreement that resolved the investigation into the steam generator replacement project that ultimately led to the shut-down of SONGS. Various petitions have since been filed to reopen the settlement. In December 2016, the CPUC issued a ruling directing parties to the SONGS OII to determine whether an agreement could be reached to modify the Amended Settlement Agreement previously approved by the CPUC, to resolve allegations that unreported *ex parte* communications between Edison and the CPUC resulted in an unfair advantage at the time the settlement agreement was negotiated. In October 2017, the CPUC issued a ruling with respect to the proceeding establishing a process to bring the proceeding to a conclusion and in November 2017, the CPUC held a status conference. In January 2018, the CPUC issued a ruling that further clarified the scope of future evidentiary hearings. This ruling establishes a status conference and includes a preliminary schedule for additional testimony, hearings and briefings. On January 30, 2018, SDG&E, Edison, TURN, ORA and other intervenors entered into a Revised Settlement Agreement. On the same date, the parties filed a Joint Motion for Adoption of the Settlement Agreement with the CPUC. If approved by the CPUC, the Revised Settlement Agreement will resolve all issues under consideration in the SONGS OII and will modify the Amended Settlement Agreement. On February 1, 2018, the parties filed a motion to stay the proceedings in the OII pending the CPUC's consideration of the Revised Settlement Agreement. On February 6, 2018, the CPUC issued a ruling granting the parties' motion to stay the proceedings and establishing a tentative procedural schedule with public participation hearings in April and July, evidentiary hearings in April and May and briefing in June of 2018.

The timing of a decision from the CPUC on the Joint Motion for Adoption of the Settlement Agreement is uncertain. We cannot assure that the Revised Settlement Agreement will be adopted or that the Amended Settlement Agreement will not be modified or set aside as a result of this OII proceeding.

In connection with the Revised Settlement Agreement, and in exchange for the release of certain SONGS-related claims, SDG&E and Edison entered into an agreement (the Utility Shareholder Agreement) in which Edison has agreed to pay SDG&E the amounts that SDG&E would have received in rates under the Amended Settlement Agreement, but will not receive upon implementation of the Revised Settlement Agreement. The Utility Shareholder Agreement is not subject to the approval of the CPUC. However, it is not effective unless and until the CPUC approves the Revised Settlement Agreement.

We provide additional detail in Note 13 of the Notes to Consolidated Financial Statements.

The occurrence of any of these events could result in a substantial reduction in our expected recovery and have a material adverse effect on SDG&E's and Sempra Energy's businesses, cash flows, financial condition, results of operations and/or prospects.

Risks Related to our Sempra South American Utilities and Sempra Infrastructure Businesses

Our businesses are exposed to market risks, including fluctuations in commodity prices, and our businesses, financial condition, results of operations, cash flows and/or prospects may be materially adversely affected by these risks. Energy-related commodity prices impact LNG liquefaction and regasification, the transport and storage of natural gas, and power generation from renewable and conventional sources, among other businesses that we operate and invest in.

We buy energy-related commodities from time to time, for LNG terminals or power plants to satisfy contractual obligations with customers, in regional markets and other competitive markets in which we compete. Our revenues and results of operations could be materially adversely affected if the prevailing market prices for natural gas, LNG, electricity or other commodities that we buy change in a direction or manner not anticipated and for which we had not provided adequately through purchase or sale commitments or other hedging transactions. In particular, North American natural gas prices, when in decline, negatively impact profitability at Sempra LNG & Midstream.

Unanticipated changes in market prices for energy-related commodities result from multiple factors, including:

- weather conditions
- seasonality
- changes in supply and demand
- transmission or transportation constraints or inefficiencies
- availability of competitively priced alternative energy sources
- commodity production levels
- actions by oil and natural gas producing nations or organizations affecting the global supply of crude oil and natural gas
- federal, state and foreign energy and environmental regulation and legislation
- natural disasters, wars, embargoes and other catastrophic events
- expropriation of assets by foreign countries

The FERC has jurisdiction over wholesale power and transmission rates, independent system operators, and other entities that control transmission facilities or that administer wholesale power sales in some of the markets in which we operate. The FERC may impose additional price limitations, bidding rules and other mechanisms, or terminate existing price limitations from time to time. Any such action by the FERC may result in prices for electricity changing in an unanticipated direction or manner and, as a result, may have a material adverse effect on our businesses, cash flows, results of operations and/or prospects.

When our businesses enter into fixed-price long-term contracts to provide services or commodities, they are exposed to inflationary pressures such as rising commodity prices and interest rate risks.

Sempra Mexico, Sempra Renewables and Sempra LNG & Midstream generally endeavor to secure long-term contracts with customers for services and commodities to optimize the use of their facilities, reduce volatility in earnings, and support the construction of new infrastructure. However, if these contracts are at fixed prices, the profitability of the contract may be materially adversely affected by inflationary pressures, including rising operational costs, costs of labor, materials, equipment and commodities, and rising interest rates that affect financing costs. We may try to mitigate these risks by using variable pricing tied to market indices, anticipating an escalation in costs when bidding on projects, providing for cost escalation, providing for direct pass-through of operating costs or entering into hedges. However, these measures, if implemented, may not ensure that the increase in revenues they provide will fully offset increases in operating expenses and/or financing costs. The failure to fully or substantially offset these increases could have a material adverse effect on our financial condition, cash flows and/or results of operations.

Business development activities may not be successful and projects under construction may not commence operation as scheduled, be completed within budget or operate at expected levels, which could have a material adverse effect on our businesses, financial condition, cash flows, results of operations and/or prospects.

The acquisition, development, construction and expansion of marine and inland liquid fuels, LNG and LPG terminals and storage; natural gas, propane and ethane pipelines and storage facilities; electric generation, transmission and distribution facilities; and other energy infrastructure projects involve numerous risks. We may be required to spend significant sums for preliminary engineering, permitting, fuel supply, resource exploration, legal, and other expenses before we can determine whether a project is feasible, economically attractive, or capable of being built.

Success in developing a particular project is contingent upon, among other things:

- negotiation of satisfactory EPC agreements
- negotiation of supply and natural gas sales agreements or firm capacity service agreements
- timely receipt of required governmental permits, licenses, authorizations, and rights-of-way and maintenance or extension of these authorizations
- timely implementation and satisfactory completion of construction
- obtaining adequate and reasonably priced financing for the project

Successful completion of a particular project may be materially adversely affected by, among other factors:

- unforeseen engineering problems
- construction delays and contractor performance shortfalls
- work stoppages
- failure to obtain, maintain or extend required governmental permits, licenses, authorizations, and rights-of-way
- equipment unavailability or delay and cost increases
- adverse weather conditions
- environmental and geological conditions
- litigation
- unsettled property rights

If we are unable to complete a development project or if we have substantial delays or cost overruns, this could have a material adverse effect on our businesses, financial condition, cash flows, results of operations and/or prospects.

The operation of existing and future facilities also involves many risks, including the breakdown or failure of electric generation, transmission and distribution facilities, or regasification, liquefaction and storage facilities or other equipment or processes, labor disputes, fuel interruption, environmental contamination and operating performance below expected levels. In addition, weather-related incidents and other natural disasters can disrupt generation, regasification, liquefaction, storage, transmission and distribution systems. The occurrence of any of these events could lead to our facilities being idled for an extended period of time or our facilities operating well below expected capacity levels, which may result in lost revenues or increased expenses, including higher maintenance costs and penalties. Such occurrences could materially adversely affect our businesses, financial condition, cash flows, results of operations and/or prospects.

The design, development and construction of the Cameron LNG liquefaction facility involves numerous risks and uncertainties.

With respect to our project to add LNG export capability at the Cameron LNG facility, Cameron LNG JV is building an LNG export facility consisting of three liquefaction trains designed to a total nameplate capacity of 13.9 Mtpa of LNG with an expected export capability of 12 Mtpa of LNG, or approximately 1.7 Bcf per day. The estimated construction, financing and other project costs for the facility are within the project budget adopted at the time of our final investment decision. If these costs increase above the budget adopted at the time of our final investment decision, we may have to contribute additional cash. The majority of the investment in the liquefaction project is project-financed and the balance provided by the project partners. Any failure by the project partners to make their required investments on a timely basis could result in project delays and could materially adversely affect the development of the project. In addition, Sempra Energy has guaranteed a maximum of up to \$3.9 billion related to the project financing and financing-related agreements. These guarantees terminate upon Cameron LNG JV achieving “financial completion” of the initial three-train liquefaction project, including all three trains achieving commercial operation and meeting certain operational performance tests. We anticipate that the guarantees will be terminated approximately nine months after all three trains achieve commercial operation. If, due to the joint venture’s failure to satisfy the financial completion criteria, we are

required to repay some or all of the \$3.9 billion under our guarantees, any such repayments could have a material adverse effect on our business, results of operations, cash flows, financial condition, and/or prospects.

Large-scale construction projects like the design, development and construction of the Cameron LNG JV liquefaction facility involve numerous risks and uncertainties, including among others, the potential for unforeseen engineering challenges, substantial construction delays and increased costs. Cameron LNG JV has a turnkey EPC contract, and if the contractor becomes unwilling or unable to perform according to the terms and timetable of the EPC contract, the project could face substantial construction delays and potentially significantly increased costs. If the contractor's delays or failures are serious enough to cause the contractor to default under the EPC contract, such default could result in Cameron LNG JV's engagement of a substitute contractor. In October 2016, the EPC contractor indicated that the Cameron LNG project would not achieve its originally scheduled dates for completion and subsequently provided project schedules reflecting further delays to the Cameron LNG project. The delays will result in the anticipated earnings and associated cash flows from the Cameron LNG JV project coming in later than originally anticipated. In December 2017, Cameron LNG JV entered into a settlement agreement with the EPC contractor to settle the contractor's claims (including those resulting from Hurricane Harvey) that it was owed additional compensation beyond the original contract price and that it was entitled to schedule extensions under the contract. Based on a number of factors, we continue to believe it is reasonable to expect that all three LNG trains will be producing LNG in 2019, though there can be no assurance that this project will not be further delayed. These factors, among others, include the terms of the settlement agreement, the project schedules received from the EPC contractor, Cameron LNG JV's own review of the project schedules, the assumptions underlying such schedules, the EPC contractor's progress to date, the remaining work left to be performed, and the inherent risks in constructing and testing facilities such as Cameron LNG. The inability to complete the project in accordance with the current schedule, cost overruns, and the other risks described above could have a material adverse effect on our business, results of operations, cash flows, financial condition, credit ratings and/or prospects. For additional discussion of the Cameron LNG JV and of these risks and other risks relating to the development of the Cameron LNG JV liquefaction project that could adversely affect our future performance, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance."

We face many challenges to develop and complete our contemplated LNG export facilities.

In addition to the three-train Cameron LNG liquefaction facility described above, we are looking at several other LNG export terminal development opportunities, including a greenfield project in Port Arthur, Texas, a brownfield project at our existing ECA regasification facility in Baja California, Mexico and an expansion of up to two additional liquefaction trains to the Cameron liquefaction facility. Each of these contemplated projects faces numerous risks and must overcome significant hurdles before we can proceed with construction. Common to all of these projects is the risk that global oil prices and their associated current and forward projections could reduce the demand for natural gas in some sectors and cause a corresponding reduction in projected global demand for LNG. This could result in increased competition among those working on projects in an environment of declining LNG demand, such as the Sempra Energy-sponsored export initiatives. Such reduction in natural gas demand could also occur from higher penetration of alternative fuels in new power generation, which could also lead to increased competition among the LNG suppliers for the declining LNG demand. At certain moderate levels, oil prices could also make LNG projects in other parts of the world still feasible and competitive with LNG projects from North America, thus increasing supply and the competition for the available LNG demand. A decline in natural gas prices outside the U.S. (which in many foreign countries are based on the price of crude oil) may also materially adversely affect the relative pricing advantage that has existed in recent years in favor of domestic natural gas prices (based on Henry Hub pricing).

In February 2018, Sempra LNG & Midstream entered into a project development agreement for the joint development of the proposed Port Arthur LNG liquefaction project with an affiliate of Woodside Petroleum Ltd., which replaced a prior agreement between the parties. The project development agreement specifies how the parties will share costs, and continues a framework for the parties to work jointly on permitting, design, engineering, commercial and marketing activities associated with developing the Port Arthur LNG liquefaction project. In June 2017, Sempra LNG & Midstream, Woodside Petroleum Ltd. and Korea Gas Corporation signed a memorandum of understanding that provides a framework for cooperation and joint discussion by the parties regarding key aspects of the potential development of the Port Arthur LNG project, including engineering and construction work, O&M activities, feed gas sourcing, offtake of LNG and the potential for Korea Gas Corporation to purchase LNG from, and become an equity participant in, the Port Arthur LNG project. The memorandum of understanding does not commit any party to buy or sell LNG or otherwise participate in the Port Arthur liquefaction LNG project. Also, in May 2015, Sempra LNG & Midstream, IEnova and a subsidiary of PEMEX entered into a project development agreement for the joint development of the proposed liquefaction project at IEnova's existing ECA regasification facility in Mexico. The agreement specifies how the parties share costs, and establishes a framework for the parties to work jointly on permitting, design, engineering, and commercial activities associated with developing the potential liquefaction project. PEMEX's cost-sharing obligations under this agreement ended on December 31, 2017. Any decisions by the parties to proceed with binding agreements with respect to the formation of

these potential joint ventures and the potential development of these projects will require, among other things, obtaining customer commitments to purchase LNG, completion of project assessments and achieving other necessary internal and external approvals of each party. In addition, all of our proposed projects are subject to a number of risks and uncertainties, including the receipt of a number of permits and approvals; finding suitable partners and customers; obtaining financing and incentives; negotiating and completing suitable commercial agreements, including joint venture agreements, tolling capacity agreements or natural gas supply and LNG sales agreements and construction contracts; and reaching a final investment decision.

Expansion of the Cameron LNG liquefaction facility beyond the first three trains is subject to certain restrictions and conditions under the joint venture project financing agreements, including among others, timing restrictions on expansion of the project unless appropriate prior consent is obtained from the project lenders. Under the Cameron LNG JV equity agreements, the expansion of the project requires the unanimous consent of all of the partners, including with respect to the equity investment obligation of each partner. One of the partners indicated to Sempra Energy and the other partners that it does not intend to invest additional capital in Cameron LNG JV with respect to the expansion. As a result, discussions among the partners have occurred, and we are considering a variety of options to attempt to move the expansion project forward. These activities have contributed to delays in developing firm pricing information and securing customer commitments, and there can be no assurance that these issues will be resolved in a timely manner, which could materially and adversely impact the near-term marketing of this project and ability to secure customer commitments. In light of these developments, we are unable to predict whether or when we and/or Cameron LNG JV might be able to move forward on expansion of the Cameron LNG liquefaction facility beyond the first three trains.

Furthermore, there are a number of potential new projects under construction or in the process of development by various project developers in North America, in addition to ours, and given the projected global demand for LNG, the vast majority of these projects likely will not be completed. With respect to our Port Arthur, Texas project, this is a greenfield site, and therefore it may not have the advantages often associated with brownfield sites. The ECA facility in Mexico is subject to on-going land disputes that could make project financing difficult as well as finding suitable partners and customers. In addition, while we have completed the regulatory process for an LNG export facility in the U.S., the regulatory process in Mexico and the overlay of U.S. regulations for natural gas exports to an LNG export facility in Mexico are not well developed. There can be no assurance that such a facility could be permitted and constructed without facing significant legal challenges and uncertainties, which in turn could make project financing, as well as finding suitable partners and customers, difficult. Finally, ECA has profitable long-term regasification contracts for 100 percent of the facility, making the decision to pursue a new liquefaction facility dependent in part on whether the investment in a new liquefaction facility would, over the long term, be more beneficial than continuing to supply regasification services under our existing contracts.

There can be no assurance that our contemplated LNG export facilities will be completed, and our inability to complete one or more of our contemplated LNG export facilities could have a material adverse effect on our future cash flows, results of operations and prospects.

We discuss these projects further in “Item 1. Business” and in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance.”

Federal and state legislative and regulatory initiatives relating to hydraulic fracturing could reduce or eliminate LNG export opportunities and demand.

Several states have adopted or are considering adopting regulations to impose more stringent permitting, public disclosure or well construction requirements on hydraulic fracturing operations. In addition to state laws, some local municipalities have adopted or are considering adopting land use restrictions, such as city ordinances, that may restrict the performance of or prohibit the well drilling in general and/or hydraulic fracturing in particular. Hydraulic fracturing is typically regulated by state oil and natural gas commissions, but federal agencies, including the EPA and the Bureau of Land Management of the U.S. Department of the Interior, have asserted regulatory authority over certain hydraulic fracturing activities. In addition, the U.S. Congress has from time to time considered legislation to provide for federal regulation of hydraulic fracturing under the Safe Drinking Water Act and to require disclosure of the chemicals used in the hydraulic fracturing process. There are also certain governmental reviews that have been conducted or are underway on deep shale and other formation completion and production practices, including hydraulic fracturing. Depending on the outcome of these studies, federal and state legislatures and agencies may seek to further regulate or even ban such activities. Certain environmental and other groups have also suggested that additional federal, state and local laws and regulations may be needed to more closely regulate the hydraulic fracturing process.

We cannot predict whether additional federal, state or local laws or regulations applicable to hydraulic fracturing will be enacted in the future and, if so, what actions any such laws or regulations would require or prohibit. If additional levels of regulation or permitting requirements were imposed on hydraulic fracturing operations, natural gas prices in North America could rise, which in turn could materially adversely affect the relative pricing advantage that has existed in recent years in favor of domestic natural

gas prices (based on Henry Hub pricing). Increased regulation or difficulty in permitting of hydraulic fracturing, and any corresponding increase in domestic natural gas prices, could materially adversely affect demand for LNG exports and our ability to develop commercially viable LNG export facilities beyond the three train Cameron LNG facility currently under construction.

Increased competition and changes in trade policies could materially adversely affect us.

The markets in which we operate are characterized by numerous strong and capable competitors, many of whom have extensive and diversified developmental and/or operating experience (including both domestic and international) and financial resources similar to or greater than ours. Further, in recent years, the natural gas pipeline, storage and LNG market segments have been characterized by strong and increasing competition both with respect to winning new development projects and acquiring existing assets. In Mexico, despite the commissioning of many new energy infrastructure projects by the CFE and other governmental agencies in connection with energy reforms, competition for recent pipeline projects has been intense with numerous bidders competing aggressively for these projects. There can be no assurance that we will be successful in bidding for new development opportunities in the U.S., Mexico or South America. In addition, as noted above, there are a number of potential new LNG liquefaction projects under construction or in the process of being developed by various project developers in North America, including our contemplated new projects, and given the projected global demand for LNG, it is likely that most of these projects will not be completed. Finally, as existing contracts expire at our natural gas storage assets in the Gulf Coast region, we compete with other facilities for storage customers that could continue to support the existing carrying value of these assets, and for anchor customers that could support development of new capacity. These competitive factors could have a material adverse effect on our business, results of operations, cash flows and/or prospects.

In addition, the current U.S. Administration has indicated its intention to renegotiate trade agreements, such as NAFTA. A shift in U.S. trade policies could materially adversely affect our LNG development opportunities, as well as opportunities for trade between Mexico and the U.S.

We may elect not to, or may not be able to, enter into, extend or replace expiring long-term supply and sales agreements or long-term firm capacity agreements for our projects, which would subject our revenues to increased volatility and our businesses to increased competition. Such long-term contracts, once entered into, increase our credit risk if our counterparties fail to perform or become unable to meet their contractual obligations on a timely basis due to bankruptcy, insolvency, or otherwise.

The ECA LNG facility has long-term capacity agreements with a limited number of counterparties. Under these agreements, customers pay capacity reservation and usage fees to receive, store and regasify the customers' LNG. We also may enter into short-term and/or long-term supply agreements to purchase LNG to be received, stored and regasified for sale to other parties. The long-term supply agreement contracts are expected to reduce our exposure to changes in natural gas prices through corresponding natural gas sales agreements or by tying LNG supply prices to prevailing natural gas market price indices. If the counterparties, customers or suppliers to one or more of the key agreements for the ECA LNG facility were to fail to perform or become unable to meet their contractual obligations on a timely basis, it could have a material adverse effect on our results of operations, cash flows and/or prospects.

For the three-train liquefaction facility currently under construction, Cameron LNG JV has 20-year liquefaction and regasification tolling capacity agreements in place with ENGIE S.A. and affiliates of Mitsubishi Corporation and Mitsui & Co. Ltd., that subscribe for the full nameplate capacity of the facility. If the counterparties to these tolling agreements were to fail to perform or become unable to meet their contractual obligations to Cameron LNG JV on a timely basis, it could have a material adverse effect on our results of operations, cash flows and/or prospects.

Sempra Mexico's and Sempra LNG & Midstream's ability to enter into or replace existing long-term firm capacity agreements for their natural gas pipeline operations are dependent on demand for and supply of LNG and/or natural gas from their transportation customers, which may include our LNG facilities. A significant sustained decrease in demand for and supply of LNG and/or natural gas from such customers could have a material adverse effect on our businesses, results of operations, cash flows and/or prospects.

Our natural gas storage assets include operational and development assets at Bay Gas in Alabama and Mississippi Hub in Mississippi, as well as our development project, LA Storage in Louisiana. LA Storage could be positioned to support LNG export from the Cameron LNG JV terminal and other liquefaction projects, if anticipated cash flows support further investment. However, changes in the U.S. natural gas market could also lead to diminished natural gas storage values. Historically, the value of natural gas storage services has positively correlated with the difference between the seasonal prices of natural gas, among other factors. In general, over the past several years, seasonal differences in natural gas prices have declined, which have contributed to lower prices for storage services. As our legacy (higher rate) sales contracts mature at our Bay Gas and Mississippi Hub facilities, replacement sales contract rates have been and could continue to be lower than has historically been the case.

Lower sales revenues may not be offset by cost reductions, which could lead to depressed asset values. Future investment in Bay Gas, Mississippi Hub and LA Storage will depend on market demand and estimates of long-term storage values. Our LA Storage development project construction permit expired in June 2017 and future development will require approval of a new construction permit by the FERC. The LA Storage project also includes an existing 23.3-mile pipeline header system, the LA Storage Pipeline, that is not contracted. Market conditions could result in the need to perform recovery testing of our recorded asset values. In the event such values are not recoverable, we would consider the fair value of these assets relative to their carrying value. To the extent the carrying value is in excess of the fair value, we would record a noncash impairment charge. The carrying value of our long-lived natural gas storage assets at December 31, 2017 was \$1.5 billion. A significant impairment charge related to our natural gas storage assets would have a material adverse effect on our results of operations in the period in which it is recorded.

The electric generation and wholesale power sales industries are highly competitive. As more plants are built and competitive pressures increase, wholesale electricity prices may become more volatile. Without the benefit of long-term power sales agreements, our revenues may be subject to increased price volatility, and we may be unable to sell the power that Sempra Renewables' and Sempra Mexico's facilities are capable of producing or to sell it at favorable prices, which could materially adversely affect our results of operations, cash flows and/or prospects.

We provide information about these matters in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

Our businesses depend on counterparties, business partners, customers, and suppliers performing in accordance with their agreements. If they fail to perform, we could incur substantial expenses and business disruptions and be exposed to commodity price risk and volatility, which could materially adversely affect our businesses, financial condition, cash flows, results of operations and/or prospects.

Our businesses, and the businesses that we invest in, are exposed to the risk that counterparties, business partners, customers, and suppliers that owe money or commodities as a result of market transactions or other long-term agreements or arrangements will not perform their obligations in accordance with such agreements or arrangements. Should they fail to perform, we may be required to enter into alternative arrangements or to honor the underlying commitment at then-current market prices. In such an event, we may incur additional losses to the extent of amounts already paid to such counterparties or suppliers. In addition, many such agreements are important for the conduct and growth of our businesses. The failure of any of the parties to perform in accordance with these agreements could materially adversely affect our businesses, results of operations, cash flows, financial condition and/or prospects. Finally, we often extend credit to counterparties and customers. While we perform significant credit analyses prior to extending credit, we are exposed to the risk that we may not be able to collect amounts owed to us.

Sempra Mexico's and Sempra LNG & Midstream's obligations and those of their suppliers for LNG supplies are contractually subject to (1) suspension or termination for "force majeure" events beyond the control of the parties; and (2) substantial limitations of remedies for other failures to perform, including limitations on damages to amounts that could be substantially less than those necessary to provide full recovery of costs for breach of the agreements, which in either event could have a material adverse effect on our results of operations, cash flows, financial condition and/or prospects.

Our businesses are subject to various legal actions challenging our property rights and permits.

We are engaged in disputes regarding our title to the properties adjacent to and properties where our ECA LNG terminal in Mexico is located, as we discuss in Note 15 of the Notes to Consolidated Financial Statements. In the event that we are unable to defend and retain title to the properties on which our ECA LNG terminal is located, we could lose our rights to occupy and use such properties and the related terminal, which could result in breaches of one or more permits or contracts that we have entered into with respect to such terminal. In addition, our ability to convert the ECA LNG terminal into an export facility may be hindered by these disputes, and they could make project financing such a facility and finding suitable partners and customers very difficult. If we are unable to occupy and use such properties and the related terminal, it could have a material adverse effect on our businesses, financial condition, results of operations, cash flows and/or prospects.

We rely on transportation assets and services, much of which we do not own or control, to deliver electricity and natural gas.

We depend on electric transmission lines, natural gas pipelines, and other transportation facilities owned and operated by third parties to:

- deliver the electricity and natural gas we sell to wholesale markets,
- supply natural gas to our gas storage and electric generation facilities, and
- provide retail energy services to customers.

Sempra Mexico and Sempra LNG & Midstream also depend on natural gas pipelines to interconnect with their ultimate source or customers of the commodities they are transporting. Sempra Mexico and Sempra LNG & Midstream also rely on specialized ships to transport LNG to their facilities and on natural gas pipelines to transport natural gas for customers of the facilities. Sempra Renewables, Sempra South American Utilities and Sempra Mexico rely on transmission lines to sell electricity to their customers. If transportation is disrupted, or if capacity is inadequate, we may be unable to sell and deliver our commodities, electricity and other services to some or all of our customers. As a result, we may be responsible for damages incurred by our customers, such as the additional cost of acquiring alternative electricity, natural gas supplies and LNG at then-current spot market rates, which could have a material adverse effect on our businesses, financial condition, cash flows, results of operations and/or prospects.

Our international businesses are exposed to different local, regulatory and business risks and challenges.

In Mexico, we own or have interests in natural gas distribution and transportation, LPG storage and transportation facilities, ethane transportation, electricity generation, and LNG and liquid fuels marine and inland terminals. In Peru and Chile, we own or have interests in electricity generation, transmission and distribution facilities and operations. Developing infrastructure projects, owning energy assets, and operating businesses in foreign jurisdictions subject us to significant security, political, legal, regulatory and financial risks that vary by country, including:

- changes in foreign laws and regulations, including tax and environmental laws and regulations, and U.S. laws and regulations, in each case, that are related to foreign operations
- governance by and decisions of local regulatory bodies, including setting of rates and tariffs that may be earned by our businesses
- adverse changes in market conditions and inadequate enforcement of regulations
- high rates of inflation
- volatility in exchange rates between the U.S. dollar and currencies of the countries in which we operate, as we discuss below
- foreign cash balances that may be unavailable to fund U.S. operations, or available only at unfavorable U.S. and/or foreign tax rates upon repatriation of such amounts or changes in tax law
- changes in government policies or personnel
- trade restrictions
- limitations on U.S. company ownership in foreign countries
- permitting and regulatory compliance
- changes in labor supply and labor relations
- adverse rulings by foreign courts or tribunals, challenges to permits and approvals, difficulty in enforcing contractual and property rights, and unsettled property rights and titles in Mexico and other foreign jurisdictions
- expropriation of assets
- destruction of property or assets
- adverse changes in the stability of the governments in the countries in which we operate
- general political, social, economic and business conditions
- compliance with the Foreign Corrupt Practices Act and similar laws
- valuation of goodwill
- theft of assets

Our international businesses also are subject to foreign currency risks. These risks arise from both volatility in foreign currency exchange and inflation rates and devaluations of foreign currencies. In such cases, an appreciation of the U.S. dollar against a local currency could materially reduce the amount of cash and income received from those foreign subsidiaries. We may or may not choose to hedge these risks, and any hedges entered into may or may not be effective. Fluctuations in foreign currency exchange and inflation rates may result in significantly increased taxes in foreign countries and materially adversely affect our cash flows, financial condition, results of operations and/or prospects.

We discuss litigation related to Sempra Mexico's international energy projects in Note 15 of the Notes to Consolidated Financial Statements.

Risks Related to the Pending Acquisition of Energy Future Holdings Corp.

In this “Risk Factors” section, we sometimes refer to Sempra Energy, after giving effect to the assumed completion of the Merger, as the “combined company.”

Our pending acquisition of EFH, including EFH’s 80.03 percent indirect interest in Oncor, is subject to various conditions, including the receipt of governmental and regulatory approvals, which approvals may impose onerous conditions, and is subject to other risks and uncertainties that could cause the Merger to be abandoned, delayed or restructured and/or materially adversely affect Sempra Energy.

Sempra Energy, EFH and Oncor have not obtained all the governmental and regulatory consents, approvals and rulings required to complete the Merger, including approval from the PUCT, among others. These and other governmental and regulatory authorities may not provide the consents, approvals and rulings that are conditions to the Merger or that are otherwise necessary for Oncor’s operations after the Merger, could seek to block or challenge the Merger, or may impose certain requirements or obligations as conditions to their approval. The agreements governing the Merger may require us to accept conditions from these regulators that could materially adversely impact the results of operations, financial condition and prospects of the combined company. If the required governmental consents, approvals and rulings are not received, or if they are not received on terms that satisfy the conditions set forth in the agreements governing the Merger, then neither Sempra Energy, EFH nor Oncor will be obligated to complete the Merger.

Sempra Energy and EFH have determined that the Merger is not subject to the premerger notification requirements of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended (the HSR Act). Even though Sempra Energy and EFH have determined that the Merger is not subject to the HSR Act, governmental authorities could seek to block or challenge the Merger or compel divestiture of a portion of the combined company if they deem it necessary or desirable in the public interest to do so. In addition, in some jurisdictions, a private party could initiate an action under the antitrust laws challenging or seeking to enjoin the Merger, before or after it is completed. As a result, actions taken by governmental authorities or private parties, both before or after completion of the Merger, may have a material adverse effect on our results of operations, financial condition and prospects or may result in conditions or requirements that lead to abandonment, delay or restructuring of the Merger.

We can provide no assurance that the various closing conditions will be satisfied and that the required governmental and other necessary approvals will be obtained, or that any required conditions to such approvals will not materially adversely affect the results of operations, financial condition or prospects of the combined company following the Merger. In addition, it is possible that any conditions to such approvals will result in the abandonment, delay or restructuring of the Merger. The occurrence of any of these events individually or in combination could have a material adverse effect on our results of operations, financial condition and prospects, whether or not the Merger is completed.

Completion of the Merger is also subject to a number of other risks and uncertainties that, among other things, may alter the proposed structure and ultimate financing for the Merger, result in changes in or impose other limitations or conditions on the business of the combined company following the Merger or have other effects that may have a material adverse effect on the results of operations, financial condition and prospects of the combined company if the Merger is consummated or may lead to abandonment, delay or restructuring of the Merger.

Failure to complete the Merger could negatively impact our results of operations, financial condition and prospects and the market value of our common stock, preferred stock and debt securities.

Other parties may offer to acquire EFH or Oncor on terms that are more favorable to EFH than the terms of the Merger Agreement. Under the terms of the Merger Agreement, EFH or its subsidiary EFIG may terminate the Merger Agreement in certain circumstances if either of their respective boards of directors determines in its sole discretion, after consultation with their independent financial advisors and outside legal counsel, that the failure to terminate the Merger Agreement is inconsistent with their fiduciary duties, which may allow them to terminate the Merger Agreement in order to accept an offer from another party. If the Merger is not completed, we will not realize the potential benefits of the Merger, but will still be required to pay the substantial costs incurred in connection with pursuing the Merger. If the Merger is not completed, these and other factors could materially adversely affect our results of operations, financial condition and prospects and the market value of our common stock, preferred stock and debt securities.

EFH could incur substantial tax liabilities related to its 2016 spin-off of Vistra from EFH, which would reduce and potentially eliminate the value of our investment in EFH.

As part of its ongoing bankruptcy proceedings, in 2016 EFH distributed all of the outstanding shares of common stock of its subsidiary Vistra Energy Corp. (formerly TCEH Corp. and referred to herein as Vistra) to certain creditors of TCEH LLC (the spinoff), and Vistra became an independent, publicly traded company. Vistra’s spin-off from EFH was intended to qualify for

partially tax-free treatment to EFH and its stockholders under Sections 368(a)(1)(G), 355 and 356 (collectively referred to as the Intended Tax Treatment) of the Internal Revenue Code of 1986, as amended. In connection with and as a condition to the spin-off, EFH received a private letter ruling from the IRS regarding certain issues relating to the Intended Tax Treatment of the spin-off, as well as tax opinions from counsel to EFH and Vistra regarding certain aspects of the spin-off not covered by the private letter ruling.

IRS private letter rulings are generally binding on the IRS, but the continuing validity of that ruling, as well as the tax opinions received, are subject to the accuracy of factual representations and assumptions, as well as the performance by EFH and Vistra of certain undertakings, made to the IRS in connection with obtaining the ruling and to counsel in connection with their opinions. If any of the factual representations or assumptions in the IRS private letter ruling or tax opinions (which will not impact the IRS position on the transactions) were untrue or incomplete, any such undertaking is not complied with, or the facts upon which the IRS private letter ruling or tax opinions were based are different from the actual facts relating to the spin-off, the tax opinions and/or IRS private letter ruling may not be valid and as a result, could be successfully challenged by the IRS. If it is determined that the spin-off did not qualify for the Intended Tax Treatment, EFH could incur substantial tax liabilities, which would materially reduce and potentially eliminate the value of our investment in EFH if the Merger is completed and could have a material adverse effect on the results of operations, financial condition and prospects of the combined company and on the market value of our common stock, preferred stock and debt securities.

Due to the risks posed by the spin-off not qualifying for the Intended Tax Treatment, we have required, as an express condition to closing of the Merger, that EFH must receive a supplemental private letter ruling from the IRS as well as tax opinions of counsel to Sempra Energy and EFH that generally provide that the Merger will not affect the conclusions reached in, respectively, the IRS private letter ruling and tax opinions issued with respect to the spin-off described above. In November 2017, EFH received the supplemental private letter ruling from the IRS that provides that the Merger will not affect the tax-free treatment of the spinoff. Similar to the IRS private letter ruling and opinions issued with respect to the spin-off, the supplemental private letter ruling and any opinions issued with respect to the Merger are and will be based on factual representations and assumptions, as well as certain undertakings, made by Sempra Energy and EFH. If such representations and assumptions are untrue or incomplete, any such undertakings are not complied with, or the facts upon which the IRS supplemental private letter ruling or tax opinions (which will not impact the IRS position on the transactions) are based are different from the actual facts relating to the Merger, the tax opinions and/or supplemental private letter ruling may not be valid and as a result, could be successfully challenged by the IRS. If it is determined that the Merger causes the spin-off not to qualify for the Intended Tax Treatment, EFH could incur substantial tax liabilities, which would materially reduce and potentially eliminate the value of our investment in EFH if the Merger is completed and could have a material adverse effect on the results of operations, financial condition and prospects of the combined company and on the market value of our common stock, preferred stock and debt securities. Should the IRS invalidate the private letter ruling and/or the supplemental private letter ruling, EFH has administrative appeal rights including the right to challenge any adverse IRS position in court.

Failure by Oncor to successfully execute its business strategy and objectives may materially adversely affect the future results of the combined company and, consequently, the market value of our common stock, preferred stock and debt securities.

The success of the Merger will depend, in part, on the ability of Oncor to successfully execute its business strategy, including delivering electricity in a safe and reliable manner, minimizing service interruptions and investing in its transmission and distribution infrastructure to maintain its system, serve its growing customer base with a modernized grid, and support energy production. These objectives are capital intensive. See below under “—Oncor’s operations are capital intensive and it could have liquidity needs that may require us to make additional investments in Oncor.” If Oncor is not able to achieve these objectives, is not able to achieve these objectives on a timely basis, or otherwise fails to perform in accordance with our expectations, the anticipated benefits of the Merger may not be realized fully or at all, and the Merger may materially adversely affect the results of operations, financial condition and prospects of the combined company and, consequently, the market value of our common stock, preferred stock and debt securities.

We will continue to incur significant costs in connection with the Merger, and the combined company could continue to incur substantial costs as a result of the Merger.

We will continue to incur significant costs in connection with the Merger, whether or not the Merger is completed, including fees paid to legal, financial, accounting and other advisors. Moreover, if the Merger is completed, the combined company will incur substantial costs in connection with the Merger, including fees paid to legal, financial, accounting and other advisors. Many of the expenses that will be incurred, by their nature, are difficult to estimate accurately. These expenses may adversely affect our financial condition and results of operations prior to completion of the Merger and of the combined company following the completion of the Merger.

We have issued equity securities to fund a significant portion of the Merger Consideration and may issue additional equity securities after the Merger to reduce our indebtedness, which may dilute the economic and voting interests of our current shareholders and may adversely affect the market value of our common stock and preferred stock.

Under the Merger Agreement, we are required to pay Merger Consideration of \$9.45 billion, payable in cash. In January 2018, we completed the offering of 23,364,486 shares of our common stock pursuant to forward sale agreements (the forward sale agreements) and directly issued 3,504,672 shares of our common stock to the underwriters in the offering to raise proceeds to fund a portion of the Merger Consideration. We did not initially receive any proceeds from the sale of our common stock pursuant to the forward sale agreements. We expect to settle a portion of the forward sale agreements and receive cash proceeds, subject to certain adjustments, from the sale of shares of our common stock concurrently with, or prior to, the closing of the Merger. We expect to settle the remaining portion of the forward sale agreements after the Merger, if completed, in multiple settlements on or prior to December 15, 2019, in each case entirely by physical delivery of shares of our common stock in exchange for cash proceeds. In addition, in January 2018, we issued 17,250,000 shares of our 6% mandatory convertible preferred stock, series A (the “mandatory convertible preferred stock”), which we expect will ultimately convert into common stock. Some of these equity issuances, including common stock issued upon settlement of the forward sale agreements, will likely occur following the Merger to repay outstanding indebtedness, including indebtedness we have incurred and expect to incur in connection with the Merger. See below under “—We have incurred significant indebtedness in connection with the Merger and will likely incur additional indebtedness related the Merger. As a result, it may be more difficult for us to pay or refinance our debts or take other actions, and we may need to divert cash to fund debt service payments.” Although the issuance of any equity securities is subject to market conditions and other factors, many of which are beyond our control, and we may in fact issue fewer shares of any equity securities than anticipated, the issuance of a substantial number of additional shares of our common stock (including shares issued upon conversion of our mandatory convertible preferred stock) will have the effect, and the issuance of additional equity securities may have the effect, of diluting the economic and voting interests of our shareholders. In addition, the issuance of additional shares of common stock (including shares issued upon conversion of our mandatory convertible preferred stock) without a commensurate increase in our consolidated earnings would dilute, and the issuance of additional equity securities could dilute, our earnings per common share. Any of the foregoing may have a material adverse effect on the market value of our common stock.

We have incurred significant indebtedness in connection with the Merger and will likely incur additional indebtedness related to the Merger. As a result, it may be more difficult for us to pay or refinance our debts or take other actions, and we may need to divert cash to fund debt service payments.

We have incurred significant additional indebtedness to finance a portion of the Merger Consideration and associated transaction costs. In January 2018, we issued \$5 billion aggregate principal amount of fixed and floating rate notes in various series that mature between 2019 and 2048, and we expect to issue up to \$2.7 billion aggregate principal amount of commercial paper, although we may reduce the amount of commercial paper by borrowings under our revolving credit facilities and cash from operations, to initially fund the Merger Consideration and associated transaction costs. Moreover, although we intend to use equity financing after completion of the Merger to repay a portion of the indebtedness incurred to finance the Merger and associated transaction costs, to the extent we are unable to do so, the amount of indebtedness we have incurred to finance the Merger and associated transaction costs will be higher than currently anticipated. Accordingly, our debt service obligations resulting from such additional indebtedness could have a material adverse effect on the results of operations, financial condition and prospects of the combined company.

Our increased indebtedness could

- make it more difficult and/or costly for us to pay or refinance our debts as they become due, particularly during adverse economic and industry conditions, because a decrease in revenues or increase in costs could cause cash flow from operations to be insufficient to make scheduled debt service payments;
- limit our flexibility to pursue other strategic opportunities or react to changes in our business and the industry sectors in which we operate and, consequently, put us at a competitive disadvantage to our competitors that have less debt;
- require a substantial portion of our available cash to be used for debt service payments, thereby reducing the availability of our cash to fund working capital, capital expenditures, development projects, acquisitions, dividend payments and other general corporate purposes, which could hinder our prospects for growth and the market price of our common stock, preferred stock and debt securities, among other things;
- result in a downgrade in the credit ratings on our indebtedness (including as discussed above under “Risks Related to Sempra Energy – Certain credit rating agencies may downgrade our credit ratings or place those ratings on negative outlook, which may adversely affect the market price of our common stock, preferred stock and debt securities.”), which could limit our ability to borrow additional funds, increase the interest rates under our credit facilities and under any new indebtedness we may incur, and reduce the trading prices of our outstanding debt securities, common stock and preferred stock;

- make it more difficult for us to raise capital to fund working capital, make capital expenditures, pay dividends, pursue strategic initiatives or for other purposes;
- result in higher interest expense in the event of increases in interest rates on our current or future borrowings subject to variable rates of interest;
- require that additional materially adverse terms, conditions or covenants be placed on us under our debt instruments, which covenants might include, for example, limitations on additional borrowings; and
- result in specific restrictions on uses of our assets, as well as prohibitions or limitations on our ability to create liens, pay dividends, receive distributions from our subsidiaries, redeem or repurchase our stock or make investments, any of which could hinder our access to capital markets and limit or delay our ability to carry out our capital expenditure program.

Based on the current and expected results of operations and financial condition of Sempra Energy and our subsidiaries and the currently anticipated financing structure for the Merger, we believe that our cash flow from operations, together with the proceeds from borrowings, issuances of equity and debt securities, distributions from our equity method investments, project financing and equity sales (including tax equity and partnering in joint ventures) will generate sufficient cash on a consolidated basis to make all of the principal and interest payments when such payments are due under Sempra Energy's and our current subsidiaries' existing credit facilities, indentures and other instruments governing their outstanding indebtedness and under the indebtedness that we have incurred and that we may incur to fund the Merger Consideration and associated transaction costs. However, our expectation is subject to numerous estimates, assumptions and uncertainties, and there can be no assurance that we will be able to make such payments of principal and interest or repay or refinance such borrowings and obligations when due. Oncor and its subsidiaries will not guarantee any indebtedness of Sempra Energy or any of our other subsidiaries, nor will any of them have any obligation to provide funds (nor will we have any ability to require them to provide funds), whether in the form of dividends, loans or otherwise, to enable Sempra Energy to pay dividends on its common stock or mandatory convertible preferred stock or to enable our other subsidiaries to make required debt service payments, particularly in light of the ring-fencing arrangements described below under "—Certain "ring-fencing" measures and other existing governance mechanisms will limit our ability to influence the management and policies of Oncor." As a result, the Merger will substantially increase our debt service obligations without any assurance that we will receive any cash from Oncor or any of its subsidiaries to assist us in servicing our indebtedness, paying dividends on our common stock and mandatory convertible preferred stock or meeting our other cash needs.

We are committed to maintaining our credit ratings at investment grade. To maintain these credit ratings, we may consider it appropriate to reduce the amount of our indebtedness outstanding following the Merger. We may seek to reduce this indebtedness with the proceeds from the issuance of additional shares of common stock and, possibly, other equity securities, and the settlement of sales of our common stock pursuant to our forward sale agreements, cash from operations and proceeds from asset sales, which may dilute the voting rights and economic interests of holders of our common stock. However, our ability to raise additional equity financing after completion of the Merger will be subject to market conditions and a number of other risks and uncertainties, including whether the results of operations of the combined company meet the expectations of investors and securities analysts. There can be no assurance that we will be able to issue additional shares of our common stock or other equity securities after the Merger on terms that we consider acceptable or at all, or that we will be able to reduce the amount of our outstanding indebtedness after the Merger, should we elect to do so, to a level that permits us to maintain our investment grade credit ratings.

The Merger may not positively affect our results of operations and may cause a decrease in our earnings per share, which may negatively affect the market price of our common stock, preferred stock and debt securities.

We anticipate that the Merger, if consummated on the terms and under our financing structure, will have a positive impact on our consolidated results of operations. This expectation is based on current market conditions and is subject to a number of assumptions, estimates, projections and other uncertainties, including assumptions regarding the results of operations of the combined company after the Merger and the relative mix and timing of debt and equity financing necessary to ultimately fund the Merger Consideration and associated transaction costs. This expectation also assumes that Oncor will perform in accordance with our expectations, and there can be no assurance that this will occur. In addition, we may encounter additional transaction costs and costs to manage our investment in Oncor, may fail to realize some or any of the benefits anticipated in the Merger, may be subject to currently unknown liabilities as a result of the Merger, or may be subject to other factors that affect preliminary estimates. As a result, there can be no assurance that the Merger will positively impact our results of operations, and it is possible that the Merger may have an adverse effect, which could be material, on our results of operations, financial condition and prospects or may cause our earnings per share to decrease, any of which may materially adversely affect the market price of our common stock, preferred stock and debt securities.

Certain “ring-fencing” measures and other existing governance mechanisms will limit our ability to influence the management and policies of Oncor.

EFH and Oncor implemented various “ring-fencing” measures in 2007 to enhance Oncor’s separateness from its owners and to mitigate the risk that Oncor would be negatively impacted in the event of a bankruptcy or other adverse financial developments affecting its owners. This ring-fence has created both legal and financial separation between Oncor Holdings, Oncor and their subsidiaries, on the one hand, and EFH and its affiliates and other subsidiaries, on the other hand.

Pursuant to the agreements related to the Merger, existing governance mechanisms, and commitments that we made as part of our application to the PUCT for approval of the Merger and the related Stipulation with key stakeholders in the proceeding, we have committed to certain “ring-fencing” measures and will be subject to certain restrictions following the Merger. These measures, governance mechanisms and restrictions include the following, among other things:

- Following consummation of the Merger, the board of directors of Oncor will consist of thirteen members, seven of which will be independent directors in all material respects under the rules of the New York Stock Exchange in relation to Sempra Energy and its subsidiaries and affiliated entities and any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings (and those directors must have no material relationship with Sempra Energy or its affiliates, or any other entity with a direct or indirect ownership interest in Oncor or Oncor Holdings, at the time of the Merger or within the previous 10 years), two of which will be designated by Sempra Energy, two of which will be appointed by Oncor’s minority owner, TTI, which is an investment vehicle owned by third parties unaffiliated with EFH and Sempra Energy and that owns approximately 19.75 percent of the outstanding membership interests in Oncor, and two of which will be members of Oncor management, initially Robert S. Shapard and E. Allen Nye, Jr., who no later than the closing of the Merger will be the Chair of the Oncor board and chief executive officer of Oncor, respectively. In addition, Oncor Holdings will also continue to have a majority of independent directors following the consummation of the Merger;
- If the credit rating on Oncor’s senior secured debt by any of the three major rating agencies falls below BBB (or the equivalent), Oncor will suspend dividends and other distributions (except for contractual tax payments), unless otherwise allowed by the PUCT;
- We have agreed to make, within 60 days after the Merger, our proportionate share of the aggregate equity investment in Oncor in an amount necessary for Oncor to achieve a capital structure consisting of 57.5 percent long-term debt and 42.5 percent equity, as calculated for regulatory purposes;
- Oncor may not pay dividends or make any other distributions (except for contractual tax payments) to its owners, including Sempra Energy, if a majority of its independent directors or a minority member director determines that it is in the best interests of Oncor to retain such amounts to meet expected future requirements (including continuing compliance with its debt-to-equity ratio required by the PUCT described above);
- Certain transactions, including certain mergers and sales of substantially all assets, changes to the dividend policy and declarations of bankruptcy and liquidation, require the approval of all, or in certain circumstances a majority, of the independent directors of Oncor and at least one, or in certain circumstances both, of the directors appointed by Oncor’s minority owner, TTI; and
- There must be maintained certain “separateness measures” that reinforce the financial separation of Oncor from EFH and EFH’s owners, such as a prohibition on Oncor providing guarantees or security for debt of EFH or Sempra Energy.

Pursuant to the Stipulation, the current independent directors for Oncor and Oncor Holdings will continue to serve for three years following the closing of the Merger, and thereafter two of these independent directors will cease to be members of their respective boards every two years. Each subsequent independent director will be elected for a term of four years. The Stipulation also provides that Oncor Holdings will have a nominating committee comprised entirely of independent directors, who will nominate the independent director board member candidates of Oncor and Oncor Holdings, subject to approval by a majority of the remaining independent directors of Oncor Holdings. If any independent director is removed, retires or is unable to serve, the Stipulation provides that a replacement independent director must be chosen by the nominating committee of Oncor Holdings and approved by a majority of the remaining independent directors of Oncor Holdings. Under the Stipulation, the duties of the board members of Oncor and Oncor Holdings will be to act in the best interests of Oncor consistent with the approved ring-fence and Delaware law. Any future changes to the size, composition, structure or rights of the boards of Oncor and Oncor Holdings must first be approved by the PUCT.

Accordingly, we will not control Oncor or Oncor Holdings and will have only a limited ability to direct the management, policies and operations of Oncor, including the deployment or disposition of Oncor assets, declarations of dividends, strategic planning and other important corporate actions and issues. The existence of these ring-fencing measures may increase our costs of financing and operating EFH and its subsidiaries. Further, the Oncor directors have considerable autonomy and, as described in our commitments, have a duty to act in the best interest of Oncor consistent with the approved ring-fence and Delaware law, which may be contrary to our best interests or be in opposition to our preferred strategic direction for Oncor. To the extent they

take actions that are not in our interests, the financial condition, results of operations and prospects of the combined company may be materially adversely affected.

Certain key personnel at Oncor may choose to depart Oncor prior to, upon completion of or shortly after the Merger, and any loss of key personnel may materially adversely affect the future business and operations of Oncor and the anticipated benefits of the Merger.

If, despite efforts to retain certain key personnel at Oncor, any key personnel depart or fail to continue employment as a result of the Merger, the loss of the services of such personnel and their experience and knowledge could adversely affect Oncor's results of operations, financial condition and prospects and the successful ongoing operation of its business, which could also have a material adverse effect on the results of operations, financial condition and prospects of the combined company after completion of the Merger.

If Oncor fails to respond to challenges in the electric utility industry, including changes in regulation, its results of operations and financial condition could be adversely affected, and this could materially adversely affect the combined company.

Because Oncor is regulated by both U.S. federal and Texas state authorities, it has been and will continue to be affected by legislative and regulatory developments. The costs and burdens associated with complying with these regulatory requirements and adjusting Oncor's business to legislative and regulatory developments may have a material adverse effect on Oncor. Moreover, potential legislative changes, regulatory changes or other market or industry changes may create greater risks to the predictability of utility earnings generally. If Oncor does not successfully respond to these changes, it could suffer a deterioration in its results of operations, financial condition and prospects, which could materially adversely affect the results of operations, financial condition and prospects of the combined company after the Merger.

Oncor's operations are capital intensive and it could have liquidity needs that may require us to make additional investments in Oncor.

Oncor's business is capital intensive, and it relies on external financing as a significant source of liquidity for its capital requirements. In the past, Oncor has financed a substantial portion of its cash needs with the proceeds from indebtedness. In the event that Oncor fails to meet its capital requirements or if its credit ratings at closing by any one of the three major rating agencies are below the ratings as of June 30, 2017, we may be required to make additional investments in Oncor or if Oncor is unable to access sufficient capital to finance its ongoing needs, we may elect to make additional investments in Oncor which could be substantial and which would reduce the cash available to us for other purposes, could increase our indebtedness and could ultimately materially adversely affect our results of operations, financial condition and prospects after the Merger. In that regard, our commitments to the PUCT prohibit us from making loans to Oncor. As a result, if Oncor requires additional financing and cannot obtain it from other sources, we may be required to make a capital contribution, rather than a loan, to Oncor.

The market value of our common stock could decline if our existing shareholders sell large amounts of our common stock in anticipation of or following the Merger, and the market prices of our common stock, preferred stock and debt securities may be affected by factors following the Merger that are different from those affecting the market prices for our common stock, preferred stock and debt securities prior to the Merger.

Following the Merger, shareholders of Sempra Energy will own interests in a combined company operating an expanded business with more assets and more indebtedness. Current shareholders of Sempra Energy may not wish to continue to invest in the combined company, or may wish to reduce their investment in the combined company, for a number of reasons, which may include loss of confidence in the ability of the combined company to execute its business strategies, to comply with institutional investing guidelines, to increase diversification or to track any rebalancing of stock indices in which Sempra Energy common stock is included. If, before or following the Merger, large amounts of Sempra Energy common stock are sold, the market price of our common stock could decline. In addition, we are more exposed to rising interest rates due to our use of floating rate notes and significant increase in the amount of debt outstanding to finance the Merger.

If the Merger is consummated, the risks associated with the combined company may affect the results of operations of the combined company and the market prices of our common stock, preferred stock and debt securities following the Merger differently than they affected such results of operations and market prices prior to the Merger. Additionally, the results of operations of the combined company may be affected by additional or different risks than those that currently affect the results of operations of Sempra Energy. Any of the foregoing matters could materially adversely affect the market prices of our common stock, preferred stock and debt securities following the Merger.

Settlement provisions contained in our equity forward sale agreements subject us to certain risks.

In January 2018, we completed the offering of 23,364,486 shares of our common stock pursuant to forward sale agreements (the forward sale agreements) to raise proceeds to fund a portion of the Merger Consideration. The counterparties to the forward sale

agreements (the forward purchasers) will have the right to accelerate the forward sale agreements (or, in certain cases, the portion thereof that they determine is affected by the relevant event) and require us to physically settle the forward sale agreements on a date specified by the forward purchasers if:

- they are unable to establish, maintain or unwind their hedge position with respect to the forward sale agreements;
- they determine that they are unable to, or it is commercially impracticable for them to, continue to borrow a number of shares of our common stock equal to the number of shares of our common stock underlying the forward sale agreements or that, with respect to borrowing such number of shares of our common stock, they would incur a rate that is greater than the borrow cost specified in the forward sale agreements, subject to a prior notice requirement;
- we declare or pay cash dividends on shares of our common stock in an amount in excess of amounts, or at a time before, those prescribed by the forward sale agreements or declare or pay certain other types of dividends or distributions on shares of our common stock;
- an event is announced that, if consummated, would result in an extraordinary event (including certain mergers and tender offers, our nationalization, our insolvency and the delisting of the shares of our common stock);
- an ownership event (as such term is defined in the forward sale agreements) occurs; or
- certain other events of default, termination events or other specified events occur, including, among other things, a change in law.

The forward purchasers' decision to exercise their right to accelerate the forward sale agreements (or, in certain cases, the portion thereof that they determine is affected by the relevant event) and to require us to settle the forward sale agreements will be made irrespective of our interests, including our need for capital. In such cases, we could be required to issue and deliver our common stock under the terms of the physical settlement provisions of the forward sale agreements irrespective of our capital needs, which would result in dilution to our earnings per share and may adversely affect the market price of our common stock, our mandatory convertible preferred stock, any other equity that we may issue, and our debt securities.

The forward sale agreements provide for settlement on a settlement date or dates to be specified at our discretion, but which we expect to occur in multiple settlements on or prior to December 15, 2019. Subject to the provisions of the forward sale agreements, delivery of our shares upon physical or net share settlement of the forward sale agreements will result in dilution to our earnings per share and may adversely affect the market price of our common stock, mandatory convertible preferred stock and any other equity that we may issue.

We may elect, subject to certain conditions, cash settlement or net share settlement for all or a portion of our obligations under the forward sale agreements if we conclude that it is in our interest to do so. For example, we may conclude that it is in our interest to cash settle or net share settle the forward sale agreements if the Merger does not close or if we otherwise have no current use for all or a portion of the net proceeds due upon physical settlement of the forward sale agreements.

If we elect to cash or net share settle all or a portion of the shares of our common stock underlying the forward sale agreements, we would expect the forward purchasers or one of their affiliates to purchase the number of shares necessary, based on the number of shares with respect to which we have elected cash or net share settlement, in order to satisfy their obligation to return the shares of our common stock they had borrowed in connection with sales of our common stock related to our January 2018 common stock offering and, if applicable in connection with net share settlement, to deliver shares of our common stock to us or take into account shares of our common stock to be delivered by us, as applicable. The purchase of our common stock by the forward purchasers or their affiliates to unwind the forward purchasers' hedge positions could cause the price of our common stock to increase over time, thereby increasing the amount of cash or the number of shares of our common stock that we would owe to the forward purchasers upon cash settlement or net share settlement, as the case may be, of the forward sale agreements, or decreasing the amount of cash or the number of shares of our common stock that the forward purchasers owe us upon cash settlement or net share settlement, as the case may be, of the forward sale agreements.

Dividend requirements associated with the mandatory convertible preferred stock Sempra Energy issued to finance a portion of the Merger Consideration subject us to certain risks.

In January 2018, Sempra Energy issued 17,250,000 shares of its mandatory convertible preferred stock. Any future payments of cash dividends, and the amount of any cash dividends we pay, on the mandatory convertible preferred stock will depend on, among other things, our financial condition, capital requirements and results of operations, and the ability of our subsidiaries and investments to distribute cash to us, as well as other factors that our board of directors (or an authorized committee thereof) may consider relevant. Any failure to pay scheduled dividends on the mandatory convertible preferred stock when due would likely have a material adverse impact on the market price of the mandatory convertible preferred stock, our common stock and our debt securities and would prohibit us, under the terms of the mandatory convertible preferred stock, from paying cash dividends on or

repurchasing shares of our common stock (subject to limited exceptions) until such time as we have paid all accumulated and unpaid dividends on the mandatory convertible preferred stock.

The terms of the mandatory convertible preferred stock further provide that if dividends on any shares of the mandatory convertible preferred stock (i) have not been declared and paid, or (ii) have been declared but a sum of cash or number of shares of our common stock sufficient for payment thereof has not been set aside for the benefit of the holders thereof on the applicable record date, in each case, for the equivalent of six or more dividend periods, whether or not for consecutive dividend periods, the holders of shares of mandatory convertible preferred stock, voting together as a single class with holders of any and all other classes or series of our preferred stock ranking equally with the mandatory convertible preferred stock either as to dividends or the distribution of assets upon liquidation, dissolution or winding-up and having similar voting rights, will be entitled to elect a total of two additional members of our board of directors, subject to certain terms and limitations described in the certificate of determination applicable to the mandatory convertible preferred stock.

Other Risks

Sempra Energy has substantial investments in and obligations arising from businesses that it does not control or manage or in which it shares control.

Sempra Energy makes investments in entities that we do not control or manage or in which we share control. As described above, SDG&E holds a 20-percent ownership interest in SONGS, which is in the process of being decommissioned by Edison, its majority owner. Sempra LNG & Midstream accounts for its investment in the Cameron LNG JV under the equity method, which investment is \$997 million at December 31, 2017. At December 31, 2017, Sempra Renewables had investments totaling \$813 million in several joint ventures to operate renewable generation facilities. Sempra Mexico has a 40-percent interest in a joint venture with a subsidiary of TransCanada to build, own and operate the Sur de Texas-Tuxpan natural gas marine pipeline in Mexico, a 50-percent interest in a renewables wind project in Baja California, and a 50-percent interest in the Los Ramones Norte pipeline in Mexico. At December 31, 2017, these various joint venture investments by Sempra Mexico totaled \$624 million. Sempra Energy has an investment balance of \$67 million at December 31, 2017 that reflects remaining distributions expected to be received from the RBS Sempra Commodities partnership as it is dissolved. The timing and amount of distributions may be impacted by the matters we discuss related to RBS Sempra Commodities in Note 15 of the Notes to Consolidated Financial Statements. The failure to collect all or a substantial portion of our remaining investment in the RBS Sempra Commodities partnership could have a corresponding impact on our cash flows, financial condition and results of operations.

Sempra Mexico, Sempra Renewables and Sempra LNG & Midstream have provided guarantees related to joint venture financing agreements, and Sempra South American Utilities and Sempra Mexico have provided loans to joint ventures in which they have investments and to other affiliates. We discuss the guarantees in Note 4 and affiliate loans in Note 1 of the Notes to Consolidated Financial Statements.

We have limited influence over these ventures and other businesses in which we do not have a controlling interest. In addition to the other risks inherent in these businesses, if their management were to fail to perform adequately or the other investors in the businesses were unable or otherwise failed to perform their obligations to provide capital and credit support for these businesses, it could have a material adverse effect on our results of operations, financial condition, cash flows and/or prospects. We discuss our investments further in Notes 3, 4 and 10 of the Notes to Consolidated Financial Statements.

Market performance or changes in other assumptions could require Sempra Energy, SDG&E and/or SoCalGas to make significant unplanned contributions to their pension and other postretirement benefit plans.

Sempra Energy, SDG&E and SoCalGas provide defined benefit pension plans and other postretirement benefits to eligible employees and retirees. A decline in the market value of plan assets may increase the funding requirements for these plans. In addition, the cost of providing pension and other postretirement benefits is also affected by other factors, including the assumed rate of return on plan assets, employee demographics, discount rates used in determining future benefit obligations, rates of increase in health care costs, levels of assumed interest rates and future governmental regulation. An adverse change in any of these factors could cause a material increase in our funding obligations which could have a material adverse effect on our results of operations, financial condition, cash flows and/or prospects.

Impairment of goodwill would negatively impact our consolidated results of operations and net worth.

As of December 31, 2017, Sempra Energy had approximately \$2.4 billion of goodwill, which represented approximately 4.8 percent of the total assets on its Consolidated Balance Sheet, primarily related to the acquisitions of IEnova Pipelines and Ventika in Mexico, Chilquinta Energía in Chile and Luz Del Sur in Peru. Goodwill is not amortized, but we test it for impairment annually on October 1 or whenever events or changes in circumstances necessitate an evaluation, which could result in our recording a goodwill impairment loss. We discuss our annual goodwill impairment testing process and the factors considered in such testing in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies and Estimates” and in Note 1 of the Notes to Consolidated Financial Statements. A goodwill impairment loss could materially adversely affect our results of operations for the period in which such charge is recorded.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We discuss properties related to our electric, natural gas and energy infrastructure operations in “Item 1. Business” and Note 1 of the Notes to Consolidated Financial Statements.

OTHER PROPERTIES

Sempra Energy occupies its 16-story corporate headquarters building in San Diego, California, pursuant to a 25-year, build-to-suit lease that expires in 2040. The lease has five five-year renewal options. We discuss the details of this lease further in Note 15 of the Notes to Consolidated Financial Statements.

SoCalGas leases approximately one-fourth of a 52-story office building in downtown Los Angeles, California, pursuant to an operating lease expiring in 2026. The lease has four five-year renewal options.

SDG&E occupies a six-building office complex in San Diego, California, pursuant to two separate operating leases, both ending in 2024. One lease has two five-year renewal options and the other lease has three five-year renewal options.

Sempra South American Utilities owns or leases office facilities at various locations in Chile and Peru, with the leases ending from 2022 to 2024. Sempra Infrastructure owns or leases office facilities at various locations in the U.S. and Mexico, with the leases ending from 2018 to 2027.

We own or lease other land, warehouses, offices, operating and maintenance centers, shops, service facilities and equipment necessary to conduct our businesses.

ITEM 3. LEGAL PROCEEDINGS

We are not party to, and our property is not the subject of, any material pending legal proceedings (other than ordinary routine litigation incidental to our businesses) except for the matters (1) described in Notes 13, 14 and 15 of the Notes to Consolidated Financial Statements, (2) referred to in “Item 1A. Risk Factors” or (3) referred to in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance.”

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II.

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

COMMON STOCK AND RELATED SHAREHOLDER MATTERS

Sempra Energy Common Stock

Our common stock is traded on the New York Stock Exchange. At February 22, 2018, there were approximately 26,676 record holders of our common stock.

The following table shows Sempra Energy quarterly common stock data:

QUARTERLY COMMON STOCK DATA				
	First quarter	Second quarter	Third quarter	Fourth quarter
2017 Market price:				
High	\$ 113.15	\$ 117.97	\$ 120.17	\$ 122.98
Low	\$ 99.71	\$ 107.86	\$ 110.35	\$ 105.03
2016 Market price:				
High	\$ 104.70	\$ 114.03	\$ 114.66	\$ 109.42
Low	\$ 86.72	\$ 100.40	\$ 102.15	\$ 92.95

We declared dividends of \$0.8225 per share and \$0.755 per share in each quarter of 2017 and 2016, respectively. On February 22, 2018, our board of directors approved an increase to our quarterly common stock dividend to \$0.895 per share (\$3.58 annually), an increase of \$0.0725 per share (\$0.29 annually) from \$0.8225 per share (\$3.29 annually) authorized in February 2017.

SoCalGas and SDG&E Common Stock

Information concerning dividend declarations for SoCalGas and SDG&E is included in their Statements of Changes in Shareholders' Equity and Statements of Changes in Equity, respectively, set forth in the Consolidated Financial Statements.

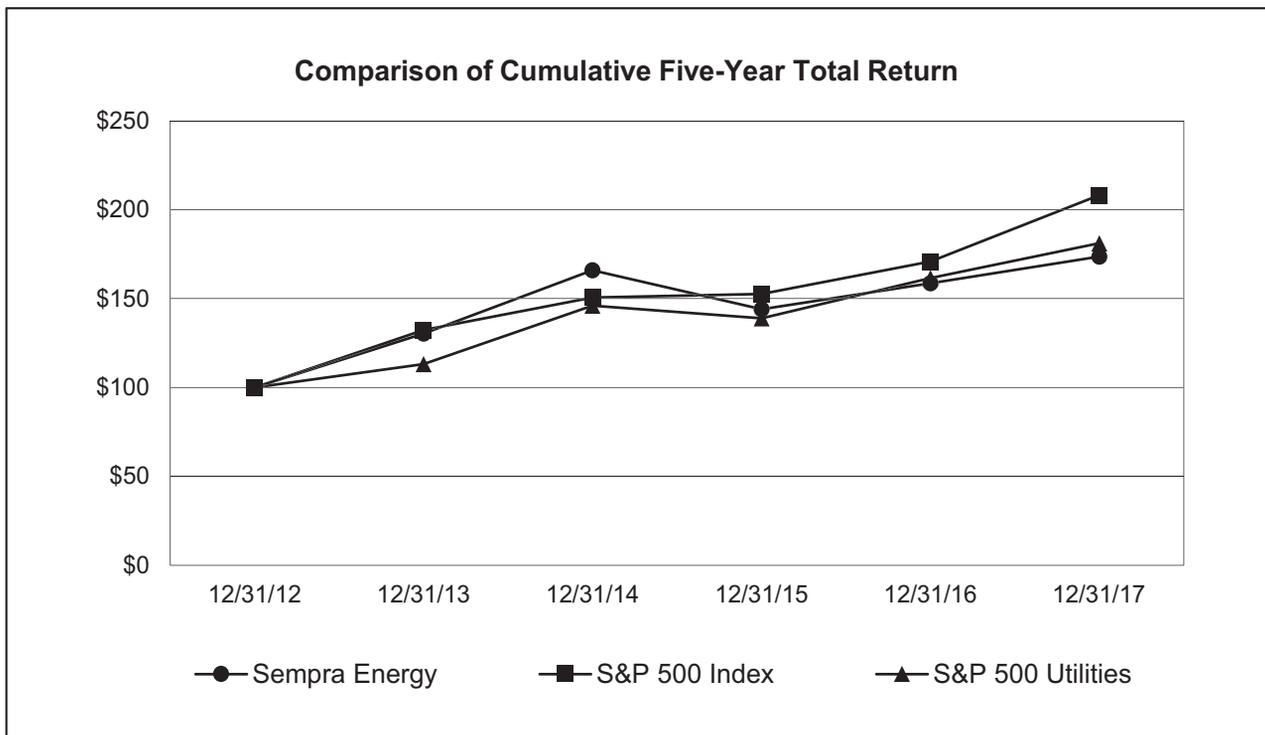
Dividend Restrictions

The payment and the amount of future dividends for Sempra Energy, SDG&E, and SoCalGas are within the discretion of their boards of directors. The CPUC's regulation of the California Utilities' capital structures limits the amounts that the California Utilities can pay Sempra Energy in the form of loans and dividends. We discuss these matters in Note 1 of the Notes to Consolidated Financial Statements in "Restricted Net Assets" and in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Capital Resources and Liquidity – Dividends."

PERFORMANCE GRAPH – COMPARATIVE TOTAL SHAREHOLDER RETURNS

The following graph compares the percentage change in the cumulative total shareholder return on Sempra Energy common stock for the five-year period ended December 31, 2017, with the performance over the same period of the S&P 500 Index and the S&P 500 Utilities Index.

These returns were calculated assuming an initial investment of \$100 in our common stock, the S&P 500 Index and the S&P 500 Utilities Index on December 31, 2012, and the reinvestment of all dividends.



SEMPRA ENERGY EQUITY COMPENSATION PLANS

Sempra Energy has a long-term incentive plan that permits the grant of a wide variety of equity and equity-based incentive awards to directors, officers and key employees. At December 31, 2017, outstanding awards consisted of stock options and RSUs held by 428 employees.

The following table sets forth information regarding our equity compensation plan at December 31, 2017.

EQUITY COMPENSATION PLAN			
	Number of shares to be issued upon exercise of outstanding options, warrants and rights ⁽¹⁾	Weighted-average exercise price of outstanding options, warrants and rights ⁽²⁾	Number of additional shares remaining available for future issuance ⁽³⁾
Equity compensation plan approved by shareholders:			
2013 Long-Term Incentive Plan	2,183,313	\$ 50.30	5,589,925

⁽¹⁾ Consists of 195,801 options to purchase shares of our common stock, all of which were granted at an exercise price equal to 100 percent of the grant date fair market value of the shares subject to the option, 1,701,617 performance-based RSUs and 285,895 service-based RSUs. Each performance-based RSU represents the right to receive from zero to 1.5 shares (2.0 shares for awards granted during or after 2014) of our common stock if applicable performance conditions are satisfied. The 2,183,313 shares also include awards granted under two previously shareholder-approved long-term incentive plans (Predecessor Plans). No new awards may be granted under these Predecessor Plans.

⁽²⁾ Represents only the weighted-average exercise price of the 195,801 outstanding options to purchase shares of common stock.

⁽³⁾ The number of shares available for future issuance is increased by the number of shares to which the participant would otherwise be entitled that are withheld or surrendered to satisfy the exercise price or to satisfy tax withholding obligations relating to any plan awards, and is also increased by the number of shares subject to awards that expire or are forfeited, canceled or otherwise terminated without the issuance of shares.

We provide additional discussion of share-based compensation in Note 8 of the Notes to Consolidated Financial Statements.

PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

On September 11, 2007, the Sempra Energy board of directors authorized the repurchase of Sempra Energy common stock provided that the amounts spent for such purpose do not exceed the greater of \$2 billion or amounts spent to purchase no more than 40 million shares. No shares have been repurchased under this authorization since 2011. Approximately \$500 million remains authorized by our board of directors for the purchase of additional shares, not to exceed approximately 12 million shares.

We also may, from time to time, purchase shares of our common stock to which participants would otherwise be entitled from long-term incentive plan participants who elect to sell a sufficient number of shares in connection with the vesting of RSUs in order to satisfy minimum statutory tax withholding requirements.

ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR SUMMARIES

The following tables present selected financial data of Sempra Energy, SDG&E and SoCalGas for the five years ended December 31, 2017. The data is derived from the audited consolidated financial statements of each company. You should read this information in conjunction with “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the consolidated financial statements and notes contained in this annual report on Form 10-K.

FIVE-YEAR SUMMARY OF SELECTED FINANCIAL DATA – SEMPRA ENERGY CONSOLIDATED

(In millions, except per share amounts)

	At December 31 or for the years then ended				
	2017	2016	2015	2014	2013
Revenues					
Utilities:					
Electric	\$ 5,415	\$ 5,211	\$ 5,158	\$ 5,209	\$ 4,911
Natural gas	4,361	4,050	4,096	4,549	4,398
Energy-related businesses	1,431	922	977	1,277	1,248
Total revenues	<u>\$ 11,207</u>	<u>\$ 10,183</u>	<u>\$ 10,231</u>	<u>\$ 11,035</u>	<u>\$ 10,557</u>
Income from continuing operations	\$ 351	\$ 1,519	\$ 1,448	\$ 1,262	\$ 1,088
Earnings from continuing operations					
attributable to noncontrolling interests	(94)	(148)	(98)	(100)	(79)
Call premium on preferred stock of subsidiary	—	—	—	—	(3)
Preferred dividends of subsidiaries	(1)	(1)	(1)	(1)	(5)
Earnings/Income from continuing operations					
attributable to common shares	<u>\$ 256</u>	<u>\$ 1,370</u>	<u>\$ 1,349</u>	<u>\$ 1,161</u>	<u>\$ 1,001</u>
Attributable to common shares:					
Earnings/Income from continuing operations					
Basic	\$ 1.02	\$ 5.48	\$ 5.43	\$ 4.72	\$ 4.10
Diluted	\$ 1.01	\$ 5.46	\$ 5.37	\$ 4.63	\$ 4.01
Dividends declared per common share	\$ 3.29	\$ 3.02	\$ 2.80	\$ 2.64	\$ 2.52
Return on common equity	2.0%	11.1%	11.7%	10.4%	9.4%
Effective income tax rate	81%	21%	20%	20%	26%
Price range of common shares:					
High	\$ 122.98	\$ 114.66	\$ 116.21	\$ 116.30	\$ 93.00
Low	\$ 99.71	\$ 86.72	\$ 89.44	\$ 86.73	\$ 70.61
Weighted-average rate base:					
SDG&E	\$ 8,549	\$ 8,019	\$ 7,671	\$ 7,253	\$ 7,244
SoCalGas	\$ 5,493	\$ 4,775	\$ 4,269	\$ 3,879	\$ 3,499
AT DECEMBER 31					
Current assets	\$ 3,341	\$ 3,110	\$ 2,891	\$ 4,184	\$ 3,997
Total assets	\$ 50,454	\$ 47,786	\$ 41,150	\$ 39,651	\$ 37,165
Current liabilities	\$ 6,635	\$ 5,927	\$ 4,612	\$ 5,069	\$ 4,369
Long-term debt (excludes current portion) ⁽¹⁾	\$ 16,445	\$ 14,429	\$ 13,134	\$ 12,086	\$ 11,174
Short-term debt ⁽²⁾	\$ 2,967	\$ 2,692	\$ 1,529	\$ 2,202	\$ 1,692
Sempra Energy shareholders' equity	\$ 12,670	\$ 12,951	\$ 11,809	\$ 11,326	\$ 11,008
Common shares outstanding	251.4	250.2	248.3	246.3	244.5
Book value per share	<u>\$ 50.40</u>	<u>\$ 51.77</u>	<u>\$ 47.56</u>	<u>\$ 45.98</u>	<u>\$ 45.03</u>

⁽¹⁾ Includes capital lease obligations.

⁽²⁾ Includes long-term debt due within one year and current portion of capital lease obligations.

In 2017, Sempra Energy's income tax expense included \$870 million related to the impact of the TCJA, as we discuss in Note 6 of the Notes to Consolidated Financial Statements and in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Income Taxes."

In 2017, we recorded a charge of \$208 million (after-tax) for the write-off of SDG&E's wildfire regulatory asset, which we discuss in Note 15 of the Notes to Consolidated Financial Statements.

In 2017 and 2016, Sempra Mexico recognized impairment charges of \$47 million (after noncontrolling interests) and \$90 million (after-tax and after noncontrolling interests), respectively, related to assets held for sale at TdM. We discuss the impairments in Notes 3 and 10 of the Notes to Consolidated Financial Statements.

In 2016, we recorded a \$350 million (after-tax and noncontrolling interest) noncash gain associated with the remeasurement of Sempra Mexico's equity interest in IEnova Pipelines (formerly known as GdC).

In 2016 and 2013, IEnova completed private offerings in the U.S. and outside of Mexico and a concurrent public offering in Mexico of common stock.

In 2014, Cameron LNG JV, a joint venture between Sempra LNG & Midstream and its partners in the Cameron LNG liquefaction project, became effective. Sempra LNG & Midstream accounts for its investment in the joint venture under the equity method. We discuss Cameron LNG JV further in "Item 1. Business," in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Factors Influencing Future Performance" and in Notes 3 and 4 of the Notes to Consolidated Financial Statements.

In 2013, we recorded a \$119 million (after-tax) loss from plant closure related to SDG&E's investment in SONGS. We discuss SONGS further in Note 13 of the Notes to Consolidated Financial Statements.

We discuss litigation and other contingencies in Note 15 of the Notes to Consolidated Financial Statements.

FIVE-YEAR SUMMARIES OF SELECTED FINANCIAL DATA – SDG&E AND SOCIALGAS

(Dollars in millions)

	At December 31 or for the years then ended				
	2017	2016	2015	2014	2013
SDG&E:					
Statement of Operations Data:					
Operating revenues	\$ 4,476	\$ 4,253	\$ 4,219	\$ 4,329	\$ 4,066
Operating income	713	990	1,058	959	782
Dividends on preferred stock	—	—	—	—	4
Earnings attributable to common shares	407	570	587	507	404
Balance Sheet Data:					
Total assets	\$ 17,844	\$ 17,719	\$ 16,515	\$ 16,260	\$ 15,337
Long-term debt (excludes current portion) ⁽¹⁾	5,335	4,658	4,455	4,283	4,485
Short-term debt ⁽²⁾	473	191	218	611	88
SDG&E shareholder's equity	5,598	5,641	5,223	4,932	4,628
SoCalGas:					
Statement of Operations Data:					
Operating revenues	\$ 3,785	\$ 3,471	\$ 3,489	\$ 3,855	\$ 3,736
Operating income	622	557	608	521	539
Dividends on preferred stock	1	1	1	1	1
Earnings attributable to common shares	396	349	419	332	364
Balance Sheet Data:					
Total assets	\$ 14,159	\$ 13,424	\$ 12,104	\$ 10,446	\$ 9,138
Long-term debt (excludes current portion) ⁽¹⁾	2,485	2,982	2,481	1,891	1,150
Short-term debt ⁽²⁾	617	62	9	50	294
SoCalGas shareholders' equity	3,907	3,510	3,149	2,781	2,549

⁽¹⁾ Includes capital lease obligations.

⁽²⁾ Includes long-term debt due within one year and current portion of capital lease obligations.

In 2017, SDG&E recorded a charge of \$208 million (after-tax) for the write-off of its wildfire regulatory asset. In 2013, SDG&E recorded a \$119 million (after-tax) loss from plant closure related to its investment in SONGS. We discuss litigation and other contingencies in Note 15 of the Notes to Consolidated Financial Statements.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

KEY EVENTS AND ISSUES IN 2017

Below are key events and issues that affected our business in 2017; some of these may continue to affect our future results.

- In June 2017, Sempra Mexico reduced the carrying value of TdM by recognizing an impairment charge (\$47 million earnings impact).
- In July 2017, Sempra Renewables acquired the Great Valley Solar Project located in Fresno County, California for initial cash consideration of \$124 million, with an expected investment totaling \$375 million to \$425 million once fully constructed.
- In August 2017, Sempra Energy entered into a Merger Agreement to acquire EFH, the indirect owner of an 80.03-percent interest in Oncor, for the Merger Consideration of \$9.45 billion in cash. We expect the Merger to close in the first half of 2018.
- In September 2017, SDG&E recognized a charge for the write-off of a regulatory asset associated with wildfire costs (\$208 million earnings impact).
- In November 2017, IEnova purchased the remaining 50-percent interest in DEN, which owns a 50-percent interest in the Los Ramones Norte pipeline through TAG, for total consideration of \$165 million, plus the assumption of \$96 million of short-term debt.
- In December 2017, Cameron LNG JV entered into a settlement agreement with its EPC contractor for the Cameron LNG JV liquefaction facility. We discuss the agreement below in "Factors Influencing Future Performance – Cameron LNG JV Three-Train Liquefaction Project."
- In December 2017, the TCJA was signed into law, resulting in an \$870 million increase in income tax expense at Sempra Energy Consolidated in the fourth quarter of 2017 from the effects of the TCJA. We discuss the impact of the TCJA below in "Changes in Revenues, Costs and Earnings – Income Taxes" and in Note 6 of the Notes to Consolidated Financial Statements.
- SoCalGas has resumed injections and withdrawals, on a limited basis, at its Aliso Canyon natural gas storage facility. As of December 31, 2017, SoCalGas' cost estimate is \$913 million related to the Aliso Canyon natural gas storage facility gas leak, which includes \$887 million of costs recovered or probable of recovery from insurance, as we discuss in Note 15 of the Notes to Consolidated Financial Statements.

RESULTS OF OPERATIONS

In 2017, our earnings decreased by approximately \$1.1 billion (81%) to \$256 million and our diluted EPS decreased by \$4.45 per share (82%) to \$1.01 per share. In 2016 compared to 2015, our earnings increased by \$21 million (2%) to \$1.4 billion and our diluted EPS increased by \$0.09 per share (2%) to \$5.46 per share. Our earnings and diluted EPS were impacted by variances discussed in "Segment Results" below and by the items included in the table "Sempra Energy Adjusted Earnings and Adjusted Earnings Per Share," also below.

SEGMENT RESULTS

The following section presents earnings (losses) by Sempra Energy segment, as well as Parent and other, and the related discussion of the changes in segment earnings (losses). Variance amounts presented are the after-tax earnings impact (based on applicable statutory tax rates), unless otherwise noted, and before noncontrolling interests, where applicable.

SEMPRA ENERGY EARNINGS (LOSSES) BY SEGMENT

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Sempra Utilities:			
SDG&E	\$ 407	\$ 570	\$ 587
SoCalGas ⁽¹⁾	396	349	419
Sempra South American Utilities	186	156	175
Sempra Infrastructure:			
Sempra Mexico	169	463	213
Sempra Renewables	252	55	63
Sempra LNG & Midstream	150	(107)	44
Parent and other ⁽²⁾	(1,304)	(116)	(152)
Earnings	\$ 256	\$ 1,370	\$ 1,349

(1) After preferred dividends.

(2) Includes \$1,165 million income tax expense from the effects of the TCJA in 2017, and after-tax interest expense (\$170 million in 2017, \$169 million in 2016 and \$157 million in 2015), intercompany eliminations recorded in consolidation and certain corporate costs.

Sempra Utilities

SDG&E

The decrease in earnings of \$163 million (29%) in 2017 was primarily due to:

- \$208 million charge for the write-off of a regulatory asset associated with wildfire costs, which we discuss in Note 15 of the Notes to Consolidated Financial Statements;
- \$28 million unfavorable impact from the remeasurement of certain U.S. federal deferred income tax assets from 35 percent to 21 percent as a result of the TCJA; and
- \$7 million income tax benefit in 2016 associated with excess tax benefits related to share-based compensation; **offset by**
- \$31 million of charges in 2016 associated with 2012-2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD;
- \$27 million higher CPUC base operating margin authorized for 2017 and lower non-refundable operating costs;
- \$17 million increase in AFUDC related to equity; and
- \$8 million favorable impact in 2017 from the resolution of prior years' income tax items.

The decrease in earnings of \$17 million (3%) in 2016 compared to 2015 was primarily due to:

- \$31 million of charges associated with 2012-2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD;
- \$15 million reduction to the loss from plant closure in 2015 primarily based on the CPUC approval of a compliance filing related to SDG&E's authorized recovery of its investment in SONGS pursuant to an amended settlement agreement approved by the CPUC in 2014;
- \$9 million lower favorable impact in 2016 related to the resolution of prior years' income tax items; and
- \$7 million lower earnings from electric transmission primarily due to lower formulaic revenues associated with lower borrowing costs; **offset by**
- \$23 million higher CPUC base operating margin authorized for 2016, including lower generation major maintenance costs, and lower non-refundable operating costs;
- \$9 million increase in AFUDC related to equity;
- \$7 million income tax benefit associated with excess tax benefits related to share-based compensation; and
- \$7 million lower net interest expense.

SoCalGas

The increase in earnings of \$47 million (13%) in 2017 was primarily due to:

- \$49 million of charges in 2016 associated with 2012-2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD;
- \$16 million higher earnings associated with the PSEP and advanced metering assets; and
- \$13 million impairment of assets in 2016 related to the Southern Gas System Reliability Project (also referred to as the North-South Pipeline); **offset by**
- \$20 million for Aliso Canyon litigation reserves; and
- \$4 million income tax benefit in 2016 associated with excess tax benefits related to share-based compensation.

The decrease in earnings of \$70 million (17%) in 2016 compared to 2015 was primarily due to:

- \$49 million of charges associated with 2012-2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD;
- \$16 million charge associated with tracking the 2016 income tax benefit from certain flow-through items in relation to forecasted amounts in the 2016 GRC FD;
- \$16 million lower favorable impact in 2016 related to the resolution of prior years' income tax items;
- \$13 million impairment of assets related to the Southern Gas System Reliability project;
- \$13 million lower regulatory awards;
- \$11 million of earnings in 2015 from a CPUC-approved retroactive increase in authorized GRC revenue requirement for years 2012 through 2014 due to increased rate base; and
- \$8 million higher net interest expense primarily due to debt issuances in the second quarter of 2015; **offset by**
- \$27 million higher CPUC base operating margin authorized for 2016, and lower non-refundable operating costs; and
- \$23 million higher earnings associated with the PSEP and advanced metering assets.

Sempra South American Utilities

Because our operations in South America use their local currency as their functional currency, revenues and expenses are translated into U.S. dollars at average exchange rates for the period for consolidation in Sempra Energy Consolidated's results of operations. The year-to-year variances discussed below are as adjusted for the difference in foreign currency translation rates between years. We discuss these and other foreign currency effects below in "Impact of Foreign Currency and Inflation Rates on Results of Operations."

The increase in earnings of \$30 million (19%) in 2017 was primarily due to:

- \$16 million lower income tax expense, including \$17 million income tax expense in 2016 related to Peruvian tax reform, as we discuss below in "Changes in Revenues, Costs and Earnings – Income Taxes;"
- \$8 million higher earnings from operations primarily due to an increase in rates and lower operating expenses at Luz del Sur; and
- \$6 million higher earnings from foreign currency translation effects.

The decrease in earnings of \$19 million (11%) in 2016 compared to 2015 was primarily due to:

- \$15 million higher income tax expense, including \$17 million related to Peruvian tax reform;
- \$9 million lower earnings from foreign currency translation effects;
- \$7 million business interruption insurance proceeds in 2015 for the Santa Teresa hydroelectric power plant, which was expected to begin commercial operation in September 2014, but did not commence operation until September 2015 due to construction delays; and
- \$3 million lower capitalized interest primarily due to completion of construction of the Santa Teresa hydroelectric power plant in 2015; **offset by**
- \$10 million higher earnings from operations mainly due to the start of operations of the Santa Teresa hydroelectric power plant in September 2015.

Sempra Infrastructure

Sempra Mexico

The decrease in earnings of \$294 million in 2017 was primarily due to:

- \$432 million noncash gain in 2016 associated with the remeasurement of our equity interest in IEnova Pipelines (formerly known as GdC);
- \$36 million favorable impact in 2016 due to \$55 million favorable foreign currency and inflation effects, offset by a \$19 million loss from foreign currency derivatives, which we use to hedge Sempra Mexico's foreign currency exposure from its controlling interest in IEnova, compared to \$35 million unfavorable impact in 2017 due to \$84 million unfavorable foreign currency and inflation effects, offset by a \$49 million gain from foreign currency derivatives. We discuss these effects below in "Impact of Foreign Currency and Inflation Rate on Results of Operations;"
- \$28 million higher income tax expense in 2017 mainly related to a deferred income tax liability on an outside basis difference in joint venture investments; and
- \$28 million higher interest expense, including \$19 million at Ventika and \$8 million at IEnova Pipelines related to debt assumed in their respective acquisitions; **offset by**
- \$98 million higher pipeline operational earnings, primarily attributable to the increase in ownership in IEnova Pipelines from 50 percent to 100 percent in September 2016 and from other pipeline assets placed in service;
- \$73 million earnings attributable to noncontrolling interests at IEnova in 2017, compared to \$133 million in 2016, as we discuss below in "Changes in Revenues, Costs and Earnings – Earnings Attributable to Noncontrolling Interests;"
- \$71 million impairment in 2017 of TdM assets held for sale, net of a \$12 million income tax benefit that has been fully reserved, compared to a \$111 million impairment in 2016 of such assets;
- \$34 million higher operational earnings in 2017 from Sempra Mexico's renewables business, primarily due to Ventika, which we acquired in December 2016; and
- \$8 million tax benefit in 2017 from a reduction to the outside basis deferred tax liability on our investment in the TdM natural gas-fired power plant that is held for sale, compared to an \$8 million tax expense in 2016.

The increase in earnings of \$250 million in 2016 compared to 2015 was primarily due to:

- \$432 million noncash gain associated with the remeasurement of our 50-percent equity interest in IEnova Pipelines;
- \$20 million incremental earnings from the increase in our ownership interest in IEnova Pipelines from 50 percent to 100 percent in September 2016; and
- \$8 million increase in earnings from our natural gas local distribution company mainly associated with new distribution rates; **offset by**
- \$111 million impairment of TdM assets held for sale;
- \$80 million increase in earnings attributable to noncontrolling interests at IEnova;
- \$36 million favorable impact in 2016, compared to \$49 million favorable impact in 2015 due primarily to transactional effects from foreign currency and inflation, including amounts in equity earnings from our joint ventures; and
- \$8 million deferred income tax expense on our investment in TdM as a result of management's decision to hold the asset for sale.

Sempra Renewables

The increase in earnings of \$197 million in 2017 was primarily due to:

- \$192 million favorable impact from the remeasurement of U.S. federal deferred income tax liabilities from 35 percent to 21 percent as a result of the TCJA; and
- \$14 million higher earnings from our solar tax equity investments, including \$19 million of higher pretax losses attributed to solar tax equity investors reflected in noncontrolling interests, offset by \$7 million associated income taxes; **offset by**
- \$6 million higher general and administrative and development costs.

The decrease in earnings of \$8 million (13%) in 2016 compared to 2015 was primarily due to:

- \$12 million lower solar ITCs from projects placed in service in 2015; and
- \$5 million gain in 2015 from the sale of the Rosamond Solar development project; **offset by**
- \$8 million higher earnings from increased production at our wind and solar assets.

Sempra LNG & Midstream

The increase of \$257 million in 2017 was primarily due to:

- \$133 million favorable impact from the remeasurement of U.S. federal deferred income tax liabilities from 35 percent to 21 percent as a result of the TCJA;
- \$123 million loss in 2016 on permanent release of certain pipeline capacity;
- \$40 million improved results in 2017 due to unfavorable results from midstream activities, including LNG operations, in 2016;
- \$34 million settlement proceeds received from a breach of contract claim against a counterparty in bankruptcy court, of which \$28 million was related to the charge in 2016 from the permanent release of certain pipeline capacity, as we discuss in Note 15 of the Notes to Consolidated Financial Statements; and
- \$27 million impairment charge in 2016 related to our investment in Rockies Express; **offset by**
- \$78 million gain on the sale of EnergySouth in September 2016, net of related expenses;
- \$11 million lower equity earnings resulting from the sale of our investment in Rockies Express in May 2016; and
- \$6 million lower earnings in 2017 due to the sale of EnergySouth in September 2016.

The decrease of \$151 million in 2016 compared to 2015 was primarily due to:

- \$123 million loss on permanent release of pipeline capacity;
- \$36 million gain in 2015 on the sale of the remaining 625-MW block of the Mesquite Power plant, net of related expenses;
- \$36 million lower equity earnings resulting from the sale of our investment in Rockies Express;
- \$27 million impairment charge related to our investment in Rockies Express; and
- \$15 million lower results primarily driven by changes in natural gas prices; **offset by**
- \$78 million gain on the sale of EnergySouth, net of related expenses.

Parent and Other

The increase in losses of \$1.2 billion in 2017 was primarily due to:

- \$1,147 million income tax expense in 2017 compared to a \$54 million tax benefit in 2016, primarily due to:
 - \$1,165 million unfavorable impact from the TCJA, including:
 - \$477 million from the remeasurement of U.S. federal deferred income tax balances from 35 percent to 21 percent,
 - \$360 million U.S. state and non-U.S. withholding tax expense on our expected repatriation of foreign undistributed earnings estimated for deemed repatriation, and
 - \$328 million of U.S. federal deemed repatriation tax,
 - \$20 million U.S. income tax benefit in 2016 as a result of a change in planned repatriation of earnings, as we discuss below in “Changes in Revenues, Costs and Earnings – Income Taxes,” and
 - \$17 million income tax benefit in 2016 associated with excess tax benefits related to share-based compensation; and
- \$20 million of costs in 2017 associated with foreign currency derivatives; **offset by**
- \$31 million higher investment gains on dedicated assets in support of our executive retirement and deferred compensation plans, net of an increase in deferred compensation expense associated with those investments.

The decrease in losses of \$36 million (24%) in 2016 compared to 2015 was primarily due to:

- \$32 million higher income tax benefits, including:
 - \$40 million lower U.S. tax expense in 2016 as a result of a change in planned repatriation, and
 - \$17 million income tax benefit associated with excess tax benefits related to share-based compensation, *offset by*
 - \$14 million income tax benefits in 2015 associated with the favorable resolution of prior years’ income tax items, and
 - \$7 million income tax benefits in 2015 from a decrease in state valuation allowances; and
- \$10 million higher investment gains in 2016 on dedicated assets in support of our executive retirement and deferred compensation plans, net of an increase in deferred compensation expense associated with those investments; **offset by**
- \$10 million higher net interest expense.

ADJUSTED EARNINGS AND ADJUSTED EARNINGS PER SHARE

We prepare the Consolidated Financial Statements in conformity with U.S. GAAP. However, management may use earnings and EPS adjusted to exclude certain items (referred to as adjusted earnings and adjusted EPS) internally for financial planning, for analysis of performance and for reporting of results to the board of directors. We may also use adjusted earnings and adjusted EPS when communicating our financial results and earnings outlook to analysts and investors. Adjusted earnings and adjusted EPS are non-GAAP financial measures. Because of the significance and/or nature of the excluded items, management believes that these non-GAAP financial measures provide a meaningful comparison of the performance of business operations to prior and future periods. Non-GAAP financial measures are supplementary information that should be considered in addition to, but not as a substitute for, the information prepared in accordance with U.S. GAAP.

The table below reconciles Sempra Energy Adjusted Earnings and Adjusted Diluted EPS to GAAP Earnings and GAAP Diluted EPS, which we consider to be the most directly comparable financial measures calculated in accordance with U.S. GAAP, for the years ended December 31, 2017, 2016 and 2015.

SEMPRA ENERGY ADJUSTED EARNINGS AND ADJUSTED EARNINGS PER SHARE

(Dollars in millions, except per share amounts)

	Pretax amount	Income tax expense (benefit) ⁽¹⁾	Non-controlling interests	Earnings	Diluted EPS
Year ended December 31, 2017					
Sempra Energy GAAP Earnings				\$ 256	\$ 1.01
Excluded items:					
Impact from the TCJA	\$ —	\$ 870	\$ —	870	3.45
Write-off of wildfire regulatory asset	351	(143)	—	208	0.82
Impairment of TdM assets held for sale	71	—	(24)	47	0.19
Aliso Canyon litigation reserves	20	—	—	20	0.08
Deferred income tax benefit associated with TdM	—	(8)	3	(5)	(0.02)
Recoveries related to 2016 permanent release of pipeline capacity	(47)	19	—	(28)	(0.11)
Sempra Energy Adjusted Earnings				<u>\$ 1,368</u>	<u>\$ 5.42</u>
Weighted-average number of shares outstanding, diluted (thousands)					252,300
Year ended December 31, 2016					
Sempra Energy GAAP Earnings				\$ 1,370	\$ 5.46
Excluded items:					
Remeasurement gain in connection with GdC acquisition	\$ (617)	\$ 185	\$ 82	(350)	(1.39)
Gain on sale of EnergySouth	(130)	52	—	(78)	(0.31)
Permanent release of pipeline capacity	206	(83)	—	123	0.49
SDG&E tax repairs adjustments related to 2016 GRC FD	52	(21)	—	31	0.12
SoCalGas tax repairs adjustments related to 2016 GRC FD	83	(34)	—	49	0.19
Impairment of investment in Rockies Express	44	(17)	—	27	0.11
Impairment of TdM assets held for sale	131	(20)	(21)	90	0.36
Deferred income tax expense associated with TdM	—	8	(3)	5	0.02
Sempra Energy Adjusted Earnings				<u>\$ 1,267</u>	<u>\$ 5.05</u>
Weighted-average number of shares outstanding, diluted (thousands)					251,155
Year ended December 31, 2015					
Sempra Energy GAAP Earnings				\$ 1,349	\$ 5.37
Excluded items:					
Gain on sale of Mesquite Power block 2	\$ (61)	\$ 25	\$ —	(36)	(0.14)
SONGS plant closure adjustment	(26)	11	—	(15)	(0.06)
Sempra Energy Adjusted Earnings				<u>\$ 1,298</u>	<u>\$ 5.17</u>
Weighted-average number of shares outstanding, diluted (thousands)					250,923

⁽¹⁾ Income taxes were calculated based on applicable statutory tax rates, except for adjustments that are solely income tax. Income taxes associated with TdM were calculated based on the applicable statutory tax rate, including translation from historic to current exchange rates. An income tax benefit of \$12 million associated with the 2017 TdM impairment has been fully reserved.

The table below reconciles SDG&E Adjusted Earnings to GAAP Earnings, which we consider to be the most directly comparable financial measure calculated in accordance with U.S. GAAP, for the years ended December 31, 2017, 2016 and 2015.

SDG&E ADJUSTED EARNINGS

(Dollars in millions)

	Pretax amount	Income tax expense (benefit) ⁽¹⁾	Earnings
Year ended December 31, 2017			
SDG&E GAAP Earnings			\$ 407
Excluded items:			
Impact from the TCJA	\$ —	\$ 28	28
Write-off of wildfire regulatory asset	351	(143)	208
SDG&E Adjusted Earnings			<u>\$ 643</u>
Year ended December 31, 2016			
SDG&E GAAP Earnings			\$ 570
Excluded item:			
SDG&E tax repairs adjustments related to 2016 GRC FD	\$ 52	\$ (21)	31
SDG&E Adjusted Earnings			<u>\$ 601</u>
Year ended December 31, 2015			
SDG&E GAAP Earnings			\$ 587
Excluded item:			
SONGS plant closure adjustment	\$ (26)	\$ 11	(15)
SDG&E Adjusted Earnings			<u>\$ 572</u>

⁽¹⁾ Income taxes were calculated based on applicable statutory tax rates, except for adjustments that are solely income tax.

The table below reconciles SoCalGas Adjusted Earnings to GAAP Earnings, which we consider to be the most directly comparable financial measure calculated in accordance with U.S. GAAP, for the years ended December 31, 2017 and 2016. SoCalGas had no reconciling adjustments for the year ended December 31, 2015.

SOCALGAS ADJUSTED EARNINGS

(Dollars in millions)

	Pretax amount	Income tax expense (benefit) ⁽¹⁾	Earnings
Year ended December 31, 2017			
SoCalGas GAAP Earnings			\$ 396
Excluded items:			
Impact from the TCJA	\$ —	\$ 2	2
Aliso Canyon litigation reserves	20	—	20
SoCalGas Adjusted Earnings			<u>\$ 418</u>
Year ended December 31, 2016			
SoCalGas GAAP Earnings			\$ 349
Excluded item:			
SoCalGas tax repairs adjustments related to 2016 GRC FD	\$ 83	\$ (34)	49
SoCalGas Adjusted Earnings			<u>\$ 398</u>

⁽¹⁾ Income taxes were calculated based on applicable statutory tax rates, except for adjustments that are solely income tax.

CHANGES IN REVENUES, COSTS AND EARNINGS

This section contains a discussion of the differences between periods in the specific line items of the Consolidated Statements of Operations for Sempra Energy, SDG&E and SoCalGas.

Utilities Revenues

Our utilities revenues include

Electric revenues at:

- SDG&E
- Sempra South American Utilities' Chilquinta Energía and Luz del Sur

Natural gas revenues at:

- SDG&E
- SoCalGas
- Sempra Mexico's Ecogas
- Sempra LNG & Midstream's Mobile Gas and Willmut Gas (prior to the sale of EnergySouth on September 12, 2016)

Intercompany revenues included in the separate revenues of each utility are eliminated in the Sempra Energy Consolidated Statements of Operations.

SoCalGas and SDG&E currently operate under a regulatory framework that:

- permits SDG&E to recover the actual cost incurred to generate or procure electricity based on annual estimates of the cost of electricity supplied to customers. The differences in cost between estimates and actual are recovered in subsequent periods through rates.
- permits the cost of natural gas purchased for core customers (primarily residential and small commercial and industrial customers) to be passed through to customers in rates substantially as incurred. However, SoCalGas' GCIM provides SoCalGas the opportunity to share in the savings and/or costs from buying natural gas for its core customers at prices below or above monthly market-based benchmarks. This mechanism permits full recovery of costs incurred when average purchase costs are within a price range around the benchmark price. Any higher costs incurred or savings realized outside this range are shared between the core customers and SoCalGas. We provide further discussion in "Item 1. Business."
- also permits the California Utilities to recover certain expenses for programs authorized by the CPUC, or "refundable programs."

Because changes in SDG&E's and SoCalGas' cost of electricity and/or natural gas are substantially recovered in rates, changes in these costs are offset in the changes in revenues, and therefore do not impact earnings. In addition to the changes in cost or market prices, electric or natural gas revenues recorded during a period are impacted by customer billing cycles causing a difference between customer billings and recorded or authorized costs. These differences are required to be balanced over time, resulting in over- and undercollected regulatory balancing accounts. We discuss balancing accounts and their effects further in Note 14 of the Notes to Consolidated Financial Statements.

The table below summarizes revenues and cost of sales for our utilities.

UTILITIES REVENUES AND COST OF SALES

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Electric revenues:			
SDG&E	\$ 3,935	\$ 3,754	\$ 3,719
Sempra South American Utilities	1,486	1,463	1,447
Eliminations and adjustments ⁽¹⁾	(6)	(6)	(8)
Total	5,415	5,211	5,158
Natural gas revenues:			
SoCalGas	3,785	3,471	3,489
SDG&E	541	499	500
Sempra Mexico	110	88	81
Sempra LNG & Midstream ⁽²⁾	—	68	103
Eliminations and adjustments ⁽¹⁾	(75)	(76)	(77)
Total	4,361	4,050	4,096
Total utilities revenues	\$ 9,776	\$ 9,261	\$ 9,254
Cost of electric fuel and purchased power:			
SDG&E	\$ 1,293	\$ 1,187	\$ 1,151
Sempra South American Utilities	988	1,001	985
Total	\$ 2,281	\$ 2,188	\$ 2,136
Cost of natural gas:			
SoCalGas	\$ 1,025	\$ 891	\$ 921
SDG&E	164	127	153
Sempra Mexico	70	52	49
Sempra LNG & Midstream ⁽²⁾	—	17	31
Eliminations and adjustments ⁽¹⁾	(69)	(20)	(20)
Total	\$ 1,190	\$ 1,067	\$ 1,134

⁽¹⁾ Includes eliminations of intercompany activity.

⁽²⁾ In September 2016, we completed the sale of EnergySouth, the parent company of Mobile Gas and Willmut Gas.

Electric Revenues and Cost of Electric Fuel and Purchased Power

Our electric revenues increased by \$204 million (4%) to \$5.4 billion in 2017 primarily due to:

- \$181 million increase at SDG&E, including:
 - \$106 million higher cost of electric fuel and purchased power, which we discuss below,
 - \$52 million of charges in 2016 associated with 2012-2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD,
 - \$52 million increase in 2017 due to an increase in rates permitted under the attrition mechanism in the 2016 GRC FD, and
 - \$31 million higher authorized revenues from electric transmission, *offset by*
 - \$50 million charge in 2017 associated with tracking the income tax benefit from certain flow-through items in relation to forecasted amounts in the 2016 GRC FD,
 - \$9 million lower recovery of costs associated with CPUC-authorized refundable programs, which revenues are fully offset in O&M, and
 - \$5 million in 2016 to reduce estimated 2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD to actual deductions taken on the 2015 tax return; and
- \$23 million increase at Sempra South American Utilities, including:
 - \$56 million due to foreign currency exchange rate effects, and
 - \$44 million due to higher rates at Luz del Sur, offset by lower rates at Chilquinta Energía, *offset by*
 - \$75 million lower volumes at Luz del Sur, primarily due to the migration of regulated and non-regulated customers to tolling customers, who pay only a tolling fee.

In 2016 compared to 2015, our electric revenues increased by \$53 million (1%), remaining at \$5.2 billion, primarily due to:

- \$35 million increase at SDG&E, including:
 - \$37 million higher authorized revenue in the 2016 GRC FD,

- \$36 million higher cost of electric fuel and purchased power, which we discuss below,
- \$31 million higher recovery of costs associated with CPUC-authorized refundable programs, which revenues are fully offset in O&M, and
- \$5 million to reduce estimated 2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD to actual deductions taken on the 2015 tax return, *offset by*
- \$52 million of charges associated with 2012-2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD; and
- \$16 million increase at Sempra South American Utilities, including:
 - \$117 million due to higher rates at Luz del Sur and Chilquinta Energía primarily due to \$81 million of increased costs passed through to customers, *offset by*
 - \$69 million due to foreign currency exchange rate effects,
 - \$24 million lower volumes at Luz del Sur, net of the effects of higher revenues from the Santa Teresa hydroelectric power plant, which began commercial operations in September 2015, and
 - \$9 million business interruption insurance proceeds in 2015.

Our utilities' cost of electric fuel and purchased power increased by \$93 million (4%) to \$2.3 billion in 2017 due to:

- \$106 million increase at SDG&E, primarily due to an increase in the cost of purchased power due to higher natural gas prices, an increase from the incremental purchase of renewable energy at higher prices and an additional capacity contract; **offset by**
- \$13 million decrease at Sempra South American Utilities primarily due to:
 - \$48 million lower volumes at Luz del Sur, *offset by*
 - \$38 million due to foreign currency exchange rate effects.

Our utilities' cost of electric fuel and purchased power increased by \$52 million (2%) to \$2.2 billion in 2016 compared to 2015 primarily due to:

- \$36 million increase at SDG&E, including:
 - an increase from the incremental purchase of renewable energy at higher prices, *offset by*
 - a decrease in cost of purchased power due to declining natural gas prices, and
 - a decrease in consumption due to increased rooftop solar installations, weather impacts and energy efficiency initiatives; and
- \$16 million increase at Sempra South American Utilities primarily due to:
 - \$81 million of increased costs passed through to customers, *offset by*
 - \$48 million due to foreign currency exchange rate effects, and
 - \$28 million lower volumes at Luz del Sur, net of the effects of increased costs at the Santa Teresa hydroelectric power plant.

Natural Gas Revenues and Cost of Natural Gas

The table below summarizes average cost of natural gas sold by the California Utilities and included in Cost of Natural Gas. The average cost of natural gas sold at each utility is impacted by market prices, as well as transportation, tariff and other charges.

CALIFORNIA UTILITIES AVERAGE COST OF NATURAL GAS

(Dollars per thousand cubic feet)

	Years ended December 31,		
	2017	2016	2015
SoCalGas	\$ 3.44	\$ 3.05	\$ 3.18
SDG&E	4.08	3.20	4.05

In 2017, our natural gas revenues increased by \$311 million (8%) to \$4.4 billion primarily due to:

- \$314 million increase at SoCalGas, which included
 - \$134 million increase in cost of natural gas sold, which we discuss below,
 - \$83 million of charges in 2016 associated with 2012-2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD,
 - \$57 million increase due to 2017 attrition,
 - \$49 million higher revenues primarily associated with the PSEP,

- \$10 million higher recovery of costs associated with CPUC-authorized refundable programs, which revenues are fully offset in O&M, and
- \$5 million GCIM award approved by the CPUC in January 2017, *offset by*
- \$19 million in 2016 to reduce estimated 2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD to actual deductions taken on the 2015 tax return, and
- \$14 million charge in 2017 associated with tracking the income tax benefit from certain flow-through items in relation to forecasted amounts in the 2016 GRC FD;
- \$42 million increase at SDG&E, which included
 - \$37 million increase in cost of natural gas sold, which we discuss below, and
 - \$21 million higher revenues primarily associated with the PSEP, *offset by*
 - \$13 million lower recovery of costs associated with CPUC-authorized refundable programs, which revenues are fully offset in O&M; and
- \$22 million increase at Sempra Mexico primarily due to higher natural gas prices and higher rates for distribution at Ecogas; **offset by**
- \$68 million decrease at Sempra LNG & Midstream due to the sale of EnergySouth in September 2016.

In 2016 compared to 2015, our natural gas revenues decreased by \$46 million (1%) remaining at \$4.1 billion, and the cost of natural gas decreased by \$67 million (6%) remaining at \$1.1 billion. The decrease in natural gas revenues included

- \$35 million decrease at Sempra LNG & Midstream primarily due to the sale of EnergySouth in September 2016;
- \$18 million decrease at SoCalGas, which included
 - \$83 million of charges associated with 2012-2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD,
 - \$30 million decrease in cost of natural gas sold, due to \$38 million from lower average prices offset by \$8 million from higher volume,
 - \$27 million charge associated with tracking the 2016 income tax benefit from certain flow-through items in relation to forecasted amounts in the 2016 GRC FD,
 - \$21 million lower regulatory awards, and
 - \$19 million increase in 2015 from a CPUC-approved retroactive increase in authorized GRC revenue requirement for years 2012 through 2014 due to increased rate base, *offset by*
 - \$56 million higher revenues primarily associated with the PSEP and advanced metering assets,
 - \$52 million higher recovery of costs associated with CPUC-authorized refundable programs, which revenues are fully offset in O&M,
 - \$49 million higher authorized revenue in the 2016 GRC FD, and
 - \$19 million to reduce estimated 2015 income tax benefits generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD to actual deductions taken on the 2015 tax return; and
- \$1 million decrease at SDG&E, which included
 - \$26 million decrease in cost of natural gas sold, due to \$34 million from lower average prices offset by \$8 million from higher volume, *offset by*
 - \$9 million higher recovery of costs associated with CPUC-authorized refundable programs, which revenues are fully offset in O&M, and
 - \$8 million higher revenues primarily associated with the PSEP.

Our cost of natural gas increased by \$123 million (12%) to \$1.2 billion in 2017 primarily due to:

- \$134 million increase at SoCalGas, due to \$114 million from higher average prices and \$20 million from higher volumes driven by weather;
- \$37 million increase at SDG&E primarily due to higher average prices; and
- \$18 million increase at Sempra Mexico, primarily due to higher natural gas prices at Ecogas; **offset by**
- \$49 million primarily from higher elimination of intercompany costs at Sempra Mexico.

Energy-Related Businesses: Revenues and Cost of Sales

The table below shows revenues and cost of sales for our energy-related businesses.

	Years ended December 31,		
	2017	2016	2015
ENERGY-RELATED BUSINESSES: REVENUES AND COST OF SALES			
<i>(Dollars in millions)</i>			
REVENUES			
Sempra South American Utilities	\$ 81	\$ 93	\$ 97
Sempra Mexico	1,086	637	588
Sempra Renewables	94	34	36
Sempra LNG & Midstream	540	440	550
Eliminations and adjustments ⁽¹⁾	(370)	(282)	(294)
Total revenues	\$ 1,431	\$ 922	\$ 977
COST OF SALES⁽²⁾			
Cost of natural gas, electric fuel and purchased power:			
Sempra South American Utilities	\$ 20	\$ 13	\$ 22
Sempra Mexico	252	200	221
Sempra LNG & Midstream	382	337	375
Eliminations and adjustments ⁽¹⁾	(315)	(273)	(283)
Total	\$ 339	\$ 277	\$ 335
Other cost of sales:			
Sempra South American Utilities	\$ 52	\$ 69	\$ 64
Sempra Mexico	9	10	15
Sempra LNG & Midstream	(30)	251	79
Eliminations and adjustments ⁽¹⁾	(7)	(8)	(10)
Total	\$ 24	\$ 322	\$ 148

⁽¹⁾ Includes eliminations of intercompany activity.

⁽²⁾ Excludes depreciation and amortization, which are presented separately on the Sempra Energy Consolidated Statements of Operations.

Revenues from our energy-related businesses increased by \$509 million (55%) to \$1.4 billion in 2017. The increase included

- \$449 million increase at Sempra Mexico primarily due to:
 - \$293 million from the acquisition of the remaining 50-percent interest in IEnova Pipelines in September 2016 and from other pipeline assets placed in service,
 - \$96 million from the acquisition of Ventika in December 2016,
 - \$30 million higher revenues primarily due to higher natural gas prices and customer base in its gas business, and
 - \$28 million increase at TdM due to higher power prices and volumes;
- \$100 million increase at Sempra LNG & Midstream, which included
 - \$51 million primarily from natural gas marketing activities, including an increase in sales of natural gas, and from changes in natural gas prices,
 - \$29 million from higher natural gas and LNG sales to Sempra Mexico primarily due to higher natural gas prices,
 - \$12 million from non-delivery of LNG cargoes due to higher natural gas prices, and
 - \$10 million attributable to Cameron Interstate Pipeline; and
- \$60 million increase at Sempra Renewables primarily due to solar and wind assets placed in service during 2016; **offset by**
- \$88 million primarily from higher intercompany eliminations associated with sales between Sempra LNG & Midstream and Sempra Mexico.

In 2016 compared to 2015, revenues from our energy-related businesses decreased by \$55 million (6%) to \$922 million. The decrease included

- \$110 million decrease at Sempra LNG & Midstream, which included
 - \$63 million primarily driven by changes in natural gas prices and lower volumes,
 - \$34 million lower power revenues due to the sale of the second block of Mesquite Power in April 2015, and
 - \$13 million from lower natural gas sales to Sempra Mexico; **offset by**
- \$49 million higher revenues at Sempra Mexico primarily due to:

- \$82 million due to the acquisition of the remaining 50-percent interest in IEnova Pipelines in September 2016, *offset by*
- \$30 million lower power volumes at the TdM power plant; and
- \$12 million primarily from lower intercompany eliminations associated with sales between Sempra LNG & Midstream and Sempra Mexico.

The cost of natural gas, electric fuel and purchased power for our energy-related businesses increased by \$62 million (22%) to \$339 million in 2017 primarily due to:

- \$52 million increase at Sempra Mexico primarily due to higher natural gas costs and customer base in its gas business; and
- \$45 million increase at Sempra LNG & Midstream primarily due to higher natural gas costs; **offset by**
- \$42 million from higher intercompany eliminations of costs associated with sales between Sempra LNG & Midstream and Sempra Mexico.

Other cost of sales for our energy-related businesses decreased by \$298 million in 2017 primarily due to:

- \$206 million charge in 2016 related to Sempra LNG & Midstream's permanent release of certain pipeline capacity;
- \$57 million settlement proceeds received by Sempra LNG & Midstream in May 2017 from a breach of contract claim against a counterparty, of which \$47 million was related to the charge in 2016 from permanent release of pipeline capacity;
- \$18 million capacity costs in 2016 on the Rockies Express pipeline that have since been permanently released; and
- \$16 million due to lower sales of electrical services and materials at Tecnored.

The cost of natural gas, electric fuel and purchased power for our energy-related businesses decreased by \$58 million (17%) to \$277 million in 2016 compared to 2015 primarily due to:

- \$38 million decrease at Sempra LNG & Midstream primarily due to lower natural gas costs and lower electric fuel costs due to the sale of the remaining block of Mesquite Power in April 2015; and
- \$21 million decrease at Sempra Mexico primarily due to lower natural gas volumes and costs; **offset by**
- \$10 million primarily from lower intercompany eliminations of costs associated with sales between Sempra LNG & Midstream and Sempra Mexico.

Other cost of sales for our energy-related businesses increased by \$174 million to \$322 million in 2016 compared to 2015 primarily due to the \$206 million charge related to Sempra LNG & Midstream's permanent release of pipeline capacity in the second quarter of 2016, offset by \$33 million of capacity costs in 2015 on the Rockies Express pipeline.

Operation and Maintenance

In the table below, we provide a breakdown of O&M by segment.

	Years ended December 31,		
	2017	2016	2015
OPERATION AND MAINTENANCE			
<i>(Dollars in millions)</i>			
Sempra Utilities:			
SDG&E	\$ 1,020	\$ 1,048	\$ 1,017
SoCalGas	1,479	1,385	1,361
Sempra South American Utilities	170	172	160
Sempra Infrastructure:			
Sempra Mexico	234	150	126
Sempra Renewables	73	54	50
Sempra LNG & Midstream	123	156	177
Parent and other ⁽¹⁾	18	5	(5)
Total operation and maintenance	\$ 3,117	\$ 2,970	\$ 2,886

⁽¹⁾ Includes eliminations of intercompany activity.

Our O&M increased by \$147 million (5%) to \$3.1 billion in 2017 primarily due to:

- \$94 million increase at SoCalGas, which included
 - \$54 million higher non-refundable operating costs primarily associated with higher safety-related maintenance and inspection activity, as well as other labor, contract services and administrative and support costs,

- \$20 million Aliso Canyon litigation reserves in 2017, and
- \$10 million higher expenses associated with CPUC-authorized refundable programs;
- \$84 million increase at Sempra Mexico primarily due to the consolidation of IEnova Pipelines and Ventika in 2016, from the growth in Sempra Mexico's businesses, and from scheduled major maintenance at TdM in the second quarter of 2017; and
- \$19 million increase at Sempra Renewables primarily due to solar and wind assets placed in service in the fourth quarter of 2016 and higher general and administrative and development costs; **offset by**
- \$33 million decrease at Sempra LNG & Midstream, \$25 million of which was due to the sale of EnergySouth in September 2016; and
- \$28 million decrease at SDG&E, which included
 - \$22 million lower expenses associated with CPUC-authorized refundable programs,
 - \$12 million decrease at Otay Mesa VIE primarily due to scheduled major maintenance in 2016 at the OMEC plant, and
 - \$11 million reimbursement of litigation costs associated with the arbitration ruling over the SONGS replacement steam generators, as we discuss in Note 13 of the Notes to Consolidated Financial Statements, *offset by*
 - \$16 million higher non-refundable operating costs, including labor, contract services and administrative and support costs.

Our O&M increased by \$84 million (3%) to \$3.0 billion in 2016 compared to 2015 primarily due to:

- \$31 million increase at SDG&E, which included
 - \$40 million higher expenses associated with CPUC-authorized refundable programs, and
 - \$10 million at Otay Mesa VIE primarily due to scheduled major maintenance at the OMEC plant in the second quarter of 2016, *offset by*
 - \$14 million lower litigation expense, and
 - \$8 million lower non-refundable operating costs, including labor, contract services and administrative and support costs;
- \$24 million increase at SoCalGas, which included
 - \$52 million higher expenses associated with CPUC-authorized refundable programs, *offset by*
 - \$33 million lower non-refundable operating costs, including labor, contract services and administrative and support costs; and
- \$24 million increase at Sempra Mexico primarily from \$17 million higher operating costs due to the acquisition of the remaining 50-percent interest in IEnova Pipelines in September 2016; **offset by**
- \$21 million decrease at Sempra LNG & Midstream, \$9 million of which is attributable to the sale of EnergySouth.

Depreciation and Amortization

Our depreciation and amortization expense was

- \$1,490 million in 2017
- \$1,312 million in 2016
- \$1,250 million in 2015

The increase of \$178 million (14%) in 2017 was primarily due to:

- \$79 million increase at Sempra Mexico primarily due to the consolidation of IEnova Pipelines and Ventika in the second half of 2016;
- \$39 million increase at SoCalGas from depreciation on higher utility plant base;
- \$32 million increase at Sempra Renewables due to solar and wind assets placed in service in the fourth quarter of 2016; and
- \$24 million increase at SDG&E primarily from depreciation on higher utility plant base.

The increase of \$62 million (5%) in 2016 compared to 2015 was primarily due to:

- \$42 million increase at SDG&E from depreciation on higher utility plant base, higher depreciation at Otay Mesa VIE and higher amortization; and
- \$15 million increase at SoCalGas from depreciation on higher utility plant base.

Write-off of Wildfire Regulatory Asset

In the third quarter of 2017, SDG&E recorded a \$351 million charge for the write-off of a regulatory asset associated with wildfire costs. We discuss this further in Note 15 of the Notes to Consolidated Financial Statements.

Impairment Losses

Sempra Mexico reduced the carrying value of TdM by recognizing noncash impairment charges of \$71 million in 2017 and \$131 million in 2016, as we discuss in Notes 3 and 10 of the Notes to Consolidated Financial Statements. In 2016, SoCalGas recorded a \$21 million impairment of assets related to the Southern Gas System Reliability project.

Plant Closure Adjustment

In 2015, SDG&E recorded a \$26 million pretax reduction to the loss from SONGS plant closure. We discuss SONGS further in Note 13 of the Notes to Consolidated Financial Statements.

Gain on Sale of Assets

Gain on sale of assets includes, in 2016, \$130 million from the sale of EnergySouth, and in 2015, \$61 million from the sale of the remaining 625-MW block of the Mesquite Power plant and a related power sale contract, and \$8 million from the sale of the Rosamond Solar development project.

Equity Earnings, Before Income Tax

Equity earnings from our equity method investments were

- \$34 million in 2017
- \$6 million in 2016
- \$104 million in 2015

The increase of \$28 million in equity earnings in 2017 was primarily attributable to \$26 million equity losses in 2016 from Sempra LNG & Midstream's investment in Rockies Express, including a \$44 million impairment charge in the first quarter of 2016.

The decrease of \$98 million in equity earnings in 2016 was primarily due to the \$44 million impairment charge related to Sempra LNG & Midstream's investment in Rockies Express in the first quarter of 2016, and \$61 million lower equity earnings as a result of the sale of our 25-percent interest in Rockies Express in May 2016.

We provide further details about equity method investments in Note 4 of the Notes to Consolidated Financial Statements.

Remeasurement of Equity Method Investment

In the third quarter of 2016, Sempra Mexico recorded a \$617 million noncash gain associated with the remeasurement of its 50-percent equity interest in IEnova Pipelines. We discuss the transaction further in Notes 3 and 10 of the Notes to Consolidated Financial Statements.

Other Income, Net

Other income, net, was

- \$254 million in 2017
- \$132 million in 2016
- \$126 million in 2015

Other income, net, includes equity-related AFUDC at the California Utilities and regulated entities at Sempra Mexico and Sempra LNG & Midstream; interest on regulatory balancing accounts; gains and losses from our investments and interest rate swaps; foreign currency transaction gains and losses; electrical infrastructure relocation income in Peru and Chile; and other, sundry amounts. The investment activity is on dedicated assets in support of certain executive benefit plans, as we discuss in Note 7 of the Notes to Consolidated Financial Statements.

As part of our central risk management function, we enter into foreign currency derivatives to hedge Sempra Mexico parent's exposure to movements in the Mexican peso from its controlling interest in IEnova. The gains associated with these derivatives are included in Other Income, Net, as described below, and partially mitigate the transactional effects of foreign currency and inflation included in Income Taxes and in earnings from Sempra Mexico's equity method investments. We discuss policies governing our risk management in "Item 7A. Quantitative and Qualitative Disclosures About Market Risk" below.

Other income, net, increased by \$122 million to \$254 million in 2017 and included the following activity:

- \$47 million net gains in 2017 on interest rate and foreign exchange instruments, compared to \$32 million net losses in 2016 primarily as a result of significant fluctuation of the Mexican peso;
- \$52 million increase in equity-related AFUDC, including:
 - \$17 million increase at SDG&E, and
 - \$32 million increase at Sempra Mexico primarily from the Ojinaga and San Isidro pipeline projects; and
- \$33 million higher investment gains in 2017 on dedicated assets in support of our executive retirement and deferred compensation plans; **offset by**
- \$34 million higher foreign currency transactional losses in 2017, primarily related to a Mexican peso-denominated note receivable due from IMG JV.

In 2016 compared to 2015, other income, net, increased by \$6 million (5%) to \$132 million and included the following activity:

- \$20 million higher investment gains in 2016 on dedicated assets in support of our executive retirement and deferred compensation plans;
- \$9 million increase in equity-related AFUDC, including:
 - \$9 million increase at SDG&E, and
 - \$4 million increase at SoCalGas, *offset by*
 - \$6 million decrease at Sempra Mexico; and
- \$6 million lower foreign currency losses in 2016; **offset by**
- \$28 million higher losses on interest rate and foreign exchange instruments in 2016; and
- \$6 million lower income from the sale of other investments.

We provide further details of the components of other income, net, in Note 1 of the Notes to Consolidated Financial Statements.

Interest Expense

Interest expense was

- \$659 million in 2017
- \$553 million in 2016
- \$561 million in 2015

The increase of \$106 million (19%) in 2017 was primarily due to:

- \$84 million increase at Sempra Mexico, which included
 - \$40 million increase due to interest on debt assumed in the IEnova Pipelines and Ventika acquisitions in the second half of 2016,
 - \$28 million increase due to lower capitalized interest due to the recognition of AFUDC mainly related to the Ojinaga and San Isidro pipeline projects in 2017,
 - \$10 million increase in short-term debt at IEnova; and
- \$11 million increase at Sempra Renewables primarily due to lower capitalized interest as a result of solar and wind assets placed into service in the fourth quarter of 2016.

The decrease of \$8 million (1%) in 2016 compared to 2015 was primarily due to:

- \$26 million higher capitalized interest primarily due to:
 - \$18 million increase at Sempra Renewables primarily for solar projects, and
 - \$10 million increase at Sempra Mexico primarily for the Ojinaga and San Isidro pipeline projects; **offset by**
- \$13 million increase at SoCalGas primarily due to debt issuances in 2015 and 2016; and
- \$6 million higher lease interest on our downtown headquarters building.

Income Taxes

The table below shows the income tax expense and ETRs for Sempra Energy, SDG&E and SoCalGas.

	INCOME TAX EXPENSE AND EFFECTIVE INCOME TAX RATES					
	<i>(Dollars in millions)</i>					
	Years ended December 31,					
	2017		2016		2015	
	Income tax expense	Effective income tax rate	Income tax expense	Effective income tax rate	Income tax expense	Effective income tax rate
Sempra Energy Consolidated	\$ 1,276	81%	\$ 389	21%	\$ 341	20%
SDG&E	155	27	280	33	284	32
SoCalGas	160	29	143	29	138	25

On December 22, 2017, the TCJA was signed into law. As discussed below, we recorded additional income tax expense of \$870 million from the effects of the TCJA in 2017.

Following are the key provisions of the TCJA, its impact on us in 2017 and how we expect it may impact us in the future:

- **Lower U.S. statutory corporate income tax rate:** The TCJA reduces the U.S. statutory corporate income tax rate from 35 percent to 21 percent, effective January 1, 2018, which will be applied to our future U.S. earnings. We expect the resultant lower income tax expense at SDG&E and SoCalGas to be allocated to ratepayers.
- **Deemed repatriation:** The TCJA imposes a one-time tax for deemed repatriation of cumulative undistributed earnings of non-U.S. subsidiaries. Under the deemed repatriation provision of the TCJA, a U.S. shareholder must include in taxable income its pro-rata share of cumulative foreign undistributed earnings, which are taxed at 15.5 percent on cash or cash equivalents and 8 percent on cumulative other earnings.
- **Territorial tax system:** The TCJA adopts a territorial system of taxation that replaces the previous worldwide taxation approach. The TCJA provides for a 100 percent dividends received deduction for foreign source dividends, effectively resulting in no federal income taxes on repatriation of foreign earnings after 2017.
- **Full expensing of depreciable property:** Property placed in service after September 27, 2017 is generally eligible for full expensing. Regulated public utilities, including SDG&E and SoCalGas, are not eligible for this treatment.
- **Limitation of interest deductions:** The TCJA limits the deduction for interest expense that exceeds adjusted taxable income. Any disallowed interest expense can be carried forward indefinitely. Regulated public utilities, including SDG&E and SoCalGas, are excepted from this limitation.
- **Executive compensation deduction limitation:** The TCJA amends the definition of a covered employee and eliminates certain exceptions previously allowed under prior law, limiting the annual deductible compensation expense for a covered employee to \$1 million.
- **NOL deductions:** U.S. federal NOL carryforwards generated in years starting in 2018 are limited to 80 percent of taxable income. The TCJA permits new NOLs to be carried forward indefinitely, but no longer allows any carryback.

Our 2017 income tax expense was materially impacted by the effects of the TCJA primarily relating to two provisions:

- **Lower U.S. statutory corporate income tax rate:** The remeasurement of deferred income taxes at the new U.S. statutory corporate federal income tax rate of 21 percent resulted in additional income tax expense of \$182 million, \$28 million and \$2 million for the year ended December 31, 2017 for Sempra Energy Consolidated, SDG&E and SoCalGas, respectively. Due to regulation by the CPUC and FERC, remeasurement impacts at SDG&E and SoCalGas were largely offset by adjustments to regulatory liabilities.
- **Deemed repatriation:** Sempra Energy recorded income tax expense of \$328 million associated with the deemed repatriation tax for the year ended December 31, 2017. In addition, we now anticipate that we will repatriate our foreign undistributed earnings (estimated to be approximately \$4 billion) that have now been taxed at the U.S. federal level as a result of the deemed repatriation tax. We expect to repatriate approximately \$1.6 billion from 2018 through 2022, as cash is generated by our businesses at the local level. We currently anticipate electing to use our existing NOLs to offset the deemed repatriation tax. However, as provided under the TCJA, at the time of filing our tax return in 2018, should we determine that we will pay the deemed repatriation tax over a period of eight years instead of utilizing our NOLs, our income tax expense and cash tax payments would increase. In addition to the deemed repatriation tax, we accrued \$360 million of U.S. state and non-U.S. withholding tax on our expected future repatriation of foreign undistributed earnings. This liability could change as a result of various factors, such as interpretation and clarification of the TCJA provisions, changes in foreign tax laws, foreign currency movements, the source of cash to be repatriated, or adjustments to our provisional estimates, as we discuss below.

We have not recorded deferred income tax with respect to remaining basis differences of approximately \$1 billion between financial statement and income tax investment amounts in our non-U.S. subsidiaries as of December 31, 2017 because we consider them to be indefinitely reinvested. It is not practicable to determine the hypothetical amount of tax that might be payable if the underlying basis differences were realized. If these basis differences were realized, we would need to adjust our income tax provision in the period we determine that they are no longer indefinitely reinvested.

We recorded the effects of the TCJA in 2017 using our best estimates and the information available to us through the date the financial statements were issued. However, our analysis is ongoing and as such, the income tax effects that we have recorded are provisional.

As permitted by and in accordance with guidance issued by the SEC, we may adjust our provisional estimates in reporting periods throughout 2018 as we complete our analysis and as more information becomes available, and these adjustments may affect earnings. Events and information that may result in adjustments to our provisional estimates include interpretations or rulings by the U.S. Department of the Treasury or states, the filing of our 2017 income tax return and the finalization of our calculation of foreign undistributed earnings.

We discuss the TCJA and its impacts further in Note 6 of the Notes to Consolidated Financial Statements.

Sempra Energy Consolidated

Sempra Energy's income tax expense increased in 2017 due to a higher ETR, partially offset by lower pretax income. The higher ETR was primarily due to:

- \$870 million from effects of the TCJA, as follows:
 - \$688 million income tax expense in 2017 related to future repatriation of foreign earnings, including \$328 million of U.S. federal income tax expense pertaining to the deemed repatriation tax and \$360 million U.S. state and non-U.S. withholding tax expense on our expected future repatriation of foreign undistributed earnings estimated for deemed repatriation, and
 - \$182 million deferred income tax expense from remeasurement of our U.S. federal deferred income tax balances from 35 percent to 21 percent;
- \$62 million income tax expense in 2017, compared to \$38 million income tax benefit in 2016, from foreign currency and inflation effects, primarily as a result of significant fluctuation of the Mexican peso in 2017; and
- \$34 million income tax benefit in 2016 associated with excess tax benefits related to share-based compensation; **offset by**
- \$33 million income tax benefit in 2017, compared to \$3 million income tax expense in 2016, related to the resolution of prior years' income tax items.

Sempra Energy's income tax expense increased in 2016 compared to 2015 due to higher pretax income and a higher ETR. The higher ETR was primarily due to:

- \$3 million income tax expense in 2016, compared to \$56 million income tax benefit in 2015, from the resolution of prior years' income tax items. The amount in 2016 included \$14 million income tax expense from lower actual repairs deductions at SDG&E and SoCalGas taken on the 2015 tax return compared to amounts estimated in 2015, as discussed in Note 14 of the Notes to Consolidated Financial Statements; and
- \$17 million income tax expense from the remeasurement of our Peruvian deferred income tax balances as a result of tax reform in Peru as discussed below; **offset by**
- \$34 million income tax benefit in 2016 associated with excess tax benefits related to share-based compensation; and
- \$40 million lower U.S. income tax expense as a result of a change in planned repatriation from certain non-U.S. subsidiaries.

We report as part of our pretax results the income or loss attributable to noncontrolling interests. However, we do not record income taxes for a portion of this income or loss, as some of our entities with noncontrolling interests are currently treated as partnerships for income tax purposes, and thus we are only liable for income taxes on the portion of the earnings that are allocated to us. Our pretax income, however, includes 100 percent of these entities. As our entities with noncontrolling interests grow, and as we may continue to invest in such entities, the impact on our ETR may become more significant.

SDG&E

SDG&E's income tax expense decreased in 2017 due to lower pretax income and a lower ETR. The pretax income in 2017 included the \$351 million (\$208 million after-tax) write-off of wildfire regulatory asset. The lower ETR was primarily due to:

- \$12 million higher income tax benefit in 2017 from the resolution of prior years' income tax items; and
- higher flow-through deductions in 2017, including higher AFUDC that is non-taxable; **offset by**

- \$28 million deferred income tax expense from remeasurement of U.S. federal deferred income tax balances from 35 percent to 21 percent, primarily from the deferred tax asset relating to the impairments of SONGS SGRP in prior years. We discuss the impairment of SONGS SGRP in Note 13 of the Notes to Consolidated Financial Statements; and
- \$7 million income tax benefit in 2016 associated with excess tax benefits related to share-based compensation.

SDG&E's income tax expense decreased in 2016 compared to 2015 due to lower pretax income, offset by a higher ETR. The higher ETR was primarily due to:

- \$11 million lower income tax benefit in 2016 from the resolution of prior years' income tax items, including \$3 million income tax expense in 2016 from lower actual repairs deductions taken on the 2015 tax return compared to amounts estimated in 2015; **offset by**
- \$7 million income tax benefit in 2016 associated with excess tax benefits related to share-based compensation.

SoCalGas

SoCalGas' income tax expense increased in 2017 due to higher pretax income. SoCalGas' ETR remained the same in 2017, but was affected by:

- \$12 million income tax benefit in 2017, compared to \$10 million income tax expense in 2016, from the resolution of prior years' income tax items; **offset by**
- \$4 million income tax benefit in 2016 associated with excess tax benefits related to share-based compensation.

SoCalGas' income tax expense increased in 2016 compared to 2015 due to a higher ETR, offset by lower pretax income. The higher ETR was primarily due to:

- \$10 million income tax expense in 2016, compared to \$18 million income tax benefit in 2015, from the resolution of prior years' income tax items. The amount in 2016 included \$11 million income tax expense from lower actual repairs deductions taken on the 2015 tax return compared to amounts estimated in 2015; **offset by**
- \$4 million income tax benefit in 2016 associated with excess tax benefits related to share-based compensation.

Peruvian Tax Legislation

On December 10, 2016, the Peruvian president, through a presidential decree, enacted income tax law changes that became effective on January 1, 2017. Among other changes, the new law imposes an increase in the corporate income tax rate from 28 percent in 2016 to 29.5 percent in 2017 and beyond, as well as a decrease in the dividend withholding tax rate from 6.8 percent in 2016 to 5 percent in 2017 and beyond. As a result of the increase to the Peruvian corporate income tax rate to 29.5 percent, we remeasured our Peruvian deferred income tax balances, resulting in \$17 million income tax expense recorded in 2016.

Equity Earnings, Net of Income Tax

Equity earnings of unconsolidated subsidiaries, net of income tax, which are all from Sempra South American Utilities' and Sempra Mexico's equity method investments, were

- \$42 million in 2017
- \$78 million in 2016
- \$85 million in 2015

The decrease of \$36 million in 2017 was primarily due to:

- \$64 million of equity earnings in 2016 from IEnova Pipelines, including \$19 million from DEN, prior to IEnova's acquisition of the remaining 50-percent interest in IEnova Pipelines in September 2016; and
- \$13 million equity losses in 2017 from DEN, prior to IEnova's acquisition of the remaining 50-percent interest in DEN in November 2017, compared to \$5 million of equity earnings in 2016, primarily from foreign currency and inflation effects; **offset by**
- \$45 million equity earnings from IMG, primarily from AFUDC equity and foreign currency effects, offset by interest expense.

The decrease of \$7 million in 2016 compared to 2015 was primarily due to IEnova's acquisition of the remaining 50-percent interest in IEnova Pipelines, increasing IEnova's ownership in IEnova Pipelines to 100 percent, offset by higher equity earnings at the Eletrans joint venture.

Earnings Attributable to Noncontrolling Interests

Earnings attributable to noncontrolling interests were \$94 million for 2017 compared to \$148 million for 2016. The net change of \$54 million included

- \$60 million at Sempra Mexico, primarily due to:
 - \$50 million lower earnings attributable to noncontrolling interests as a result of the decrease in earnings, excluding the effects of foreign currency and inflation, as we discuss above in “Segment Results – Sempra Mexico,” and
 - \$28 million losses attributable to noncontrolling interests in 2017 from foreign currency and inflation effects without the corresponding benefit from foreign currency derivatives that are not subject to noncontrolling interests compared to \$14 million earnings in 2016, *offset by*
 - \$32 million higher earnings attributable to noncontrolling interests, excluding the effects of foreign currency and inflation, from the decrease in our controlling interest from 81.1 percent to 66.4 percent following IEnova’s equity offering in October 2016, which we discuss in Note 1 of the Notes to Consolidated Financial Statements; and
- \$19 million higher pretax losses attributed to tax equity investors at Sempra Renewables in 2017; **offset by**
- \$14 million earnings at SDG&E compared to \$5 million losses in 2016, primarily due to an increase in operating expenses as a result of scheduled major maintenance at the OMEC plant in 2016.

Earnings attributable to noncontrolling interests were \$148 million for 2016 compared to \$98 million for 2015. The net change of \$50 million included

- \$80 million at Sempra Mexico, primarily due to:
 - \$82 million gain associated with the remeasurement of our 50-percent equity interest in IEnova Pipelines, and
 - \$14 million due to the decrease in our controlling interest from 81.1 percent to 66.4 percent following IEnova’s equity offerings in October 2016, *offset by*
 - \$21 million impairment of TdM assets held for sale; **offset by**
- \$24 million decrease at SDG&E, primarily as a result of scheduled major maintenance at the OMEC plant in 2016.

TRANSACTIONS WITH AFFILIATES

We provide information about our related party transactions in Note 1 of the Notes to Consolidated Financial Statements.

IMPACT OF FOREIGN CURRENCY AND INFLATION RATES ON RESULTS OF OPERATIONS

Foreign Currency Translation

Our operations in South America and our natural gas distribution utility in Mexico use their local currency as their functional currency. The assets and liabilities of these foreign operations are translated into U.S. dollars at current exchange rates at the end of the reporting period, and revenues and expenses are translated at average exchange rates for the reporting period. The resulting noncash translation adjustments do not enter into the calculation of earnings or retained earnings, but are reflected in OCI and in AOCI. However, any difference in average exchange rates used for the translation of income statement activity from year to year can cause a variance in Sempra Energy’s comparative results of operations. Changes in foreign currency translation rates between years impacted our comparative reported results as follows:

TRANSLATION IMPACT FROM CHANGE IN AVERAGE FOREIGN CURRENCY EXCHANGE RATES

(Dollars in millions)

	2017 compared to 2016	2016 compared to 2015
Higher (lower) earnings from foreign currency translation:		
Sempra South American Utilities	\$ 6	\$ (8)
Sempra Mexico – Ecogas	—	(2)
Total	\$ 6	\$ (10)

Transactional Impacts

Some income statement activities at our foreign operations and their joint ventures are also impacted by transactional gains and losses, which we discuss below. A summary of these foreign currency transactional gains and losses included in our reported results are as follows:

TRANSACTIONAL GAINS (LOSSES) FROM FOREIGN CURRENCY AND INFLATION

(Dollars in millions)

	Total reported amounts			Transactional gains (losses) included in reported amounts		
	Years ended December 31,					
	2017	2016	2015	2017	2016	2015
Other income, net	\$ 254	\$ 132	\$ 126	\$ 14	\$ (33)	\$ (11)
Income tax expense	(1,276)	(389)	(341)	(62)	38	43
Equity earnings, net of income tax	42	78	85	14	23	17
Net income	351	1,519	1,448	(53)	39	50
Earnings	256	1,370	1,349	(25)	25	40

Foreign Currency Exchange Rate and Inflation Impacts on Income Taxes and Related Hedging Activity

Our Mexican subsidiaries have U.S. dollar-denominated cash balances, receivables, payables and debt (monetary assets and liabilities) that are affected by Mexican currency exchange rate movements for Mexican income tax purposes. They also have deferred income tax assets and liabilities, which are significant, denominated in the Mexican peso that must be translated to U.S. dollars for financial reporting purposes. In addition, monetary assets and liabilities and certain nonmonetary assets and liabilities are adjusted for Mexican inflation for Mexican income tax purposes. As a result, fluctuations in both the currency exchange rate for the Mexican peso against the U.S. dollar and Mexican inflation may expose us to fluctuations in Income Tax Expense and Equity Earnings, Net of Income Tax. We use foreign currency derivatives as a means to manage exposure to the currency exchange rate on our monetary assets and liabilities. However, we generally do not hedge our deferred income tax assets and liabilities, which makes us susceptible to volatility in income tax expense caused by exchange rate fluctuations and inflation. The derivative activity impacts Other Income, Net.

The income tax expense of our South American subsidiaries is similarly impacted by inflation and currency exchange rate movements related to U.S. dollar-denominated monetary assets and liabilities.

Other Transactions

Although the financial statements of most of our Mexican subsidiaries and joint ventures (Energía Sierra Juárez and IMG) have the U.S. dollar as the functional currency, some transactions may be denominated in the local currency; such transactions are remeasured into U.S. dollars. This remeasurement creates transactional gains and losses that are included in Other Income, Net, for our consolidated subsidiaries and in Equity Earnings, Net of Income Tax, for our joint ventures (including IEnova Pipelines until September 26, 2016 and DEN until November 15, 2017).

We utilize cross-currency swaps that exchange our Mexican-peso denominated principal and interest payments into the U.S. dollar and swap Mexican variable interest rates for U.S. fixed interest rates. The impacts of these cross-currency swaps are offset in OCI and are reclassified from AOCI into earnings through Interest Expense as settlements occur.

Certain of our Mexican pipeline projects (namely Los Ramones I at IEnova Pipelines and Los Ramones Norte within our TAG joint venture) generate revenue based on tariffs that are set by government agencies in Mexico, with contracts denominated in Mexican pesos that are indexed to the U.S. dollar, adjusted annually for inflation and fluctuation in the exchange rate. The resultant gains and losses from remeasuring the local currency amounts into U.S. dollars and the settlement of foreign currency forwards and swaps related to these contracts are included in Revenues: Energy-Related Businesses or Equity Earnings, Net of Income Tax.

Our joint ventures in Chile (Eletrans) use the U.S. dollar as the functional currency, but have certain construction commitments that are denominated in CLF. Eletrans entered into forward exchange contracts to manage the foreign currency exchange risk of the CLF relative to the U.S. dollar. The forward exchange contracts settle based on anticipated payments to vendors, generally monthly, ending in 2018, with activity recorded in Equity Earnings, Net of Income Tax.

CAPITAL RESOURCES AND LIQUIDITY

OVERVIEW

We expect to meet cash requirements of our operations through cash flows from operations, unrestricted cash and cash equivalents, borrowings under our credit facilities, distributions from our equity method investments, issuances of debt and equity securities, project financing and other equity sales, including tax equity and partnering in joint ventures. We discuss the anticipated financing and cash flow impacts of our pending acquisition of EFH below.

Our lines of credit provide liquidity and support commercial paper. As we discuss in Note 5 of the Notes to Consolidated Financial Statements, Sempra Energy, Sempra Global and the California Utilities each have five-year revolving credit facilities expiring in 2020. The table below shows the amount of available funds, including available unused credit on these three credit facilities, at December 31, 2017. Our foreign operations have additional general purpose credit facilities aggregating \$1.8 billion, with \$1.4 billion available unused credit at December 31, 2017.

AVAILABLE FUNDS AT DECEMBER 31, 2017

(Dollars in millions)

	Sempra Energy Consolidated	SDG&E	SoCalGas
Unrestricted cash and cash equivalents ⁽¹⁾	\$ 288	\$ 12	\$ 8
Available unused credit ⁽²⁾⁽³⁾	3,035	497	634

⁽¹⁾ Amounts at Sempra Energy Consolidated include \$140 million held in non-U.S. jurisdictions. We discuss repatriation in "Results of Operations – Changes in Revenues, Costs and Earnings – Income Taxes" above.

⁽²⁾ Available unused credit is the total available on Sempra Energy's, Sempra Global's and the California Utilities' credit facilities that we discuss in Note 5 of the Notes to Consolidated Financial Statements. Borrowings on the shared line of credit at SDG&E and SoCalGas are limited to \$750 million for each utility and a combined total of \$1 billion.

⁽³⁾ Because the commercial paper programs are supported by these lines, we reflect the amount of commercial paper outstanding as a reduction to the available unused credit.

On January 17, 2018, pursuant to the terms of the Sempra Energy and Sempra Global credit facilities, the amounts available under the lines of credit were increased by \$250 million for Sempra Energy and \$850 million for Sempra Global. This additional borrowing capacity is available to us for working capital, capital expenditures and other general corporate purposes, and is intended to provide us with additional liquidity and to support commercial paper that we may utilize from time to time to fund our strategic and growth initiatives.

Sempra Energy Consolidated

We believe that these available funds, combined with cash flows from operations, distributions from our equity method investments, issuances of debt and equity securities, project financing and other equity sales, including tax equity and partnering in joint ventures, will be adequate to fund our current operations, including to:

- finance capital expenditures
- meet liquidity requirements
- fund shareholder dividends
- fund new business or asset acquisitions or start-ups, including our pending acquisition of EFH
- repay maturing long-term debt
- fund expenditures related to the natural gas leak at SoCalGas' Aliso Canyon natural gas storage facility

Sempra Energy and the California Utilities currently have ready access to the long-term debt markets and are not currently constrained in their ability to borrow at reasonable rates. However, changing economic conditions and matters related to our pending acquisition of EFH could negatively affect the availability and cost of both short-term and long-term financing. Also, cash flows from operations may be impacted by the timing of commencement and completion of large projects. If cash flows from operations were to be significantly reduced or we were unable to borrow under acceptable terms, we would likely first reduce or postpone discretionary capital expenditures (not related to safety) and investments in new businesses. If these measures were necessary, they would primarily impact our Sempra Infrastructure businesses before we would reduce funds necessary for

the ongoing needs of our utilities. We monitor our ability to finance the needs of our operating, investing and financing activities in a manner consistent with our intention to maintain our investment-grade credit ratings and capital structure.

We have significant investments in several trusts to provide for future payments of pensions and other postretirement benefits, and nuclear decommissioning. Changes in asset values, which are dependent on the activity in the equity and fixed income markets, have not affected the trust funds' abilities to make required payments. However, changes in asset values may, along with a number of other factors such as changes to discount rates, assumed rates of return, mortality tables, and regulations, impact funding requirements for pension and other postretirement benefit plans and SDG&E's NDT. At the California Utilities, funding requirements are generally recoverable in rates. In 2017 and 2016, sale and purchase activities in our NDT increased significantly compared to prior years as a result of a change to our asset mix intended to reduce the overall risk profile of the NDT in anticipation of significant cash withdrawals over the next 10 years to fund the SONGS decommissioning. We discuss our employee benefit plans and SDG&E's NDT, including our investment allocation strategies for assets in these trusts, in Notes 7 and 13, respectively, of the Notes to Consolidated Financial Statements.

We discuss matters regarding Sempra Energy, SDG&E and SoCalGas common stock dividends below in "Dividends."

Short-Term Borrowings

Our short-term debt is primarily used to meet liquidity requirements, fund shareholder dividends, and temporarily finance capital expenditures and acquisitions or start-ups. Our corporate short-term, unsecured promissory notes, or commercial paper, were our primary sources of short-term debt funding in 2017. At our California Utilities, short-term debt is used primarily to meet working capital needs.

The following table shows selected statistics for our commercial paper borrowings for 2017:

COMMERCIAL PAPER STATISTICS

(Dollars in millions)

	Sempra Energy Consolidated	SDG&E	SoCalGas
Amount outstanding at December 31, 2017	\$ 1,300	\$ 253	\$ 116
Weighted-average interest rate at December 31, 2017	1.709%	1.646%	1.636%
Maximum month-end amount outstanding during 2017 ⁽¹⁾	\$ 2,433	\$ 437	\$ 116
Monthly weighted-average amount outstanding during 2017	\$ 1,594	\$ 220	\$ 19
Monthly weighted-average interest rate during 2017	1.371%	1.059%	1.225%

⁽¹⁾ The largest amount outstanding at the end of the last day of any month during the year.

Pending Acquisition of Energy Future Holdings Corp.

On August 21, 2017, Sempra Energy entered into a Merger Agreement to acquire EFH, the indirect owner of an 80.03-percent interest in Oncor (the Merger). Under the Merger Agreement, we will pay Merger Consideration of \$9.45 billion in cash. We discuss our registered public offerings of common stock (including shares offered pursuant to forward sale agreements), mandatory convertible preferred stock and long-term debt completed in January 2018 below and in Note 18 of the Notes to Consolidated Financial Statements. These offerings provided total initial net proceeds of approximately \$7.0 billion for partial funding of the Merger Consideration, of which approximately \$800 million was used to pay down commercial paper pending the closing of the Merger.

On January 9, 2018, we completed an offering of 23,364,486 shares of our common stock pursuant to forward sale agreements with each of Morgan Stanley & Co. LLC, an affiliate of RBC Capital Markets, LLC and an affiliate of Barclays Capital Inc. We also sold 3,504,672 shares of our common stock directly to the underwriters of the offering as a result of the underwriters fully exercising their option to purchase shares from us solely to cover overallocments, and received \$368 million in net proceeds (net of underwriting discounts, but before deducting related expenses). We did not initially receive any proceeds from the offering of our common stock offered pursuant to the forward sale agreements. We expect to settle a portion of the forward sale agreements and receive proceeds from the delivery of shares of common stock concurrently with, or prior to, the closing of the Merger. We expect to settle the remaining portion of the forward sale agreements after the Merger, if completed, in multiple settlements on or prior to December 15, 2019, which is the scheduled final settlement date under the forward sale agreements. At the initial forward sale price of \$105.074 per share, we expect the net proceeds from full physical settlement of the forward sale agreements to be approximately \$2.46 billion (after deducting underwriting discounts, but before deducting expenses, and subject to forward price

adjustments under the forward sale agreements). If we elect to cash settle the forward sale agreements, we would expect to receive an amount of net proceeds that is significantly lower than estimated above, and we may not receive any net proceeds (or may owe cash, which could be a significant amount, to the forward purchasers). If we elect to net share settle the forward sale agreements in full, we would not receive any cash proceeds from the forward purchasers (and we may be required to deliver shares of our common stock to the forward purchasers).

Also on January 9, 2018, we sold to underwriters 17,250,000 shares of our 6% mandatory convertible preferred stock, series A, at \$100.00 per share (or \$98.20 per share after deducting underwriting discounts, but before deducting related expenses), including 2,250,000 shares purchased by the underwriters as a result of the underwriters fully exercising their option to purchase shares from us solely to cover overallocments. Net proceeds were approximately \$1.69 billion (net of underwriting discounts, but before deducting related expenses). If for any reason the Merger has not closed on or prior to December 1, 2018, or the Merger Agreement is terminated at any time prior to such date, then we expect to use the net proceeds from these offerings for general corporate purposes, which may include, in our sole discretion, voluntary redemption of the mandatory convertible preferred stock, debt repayment (including repayment of commercial paper), capital expenditures, investments and possibly repurchases of our common stock at the discretion of our board of directors.

On January 12, 2018, we issued \$5 billion aggregate principal amount of various series of fixed and floating rate notes maturing at various times from 2019 through 2048. If we do not consummate the Merger on or prior to December 1, 2018, or if, on or prior to such date, the Merger Agreement is terminated, we will be required to redeem all of the outstanding notes (other than the \$1 billion aggregate principal amount of notes maturing in 2028) at a redemption price equal to 101 percent of the principal amount of the notes plus accrued and unpaid interest, if any.

In addition to the net proceeds we received from the registered public offering of common stock, mandatory convertible preferred stock, and debt described above, we expect to settle a portion of the forward sale agreements and receive proceeds from the delivery of shares of common stock concurrently with, or prior to, the closing of the Merger to fund a portion of the Merger Consideration. We expect to raise the remaining portion of the Merger Consideration through multiple issuances of up to \$2.7 billion aggregate principal amount of commercial paper, which we started issuing on February 23, 2018, although we may reduce this amount through borrowings under our revolving credit facilities and cash from operations. The commercial paper will be issued at prevailing market rates with varying maturity dates. As of February 26, 2018, we have issued approximately \$275 million aggregate principal amount of commercial paper to fund a portion of the Merger Consideration, with a weighted-average maturity of 86 days and a weighted-average interest rate of 2.14 percent per annum.

We intend to ultimately fund approximately 65 percent of the Merger Consideration and associated transaction costs with net proceeds from sales of Sempra Energy equity securities, including proceeds from the offerings in January 2018 and from settlements of our forward sale agreements, and approximately 35 percent with the net proceeds from issuances of Sempra Energy debt securities, although we may use cash from operations and proceeds from asset sales in place of some equity financing. Some of the equity financing (including proceeds we receive from the settlement of our forward sale agreements and from other sales of common stock) may be obtained after completion of the Merger and used to repay indebtedness incurred to finance a portion of the Merger Consideration and associated transaction costs.

We anticipate that the Merger, if consummated on the terms and under the financing structure currently contemplated, will have a positive impact on our consolidated results of operations. This expectation is based on current market conditions and is subject to a number of assumptions, estimates, projections and other uncertainties, including assumptions regarding the results of operations of the combined company after the Merger, the relative mix and timing of debt and equity financing obtained to ultimately fund the Merger Consideration, the price and interest rates of these financings and the date we close the Merger. This expectation also assumes that Oncor will perform in accordance with our expectations, and there can be no assurance that this will occur. In addition, we may encounter additional transaction costs and costs to manage our investment in Oncor, may fail to realize some or any of the benefits anticipated in the Merger, may be subject to currently unknown liabilities as a result of the Merger, or may be subject to other factors that affect preliminary estimates.

We provide additional discussion regarding the Merger and financing risks in Notes 3 and 18 of the Notes to Consolidated Financial Statements, in “Factors Influencing Future Performance” below and in “Item 1A. Risk Factors.” We discuss the potential effects of the Merger on our credit ratings in “Item 7A. Quantitative and Qualitative Disclosures about Market Risk.”

Impacts of the TCJA

In the fourth quarter of 2017, we recorded certain effects of the TCJA, resulting in an increase to income tax expense of \$870 million at Sempra Energy Consolidated for the remeasurement of U.S. federal deferred income tax assets and liabilities at the new federal income tax rate of 21 percent, the one-time deemed repatriation tax on cumulative undistributed earnings of U.S.-owned foreign corporations, and the related accrual of incremental U.S. state and foreign withholding taxes on expected future

repatriation of our undistributed earnings subject to deemed repatriation. Although there is no cash impact in 2017, these effects represent future tax payments or other cash outflow and, in the case of SDG&E and SoCalGas, the remeasurement of their U.S. federal deferred income tax balances will result in cash outflow primarily for refunds to ratepayers in the future. However, the federal and state income taxes and withholding taxes we accrued allow us to repatriate approximately \$4 billion of undistributed non-U.S. earnings without further material tax expense expected. We expect to repatriate approximately \$1.6 billion from 2018 to 2022, as cash is generated by our businesses at the local level. We currently anticipate electing to use our existing NOLs to offset the deemed repatriation tax. However, as provided under the TCJA, at the time of filing our tax return in 2018, should we determine that we will pay the deemed repatriation tax over a period of eight years instead of utilizing our NOLs, our income tax expense and cash tax payments would increase.

Certain financial metrics used by credit rating agencies, such as our funds from operations-to-debt percentage, could be negatively impacted as a result of certain provisions of the TCJA and in particular by an anticipated decrease in income tax reimbursement payments to us from SDG&E and SoCalGas due the reduction in the U.S statutory corporate income tax rate to 21 percent.

Certain provisions of the TCJA, such as 100-percent expensing of capital expenditures and impacts on utilization of our NOLs, may also influence how we fund capital expenditures, the timing of capital expenditures and possible redeployment of capital through sales or monetization of assets, the timing of repatriation of foreign earnings and the use of equity financing to reduce our future use of debt.

As we discuss in Note 6 of the Notes to Consolidated Financial Statements and above in “Changes in Revenues, Costs and Earnings – Income Taxes,” our analysis and interpretation of the effects of the TCJA and our assessment of strategies to manage the cash and earnings impacts on our businesses are ongoing.

Loans to/from Affiliates

At December 31, 2017, Sempra Energy has provided loans to unconsolidated affiliates totaling \$598 million, and has received a \$35 million loan from an unconsolidated affiliate, which we discuss in Note 1 of the Notes to Consolidated Financial Statements.

California Utilities

SDG&E and SoCalGas expect that available funds described above, cash flows from operations, and debt issuances will continue to be adequate to fund their respective operations.

As we discuss in Note 14 of the Notes to Consolidated Financial Statements, changes in balancing accounts for significant costs at SDG&E and SoCalGas, particularly a change between over- and undercollected status, may have a significant impact on cash flows, as these changes generally represent the difference between when costs are incurred and when they are ultimately recovered in rates through billings to customers. SDG&E uses the ERRA commodity balancing account to record the net of its actual cost incurred for electric fuel and purchased power. SDG&E’s ERRA balance was undercollected by \$51 million and \$25 million at December 31, 2017 and 2016, respectively. The increase in the ERRA undercollected balance in 2017 has been primarily due to lower electric volume in conjunction with seasonalized electric rates. The CPUC authorized an ERRA Trigger mechanism in conjunction with California state law that allows for recovery of ERRA balances that exceed 5 percent of the prior year’s electric commodity revenues. In August 2017, the CPUC approved SDG&E’s request to amortize \$120 million in rates over a 14-month period beginning November 2017.

SDG&E also uses the Electric Distribution Fixed Cost Account (EDFCA) balancing account to record the difference between the authorized margin and other costs allocated to electric distribution customers. SDG&E’s EDFCA balance was undercollected by \$112 million and \$96 million at December 31, 2017 and 2016, respectively. The increase resulted from lower electric volumes sold in 2017.

SoCalGas and SDG&E use the CFCA balancing account to record the difference between the authorized margin and other costs allocated to core customers. Because mild weather experienced in 2016 and 2017 resulted in lower natural gas consumption compared to authorized levels, SoCalGas’ CFCA balance was undercollected by \$164 million and \$114 million at December 31, 2017 and 2016, respectively. SDG&E’s CFCA balance was undercollected by \$26 million and \$66 million at December 31, 2017 and 2016, respectively.

We discuss matters regarding SDG&E and SoCalGas common stock dividends below in “Dividends.”

SoCalGas

Aliso Canyon Natural Gas Storage Facility Gas Leak

We provide information on the natural gas leak at the Aliso Canyon natural gas storage facility in Note 15 of the Notes to Consolidated Financial Statements, in “Factors Influencing Future Performance” below, and in “Item 1A. Risk Factors.” The costs of defending against the related civil and criminal lawsuits and cooperating with related investigations, and any damages, restitution, and civil, administrative and criminal fines, costs and other penalties, if awarded or imposed, as well as costs of mitigating the actual natural gas released, could be significant, and to the extent not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas’ and Sempra Energy’s cash flows, financial condition and results of operations. Also, higher operating costs and additional capital expenditures incurred by SoCalGas as a result of new laws, orders, rules and regulations arising out of this incident or our responses thereto could be significant and may not be recoverable in customer rates, which may have a material adverse effect on SoCalGas’ and Sempra Energy’s cash flows, financial condition and results of operations. In addition, if it is determined that the Aliso Canyon natural gas storage facility was out of service for more than nine consecutive months, we may be unable to recover this investment in rates.

The costs incurred to remediate and stop the leak and to mitigate local community impacts were significant and may increase, and to the extent not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas’ and Sempra Energy’s cash flows, financial condition and results of operations.

Sempra South American Utilities

We expect to fund operations at Chilquinta Energía and Luz del Sur and dividends at Luz del Sur with available funds, including credit facilities, funds internally generated by those businesses, issuances of corporate bonds and other external borrowings.

Sempra Mexico

We expect to fund operations and dividends at IEnova with available funds, including credit facilities, and funds internally generated by the Sempra Mexico businesses, as well as funds from IEnova’s securities issuances, project financing, interim funding from the parent or affiliates, and partnering in joint ventures.

In 2017, 2016 and 2015, IEnova paid dividends of \$67 million, \$26 million and \$32 million, respectively, to its noncontrolling shareholders.

Sempra Renewables

We expect Sempra Renewables to require funds for the development of and investment in electric renewable energy projects. Projects at Sempra Renewables may be financed through a combination of operating cash flow, project financing, funds from the parent, partnering in joint ventures, and other forms of equity sales, including tax equity. The varying costs and structure of these alternative financing sources impact the projects’ returns and their earnings profiles.

Sempra LNG & Midstream

We expect Sempra LNG & Midstream to require funding for the development and expansion of its portfolio of projects, which may be financed through a combination of operating cash flow, funding from the parent, project financing and partnering in joint ventures.

Sempra LNG & Midstream, through its interest in Cameron LNG JV, is developing a natural gas liquefaction export facility at the Cameron LNG JV terminal. The majority of the current three-train liquefaction project is project-financed, with most or all of the remainder of the capital requirements to be provided by the project partners, including Sempra Energy, through equity contributions under a joint venture agreement. We expect that our remaining equity requirements to complete the project will be met by a combination of our share of cash generated from each liquefaction train as it comes on line and additional cash contributions. Sempra Energy signed guarantees for 50.2 percent of Cameron LNG JV’s obligations under the financing agreements for a maximum amount of up to \$3.9 billion. The project financing and guarantees became effective on October 1, 2014, the effective date of the joint venture formation. The guarantees will terminate upon satisfaction of certain conditions, including all three trains achieving commercial operation and meeting certain operational performance tests. We anticipate that the guarantees will be terminated approximately nine months after all three trains achieve commercial operation.

We discuss Cameron LNG JV and the joint venture financing further in Note 4 of the Notes to Consolidated Financial Statements, below in “Factors Influencing Future Performance,” and in “Item 1A. Risk Factors.”

CASH FLOWS FROM OPERATING ACTIVITIES

CASH PROVIDED BY OPERATING ACTIVITIES

(Dollars in millions)

	2017	2017 change		2016 ⁽¹⁾	2016 change		2015 ⁽¹⁾
Sempra Energy Consolidated	\$ 3,625	\$ 1,314	57%	\$ 2,311	\$ (587)	(20)%	\$ 2,898
SDG&E	1,547	224	17	1,323	(338)	(20)	1,661
SoCalGas	1,306	635	95	671	(209)	(24)	880

⁽¹⁾ Reflects the adoption of ASU 2016-15 and ASU 2016-18, as we discuss in Note 2 of the Notes to Consolidated Financial Statements.

Sempra Energy Consolidated

Cash provided by operating activities at Sempra Energy increased in 2017 primarily due to:

- \$1.1 billion higher net income, adjusted for noncash items included in earnings, in 2017 compared to 2016, primarily due to improved results at our operating segments;
- \$188 million net decrease in Insurance Receivable for Aliso Canyon Costs in 2017 compared to a \$281 million net increase in 2016. The \$188 million net decrease in 2017 primarily includes \$300 million in insurance proceeds received, offset by \$112 million of additional accruals. We discuss the Aliso Canyon natural gas storage facility leak further in Note 15 of the Notes to Consolidated Financial Statements and in “Item 1A. Risk Factors;”
- \$31 million net increase in Reserve for Aliso Canyon Costs in 2017 compared to a \$221 million net decrease in 2016. The \$31 million net increase in 2017 includes \$130 million of additional accruals (including \$20 million of litigation reserves charged to earnings), offset by \$99 million of cash paid;
- \$66 million decrease in NDT at SDG&E in 2017 as a result of CPUC authorization to withdraw trust funds for SONGS decommissioning costs incurred in the current year; and
- \$17 million decrease in accounts receivable in 2017 compared to a \$42 million increase in 2016; **offset by**
- \$54 million increase in net overcollected regulatory balancing accounts (including long-term amounts) at SoCalGas in 2017 compared to a \$293 million increase in 2016. Over- and undercollected regulatory balancing accounts reflect the difference between customer billings and recorded or CPUC-authorized costs. These differences are required to be balanced over time;
- \$145 million increase in permanent pipeline capacity release liability at Sempra LNG & Midstream in 2016. We discuss the permanent pipeline capacity releases in Note 15 of the Notes to Consolidated Financial Statements;
- \$28 million increase in net undercollected regulatory balancing accounts (including long-term amounts) at SDG&E in 2017 compared to a \$55 million decrease in 2016;
- \$70 million increase in income taxes receivable in 2017 compared to a \$3 million decrease in 2016; and
- \$83 million increase in accounts payable in 2017 compared to a \$122 million increase in 2016.

Cash provided by operating activities at Sempra Energy decreased in 2016 compared to 2015 primarily due to:

- \$221 million net decrease in Reserve for Aliso Canyon Costs in 2016 compared to a \$274 million increase in 2015. The \$221 million net decrease includes \$654 million of cash expenditures, offset by \$433 million of additional accruals;
- \$268 million lower net income, adjusted for noncash items included in earnings, in 2016 compared to 2015, including charges for income tax benefits previously generated from income tax repairs deductions that were reallocated to ratepayers pursuant to the 2016 GRC FD, as well as lower results at Sempra LNG & Midstream;
- \$348 million net decrease in undercollected regulatory balancing accounts (including long-term amounts) in 2016 at the California Utilities compared to a \$544 million net decrease in 2015;
- \$93 million higher income tax payments in 2016; and
- \$20 million increase in inventory in 2016 compared to a \$65 million decrease in 2015; **offset by**
- \$122 million increase in accounts payable in 2016 compared to a \$157 million decrease in 2015, primarily due to higher average cost of natural gas purchased at SoCalGas, as well as higher gas purchases as a result of the moratorium on natural gas injections at the Aliso Canyon natural gas storage facility;
- \$145 million increase in permanent pipeline capacity release liability at Sempra LNG & Midstream;
- \$42 million increase in accounts receivable in 2016 compared to a \$99 million increase in 2015. The 2015 increase was primarily due to an increase in physical gas sales at SoCalGas;

- \$281 million net increase in Insurance Receivable for Aliso Canyon Costs in 2016 compared to a \$325 million increase in 2015. The \$281 million net increase in 2016 included \$450 million of additional accruals, offset by \$169 million in insurance proceeds;
- \$36 million net decrease in GHG allowance purchases at the California Utilities; and
- \$23 million reduction to the SONGS regulatory asset due to cash received for SDG&E's portion of the DOE settlement with Edison related to spent fuel storage, as we discuss in Note 15 of the Notes to Consolidated Financial Statements.

SDG&E

Cash provided by operating activities at SDG&E increased in 2017 primarily due to:

- \$136 million decrease in income taxes receivable in 2017 compared to a \$115 million increase in 2016, primarily due to timing of tax payments;
- \$66 million decrease in NDT in 2017 as a result of CPUC authorization to withdraw trust funds for SONGS decommissioning costs incurred in the current year;
- \$15 million in purchases of GHG allowances in 2017 compared to \$58 million in 2016; and
- \$75 million increase in accounts payable in 2017 compared to a \$39 million increase in 2016; **offset by**
- \$28 million increase in net undercollected regulatory balancing accounts (including long-term amounts) in 2017 compared to a \$55 million decrease in 2016;
- \$76 million increase in accounts receivable in 2017 compared to a \$31 million increase in 2016; and
- \$23 million lower net income, adjusted for noncash items included in earnings, in 2017 compared to 2016.

Cash provided by operating activities at SDG&E decreased in 2016 compared to 2015 primarily due to:

- \$55 million decrease in net undercollected regulatory balancing accounts (including long-term amounts) in 2016 compared to a \$474 million decrease in 2015, primarily due to changes in electric commodity accounts;
- \$49 million higher income tax payments in 2016; and
- \$19 million increase in receivables due from affiliates in 2016 compared to a \$21 million decrease in 2015; **offset by**
- \$72 million higher net income, adjusted for noncash items included in earnings, in 2016 compared to 2015;
- \$58 million in purchases of GHG allowances in 2016 compared to \$117 million in 2015; and
- \$23 million reduction to the SONGS regulatory asset due to cash received for SDG&E's portion of the DOE settlement with Edison related to spent fuel storage.

SoCalGas

Cash provided by operating activities at SoCalGas increased in 2017 primarily due to:

- \$188 million net decrease in Insurance Receivable for Aliso Canyon Costs in 2017 compared to a \$281 million net increase in 2016. The \$188 million net decrease in 2017 primarily includes \$300 million in insurance proceeds received, offset by \$112 million of additional accruals;
- \$31 million net increase in Reserve for Aliso Canyon Costs in 2017 compared to a \$221 million net decrease in 2016. The \$31 million net increase in 2017 includes \$130 million of additional accruals (including \$20 million of litigation reserves charged to earnings), offset by \$99 million of cash paid;
- \$135 million higher net income, adjusted for noncash items included in earnings, in 2017 compared to 2016;
- \$20 million net source of cash due to changes in other current assets and liabilities in 2017 compared to a \$38 million net use of cash in 2016; and
- \$72 million decrease in accounts receivable in 2017 compared to a \$37 million decrease in 2016; **offset by**
- \$54 million increase in net overcollected regulatory balancing accounts (including long-term amounts) in 2017 compared to a \$293 million increase in 2016; and
- \$66 million increase in inventory in 2017 compared to a \$4 million decrease in 2016.

Cash provided by operating activities at SoCalGas decreased in 2016 compared to 2015 primarily due to:

- \$221 million net decrease in Reserve for Aliso Canyon Costs in 2016 compared to a \$274 million increase in 2015. The \$221 million net decrease includes \$654 million of cash expenditures, offset by \$433 million of additional accruals;
- \$4 million decrease in inventory in 2016 compared to a \$102 million decrease in 2015. The decrease in 2015 was primarily due to the moratorium on natural gas injections at the Aliso Canyon natural gas storage facility;
- \$72 million lower net income, adjusted for noncash items included in earnings, in 2016 compared to 2015;
- \$40 million higher income tax payments in 2016;

- \$10 million decrease in accrued compensation in 2016 compared to a \$31 million increase in 2015; and
- \$85 million in purchases of GHG allowances in 2016 compared to \$62 million in 2015; **offset by**
- \$36 million increase in accounts payable in 2016 compared to a \$143 million decrease in 2015. The 2015 decrease was primarily due to the moratorium on natural gas injections at the Aliso Canyon natural gas storage facility, as well as lower average cost of natural gas purchased;
- \$293 million increase in net overcollected regulatory balancing accounts (including long-term amounts) in 2016 compared to a \$70 million decrease in net undercollected regulatory balancing accounts in 2015, primarily due to changes in fixed-cost balancing accounts;
- \$37 million decrease in accounts receivable in 2016 compared to a \$90 million increase in 2015. The increase in 2015 was primarily due to an increase in physical gas sales; and
- \$281 million net increase in Insurance Receivable for Aliso Canyon Costs in 2016 compared to a \$325 million increase in 2015. The \$281 million net increase in 2016 included \$450 million of additional accruals, offset by \$169 million in insurance proceeds.

CASH FLOWS FROM INVESTING ACTIVITIES

CASH USED IN INVESTING ACTIVITIES							
<i>(Dollars in millions)</i>							
	2017	2017 change		2016 ⁽¹⁾	2016 change		2015 ⁽¹⁾
Sempra Energy Consolidated	\$ (4,700)	\$ (135)	(3)%	\$ (4,835)	\$ 1,967	69%	\$ (2,868)
SDG&E	(1,515)	191	14	(1,324)	247	23	(1,077)
SoCalGas	(1,363)	94	7	(1,269)	(133)	(9)	(1,402)

⁽¹⁾ Reflects the adoption of ASU 2016-15 and ASU 2016-18, as we discuss in Note 2 of the Notes to Consolidated Financial Statements.

Sempra Energy Consolidated

Cash used in investing activities at Sempra Energy decreased in 2017 primarily due to:

- \$1.2 billion decrease in expenditures for investments and acquisition of businesses, as we discuss below; and
- \$265 million decrease in capital expenditures, as we discuss below; **offset by**
- \$506 million higher advances to unconsolidated affiliates, mainly to the IMG joint venture to finance construction of a natural gas marine pipeline;
- \$443 million net proceeds received from Sempra LNG & Midstream's sale of its 25-percent interest in Rockies Express in 2016;
- \$318 million net proceeds received from Sempra LNG & Midstream's sale of EnergySouth in 2016; and
- \$100 million decrease in NDT assets in 2016 as a result of CPUC authorization to withdraw trust funds for SONGS decommissioning costs incurred in prior years.

Cash used in investing activities at Sempra Energy increased in 2016 compared to 2015 primarily due to:

- \$1.3 billion increase in expenditures for investments and acquisition of businesses;
- \$1.1 billion increase in capital expenditures;
- \$347 million of net proceeds received in 2015 from Sempra LNG & Midstream's sale of the remaining 625-MW block of its Mesquite Power plant and a related power sale contract; and
- \$63 million lower repayments of advances to unconsolidated affiliates; **offset by**
- \$443 million net proceeds received from Sempra LNG & Midstream's sale of its investment in Rockies Express in 2016;
- \$318 million net proceeds from Sempra LNG & Midstream's sale of EnergySouth in 2016; and
- \$100 million decrease in NDT assets in 2016 as a result of CPUC authorization to withdraw trust funds for SONGS decommissioning costs incurred in prior years, compared to a \$60 million decrease in 2015.

SDG&E

Cash used in investing activities at SDG&E increased in 2017 primarily due to:

- \$156 million increase in capital expenditures; and
- \$100 million decrease in NDT assets in 2016 as a result of CPUC authorization to withdraw trust funds for SONGS decommissioning costs incurred in prior years; **offset by**
- \$31 million decrease in advances to Sempra Energy in 2017 compared to a \$31 million increase in 2016.

Cash used in investing activities at SDG&E increased in 2016 compared to 2015 primarily due to:

- \$266 million increase in capital expenditures; and
- \$31 million net advances to Sempra Energy; **offset by**
- \$100 million decrease in NDT assets in 2016 as a result of CPUC authorization to withdraw trust funds for SONGS decommissioning costs incurred in prior years, compared to a \$60 million decrease in 2015.

SoCalGas

Cash used in investing activities at SoCalGas increased in 2017 primarily due to:

- \$50 million net decrease in advances to Sempra Energy in 2016; and
- \$48 million increase in capital expenditures.

Cash used in investing activities at SoCalGas decreased in 2016 compared to 2015 due to:

- \$50 million net decrease in advances to Sempra Energy in 2016 compared to a \$50 million net increase in 2015; and
- \$33 million lower capital expenditures.

CAPITAL EXPENDITURES AND INVESTMENTS

Sempra Energy Consolidated Expenditures for PP&E

The following table summarizes capital expenditures for the years ended December 31, 2017, 2016 and 2015.

EXPENDITURES FOR PP&E <i>(Dollars in millions)</i>	Years ended December 31,		
	2017	2016	2015
SDG&E:			
Improvements to electric and natural gas distribution systems, including certain pipeline safety and generation systems	\$ 966	\$ 727	\$ 639
PSEP	48	121	98
Improvements to electric transmission systems	527	513	396
Electric generation plants and equipment	14	38	—
SoCalGas:			
Improvements to natural gas distribution, transmission and storage systems, and for certain pipeline safety	1,145	932	785
PSEP	194	292	361
Advanced metering infrastructure	28	95	206
Sempra South American Utilities:			
Improvements to electric transmission and distribution systems and generation projects in Peru	151	134	98
Improvements to electric transmission and distribution infrastructure in Chile	93	60	56
Sempra Mexico:			
Construction of the Sonora, Ojinaga and San Isidro pipeline projects	183	302	278
Construction of other natural gas pipeline and renewables projects, and capital expenditures at Ecogas	65	28	24
Sempra Renewables:			
Construction costs for wind projects	133	198	16
Construction costs for solar projects	364	637	65
Sempra LNG & Midstream:			
Cameron Interstate Pipeline and other LNG liquefaction development costs	18	98	55
Other	2	19	32
Parent and other	18	20	47
Total	\$ 3,949	\$ 4,214	\$ 3,156

Sempra Energy Consolidated Investments and Acquisitions

During the years ended December 31, 2017, 2016 and 2015, Sempra Energy invested in various joint ventures and other businesses, summarized in the following table.

	EXPENDITURES FOR INVESTMENTS AND ACQUISITIONS ⁽¹⁾		
	<i>(Dollars in millions)</i>		
	Years ended December 31,		
	2017	2016 ⁽²⁾	2015 ⁽²⁾
Sempra South American Utilities:			
Eletrans	\$ 1	\$ —	\$ —
Sempra Mexico:			
DEN	147	—	—
IEnova Pipelines	—	1,078	—
IMG	72	100	—
Ventika	—	242	—
Sempra Renewables:			
Expenditures for wind projects ⁽³⁾	—	21	19
Expenditures for solar projects	—	—	5
Other	—	15	—
Sempra LNG & Midstream:			
Cameron LNG JV ⁽⁴⁾	48	47	59
Mississippi Hub ⁽⁵⁾	—	—	2
Rockies Express ⁽⁶⁾	—	—	113
Parent and other	2	1	—
Total	\$ 270	\$ 1,504	\$ 198

⁽¹⁾ Net of cash, cash equivalents and restricted cash acquired.

⁽²⁾ Reflects the adoption of ASU 2016-15 and ASU 2016-18, as we discuss in Note 2 of the Notes to Consolidated Financial Statements.

⁽³⁾ Excludes accrued purchase price of \$5 million in 2015.

⁽⁴⁾ Includes capitalized interest of \$47 million, \$47 million and \$49 million in 2017, 2016 and 2015, respectively, on Sempra LNG & Midstream's investment, as the joint venture has not commenced planned principal operations.

⁽⁵⁾ Investment in industrial development bonds.

⁽⁶⁾ Repayment of project debt that matured in early 2015.

Sempra Energy Consolidated Distributions from Investments

Sempra Energy's distributions from investments, which represent the return of investment capital from equity method investments at Sempra Renewables, totaled \$26 million, \$25 million and \$15 million for the years ended December 31, 2017, 2016 and 2015, respectively. These amounts do not include distributions of earnings from equity method investments that represent returns on investments, which are included in cash flows from operations.

Future Construction Expenditures and Investments

The amounts and timing of capital expenditures and certain investments are generally subject to approvals by various regulatory and other governmental and environmental bodies, including the CPUC and the FERC. In 2018, we expect to make capital expenditures and investments of approximately \$13.3 billion, as summarized in the following table.

FUTURE CONSTRUCTION EXPENDITURES AND INVESTMENTS	
<i>(Dollars in millions)</i>	
	Year ended December 31, 2018
SDG&E:	
Improvements to electric and natural gas distribution systems, including certain pipeline safety and generation systems	\$ 835
PSEP	5
Improvements to electric transmission systems	420
SoCalGas:	
Improvements to natural gas distribution, transmission and storage systems, and for certain pipeline safety	1,000
PSEP	200
Energy Future Holdings:	
Merger Consideration	9,450
Capital contribution and transaction costs	250
Sempra South American Utilities:	
Improvements to electric transmission and distribution systems and generation projects in Peru	140
Improvements to electric transmission and distribution infrastructure in Chile	80
Sempra Mexico:	
Construction of the Pima, La Rumorosa and Tepezalá II solar projects	160
Construction of liquid fuels terminals	240
Improvements to natural gas transmission and distribution systems	120
Sempra Renewables:	
Construction costs for wind and solar projects	100
Sempra LNG & Midstream:	
Development of LNG and natural gas transportation projects	320
Total	<u>\$ 13,320</u>

We discuss significant capital projects, planned and in progress, at each of our segments in “Factors Influencing Future Performance” below.

Over the next five years, 2018 through 2022, and subject to the factors described below which could cause these estimates to vary substantially, Sempra Energy expects to make aggregate capital expenditures and investments of approximately \$12.9 billion at the California Utilities and \$11.9 billion at its other subsidiaries.

Capital expenditure amounts include capitalized interest. At the California Utilities, the amounts also include the portion of AFUDC related to debt, but exclude the portion of AFUDC related to equity. At Sempra Mexico and Sempra LNG & Midstream, the amounts also exclude AFUDC related to equity. We provide further details about AFUDC in Note 1 of the Notes to Consolidated Financial Statements.

Periodically, we review our construction, investment and financing programs and revise them in response to changes in regulation, economic conditions, competition, customer growth, inflation, customer rates, the cost and availability of capital, and safety and environmental requirements. We discuss these considerations in more detail in Notes 13, 14 and 15 of the Notes to Consolidated Financial Statements.

Our level of capital expenditures and investments in the next few years may vary substantially and will depend on the cost and availability of financing, regulatory approvals, changes in U.S. federal tax law and business opportunities providing desirable rates of return. We intend to finance our capital expenditures in a manner that will maintain our investment-grade credit ratings and capital structure.

CASH FLOWS FROM FINANCING ACTIVITIES

CASH FLOWS FROM FINANCING ACTIVITIES

(Dollars in millions)

	2017	2017 change	2016 ⁽¹⁾	2016 change	2015 ⁽¹⁾
Sempra Energy Consolidated	\$ 1,007	\$ (1,495)	\$ 2,502	\$ 2,678	\$ (176)
SDG&E	(23)	(1)	(22)	546	(568)
SoCalGas	53	(499)	552	57	495

⁽¹⁾ Reflects the adoption of ASU 2016-15 and ASU 2016-18, as we discuss in Note 2 of the Notes to Consolidated Financial Statements.

Sempra Energy Consolidated

Cash provided by financing activities at Sempra Energy decreased in 2017 primarily due to:

- \$1.2 billion proceeds received in 2016 from the IEnova follow-on common stock offerings, net of offering costs and Sempra Energy's participation, as we discuss in Note 1 of the Notes to Consolidated Financial Statements;
- \$743 million higher payments on debt with maturities greater than 90 days, including:
 - \$828 million higher payments of commercial paper and other short-term debt (\$1.9 billion in 2017 compared to \$1.07 billion in 2016), *offset by*
 - \$85 million lower payments on long-term debt (\$906 million in 2017 compared to \$991 million in 2016);
- \$36 million net decrease in short-term debt in 2017 compared to a \$692 million net increase in 2016;
- \$196 million net proceeds from tax equity funding from certain wind and solar power generation projects at Sempra Renewables in 2017 compared to \$474 million in 2016;
- \$69 million increase in common stock dividends paid in 2017; and
- \$67 million increase in net distributions to noncontrolling interests; **offset by**
- \$1.6 billion higher issuances of debt with maturities greater than 90 days, including:
 - \$1.4 billion for long-term debt (\$3 billion in 2017 compared to \$1.6 billion in 2016), and
 - \$172 million for commercial paper and other short-term debt (\$1.6 billion in 2017 compared to \$1.4 billion in 2016).

Financing activities at Sempra Energy were a net source of cash in 2016 compared to a net use of cash in 2015, primarily due to:

- \$692 million net increase in short-term debt in 2016 compared to a \$622 million net decrease in 2015;
- \$1.2 billion proceeds received from the IEnova follow-on common stock offerings, net of offering costs and Sempra Energy's participation; and
- \$474 million net proceeds from tax equity funding from certain wind and solar power generation projects at Sempra Renewables; **offset by**
- \$203 million higher payments of debt with maturities greater than 90 days, including:
 - \$255 million higher payments of long-term debt (\$991 million in 2016 compared to \$736 million in 2015), *offset by*
 - \$52 million lower payments of commercial paper and other short-term debt (\$1.07 billion in 2016 compared to \$1.12 billion in 2015);
- \$58 million increase in common stock dividends paid in 2016;
- \$52 million from excess tax benefits related to share-based compensation in 2015. In connection with the adoption of a new accounting standard related to share-based compensation, \$34 million of similar excess tax benefits are now recorded to earnings and included as an operating activity beginning in 2016; and
- \$41 million lower issuances of debt with maturities greater than 90 days, including:
 - \$812 million lower issuances of long-term debt (\$1.6 billion in 2016 compared to \$2.4 billion in 2015), *offset by*
 - \$771 million higher issuances of commercial paper and other short-term debt (\$1.4 billion in 2016 compared to \$633 million in 2015).

SDG&E

Cash used in financing activities at SDG&E increased in 2017 primarily due to:

- \$275 million increase in common stock dividends paid in 2017; and
- \$100 million lower issuances of long-term debt in 2017; **offset by**
- \$253 million net increase in short-term debt in 2017 compared to a \$114 million net decrease in 2016.

Cash used in financing activities at SDG&E decreased in 2016 compared to 2015 primarily due to:

- \$343 million lower payments on long-term debt in 2016;
- \$125 million decrease in common stock dividends paid in 2016; and
- \$54 million higher issuances of long-term debt in 2016.

SoCalGas

Cash provided by financing activities at SoCalGas decreased in 2017 primarily due to a \$499 million issuance of long-term debt in 2016.

Cash provided by financing activities at SoCalGas increased in 2016 compared to 2015 primarily due to:

- \$62 million increase in short-term debt in 2016 compared to a \$50 million decrease in 2015; and
- \$50 million common stock dividends paid in 2015; **offset by**
- \$100 million lower issuances of long-term debt in 2016.

Long-Term Debt

LONG-TERM DEBT⁽¹⁾

(Dollars in millions)

	December 31,			Weighted-average at December 31, 2017	
	2017	2016	2015	Maturity (in years)	Interest rate
	Sempra Energy Consolidated	\$ 17,872	\$ 15,342	\$ 14,041	10.8
SDG&E	5,555	4,849	4,505	14.8	4.25
SoCalGas	2,986	2,982	2,490	12.3	3.72

⁽¹⁾ Includes current portion of long-term debt.

Issuances of Long-Term Debt

Major issuances of long-term debt in 2017, 2016 and 2015 include the following:

ISSUANCES OF LONG-TERM DEBT

(Dollars in millions)

	Amount at issuance	Maturity
2017:		
Sempra Energy variable-rate notes (2.038% at December 31, 2017)	\$ 850	2021
Sempra Energy 3.25% notes	750	2027
SDG&E 3.75% first mortgage bonds	400	2047
Luz del Sur 6.375% corporate bonds	50	2023
Luz del Sur 5.9375% corporate bonds	50	2027
Sempra Mexico 4.875% notes	540	2048
Sempra Mexico 3.75% notes	300	2028
2016:		
Sempra Energy 1.625% notes	500	2019
SDG&E 2.50% first mortgage bonds	500	2026
SoCalGas 2.60% first mortgage bonds	500	2026
Luz del Sur 6.50% corporate bonds	50	2025
2015:		
Sempra Energy 2.40% notes	500	2020
Sempra Energy 2.85% notes	400	2020
Sempra Energy 3.75% notes	350	2025
SDG&E 1.914% first mortgage bonds	250	2022
SDG&E variable-rate first mortgage bonds (1.151% at December 31, 2016)	140	2017
SoCalGas 3.20% first mortgage bonds	350	2025
SoCalGas 1.55% first mortgage bonds	250	2018

Sempra Energy and Sempra Mexico used the proceeds from their issuances of long-term debt primarily to repay outstanding commercial paper and short-term debt and for general corporate purposes. We discuss issuances of long-term debt further in Note 5 of the Notes to Consolidated Financial Statements.

The California Utilities used the proceeds from their issuances of long-term debt:

- for general working capital purposes;
- to support their electric (at SDG&E) and natural gas (at SDG&E and SoCalGas) procurement programs;
- to repay commercial paper, maturing long-term debt and certain long-term debt prior to maturity; and
- to replenish amounts expended and to fund future expenditures for the expansion and improvement of their utility plants.

Payments on Long-Term Debt

Major payments of principal on long-term debt in 2017, 2016 and 2015 included the following:

PAYMENTS ON LONG-TERM DEBT

(Dollars in millions)

	Payments	Maturity
2017:		
Sempra Energy 2.3% notes	\$ 600	2017
SDG&E variable-rate first mortgage bonds (1.151% at December 31, 2016)	140	2017
SDG&E 1.914% amortizing first mortgage bonds	36	2022
Luz del Sur 5.81%-5.97% corporate bonds	43	2017
Sempra Mexico fixed and variable-rate notes	52	2024-2032
2016:		
Sempra Energy 6.5% notes	750	2016
SDG&E 5% industrial development revenue bonds	105	2027
SDG&E 1.914% amortizing first mortgage bonds	35	2022
Luz del Sur 5.05%-6% bank loans	62	2016
2015:		
SDG&E 5.3% first mortgage bonds	250	2015
SDG&E 4.9%-5.5% notes and industrial development revenue bonds	169	2021-2027
SDG&E 366-day commercial paper	100	2015
SDG&E 1.914% amortizing first mortgage bonds	18	2022
Sempra Mexico variable-rate notes	51	2017
Sempra LNG & Midstream variable-rate industrial development bonds	55	2037

In Note 5 of the Notes to Consolidated Financial Statements, we provide information about our lines of credit and additional information about debt activity.

Capital Stock Transactions

Sempra Energy

Cash provided by employee stock option exercises and newly issued shares under our dividend reinvestment and direct stock purchase plan and our 401(k) saving plan was

- \$47 million in 2017
- \$51 million in 2016
- \$52 million in 2015

Dividends

Sempra Energy

Sempra Energy paid cash dividends on common stock of:

- \$755 million in 2017
- \$686 million in 2016
- \$628 million in 2015

On December 15, 2017, Sempra Energy declared a quarterly dividend of \$0.8225 per share of common stock that was paid on January 16, 2018.

Dividends declared have increased in each of the last three years due to an increase in the per-share quarterly dividends approved by our board of directors from \$0.70 in 2015 (\$2.80 annually) to \$0.755 in 2016 (\$3.02 annually) to \$0.8225 in 2017 (\$3.29 annually).

On February 22, 2018, our board of directors approved an increase in Sempra Energy's quarterly common stock dividend to \$0.895 per share (\$3.58 annually). Declarations of dividends on our common stock are made at the discretion of the board of directors. While we view dividends as an integral component of shareholder return, the amount of future dividends will depend on earnings, cash flows, financial and legal requirements, and other relevant factors at that time.

In addition, on February 22, 2018, our board of directors declared a dividend of \$1.60 per share on our mandatory convertible preferred stock, payable on April 15, 2018.

SDG&E

In 2017, 2016 and 2015, SDG&E paid dividends to Enova and Enova paid corresponding dividends to Sempra Energy of \$450 million, \$175 million and \$300 million, respectively. SDG&E's dividends on common stock declared on an annual historical basis may not be indicative of future declarations, and could be impacted over the next few years in order for SDG&E to maintain its authorized capital structure while managing its capital investment program (over \$1.2 billion per year).

Enova, a wholly owned subsidiary of Sempra Energy, owns all of SDG&E's outstanding common stock. Accordingly, dividends paid by SDG&E to Enova and dividends paid by Enova to Sempra Energy are both eliminated in Sempra Energy's Consolidated Financial Statements.

SoCalGas

SoCalGas declared and paid common stock dividends to PE and PE paid corresponding dividends to Sempra Energy of \$50 million in 2015. As a result of SoCalGas' capital investment program of over \$1 billion per year, SoCalGas has not declared or paid common stock dividends since 2015. SoCalGas' common stock dividends in the next few years will be impacted by its ability to maintain its authorized capital structure while managing its capital investment program.

PE, a wholly owned subsidiary of Sempra Energy, owns all of SoCalGas' outstanding common stock. Accordingly, dividends paid by SoCalGas to PE and dividends paid by PE to Sempra Energy are both eliminated in Sempra Energy's Consolidated Financial Statements.

Dividend Restrictions

The board of directors for each of Sempra Energy, SDG&E and SoCalGas has the discretion to determine the payment and amount of future dividends by each such entity. The CPUC's regulation of SDG&E's and SoCalGas' capital structures limits the amounts that are available for loans and dividends to Sempra Energy. At December 31, 2017, based on these regulations, Sempra Energy could have received loans and dividends of approximately \$469 million from SDG&E and \$736 million from SoCalGas.

We provide additional information about dividend restrictions in "Restricted Net Assets" in Note 1 of the Notes to Consolidated Financial Statements.

Book Value Per Share

Sempra Energy's book value per share on the last day of each year was

- \$50.40 in 2017
- \$51.77 in 2016
- \$47.56 in 2015

The decrease in 2017 was primarily the result of dividends exceeding comprehensive income, partially offset by an increase in equity from share-based compensation. In 2016, the increase was attributable to comprehensive income in excess of dividends, IEnova's follow-on equity offerings and a cumulative-effect adjustment to retained earnings for previously unrecognized excess tax benefits from share-based compensation.

Capitalization

Our debt to capitalization ratio, calculated as total debt as a percentage of total debt and equity, was as follows:

TOTAL CAPITALIZATION AND DEBT-TO-CAPITALIZATION RATIOS			
<i>(Dollars in millions)</i>			
	Sempra Energy Consolidated ⁽¹⁾	SDG&E ⁽¹⁾	SoCalGas
	December 31, 2017		
Total capitalization	\$ 34,552	\$ 11,434	\$ 7,009
Debt-to-capitalization ratio	56%	51%	44%
	December 31, 2016		
Total capitalization	\$ 32,362	\$ 10,527	\$ 6,554
Debt-to-capitalization ratio	53%	46%	46%

⁽¹⁾ Includes Otay Mesa VIE with no significant impact.

Significant changes during 2017 that affected capitalization included the following:

- Sempra Energy Consolidated: increase in long-term debt as well as dividends exceeding comprehensive income, partially offset by the sale of noncontrolling interests and a decrease in short-term debt.
- SDG&E: increase in both long-term and short-term debt as well as dividends exceeding comprehensive income.
- SoCalGas: comprehensive income exceeding an increase in short-term debt.

We provide additional information about these significant changes in Notes 1 and 5 of the Notes to Consolidated Financial Statements.

COMMITMENTS

The following tables summarize principal contractual commitments, primarily long-term, at December 31, 2017 for Sempra Energy Consolidated, SDG&E and SoCalGas. We provide additional information about commitments above and in Notes 5, 7, 13 and 15 of the Notes to Consolidated Financial Statements.

PRINCIPAL CONTRACTUAL COMMITMENTS – SEMPRA ENERGY CONSOLIDATED					
<i>(Dollars in millions)</i>					
	2018	2019 and 2020	2021 and 2022	Thereafter	Total
Long-term debt	\$ 1,412	\$ 2,452	\$ 1,993	\$ 11,282	\$ 17,139
Interest on long-term debt ⁽¹⁾	686	1,202	1,072	5,494	8,454
Operating leases	98	132	115	346	691
Capital leases ⁽²⁾	17	35	45	1,192	1,289
Purchased-power contracts	702	1,321	1,231	5,726	8,980
Natural gas contracts	292	194	92	127	705
LNG contract ⁽³⁾	302	774	814	2,935	4,825
Construction commitments	257	106	40	124	527
Build-to-suit lease	10	21	22	234	287
SONGS decommissioning	72	141	139	255	607
Other asset retirement obligations	73	170	152	1,875	2,270
Sunrise Powerlink wildfire mitigation fund	3	6	6	104	119
Pension and other postretirement benefit obligations ⁽⁴⁾	235	310	468	1,338	2,351
Environmental commitments ⁽⁵⁾	12	18	4	19	53
Other	161	54	30	71	316
Total	\$ 4,332	\$ 6,936	\$ 6,223	\$ 31,122	\$ 48,613

⁽¹⁾ We calculate expected interest payments using the stated interest rate for fixed-rate obligations, including floating-to-fixed interest rate swaps. We calculate expected interest payments for variable-rate obligations based on forward rates in effect at December 31, 2017.

⁽²⁾ Present value of the net minimum lease payments includes \$550 million at SDG&E that will be recorded as a capital lease obligation when construction of the power plant facility subject to the lease is completed and delivery of contracted power commences, which is scheduled to occur in 2018.

⁽³⁾ Sempra LNG & Midstream has a purchase agreement with a major international company for the supply of LNG to the ECA terminal. The commitment amount is calculated using a predetermined formula based on estimated forward prices of the index applicable from 2018 to 2029. We provide more information about this contract in Note 15 of the Notes to Consolidated Financial Statements.

⁽⁴⁾ Amounts represent expected company contributions to the plans for the next 10 years.

⁽⁵⁾ Excludes amounts related to the natural gas leak at SoCalGas' Aliso Canyon natural gas storage facility.

PRINCIPAL CONTRACTUAL COMMITMENTS – SDG&E					
<i>(Dollars in millions)</i>					
	2018	2019 and 2020	2021 and 2022	Thereafter	Total
Long-term debt	\$ 207	\$ 357	\$ 403	\$ 3,901	\$ 4,868
Interest on long-term debt ⁽¹⁾	206	382	360	2,342	3,290
Operating leases	24	45	41	57	167
Capital leases ⁽²⁾	14	34	45	1,189	1,282
Purchased-power contracts	577	1,081	1,006	5,457	8,121
Construction commitments	79	30	6	5	120
SONGS decommissioning	72	141	139	255	607
Other asset retirement obligations	5	9	8	210	232
Sunrise Powerlink wildfire mitigation fund	3	6	6	104	119
Pension and other postretirement benefit obligations ⁽³⁾	51	25	95	247	418
Environmental commitments	3	4	3	18	28
Other	4	8	9	10	31
Total	\$ 1,245	\$ 2,122	\$ 2,121	\$ 13,795	\$ 19,283

⁽¹⁾ SDG&E calculates expected interest payments using the stated interest rate for fixed-rate obligations, including floating-to-fixed interest rate swaps.

⁽²⁾ Present value of the net minimum lease payments includes \$550 million that will be recorded as a capital lease obligation when construction of the power plant facility subject to the lease is completed and delivery of contracted power commences, which is scheduled to occur in 2018.

⁽³⁾ Amounts represent expected SDG&E contributions to the plans for the next 10 years.

PRINCIPAL CONTRACTUAL COMMITMENTS – SOCIALGAS*(Dollars in millions)*

	2018	2019 and 2020	2021 and 2022	Thereafter	Total
Long-term debt	\$ 500	\$ —	\$ —	\$ 2,509	\$ 3,009
Interest on long-term debt ⁽¹⁾	100	189	189	1,055	1,533
Natural gas contracts	108	88	56	81	333
Operating leases	40	65	53	79	237
Capital leases	1	—	—	—	1
Construction commitments	3	4	—	—	7
Environmental commitments ⁽²⁾	7	14	1	2	24
Pension and other postretirement benefit obligations ⁽³⁾	115	220	301	994	1,630
Asset retirement obligations	68	161	144	1,580	1,953
Other	1	3	3	24	31
Total	\$ 943	\$ 744	\$ 747	\$ 6,324	\$ 8,758

⁽¹⁾ SoCalGas calculates interest payments using the stated interest rate for fixed-rate obligations.

⁽²⁾ Excludes amounts related to the natural gas leak at the Aliso Canyon natural gas storage facility.

⁽³⁾ Amounts represent expected SoCalGas contributions to the plans for the next 10 years.

The tables exclude

- contracts between consolidated affiliates
- intercompany debt
- employment contracts

The tables also exclude income tax liabilities at December 31, 2017 of:

- \$57 million for Sempra Energy Consolidated
- \$10 million for SDG&E
- \$35 million for SoCalGas

These liabilities relate to uncertain tax positions and were excluded from the tables because we are unable to reasonably estimate the timing of future payments due to uncertainties in the timing of the effective settlement of tax positions. We provide additional information about unrecognized tax benefits in Note 6 of the Notes to Consolidated Financial Statements.

OFF-BALANCE SHEET ARRANGEMENTS

The maximum aggregate amount of guarantees provided by Sempra Energy on behalf of related parties at December 31, 2017 is \$4.5 billion. We discuss these guarantees in Note 4 of the Notes to Consolidated Financial Statements.

We have bilateral unsecured standby letter of credit capacity with select lenders that is uncommitted and supported by reimbursement agreements. At December 31, 2017, we had approximately \$629 million in standby letters of credit outstanding under these agreements.

SDG&E has entered into PPAs which are variable interests. Sempra Renewables has entered into tax equity arrangements which are variable interests. Sempra Energy's other businesses may also enter into arrangements which could include variable interests. We discuss variable interests in Note 1 of the Notes to Consolidated Financial Statements.

FACTORS INFLUENCING FUTURE PERFORMANCE

SEMPRA ENERGY

Pending Acquisition of Energy Future Holdings Corp.

On August 21, 2017, Sempra Energy entered into a Merger Agreement to acquire EFH, the indirect owner of an 80.03-percent interest in Oncor, for Merger Consideration of \$9.45 billion in cash. Oncor is a regulated electric distribution and transmission business that operates the largest distribution and transmission system in Texas. We expect the Merger to close in the first half of 2018. Upon consummation of the acquisition, although we will consolidate EFH, we will account for our ownership in Oncor Holdings and Oncor as an equity method investment. We discuss this Merger and related financing in Notes 3 and 18 of the Notes to Consolidated Financial Statements, “Capital Resources and Liquidity” above, “Item 1. Business,” “Item 1A. Risk Factors” and “Item 7A. Quantitative and Qualitative Disclosures about Market Risk.”

The Merger is subject to customary closing conditions, including the approval of the PUCT. Certain conditions, such as approval from the Bankruptcy Court, the FERC, the Vermont Department of Financial Regulation and receipt of a private letter ruling from the IRS, have been satisfied. If the required governmental consents and approvals are not received, or if they are not received on terms that satisfy the conditions in the agreements governing the Merger, the Merger could be abandoned, delayed or restructured. The agreements governing the Merger may require us to accept conditions from regulators that could materially adversely impact the results of operations, financial condition and prospects of Sempra Energy (which after giving effect to the assumed completion of our proposed acquisition of EFH, we refer to as the “combined company”).

Oncor Performance

The success of the Merger will depend, in part, on the ability of Oncor to successfully execute its business strategy, including several objectives that are capital intensive, and to respond to challenges in the electric utility industry. If Oncor is not able to achieve these objectives, is not able to achieve these objectives on a timely basis, or otherwise fails to perform in accordance with our expectations, the anticipated benefits of the Merger may not be realized fully or at all and the Merger may materially adversely affect the results of operations, financial condition and prospects of the combined company and, consequently, the market value of Sempra Energy common stock, preferred stock and debt securities. In addition, if Oncor fails to meet its capital requirements or if its credit ratings at closing by any one of the three major rating agencies are below the ratings as of June 30, 2017, we may be required to make additional equity investments in Oncor, or if Oncor is unable to access sufficient capital to finance its ongoing needs, we may elect to make additional equity investments in Oncor, which could be substantial and which would reduce the cash available to us for other purposes, could increase our indebtedness and could ultimately materially adversely affect our results of operations, financial condition and prospects after the Merger. In addition, we have agreed that, within 60 days after the Merger, we will contribute our proportionate share of the aggregate investment in Oncor in an amount necessary for Oncor to achieve a capital structure consisting of 57.5 percent long-term debt and 42.5 percent equity, as calculated for regulatory purposes.

Financing and Dilution

We intend to ultimately finance the Merger Consideration of \$9.45 billion, along with the associated transaction costs, with approximately 65 percent from issuances of common stock and other equity securities and approximately 35 percent from issuances of debt securities, although we may use cash from operations and proceeds from asset sales in place of some equity financing. On January 9, 2018, we issued approximately \$1.69 billion (net of underwriting discounts, but before deducting related expenses) of our mandatory convertible preferred stock and \$368 million of common stock (net of underwriting discounts, but before deducting related expenses), and we completed an offering of 23,364,486 common shares subject to forward sale agreements, which we expect to settle in whole or in part by the issuance of common stock in the future. These equity issuances and contemplated equity issuances will have the effect of diluting the economic and voting interests of our shareholders and, without a commensurate increase in Sempra Energy’s earnings, would dilute our EPS.

Absence of Control

In accordance with the ring-fencing measures, existing governance mechanisms and commitments we made as part of the Joint Application and the Stipulation, we will be subject to certain restrictions following the Merger. The Stipulation includes regulatory commitments by Sempra Energy, most of which are similar to the regulatory commitments made by Sempra Energy as part of the Joint Application and are consistent with the ring-fencing measures currently in place. The ring-fencing measures, commitments, governance mechanisms and restrictions include the following, among others:

- A majority of the independent directors of Oncor must approve any annual or multi-year budget if the aggregate amount of capital expenditures or operating and maintenance expenditures in such budget is more than a 10 percent increase or decrease from the corresponding amounts of such expenditures in the budget for the preceding fiscal year or multi-year period, as applicable;
- Oncor will make minimum aggregate capital expenditures equal to at least \$7.5 billion over the period from January 1, 2018 through December 31, 2022 (subject to certain possible adjustments);
- Sempra Energy has agreed to make, within 60 days after the Merger, its proportionate share of the aggregate equity investment in Oncor in an amount necessary for Oncor to achieve a capital structure consisting of 57.5 percent long-term debt and 42.5 percent equity, as calculated for regulatory purposes (until recently, Oncor's regulatory capital structure required 40 percent equity, with the remaining 60 percent as debt);
- Oncor may not pay any dividends or make any other distributions (except for contractual tax payments) if a majority of its independent directors or a minority member director determines that it is in the best interests of Oncor to retain such amounts to meet expected future requirements;
- At all times, Oncor will remain in compliance with the debt-to-equity ratio established by the PUCT from time to time for ratemaking purposes, and Oncor will not pay dividends or other distributions (except for contractual tax payments), if that payment would cause its debt-to-equity ratio to exceed the debt-to-equity ratio approved by the PUCT;
- Sempra Energy will ensure that, as of the closing of the Merger, Oncor's credit rating by all three major rating agencies will be at or above Oncor's credit ratings as of June 30, 2017;
- If the credit rating on Oncor's senior secured debt by any of the three major rating agencies falls below BBB (or the equivalent), Oncor will suspend dividends and other distributions (except for contractual tax payments), unless otherwise allowed by the PUCT;
- Without the prior approval of the PUCT, neither Sempra Energy nor any of its affiliates (excluding Oncor) will incur, guarantee or pledge assets in respect of any indebtedness that is dependent on the revenues of Oncor in more than a proportionate degree than the other revenues of Sempra Energy or on the stock of Oncor, and there will be no debt at EFH or EFIH at any time following the closing of the Merger;
- Neither Oncor nor Oncor Holdings will lend money to or borrow money from Sempra Energy or any of its affiliates (other than Oncor subsidiaries), or any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings, and neither Oncor nor Oncor Holdings will share credit facilities with Sempra Energy or any of its affiliates (other than Oncor subsidiaries), or any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings;
- Oncor will not seek recovery in rates of any expenses or liabilities related to EFH's bankruptcy, or (1) any tax liabilities resulting from EFH's spinoff of its former subsidiary Texas Competitive Electric Holdings Company LLC, (2) any asbestos claims relating to non-Oncor operations of EFH or (3) any make-whole claims by holders of debt securities issued by EFH or EFIH, and Sempra Energy must file with the PUCT a plan providing for the extinguishment of the liabilities described in items (1) through (3) above, which protects Oncor from any harm;
- There must be maintained certain "separateness measures" that reinforce the financial separation of Oncor from EFH and EFH's owners, including a requirement that dealings between Oncor, Oncor Holdings and their subsidiaries and Sempra Energy, any of Sempra Energy's other affiliates or any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings, must be on an arm's-length basis, limitations on affiliate transactions, separate recordkeeping requirements and a prohibition on pledging Oncor assets or stock for any entity other than Oncor;
- No transaction costs or transition costs related to the Merger (excluding Oncor employee time) will be borne by Oncor's customers nor included in Oncor's rates;
- Sempra Energy will continue to hold indirectly at least 51 percent of the ownership interests in Oncor and Oncor Holdings for at least five years following the closing of the Merger, unless otherwise specifically authorized by the PUCT; and
- Oncor will provide bill credits to customers in an amount equal to 90 percent of any interest rate savings achieved due to any improvement in its credit ratings or market spreads compared to those as of June 30, 2017 until final rates are set in the next Oncor base rate case filed after PUCT Docket No. 46957 (except that savings will not be included in credits if already realized in rates); and one year after the Merger, Oncor will provide bill credits to its customers equal to 90 percent of any synergy savings until final rates are set in the next Oncor base rate proceeding after PUCT Docket No. 46957, at which time any total synergy savings shall be reflected in Oncor's rates.

As a result of these regulatory commitments, governance mechanisms and restrictions, we will not control Oncor Holdings or Oncor, and we will have limited ability to direct the management, policies and operations of Oncor Holdings and Oncor, including the deployment or disposition of their assets, declarations of dividends, strategic planning and other important corporate issues and actions. We will have limited representation on the Oncor Holdings and Oncor boards of directors, which will be controlled by independent directors. In addition, we will not be allowed to make loans to Oncor or Oncor Holdings. The existence of these ring-fencing measures and other limitations may increase our costs of financing. Further, the Oncor directors have considerable autonomy and, as described in our commitments, have a duty to act in the best interest of Oncor consistent with the approved ring-fence and Delaware law, which may be contrary to our best interests or be in opposition to our preferred strategic direction for Oncor. To the extent that they take actions that are not in our interests, the financial condition, results of operations and prospects of the combined company may be materially adversely affected.

Key Personnel at Oncor

If, despite efforts to retain certain key personnel at Oncor, any key personnel depart or fail to continue employment as a result of the Merger, the loss of the services of such personnel and their experience and knowledge could adversely affect Oncor's results of operations, financial condition and prospects and the successful ongoing operation of its business, which could also have a material adverse effect on the results of operations, financial condition and prospects of the combined company.

Tax Cuts and Jobs Act of 2017

We discuss the TCJA that was signed into law on December 22, 2017 in Note 6 of the Notes to Consolidated Financial Statements and above in "Changes in Revenues, Costs and Earnings – Income Taxes" and "Capital Resources and Liquidity – Impacts of the TCJA."

SDG&E

SDG&E's operations have historically provided relatively stable earnings and liquidity. Its performance will depend primarily on the ratemaking and regulatory process, environmental regulations, economic conditions, actions by the California legislature and the changing energy marketplace.

Capital Project Updates

We summarize below information regarding certain major capital projects at SDG&E.

CAPITAL PROJECTS – SDG&E

Project description	Estimated capital cost (in millions)	Status
Cleveland National Forest Electric Line Replacement Projects		
<ul style="list-style-type: none"> May 2016 CPUC final decision followed approval by the U.S. Forest Service and granted a permit to construct various electric transmission line replacement projects in and around CNF to promote fire safety, at an estimated total cost of \$680 million: \$455 million for the various transmission-level facilities and \$225 million for associated distribution-level facilities, including distribution circuits and additional undergrounding, as required by the U.S. Forest Service final environmental impact statement. 	\$ 680	<ul style="list-style-type: none"> Estimated completion: in phases through 2020 In July 2016, the CNF Foundation and the Protect Our Communities Foundation filed a joint application request for rehearing of the final decision. The CPUC does not have a specific deadline to rule on the request and has not yet acted.
Sycamore-Peñasquitos Transmission Project		
<ul style="list-style-type: none"> October 2016 CPUC final decision granted a CPCN to construct a 230-kV transmission project to provide 16.7-mile connection between Sycamore Canyon and Peñasquitos substations to ensure grid reliability and access to renewable energy, at an estimated cost not to exceed \$260 million. 	\$ 260	<ul style="list-style-type: none"> Estimated completion: 2018
South Orange County Reliability Enhancement		
<ul style="list-style-type: none"> December 2016 CPUC final decision granted a CPCN to replace/upgrade existing 230-kV electric transmission lines and substation infrastructure to enhance the capacity and reliability of electric service to the south Orange County area, at an estimated cost not to exceed \$381 million. 	\$ 381	<ul style="list-style-type: none"> Construction began in the fourth quarter of 2017. In June 2017, the City of San Juan Capistrano filed a complaint to challenge the CPUC's approval of the project in the U.S. District Court for the Central District of California. The federal district court dismissed the complaint in October 2017. In October 2017, a CPUC order denied rehearing requests filed by the City of San Juan Capistrano and a local opposition group. In November 2017, the City of San Juan Capistrano appealed the federal district court's dismissal to the U.S. Court of Appeals for the Ninth Circuit. In February 2018, the City of San Juan Capistrano filed with the Ninth Circuit to stay the CPUC's authorization to construct the project pending review of the appeal by the court.
Electric Vehicle Charging		
<ul style="list-style-type: none"> January 2016 CPUC final decision authorizes a 3-year, \$45 million program providing up to 3,500 EV charging units. 	\$ 45	<ul style="list-style-type: none"> Estimated completion: 2020
<ul style="list-style-type: none"> January 2017 application, pursuant to SB 350, to perform various activities and make investments in support of residential EV charging with an estimated implementation cost of \$51 million of O&M. 	\$ 322	<ul style="list-style-type: none"> Application amended in the fourth quarter of 2017 and is pending. Received approval of \$20 million for six priority projects in January 2018. Draft decision expected in the first half of 2018 for remaining \$302 million.
<ul style="list-style-type: none"> January 2018 application, pursuant to SB 350, to make investments to support medium-duty and high-duty EVs with an estimated implementation cost of \$7 million of O&M. 	\$ 226	<ul style="list-style-type: none"> Application pending: draft decision expected in first quarter of 2019.

CAPITAL PROJECTS – SDG&E (CONTINUED)

Project description	Estimated capital cost (in millions)	Status
Energy Storage Projects		
<ul style="list-style-type: none"> 2016 expedited application to own and operate two energy storage projects totaling 37.5 MW to enhance electric reliability in the San Diego service territory. 	Not disclosed	<ul style="list-style-type: none"> Completed in first quarter of 2017.
<ul style="list-style-type: none"> April 2017 application to procure up to 70 MW of utility-owned energy storage to provide local capacity. 	Not disclosed	<ul style="list-style-type: none"> Application pending; draft decision expected in first half of 2018.
Utility Billing and Customer Information Systems Software		
<ul style="list-style-type: none"> April 2017 application to replace the software, with an estimated implementation cost of \$76 million of O&M. 	\$ 222	<ul style="list-style-type: none"> Application pending; joint party settlement filed January 2018; draft decision expected in first half of 2018.

Sunrise Powerlink Project Cost Cap

In August 2015, SDG&E filed a petition with the CPUC requesting that it revise and confirm the project cost cap for the Sunrise Powerlink, a 500-kV electric transmission line between the Imperial Valley and the San Diego region that was energized and placed in service in June 2012. While post-energization construction activities for the project were completed in 2013, certain matters relating to outstanding claims were not resolved until the first quarter of 2015. The filing requested CPUC approval of the final expenditure report for the project and the proposed revisions to the total project cost cap. As evidenced in the final report, actual expenditures for the project totaled \$1.9 billion (in 2012 dollars, on a net present value basis), which exceeds the total project cost cap approved by the CPUC in 2008 by \$4.4 million.

In June 2017, the CPUC dismissed SDG&E's petition as moot since the Sunrise Powerlink transmission project has been fully constructed and found that, although the CPUC may establish a cost cap for electric transmission projects, the recovery of the associated costs is under FERC jurisdiction. The decision also found that SDG&E complied with the CPUC's quarterly reporting requirements, resolving the issue of whether the adequacy of such reporting should be further investigated.

Electric Rate Reform – California Assembly Bill 327

AB 327 became law on January 1, 2014 and restores the authority to establish electric residential rates for electric utility companies in California to the CPUC and removes the rate caps established in AB 1X adopted in early 2001 during California's energy crisis and in SB 695 adopted in 2009. Additionally, the bill provides the CPUC the authority to adopt a monthly fixed charge for all residential customers. In July 2015, the CPUC adopted a decision that established comprehensive reform and a framework for rates that are more transparent, fair and sustainable. The decision directed changes beginning in the summer of 2015 and provides a path for continued reforms through 2020. The changes also included fewer rate tiers and a gradual reduction in the difference between the tiered rates, similar to the tier differential that existed prior to the 2000-2001 energy crisis. For SDG&E, the number of tiers was reduced from four to three in 2015 and was reduced to two on July 1, 2016. The rate differential between the highest and lowest tiers was reduced in 2016, with further reductions intended to reach a differential of 1.25 times as early as 2019. The decision also directs the utilities to pursue expanded TOU rates and implemented a high usage surcharge in 2017 for usage that exceeds average customer usage by approximately 400 percent. The decision allows the utilities to seek a fixed charge for residential customers, but sets certain conditions for its implementation, which would be no sooner than 2020. In January 2017, the CPUC also approved a TOU rulemaking that provides a framework and guiding principles for designing, implementing, and modifying the time periods in TOU rates for residential customers. In December 2017, SDG&E filed an application with the CPUC requesting approval to implement residential default TOU rates effective January 1, 2019, and a new residential fixed charge and a higher minimum bill effective January 1, 2020. These changes, if and when fully implemented, should result in significant rate relief for higher-use SDG&E customers who do not exceed the high usage surcharge threshold and should result in a rate structure that better aligns rates with the actual cost to serve customers.

In July 2014, the CPUC initiated a rulemaking proceeding to develop a successor tariff to the state's existing NEM program pursuant to the provisions of AB 327. The NEM program was originally established in 1995 and is an electric billing tariff mechanism designed to promote the installation of on-site renewable generation. Under NEM, qualifying customer-generators receive a full retail-rate for the energy they generate that is fed back to the utility's power grid. This occurs during times when the customer's generation exceeds its own energy usage. In addition, if a NEM customer generates any electricity over the annual

measurement period that exceeds its annual consumption, the customer receives compensation at a rate equal to a wholesale energy price.

In January 2016, the CPUC adopted modest changes to the NEM program to require NEM customers to pay some costs that would otherwise be borne by non-NEM customers and moves new NEM customers to TOU rates. Together with a reduction in tiered rate differentials and the potential implementation of a fixed charge discussed above, the NEM successor tariff begins a process of reducing the cost burden on non-NEM customers. In 2016, SDG&E implemented the CPUC-adopted successor NEM tariff, after reaching the 617-MW cap established for the prior NEM program.

Appropriate NEM reform is necessary to help ensure that SDG&E is authorized to recover, from NEM customers, the costs incurred in providing grid and energy services, as well as mandated legislative and regulatory public policy programs. SDG&E believes this design would be preferable to recovering these costs from customers not participating in NEM. If NEM self-generating installations were to increase substantially through 2019 when more significant reforms are to take effect, the rate structure adopted by the CPUC could have a material effect on SDG&E's business, cash flows, financial condition, results of operations and/or prospects. For additional discussion, see "Item 1A. Risk Factors."

Distributed Energy Storage – California Assembly Bill 2868

AB 2868, signed into law in September 2016, requires the CPUC to direct electrical corporations, including SDG&E, to file applications for programs and investments to accelerate the widespread deployment of distributed energy storage systems. AB 2868 sets a cap of 500 MW statewide, divided equally among the state's three largest electrical corporations (SDG&E's share being 166 MW); requires that no more than 25 percent of the capacity of distributed energy storage systems be on the customer side of the utility meter; and requires the CPUC to prioritize these programs and investments for the public sector and low-income customers.

Potential Impacts of Community Choice Aggregation and Direct Access

SDG&E provides electric services, including the commodity of electricity, to the majority of its customers ("bundled customers"). SDG&E enters into long-term contracts to procure electricity on behalf of these bundled customers. SDG&E's earnings are "decoupled" from electric sales volumes. One aspect of decoupling is that commodity costs for electricity are directly passed through to bundled customers (see discussion in "Revenues - California Utilities" in Note 1 of the Notes to Consolidated Financial Statements). SDG&E's bundled customers have the option to purchase the commodity of electricity from alternate suppliers under defined programs, including CCA and DA. In such cases, California law (SB 350) prohibits remaining bundled customers from experiencing any cost increase as a result of departing customers' choice to receive electric commodity from an alternate supplier. Under the existing cost allocation mechanism approved by the CPUC, customers opting to have a CCA procure their electricity must absorb a portion of above-market cost of electricity procurement commitments already made by SDG&E on their behalf. The existing cost allocation rate mechanisms may not be sufficient to ensure that remaining bundled customers do not experience any cost increase as a result of departing customers. SDG&E, PG&E and Edison filed a joint application with the CPUC in April 2017 to replace the existing cost allocation mechanisms to help ensure compliance with state law intended to protect bundled customers. In June 2017, the CPUC initiated a rulemaking proceeding to address the existing cost allocation mechanism and dismissed the joint application without prejudice, directing that the proposal be addressed in the rulemaking proceeding. We expect a decision on a revised cost allocation mechanism in 2018, with implementation in 2019.

Currently, DA in SDG&E's service area is limited by state law and is approximately 17 percent of SDG&E's annual demand. There are no large CCA providers in SDG&E's service area. However, several local political jurisdictions, including the City of San Diego and a few other municipalities, are considering the formation of a CCA which, if implemented, could result in the departure of more than half of SDG&E's bundled load. For example, Solana Beach (representing less than 1 percent of SDG&E's customer accounts) has elected to begin CCA service in 2018. If an effective cost allocation mechanism is not in place at the time of potentially significant reductions in SDG&E's served load, remaining bundled customers of SDG&E could bear a disproportionate share of above-market costs of long-term electricity procurement contracts entered into before the load departed. Thus, bundled customers could potentially experience large increases in rates for commodity costs under long-term commitments made on behalf of the CCA customers prior to their departure. If legislative, regulatory or legal action were taken to prevent the timely recovery of these procurement costs, the unrecovered costs could have a material adverse effect on SDG&E's and Sempra Energy's cash flows, financial condition and results of operations.

Renewable Energy Procurement

SDG&E is subject to the RPS Program administered by both the CPUC and the CEC, which requires each California utility to procure 50 percent of its annual electric energy requirements from renewable energy sources by 2030.

The RPS Program currently contains flexible compliance mechanisms that can be used to comply with or meet the RPS Program mandates. The mechanisms provide for a CPUC waiver under certain conditions, including: 1) a finding of inadequate transmission; 2) delays in the start-up of commercial operations of renewable energy projects due to permitting or interconnection; or 3) unexpected curtailment by an electric system balancing authority, such as the CAISO.

SDG&E has procured renewable energy supplies from certain suppliers whose assets are not yet online. Some of these assets remain contingent on electric transmission infrastructure, regulatory approval, project permitting and financing, and the implementation of new technologies.

SDG&E believes it will continue to comply with the RPS Program requirements based on its contracting activity and, if necessary, application of the flexible compliance mechanisms. SDG&E's failure to comply with the RPS Program requirements could subject it to CPUC-imposed penalties, which could materially adversely affect its business, cash flows, financial condition, results of operations and/or prospects. The CPUC has neither audited our RPS Program compliance nor provided us with clearance for any compliance periods.

Clean Energy and Pollution Reduction Act – California Senate Bill 350

SB 350 creates new requirements in the areas of renewable energy procurement, energy efficiency, resource planning, and EV infrastructure. The measure requires all load serving entities, including SDG&E, to file integrated resource plans that will ultimately enable the electric sector to achieve reductions in GHG emissions of 40 percent compared to 1990 levels by 2030. SB 350 also clearly specifies that the utilities will file applications with the CPUC that highlight how they can help with the development and expansion of the electric charging infrastructure necessary to support the growth of the EV market expected due to the state's alternative fuel vehicle policy initiative. We expect to meet the higher RPS and GHG emissions reductions requirements and are supportive of greater infrastructure development to promote EV charging.

SONGS

SDG&E has a 20-percent ownership interest in SONGS, formerly a 2,150-MW nuclear generating facility near San Clemente, California, that is in the process of being decommissioned by Edison, the majority owner of SONGS. In Note 13 of the Notes to Consolidated Financial Statements and in "Item 1A. Risk Factors," we discuss regulatory and other matters related to SONGS, including:

- the revised settlement agreement, which is subject to CPUC approval, that provides a different cost allocation among ratepayers and shareholders associated with the premature shutdown of SONGS Units 2 and 3 than the 2014 agreement;
- matters concerning the ability to timely withdraw funds from trust accounts for the payment of decommissioning costs; and
- the arbitration decision finding MHI liable for breach of contract in connection with the replacement steam generators at the SONGS nuclear power plant, subject to a contractual limitation of liability, and awarding MHI 95 percent of its arbitration costs as MHI was found to be the prevailing party.

Wildfire Claims Cost Recovery

In September 2015, SDG&E filed an application with the CPUC requesting rate recovery of an estimated \$379 million in costs related to the October 2007 wildfires that had been recorded as a wildfire regulatory asset, as we discuss in Note 15 of the Notes to Consolidated Financial Statements. In response to our application seeking recovery, the CPUC issued a final decision on December 6, 2017, upholding the proposed decision denying SDG&E's request to recover the 2007 wildfire costs submitted in our application. Accordingly, SDG&E wrote off the wildfire regulatory asset, resulting in a charge of \$351 million (\$208 million after-tax) in the third quarter of 2017, in Write-off of Wildfire Regulatory Asset on the Consolidated Statements of Operations for Sempra Energy and SDG&E. SDG&E will continue to vigorously pursue recovery of these costs, which were incurred through settling claims brought under inverse condemnation principles, after the trial court denied SDG&E's motion to dismiss the plaintiffs' inverse condemnation claims and the appellate courts declined to review the trial court's ruling. SDG&E applied to the CPUC for rehearing of its decision on January 2, 2018. The CPUC may grant a rehearing, modify its decision, or deny the request and affirm its original decision. We will appeal the decision with the California Courts of Appeal seeking to reverse the CPUC's decision, if necessary.

With respect to the 2007 wildfires, based on the trial court's ruling that inverse condemnation claims would apply, we were subject to a strict liability standard. However, at this point, we have been denied recovery by the CPUC of our non-FERC related costs. Insurance coverage for wildfires has significantly increased in cost and may become prohibitively expensive, may be disputed by the insurers, or may become unavailable, and any insurance proceeds we receive for wildfire events may be insufficient to cover our losses or liabilities due to the inability to procure a sufficient amount of insurance and/or the existence of limitations, exclusions, high deductibles, failure to comply with procedural requirements, and other factors, which could

materially adversely affect SDG&E's and Sempra Energy's business, financial condition, results of operations, cash flows and/or prospects.

SOCALGAS

SoCalGas' operations have historically provided relatively stable earnings and liquidity. Its performance will depend primarily on the ratemaking and regulatory process, environmental regulations, economic conditions, actions by the California legislature and the changing energy marketplace. SoCalGas' performance will also depend on the resolution of the legal, regulatory and other matters concerning the leak at the Aliso Canyon natural gas storage facility, which we discuss below, in Note 15 of the Notes to Consolidated Financial Statements and in "Item 1A. Risk Factors."

In addition to general recurring improvements to its transmission and storage systems, over the next several years, SoCalGas expects to make significant capital expenditures for pipeline safety projects pursuant to the PSEP. We discuss these capital projects in "California Utilities – Joint Matters" below.

Aliso Canyon Natural Gas Storage Facility Gas Leak

In October 2015, SoCalGas discovered a leak at one of its injection-and-withdrawal wells, SS25, at its Aliso Canyon natural gas storage facility (the Leak) located in Los Angeles County, which SoCalGas has operated as a natural gas storage facility since 1972. SoCalGas worked closely with several of the world's leading experts to stop the Leak. In February 2016, DOGGR confirmed that the well was permanently sealed.

Local Community Mitigation Efforts

Pursuant to a stipulation and order by the LA Superior Court, SoCalGas provided temporary relocation support to residents in the nearby community who requested it before the well was permanently sealed. Following the permanent sealing of the well, the DPH conducted testing in certain homes in the Porter Ranch community, and concluded that indoor conditions did not present a long-term health risk and that it was safe for residents to return home. In May 2016, the LA Superior Court ordered SoCalGas to offer to clean residents' homes at SoCalGas' expense as a condition to ending the relocation program. SoCalGas completed the residential cleaning program and the relocation program ended in July 2016.

In May 2016, the DPH also issued a directive that SoCalGas additionally professionally clean (in accordance with the proposed protocol prepared by the DPH) the homes of all residents located within the Porter Ranch Neighborhood Council boundary, or who participated in the relocation program, or who are located within a five-mile radius of the Aliso Canyon natural gas storage facility and experienced symptoms from the Leak (the Directive). SoCalGas disputes the Directive, contending that it is invalid and unenforceable, and has filed a petition for writ of mandate to set aside the Directive.

The costs incurred to remediate and stop the Leak and to mitigate local community impacts have been significant and may increase, and we may be subject to potentially significant damages, restitution, and civil, administrative and criminal fines, penalties and other costs. To the extent any of these costs are not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Insurance

Excluding directors' and officers' liability insurance, we have four kinds of insurance policies that together provide between \$1.2 billion to \$1.4 billion in insurance coverage, depending on the nature of the claims. These policies are subject to various policy limits, exclusions and conditions. We have been communicating with our insurance carriers and intend to pursue the full extent of our insurance coverage. Through December 31, 2017, we have received \$469 million of insurance proceeds for portions of control-of-well expenses, lost gas and temporary relocation costs. There can be no assurance that we will be successful in obtaining additional insurance recovery for costs related to the Leak under the applicable policies, and to the extent we are not successful in obtaining coverage or these costs exceed the amount of our coverage, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

At December 31, 2017, SoCalGas estimates that its costs related to the Leak are \$913 million, which includes \$887 million of costs recovered or probable of recovery from insurance. This estimate may rise significantly as more information becomes available. In addition, costs not included in the cost estimate of \$913 million could be material. The actions against us seek compensatory and punitive damages, restitution, and civil, administrative and criminal fines, penalties and other costs, which except for the amounts paid or estimated to settle certain actions, are not included in the \$913 million cost estimate as it is not possible at this time to predict the outcome of these actions or reasonably estimate the amount of damages, restitution or civil,

administrative or criminal fines, penalties or other costs. The recorded amounts above also do not include costs to clean additional homes pursuant to the Directive, future legal costs to defend litigation, and other potential costs that we currently do not anticipate incurring or that we cannot reasonably estimate. Furthermore, our cost estimate of \$913 million does not include certain other costs expensed by Sempra Energy through December 31, 2017 associated with defending shareholder derivative lawsuits (for which we would seek recovery under our directors' and officers' liability insurance policies). To the extent not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations. In Note 15 of the Notes to Consolidated Financial Statements, we provide further detail regarding costs related to the Leak.

Litigation

In connection with the Leak, as of February 22, 2018, 373 lawsuits, including over 45,000 plaintiffs, are pending against SoCalGas, some of which have also named Sempra Energy. Derivative and securities claims have also been filed on behalf of Sempra Energy and/or SoCalGas or their shareholders against certain officers and directors of Sempra Energy and/or SoCalGas. In Note 15 of the Notes to Consolidated Financial Statements, we provide further detail on these cases, as well as on complaints filed by the California Attorney General, acting in an independent capacity and on behalf of the people of the State of California and the CARB, together with the Los Angeles City Attorney; and a complaint filed by the County of Los Angeles, on behalf of itself and the people of the State of California; and on a misdemeanor criminal complaint filed by the Los Angeles County District Attorney's Office. Additional litigation may be filed against us in the future related to the Aliso Canyon natural gas storage facility incident or our responses thereto.

The costs of defending against these civil and criminal lawsuits, cooperating with these investigations, and any damages, restitution, and civil, administrative and criminal fines, penalties and other costs, if awarded or imposed, as well as the costs of mitigating the actual natural gas released, could be significant and to the extent not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Governmental Investigations

Various governmental agencies have investigated or are investigating this incident.

- In January 2016, the Governor of the State of California issued an order (the Governor's Order) proclaiming a state of emergency in Los Angeles County due to the Leak. The Governor's Order imposes various orders with respect to: stopping the Leak; protecting public health and safety; ensuring accountability; and strengthening oversight. We provide further detail regarding the Governor's Order and the CARB's *Aliso Canyon Methane Leak Climate Impacts Mitigation Program*, issued pursuant to the Governor's Order, in Note 15 of the Notes to Consolidated Financial Statements.
- In January 2016, DOGGR and the CPUC selected Blade Energy Partners to conduct an independent analysis under their direction and supervision to be funded by SoCalGas to investigate the technical root cause of the Leak. The timing of the root cause analysis is under the control of Blade Energy Partners, DOGGR and the CPUC.
- In February 2017, the CPUC opened a proceeding pursuant to SB 380 to determine the feasibility of minimizing or eliminating use of the Aliso Canyon natural gas storage facility, while still maintaining energy and electric reliability for the region, as we discuss below in "Regulatory Proceedings" and "SB 380."

Regulatory Proceedings

In February 2017, the CPUC opened a proceeding pursuant to SB 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility while still maintaining energy and electric reliability for the region. The CPUC indicated it intends to conduct the proceeding in two phases, with Phase 1 undertaking a comprehensive effort to develop the appropriate analyses and scenarios to evaluate the impact of reducing or eliminating the use of the Aliso Canyon natural gas storage facility and Phase 2 evaluating the impacts of reducing or eliminating the use of the Aliso Canyon natural gas storage facility using the scenarios and models adopted in Phase 1. In accordance with the Phase 1 schedule, public participation hearings began in April 2017, and workshops and additional public participation hearings are expected to occur.

Section 455.5 of the California Public Utilities Code, among other things, directs regulated utilities to notify the CPUC if all or any portion of a major facility has been out of service for nine consecutive months. Although SoCalGas does not believe the Aliso Canyon natural gas storage facility or any portion of the facility was out of service for nine consecutive months, SoCalGas provided notification out of an abundance of caution to demonstrate its commitment to regulatory compliance and transparency, and because obtaining authorization to resume injection operations at the facility required more time than initially contemplated. In response, and as required by section 455.5, the CPUC issued an OII to address whether the Aliso Canyon natural gas storage

facility or any portion of the facility was out of service for nine consecutive months within the meaning of section 455.5, and if so, whether the CPUC should disallow the costs for such period from SoCalGas' rates. Under section 455.5, hearings on the investigation are to be held, if necessary, in conjunction with SoCalGas' 2019 GRC proceeding. If the CPUC determines that all or any portion of the facility was out of service for nine consecutive months, the amount of any refund to ratepayers and the inability to earn a return on those assets could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

In March 2016, the CPUC ordered SoCalGas to establish a memorandum account to prospectively track its authorized revenue requirement and all revenues that it receives for its normal, business-as-usual costs to own and operate the Aliso Canyon natural gas storage facility and, in September 2016, approved SoCalGas' request to begin tracking these revenues as of March 17, 2016. The CPUC will determine later whether, and to what extent, the authorized revenues tracked in the memorandum account may be refunded to ratepayers.

Natural Gas Storage Operations and Reliability

Natural gas withdrawn from storage is important for service reliability during peak demand periods, including peak electric generation needs in the summer and heating needs in the winter. The Aliso Canyon natural gas storage facility, with a storage capacity of 86 Bcf (which represents 63 percent of SoCalGas' natural gas storage inventory capacity), is the largest SoCalGas storage facility and an important element of SoCalGas' delivery system. Beginning October 25, 2015, pursuant to orders by DOGGR and the Governor of the State of California, and in accordance with SB 380, SoCalGas suspended injection of natural gas into the Aliso Canyon natural gas storage facility. In April and June of 2017, SoCalGas advised the CAISO, CEC, CPUC and PHMSA of its concerns that the inability to inject natural gas into the Aliso Canyon natural gas storage facility posed a risk to energy reliability in Southern California. Limited withdrawals of natural gas from the Aliso Canyon natural gas storage facility were made in 2017 to augment natural gas supplies during critical demand periods.

On July 19, 2017, DOGGR issued its *Order to: Test and Take Temporary Actions Upon Resuming Injection: Aliso Canyon Gas Storage Facility*, lifting the prohibition on injection at the Aliso Canyon natural gas storage facility, subject to certain requirements after injection resumed, including limitations on the rate at which SoCalGas may withdraw natural gas from the field. The CPUC additionally issued a directive to SoCalGas to maintain a range of working gas in the Aliso Canyon natural gas storage facility at a target of 23.6 Bcf (approximately 28 percent of its maximum capacity), and at all times above 14.8 Bcf, later amended to require the range be maintained from zero Bcf to 24.6 Bcf of working gas. In July 2017, the County of Los Angeles sought a temporary restraining order to block DOGGR's order; the Superior Court ruled that it lacks jurisdiction to rule on the County's application. We provide further detail regarding DOGGR's order and the County of Los Angeles' petition in Note 15 of the Notes to Consolidated Financial Statements. Having completed the steps outlined by state agencies to safely begin injections at the Aliso Canyon natural gas storage facility, as of July 31, 2017, SoCalGas resumed limited injections.

If the Aliso Canyon natural gas storage facility were determined to have been out of service for any meaningful period of time or permanently closed, or if future cash flows were otherwise insufficient to recover its carrying value, it could result in an impairment of the facility and significantly higher than expected operating costs and/or additional capital expenditures, and natural gas reliability and electric generation could be jeopardized. At December 31, 2017, the Aliso Canyon natural gas storage facility has a net book value of \$644 million, including \$252 million of construction work in progress for the project to construct a new compressor station. Any significant impairment of this asset could have a material adverse effect on SoCalGas' and Sempra Energy's results of operations for the period in which it is recorded. Higher operating costs and additional capital expenditures incurred by SoCalGas may not be recoverable in customer rates, and could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Increased Regulation

PHMSA, DOGGR, SCAQMD, EPA and CARB each commenced separate rulemaking proceedings to adopt further regulations covering natural gas storage facilities and injection wells. DOGGR issued new draft regulations for all storage fields in California, and in 2016, the California Legislature enacted four separate bills providing for additional regulation of natural gas storage facilities. Additional hearings in the California Legislature, as well as with various other federal and state regulatory agencies, may be scheduled, and additional laws, orders, rules and regulations may be adopted. The Los Angeles County Board of Supervisors has formed a task force to review and potentially implement new, more stringent land use (zoning) requirements and associated regulations and enforcement protocols for oil and gas activities, including natural gas storage field operations, which could materially affect new or modified uses of the Aliso Canyon natural gas storage facility and other natural gas storage fields located in Los Angeles County.

PIPES Act of 2016

In June 2016, the “Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2016” or the “PIPES Act of 2016” was enacted. Among other things, the PIPES Act of 2016:

- requires PHMSA to issue, within two years of passage, “minimum safety standards for underground natural gas storage facilities;”
- imposes a “user fee” on underground storage facilities as needed to implement the safety standards;
- grants PHMSA authority to issue emergency orders and impose emergency restrictions, prohibitions and safety measures on owners and operators of gas or hazardous liquid pipeline facilities without prior notice or an opportunity for hearing, if the U.S. Secretary of Energy determines that an unsafe condition or practice, or a combination of unsafe conditions and practices, constitutes or is causing an imminent hazard; and
- directs the U.S. Secretary of Energy to establish an Interagency Task Force comprised of representatives from various federal agencies and representatives of state and local governments.

In December 2016, PHMSA published an interim final rule pursuant to the PIPES Act of 2016 that revises the federal pipeline safety regulations relating to underground natural gas storage facilities. The interim final rule incorporates consensus safety measures for the construction, maintenance, risk-management, and integrity-management procedures for natural gas storage. SoCalGas began the process of implementing such safety measures prior to formal adoption by PHMSA and is developing the associated documents and procedures required to demonstrate compliance with the standards.

SB 380

In May 2016, SB 380 became law and required, as conditions for the resumption of natural gas injections into the Aliso Canyon natural gas storage facility, a comprehensive review of the safety of the gas storage wells at the facility, and reconfiguration of all gas storage wells returning to service such that natural gas flows only through the interior metal tubing and not through the annulus between the tubing and the well casing. Both conditions were completed in July 2017. SB 380 further requires a CPUC proceeding (which was opened in February 2017) to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility, while still maintaining energy and electric reliability for the region, and the CPUC to consult with various governmental agencies and other entities in making its determination. The order establishing the scope of the proceeding expressly excludes issues with respect to air quality, public health, causation, culpability or cost responsibility regarding the Leak.

In July 2017, DOGGR issued an order lifting the prohibition of the injection of natural gas into the Aliso Canyon natural gas storage facility and the CPUC’s Executive Director issued his concurrence with that determination, subject to certain conditions. The County of Los Angeles filed a petition for writ of mandate against DOGGR and its State Oil and Gas Supervisor and the CPUC and its Executive Director, as to which SoCalGas is the real party in interest, alleging that DOGGR failed to properly conduct the comprehensive safety review required by SB 380 and failed to perform an EIR pursuant to CEQA. The petition seeks a writ of mandate requiring DOGGR and the State Oil and Gas Supervisor to comply with SB 380 and CEQA, as well as declaratory and injunctive relief against any authorization to inject natural gas.

SoCalGas completed the steps outlined by state agencies to safely begin injections at the Aliso Canyon natural gas storage facility and, as of July 31, 2017, resumed limited injections. We provide further detail regarding DOGGR’s order and the petition filed by the County of Los Angeles above under the heading “Natural Gas Storage Operations and Reliability” and in Note 15 of the Notes to Consolidated Financial Statements.

SB 888

In September 2016, SB 888 became law, which requires that a penalty assessed against a gas corporation by the CPUC with regard to a natural gas storage facility leak must at least equal the amount necessary to fully offset the impact on the climate from the GHGs emitted by the leak, as determined by the CARB. The CPUC also must consider the extent to which the gas corporation has mitigated or is in the process of mitigating the impact on the climate from GHG emissions resulting from the leak.

Additional Safety Enhancements

In February 2017, SoCalGas notified the CPUC that it is accelerating its well integrity assessments on the natural gas storage wells at its La Goleta, Honor Rancho and Playa del Rey natural gas storage fields consistent with the testing prescribed by SB 380 for the Aliso Canyon natural gas storage facility, proposed new DOGGR regulations, and SoCalGas’ Storage Risk Management Plan. In addition, SoCalGas indicated its plan to reconfigure its operating natural gas storage wells such that natural gas will be injected or produced only through the interior metal tubing and not through the annulus between the tubing and the well casing to maintain a double barrier and additional layer of safety, which is consistent with the direction of federal and state regulations.

SoCalGas anticipates that this work will reduce the injection and withdrawal capacity of each of these other storage fields. Depending on the volume of natural gas in storage in each field at the time natural gas is injected or withdrawn, the reduction could be significant and could impact natural gas reliability and electric generation. In March 2017, SoCalGas revised its plan, as directed by the CPUC, for converting all wells to tubing-only operation to maintain a prescribed withdrawal capacity through the summer. On December 1, 2017, SoCalGas sent a letter to the CPUC and DOGGR informing them that it is proceeding with its planned acceleration of well integrity assessments on the natural gas storage wells at its La Goleta, Honor Rancho and Playa del Rey natural gas storage fields. As such, SoCalGas now only operates storage wells in the tubing-only operational configuration at all of its storage fields.

Higher operating costs and additional capital expenditures incurred by SoCalGas as a result of new laws, orders, rules and regulations arising out of the Aliso Canyon natural gas storage facility incident or our responses thereto could be significant and may not be recoverable in customer rates, and SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations may be materially adversely affected by any such new laws, orders, rules and regulations.

SoCalGas Billing Practices

In May 2017, the CPUC issued an OII to determine whether SoCalGas violated any provisions of the California Public Utilities Code, General Orders, CPUC decisions, or other requirements pertaining to billing practices from 2014 through 2016. In particular, the CPUC is examining the timeliness of monthly bills, extending the billing period for customers, and issuing estimated bills. Under the OII, the CPUC will also examine SoCalGas' gas tariff rules and consider whether to impose penalties or other remedies. We expect a decision on the OII in 2018.

CALIFORNIA UTILITIES – JOINT MATTERS

We refer to SDG&E and SoCalGas collectively as the California Utilities, which do not include the utilities in our other segments.

Capital Project Updates

We summarize below information regarding certain joint capital projects of the California Utilities.

JOINT CAPITAL PROJECTS – CALIFORNIA UTILITIES

Project description	Estimated capital cost (in millions)	Status
Pipeline Safety & Reliability Project		
<ul style="list-style-type: none"> ▪ September 2015 application and March 2016 amended application seeking authority to recover the estimated \$633 million cost of the project, involving construction of an approximately 47-mile, 36-inch natural gas transmission pipeline in San Diego County. ▪ Would implement pipeline safety requirements and modernize system; improve system reliability and resiliency by minimizing dependence on a single pipeline; and enhance operational flexibility to manage stress conditions by increasing system capacity. 	\$ 633	<ul style="list-style-type: none"> ▪ Procedural schedule set for two phases to address (1) long-term need and planning assumptions, and (2) costs, alternatives and environmental impacts. We expect a Phase 1 draft decision in the first half of 2018, a draft EIR by August 2018, and Phase 2 to follow the draft EIR.
Pipeline Safety Enhancement Plan		
<ul style="list-style-type: none"> ▪ March 2017 application filed with the CPUC to recover forecasted costs associated with twelve Phase 1B and Phase 2A pipeline safety projects. ▪ Estimated implementation cost of \$57 million of O&M at SoCalGas. 	\$ 198	<ul style="list-style-type: none"> ▪ Application pending; draft decision expected in second half of 2018.
Mobile Home Park Utility Upgrade Program		
<ul style="list-style-type: none"> ▪ May 2017 application filed with the CPUC to convert an additional 20 percent of eligible units to direct utility service, for a total of 30 percent of mobile homes. ▪ Estimated implementation cost of \$2 million of O&M at SDG&E and \$3 million to \$4 million of O&M at SoCalGas. 	\$ 471 to \$ 508	<ul style="list-style-type: none"> ▪ Application pending ▪ September 2017 resolution approved extension of pilot program through the earlier of 2019 or the issuance of a CPUC decision on pending applications, while also allowing an increase from 10 percent to 15 percent of mobile homes to be converted.

CPUC General Rate Case

The CPUC uses a GRC proceeding to set sufficient rates to allow the California Utilities to recover their reasonable cost of O&M and to provide the opportunity to realize their authorized rates of return on their investment.

2019 General Rate Case

On October 6, 2017, SDG&E and SoCalGas filed their 2019 GRC applications requesting CPUC approval of test year revenue requirements for 2019 and attrition year adjustments for 2020 through 2022. As part of the 2019 GRC, the CPUC will review the California Utilities' interim accountability reports which compare the authorized and actual spending for certain safety-related activities for 2014 through 2016. In June 2017, SDG&E and SoCalGas filed their first interim accountability reports comparing authorized and actual spending in 2014 and 2015 for certain safety-related activities. Similar data for 2016 was provided with the 2019 GRC filings in a second interim accountability report. The stated purpose of the interim accountability reports is to provide data and metrics for key safety and risk mitigation areas that will be considered in the 2019 GRC. The results of the rate case may materially and adversely differ from what is contained in the GRC applications.

2016 General Rate Case

In June 2016, the CPUC approved a 2016 GRC FD in the California Utilities' 2016 GRC, which was effective retroactive to January 1, 2016 and established their authorized 2016 revenue requirements and the ratemaking mechanisms by which those requirements would change on an annual basis over the applicable three-year (2016-2018) period. The adopted revenue requirements associated with the seven-month period through July 2016 were recovered in rates over a 17-month period, beginning in August 2016.

The 2016 GRC FD also resulted in certain accounting and financial impacts associated with bonus depreciation, flow-through income tax repairs deductions related to prior years, and the treatment of differences between income tax incurred and income tax forecasted in the GRC for 2016 through 2018.

We discuss the 2019 and 2016 GRCs in Note 14 of the Notes to Consolidated Financial Statements.

Cost of Capital Update

In July 2017, the CPUC issued a final decision that provides a two-year extension for each of the utilities to file its next respective cost of capital application, extending the filing date to April 2019 for a 2020 test year. The final decision also reduced the ROE for SDG&E from 10.30 percent to 10.20 percent and for SoCalGas from 10.10 percent to 10.05 percent, for the period from January 1, 2018 through December 31, 2019. SDG&E's and SoCalGas' ratemaking capital structures will remain at current levels until modified, if at all, by a future cost of capital decision by the CPUC. In September 2017, SDG&E and SoCalGas filed advice letters to update their cost of capital for the actual cost of long-term debt through August 2017 and forecasted cost through 2018. SDG&E and SoCalGas did not file for changes to preferred stock costs, because no issuances of preferred stock through 2018 are anticipated.

In October 2017, the CPUC approved the embedded cost of debt presented in the filed advice letters, resulting in a revised return on rate base for SDG&E from 7.79 percent to 7.55 percent and for SoCalGas from 8.02 percent to 7.34 percent, effective January 1, 2018. The automatic CCM will be in effect to adjust 2019 cost of capital, if necessary. Unless changed by the operation of the CCM, the updated costs of long-term debt and the new ROEs will remain in effect through December 31, 2019. The cost of capital changes will also apply to capital expenditures in 2018 and 2019 for incremental projects not funded through the GRC revenue requirement. We provide further detail regarding cost of capital in Note 14 of the Notes to Consolidated Financial Statements.

Incentive Mechanisms

We describe CPUC incentive mechanisms in "Item 1. Business – Ratemaking Mechanisms – Incentive Mechanisms." Incentive awards are included in revenues when we receive required CPUC approval of the award, the timing of which may not be consistent from year to year. We would record penalties for results below the specified benchmarks against revenues when we believe it is probable that the CPUC would assess a penalty.

Energy Efficiency

The CPUC has established incentive mechanisms that are based on the effectiveness of energy efficiency programs.

ENERGY EFFICIENCY AWARDS RECORDED IN REVENUES

(Dollars in millions)

Award period (program years)	SDG&E			SoCalGas		
	2017 ⁽¹⁾	2016	2015	2017 ⁽¹⁾	2016	2015
For second half of 2015 and first half of 2016	\$ 3	\$ —	\$ —	\$ 1	\$ —	\$ —
For second half of 2014 and first half of 2015	—	4	—	—	4	—
For second half of 2013 and first half of 2014	—	—	7	—	—	4

⁽¹⁾ 2017 awards reflect settlement reductions as approved by the CPUC, as discussed below.

In March 2017, the CPUC approved the settlement agreements reached with the ORA and TURN regarding the incentive awards for program years 2006 through 2008, wherein the parties agreed that SDG&E and SoCalGas would offset up to a total of approximately \$4 million each against future incentive awards over a three-year period beginning in 2017. If the total incentive awards ultimately authorized for 2017 through 2019 are less than approximately \$4 million for either utility, the applicable utility is released from paying any remaining unapplied amount.

Natural Gas Procurement

The California Utilities procure natural gas on behalf of their core natural gas customers. The CPUC has established incentive mechanisms to allow the California Utilities the opportunity to share in the savings and/or costs from buying natural gas for their core customers at prices below or above monthly market-based benchmarks. SoCalGas procures natural gas for SDG&E's core natural gas customers' requirements. SoCalGas' GCIM is applied on the combined portfolio basis.

GCIM AWARDS RECORDED IN REVENUES

(Dollars in millions)

Award period (program years)	SoCalGas		
	2017	2016	2015
April 2015 - March 2016	\$ 5	\$ —	\$ —
April 2014 - March 2015	—	—	7
April 2013 - March 2014	—	—	14

In January 2018, the CPUC approved SoCalGas' application for a GCIM award of \$4 million for natural gas procured for its core customers during the 12-month period ended March 31, 2017.

Operational Incentives

The CPUC may establish operational incentives and associated performance benchmarks as part of a GRC or cost of service proceeding. In the 2016 GRC FD, the CPUC did not establish any operational incentives for SoCalGas, but established an electric reliability incentive for SDG&E. Outcomes could vary from a maximum annual penalty of \$8 million to a maximum annual award of \$8 million.

Natural Gas Pipeline Operations Safety Assessments

In 2011, the California Utilities filed implementation plans with the CPUC to implement the CPUC's directives to test or replace natural gas transmission pipelines that do not have sufficient documentation of a pressure test and to address retrofitting pipelines to allow for in-line inspection tools and, where appropriate, automated or remote controlled shut-off valves (referred to as PSEP). In 2014, the CPUC issued a final decision approving the utilities' analytical approach to implementing PSEP, as embodied in an approved decision tree, but did not pre-approve recovery of the costs of implementing PSEP, because initial cost estimates were too preliminary to form the basis for ratemaking. Instead, the CPUC established a process to review the reasonableness of incurred PSEP costs after-the-fact to determine the amounts that may be recovered from ratepayers. As portions of PSEP have been completed, actual costs have generally been higher than the preliminary estimates, partially offset by changes in scope that have reduced costs. Implementation costs incurred through 2017 are summarized in the table below. Over time, as we have completed an increasing number of projects, SoCalGas and SDG&E achieve greater cost estimate accuracy, as well as efficiencies in executing the project work. Cost estimates for work performed in 2017 and forward reflect the development of more detailed estimates, actual cost experience as portions of the work are completed and additional refinement in scope. In addition,

implementation of new regulatory requirements or clarification of existing regulatory requirements in the future could materially impact the cost forecasts.

In 2016, the CPUC issued a final decision authorizing SoCalGas and SDG&E to recover in rates 50 percent of the balances recorded in PSEP regulatory accounts as of January 1 each year, subject to refund, pending reasonableness review. The decision also incorporates a forward-looking schedule to file reasonableness review applications in 2016 and 2018, file a forecast application for pre-approval of project costs incurred in 2017 and 2018, and to include PSEP costs not the subject of prior applications in future GRCs. We expect this transition from an after-the-fact reasonableness review framework to pre-approval of PSEP implementation costs based on cost forecasts to improve the certainty of recovery for PSEP implementation costs.

In September 2016, SoCalGas and SDG&E filed a joint application with the CPUC for review of PSEP project costs completed through June 30, 2015. The total costs submitted for review are approximately \$195 million (\$180 million for SoCalGas and \$15 million for SDG&E). SoCalGas and SDG&E expect a decision from the CPUC in 2018. Although consumer advocacy groups oppose recovery of a portion of the costs submitted for review, we believe these costs were prudently incurred in accordance with CPUC regulatory requirements and should be substantially approved for recovery.

In March 2017, SoCalGas and SDG&E filed an application with the CPUC requesting pre-approval of the forecasted revenue requirement associated with twelve PSEP projects, to be effective in rates on January 1, 2019. The California Utilities expect to incur total costs for the twelve projects of approximately \$255 million (\$198 million in capital expenditures and \$57 million in O&M). SoCalGas and SDG&E expect a CPUC decision in the second half of 2018.

As shown in the table below, SoCalGas and SDG&E have made significant pipeline safety investments under the PSEP program, and SoCalGas expects to continue making significant investments as approved through various regulatory proceedings. SDG&E's PSEP program was substantially completed in 2017, with the exception of the Pipeline Safety & Reliability Project that is currently under regulatory review.

PIPELINE SAFETY ENHANCEMENT PLAN – REASONABLENESS REVIEW SUMMARY

(Dollars in millions)

	2011 through 2017			
	Total invested ⁽¹⁾	CPUC review completed ⁽²⁾	CPUC review pending ⁽³⁾	2018 and future applications ⁽⁴⁾⁽⁵⁾
Sempra Energy Consolidated:				
Capital	\$ 1,490	\$ 8	\$ 144	\$ 1,338
Operation and maintenance	176	25	63	88
Total	\$ 1,666	\$ 33	\$ 207	\$ 1,426
SoCalGas:				
Capital	\$ 1,144	\$ 8	\$ 130	\$ 1,006
Operation and maintenance	167	25	62	80
Total	\$ 1,311	\$ 33	\$ 192	\$ 1,086
SDG&E:				
Capital	\$ 346	\$ —	\$ 14	\$ 332
Operation and maintenance	9	—	1	8
Total	\$ 355	\$ —	\$ 15	\$ 340

⁽¹⁾ Excludes disallowed costs through December 31, 2017 of \$7 million at SoCalGas and \$4 million at SDG&E for pressure testing or replacing pipelines installed between January 1, 1956 and July 1, 1961.

⁽²⁾ Approved in December 2016; excludes \$2 million of PSEP-specific insurance costs for which SoCalGas and SDG&E are authorized to request recovery in a future filing.

⁽³⁾ Reasonableness Review Application for completed projects totaling \$195 million filed in September 2016. Also includes approximately \$11 million of pre-engineering costs incurred to support projects under development and submitted as part of the Forecast Application filed in March 2017. Both decisions are expected in 2018.

⁽⁴⁾ Authorized to recover in rates 50 percent of the balances recorded in the PSEP balancing accounts, subject to refund.

⁽⁵⁾ Reasonableness Review Application to be filed in late 2018 and expected to include the majority of these costs. Remaining costs not the subject of prior applications are to be included for review in subsequent GRCs.

Regulatory Compliance and Safety Enforcement

The California Utilities are subject to various state and federal regulatory compliance requirements. At the state level, the CPUC has instituted gas and electric safety compliance programs that delegate citation authority to CPUC staff personnel under the direction of the CPUC Executive Director. In exercising the citation authority, the CPUC staff will take into account voluntary reporting of potential violations, voluntary resolution efforts undertaken, prior history of violations, the gravity of the violation and the degree of culpability. Under each enforcement program, each day of an ongoing violation may be counted as an additional offense. The maximum penalty is \$50,000 per offense, with an administrative limit of \$8 million per citation.

In October 2016, the CPUC's CPED issued a citation to SoCalGas for alleged violations of certain environmental mitigation measures related to the Aliso Canyon Turbine Replacement Project, and imposed a fine in the amount of \$699,500. SoCalGas subsequently appealed the citation and the resulting fine. In March 2017, SoCalGas and the CPED filed a joint settlement agreement with the CPUC to resolve all matters related to the October 2016 citation. As a part of the settlement agreement, SoCalGas agreed to pay \$250,000 to the state's general fund and to retain an independent firm to conduct compliance training seminars for the benefit of SoCalGas and CPUC personnel at a cost not to exceed \$25,000. The parties agreed that the settlement agreement did not constitute an admission by SoCalGas or denial by CPED with respect to any issue of fact or law, or of any violation or liability by any party. In May 2017, the CPUC issued a decision approving the settlement as filed.

SEMPRA SOUTH AMERICAN UTILITIES

Our utilities in South America have historically provided relatively stable earnings and liquidity, and their future performance will depend primarily on the ratemaking and regulatory process, environmental regulations, foreign currency rate fluctuations and economic conditions. They are also expected to provide earnings from construction projects when completed and from other investments, but will require substantial funding for these investments.

Capital Project Updates

We summarize below the completion of a transmission line project in 2017 at a Sempra South American Utilities joint venture.

CAPITAL PROJECT COMPLETED IN 2017 – SEMPRA SOUTH AMERICAN UTILITIES

Project description

Chilquinta Energía - Eletrans S.A.

- Second of two, 220-kV transmission lines awarded in May 2012.
 - 46-mile transmission line extending from Ciruelos to Pichirropulli.
 - Earns a return in U.S. dollars, indexed to the CPI, for 20 years and a regulated return thereafter.
 - 50-percent equity interest in joint venture.
- Completed in September 2017.

We summarize below information regarding major projects in process at Sempra South American Utilities. Chilquinta Energía's projects will be financed by the joint venture partners during construction, and other financing may be pursued upon project completion. Luz del Sur intends to finance its projects through its existing debt program in Peru's capital markets.

CAPITAL PROJECTS UNDER CONSTRUCTION AT DECEMBER 31, 2017 – SEMPRA SOUTH AMERICAN UTILITIES

Project description	Our share of estimated capital cost (in millions)	Status
Chilquinta Energía - Eletrans II S.A.		
<ul style="list-style-type: none"> ▪ Two 220-kV transmission lines awarded in June 2013. ▪ Transmission lines to extend approximately 78 miles in total. ▪ Once in operation, will earn a return in U.S. dollars, indexed to the CPI, for 20 years and a regulated return thereafter. ▪ 50-percent equity interest in joint venture. 	\$ 42	<ul style="list-style-type: none"> ▪ Estimated completion: 2019
Chilquinta Energía - Eletrans III S.A.		
<ul style="list-style-type: none"> ▪ 220-kV transmission line awarded in June 2017. ▪ Transmission line in the northern region of Chile to extend approximately 133 miles. ▪ Once in operation, will earn a return in U.S. dollars, indexed to the CPI, for 20 years and a regulated return thereafter. ▪ 50-percent equity interest in joint venture. 	\$ 50	<ul style="list-style-type: none"> ▪ Estimated completion: 2021
Luz Del Sur - Lima Substations and Transmission Lines (second investment)		
<ul style="list-style-type: none"> ▪ Amended transmission investment plan includes development and operation of five substations and related transmission lines. ▪ Once in operation, the capitalized cost of the projects will earn a regulated return for 30 years. 	\$ 130	<ul style="list-style-type: none"> ▪ Estimated completion: 2018 through 2020 as portions are completed ▪ Completed two substations and related transmission lines in 2017.

Regulated Rates

The CNE in Chile and the OSINERGMIN in Peru set rates for our electric distribution utilities in South America, Chilquinta Energía and Luz del Sur, respectively.

For Chilquinta Energía, distribution and transmission rates for four-year periods are reviewed separately, on an alternating basis, every two years. The most recent review process for distribution rates was completed in November 2016 and received final approval in August 2017. The authorized distribution rates are retroactive from November 2016 and will remain in effect through October 2020, which we do not expect to have a material impact on our results. Chilquinta Energía's most recent review process for transmission rates was completed in September 2017, and final approval is expected in the first quarter of 2018. Upon approval, the transmission rates will cover the period from January 2018 through December 2019, which we do not expect to have a material impact on our results.

The components of tariffs for Luz del Sur are reviewed and adjusted every four years. The final distribution rate-setting resolution for the 2013-2017 period was published in October 2013 and went into effect on November 1, 2013. In December 2016, OSINERGMIN issued a decree extending existing rates for Luz del Sur until November 2018. The next rate review is scheduled to be completed in 2018, covering the period from November 2018 to October 2022.

We discuss the impact of tax reform in Peru in "Results of Operations – Changes in Revenues, Costs and Earnings – Income Taxes."

Luz del Sur - Potential Impact from Tolling Customers

Luz del Sur is an electric distribution utility that provides electric services, including the supply of electricity, to regulated and non-regulated customers. Non-regulated customers consist of free and tolling customers. Luz del Sur supplies electricity to its customers from power purchased from generators under long-term, take-or-pay PPAs. A free customer has the option of purchasing electricity directly from Luz del Sur, while paying fees to Luz del Sur for generation, transmission (primary and secondary) and distribution services, or choosing to become a tolling customer. A tolling customer purchases electricity from alternative suppliers and pays only a tolling fee to Luz del Sur for secondary transmission and distribution. To the extent

customers choose to become tolling customers, Luz del Sur may be exposed to stranded costs related to capacity charges under its long-term, take-or-pay PPAs. We discuss Luz del Sur's customers and demand in "Item 1. Business."

SEMPRA MEXICO

Capital Projects Updates

The table below summarizes certain projects that were completed in 2017 at Sempra Mexico.

CAPITAL PROJECTS COMPLETED 2017 – SEMPRA MEXICO	
Project description	
Sonora Pipeline	
<ul style="list-style-type: none"> ▪ 500-mile pipeline network comprised of two segments that interconnect to the U.S. interstate pipeline system. ▪ Pipeline to transport natural gas from the U.S.-Mexico border south of Tucson, Arizona through the Mexican state of Sonora to the northern part of the Mexican state of Sinaloa along the Gulf of California. ▪ Capacity is fully contracted by the CFE under two 25-year contracts denominated in U.S. dollars. 	<ul style="list-style-type: none"> ▪ First segment completed in stages from fourth quarter of 2014 through August 2015. ▪ Second segment completed in May 2017. ▪ Operations have been interrupted at the second segment of the pipeline, known as the Guaymas-El Oro segment, since August 23, 2017. IEnova has declared a force majeure event.⁽¹⁾
Ojinaga Pipeline	
<ul style="list-style-type: none"> ▪ 137-mile pipeline extending from Ojinaga to El Encino. ▪ Natural gas transportation services agreement with the CFE for a 25-year term, denominated in U.S. dollars, for 100 percent of the transport capacity, equal to 1.4 Bcf per day. 	<ul style="list-style-type: none"> ▪ Pipeline completed in June 2017.
San Isidro Pipeline	
<ul style="list-style-type: none"> ▪ 14-mile pipeline, a 46,000-horsepower compressor station and a distribution head, serving as an interconnection point to other pipeline systems located in Chihuahua. ▪ Natural gas transportation services agreement with the CFE for a 25-year term, denominated in U.S. dollars, for 100 percent of the transport capacity, equal to 1.1 Bcf per day. 	<ul style="list-style-type: none"> ▪ Pipeline completed in March 2017. ▪ Compressor station completed in June 2017.

⁽¹⁾ See discussion in Note 15 of the Notes to Consolidated Financial Statements.

We summarize major projects in process at Sempra Mexico below.

CAPITAL PROJECTS AT DECEMBER 31, 2017 – SEMPRA MEXICO

Project description	Our share of estimated capital cost (in millions)	Status
Sur de Texas-Tuxpan Marine Pipeline		
<ul style="list-style-type: none"> ▪ IMG was awarded the right to build, own and operate the natural gas marine pipeline in June 2016 by the CFE. ▪ Sempra Mexico has a 40-percent interest in IMG, a joint venture with TransCanada, which owns the remaining 60-percent interest. ▪ Natural gas transportation services agreement for a 25-year term, denominated in U.S. dollars. 	\$ 840	▪ Estimated completion: second half of 2018
La Rumorosa Solar Complex		
<ul style="list-style-type: none"> ▪ Awarded 41-MW photovoltaic solar energy project located in Baja California, Mexico, in an auction conducted by Mexico's National Center of Electricity Control (Centro Nacional de Control de Energía) in September 2016. ▪ Contracted by the CFE under a 15-year renewable energy agreement and a 20-year clean energy certificate agreement, denominated in U.S. dollars. 	\$ 50	▪ Estimated completion: first half of 2019
Tepezalá II Solar Complex		
<ul style="list-style-type: none"> ▪ Awarded 100-MW photovoltaic solar energy project located in Aguascalientes, Mexico, in an auction conducted by Mexico's National Center of Electricity Control in September 2016. ▪ Contracted by the CFE under 15-year renewable energy and capacity agreements and a 20-year clean energy certificate agreement, denominated in U.S. dollars. ▪ Developing and constructing in collaboration with Trina Solar, which owns a 10-percent interest in the project. IEnova has the option to purchase, and Trina Solar has the option to sell, Trina Solar's ownership interest at the end of the construction period, before operations commence. 	\$ 90	▪ Estimated completion: first half of 2019
Pima Solar		
<ul style="list-style-type: none"> ▪ Awarded 110-MW photovoltaic project located in Sonora, Mexico in March 2017. ▪ Entered into a 20-year, U.S. dollar-denominated PPA in March 2017 to provide renewable energy, clean energy certificates and capacity. 	\$ 115	▪ Estimated completion: fourth quarter of 2018
Liquid Fuels Terminals at Port of Veracruz, Puebla and Mexico City		
<ul style="list-style-type: none"> ▪ Awarded a 20-year concession in July 2017 to build and operate a marine terminal in the Port of Veracruz in Mexico for the receipt, storage and delivery of liquid fuels. ▪ Capacity of 1.4 million barrels of gasoline, diesel and jet fuel to supply the central region of Mexico. ▪ IEnova will also build and operate two storage terminals located near Puebla and Mexico City with storage capacities of 500,000 and 800,000 barrels, respectively. ▪ Entered into three, long-term, U.S. dollar-denominated terminal services agreements in July 2017 with Valero Energy for the full capacity of the marine terminal and the two inland storage terminals. ▪ Pursuant to these agreements, Valero Energy has the option to purchase a 50-percent interest in each of the three terminals after commencement of commercial operations, subject to approval by the Port of Veracruz, COFECE, the CRE and other regulatory bodies. 	\$ 155	<ul style="list-style-type: none"> ▪ Includes marine concession fees totaling \$55 million for concession rights: half paid in August 2017 and half paid in January 2018. ▪ Expected completion of marine terminal: end of 2018
<ul style="list-style-type: none"> ▪ Entered into three, long-term, U.S. dollar-denominated terminal services agreements in July 2017 with Valero Energy for the full capacity of the marine terminal and the two inland storage terminals. ▪ Pursuant to these agreements, Valero Energy has the option to purchase a 50-percent interest in each of the three terminals after commencement of commercial operations, subject to approval by the Port of Veracruz, COFECE, the CRE and other regulatory bodies. 	\$ 120	▪ Expected completion of two inland storage terminals: first half of 2019
Energía Sierra Juárez 2		
<ul style="list-style-type: none"> ▪ 108-MW wind power generation facility, located in La Rumorosa, Baja California. ▪ Entered into a 20-year, U.S. dollar-denominated PPA with SDG&E in November 2017. ▪ Received CPUC approval in December 2017. 	\$ 150	<ul style="list-style-type: none"> ▪ Expected completion: fourth quarter of 2020 ▪ Pending FERC approval

Energía Costa Azul LNG Terminal

In May 2015, Sempra LNG & Midstream, IEnova, and a subsidiary of PEMEX entered into a project development agreement for the joint development of the proposed natural gas liquefaction project at IEnova's existing regasification terminal at ECA. The agreement specifies how the parties share costs, and establishes a framework for the parties to work jointly on permitting, design, engineering and commercial activities associated with exploring the development of the liquefaction project. PEMEX's cost-sharing obligations under the agreement ended on December 31, 2017. ECA has profitable long-term regasification contracts for 100 percent of the regasification facility's capacity through 2028, making the decision to pursue a new liquefaction facility dependent in part on whether the investment in a new liquefaction facility would, over the long term, be more beneficial financially than continuing to supply regasification services under our existing contracts.

ECA has obtained the primary Mexican governmental authorizations for the proposed natural gas liquefaction project, including the Environmental Impact Assessment from the National Agency for Safety, Energy and Environment of Mexico, the Social Impact Assessment from the Mexican Secretary of Energy (Secretaría de Energía) and the liquefaction and power self-generation permits from the CRE.

The development of this project is subject to numerous risks and uncertainties, including the receipt of a number of permits and regulatory approvals; finding suitable partners and customers; obtaining financing; negotiating and completing suitable commercial agreements, including joint venture agreements, LNG sales agreements, gas supply agreements and construction contracts; reaching a final investment decision; and other factors associated with this potential investment. For a discussion of these risks, see "Item 1A. Risk Factors."

IEnova Pipelines and DEN

On September 26, 2016, IEnova completed the acquisition of PEMEX's 50-percent interest in GdC (now known as IEnova Pipelines), increasing IEnova's ownership interest in IEnova Pipelines to 100 percent, at which point IEnova Pipelines became a consolidated subsidiary of IEnova.

On November 15, 2017, IEnova completed the acquisition of PEMEX's 50-percent interest in DEN, increasing IEnova Pipelines' ownership interest in DEN and TAG to 100 percent and 50 percent, respectively, at which point DEN became a consolidated subsidiary of IEnova. DEN continues to account for its indirect interest in TAG as an equity method investment. We discuss these acquisitions further in Notes 3 and 4 of the Notes to Consolidated Financial Statements.

Termoeléctrica de Mexicali

Our TdM power plant is currently held for sale, as we discuss in Note 3 of the Notes to Consolidated Financial Statements.

Other Sempra Mexico Matters

At December 31, 2017, PEMEX's long-term rating with Moody's was Baa3 with a negative outlook. PEMEX's foreign currency long-term S&P rating was BBB+ and its outlook was stable. S&P's local currency long-term sovereign credit rating was A- with a stable outlook. Fitch Rating's long-term issuer default rating and local currency long-term issuer default ratings were BBB+. Although PEMEX is a State Productive Enterprise of Mexico, its financing obligations are not guaranteed by the Mexican government. As a customer with capacity contracts for transportation services on Sempra Mexico's ethane and LPG pipelines, if PEMEX were unable to meet any or all of its obligations to Sempra Mexico, it could have a material adverse effect on Sempra Energy's financial condition, results of operations and cash flows.

Sempra Mexico continues to monitor CFE project opportunities and carefully analyze CFE bids in order to participate in those that fit its overall growth strategy. There can be no assurance that IEnova will be successful in bidding for new CFE projects.

The ability to successfully complete major construction projects is subject to a number of risks and uncertainties. For a discussion of these risks and uncertainties, see "Item 1A. Risk Factors."

SEMPRA RENEWABLES

Sempra Renewables' performance is primarily a function of the solar and wind power generated by its assets. Power generation from these assets depends on solar and wind resource levels, weather conditions, and Sempra Renewables' ability to maintain equipment performance.

Sempra Renewables' future performance and the demand for renewable energy is impacted by various market factors, most notably state mandated requirements for utilities to deliver a portion of total energy load from renewable energy sources. Additionally, the phase out or extension of U.S. federal income tax incentives, primarily ITCs and PTCs, and grant programs

could significantly impact future renewable energy resource availability and investment decisions. Imposition by the U.S. government of ad valorem tariffs, import quotas or other import restrictions related to solar panels could materially adversely affect Sempra Renewables' business, investment decisions and the demand for renewable energy in the U.S.

Capital Project Updates

We summarize below a new solar project at Sempra Renewables.

CAPITAL PROJECT UNDER CONSTRUCTION AT DECEMBER 31, 2017 – SEMPRA RENEWABLES

Project description	Estimated capital cost (in millions)	Status
Great Valley Solar Project		
<ul style="list-style-type: none"> ▪ Capable of producing up to 200 MW of solar power once fully constructed, located in Fresno County, California, acquired in July 2017. 	\$ 375 to \$ 425	<ul style="list-style-type: none"> ▪ Commercial operation dates and corresponding contracted energy sales to commence in four phases. Three phases commenced in the fourth quarter of 2017 and the final phase is expected to commence in the first half of 2018.
<ul style="list-style-type: none"> ▪ Fully contracted under four PPAs with an average contract term of 18 years. 		

SEMPRA LNG & MIDSTREAM

Capital Project Updates

We summarize below Sempra LNG & Midstream's completion of the Cameron Interstate Pipeline expansion project.

CAPITAL PROJECT COMPLETED IN 2017 – SEMPRA LNG & MIDSTREAM

Project description	Status
Cameron Interstate Pipeline Expansion	
<ul style="list-style-type: none"> ▪ 3.5-mile, 36-inch pipeline addition to existing Cameron Interstate Pipeline, adding bi-directional flow of up to 1.5 Bcf of natural gas per day. ▪ Includes construction of a compressor station and construction of and modifications to meter stations. ▪ Authorized by FERC in June 2014 and approved to commence service in April 2017. 	<ul style="list-style-type: none"> ▪ Expansion project completed in the second quarter of 2017.

We summarize below updates regarding the Cameron LNG JV three-train liquefaction joint venture project at Sempra LNG & Midstream.

MAJOR PROJECT UNDER CONSTRUCTION AT DECEMBER 31, 2017 – SEMPRA LNG & MIDSTREAM

Project description	Status
Cameron LNG JV Three-Train Liquefaction Project	
<ul style="list-style-type: none"> ▪ Sempra Energy contributed Cameron LNG, LLC's existing facilities to Cameron LNG JV, of which Sempra Energy indirectly owns 50.2 percent, and construction began in the second half of 2014. ▪ Estimated cost of approximately \$10 billion at the time of our final investment decision by Cameron LNG JV. ▪ Capacity of 13.9 Mtpa of LNG with an expected export capacity of 12 Mtpa of LNG, or approximately 1.7 Bcf per day. ▪ Authorized to export the full capacity of LNG to both FTA and non-FTA countries. ▪ 20-year liquefaction and regasification tolling capacity agreements for full nameplate capacity. 	<ul style="list-style-type: none"> ▪ Based on a number of factors discussed below, we believe it is reasonable to expect that all three LNG trains will be producing LNG in 2019.

Cameron LNG JV Three-Train Liquefaction Project

Construction on the current three-train liquefaction project began in the second half of 2014 under an EPC contract with a joint venture between CB&I, LLC (as assignee of CB&I Shaw Constructors, Inc.), a wholly owned subsidiary of Chicago Bridge & Iron Company N.V., and Chiyoda International Corporation, a wholly owned subsidiary of Chiyoda Corporation.

The total cost of the integrated Cameron LNG JV facility, including the cost of the original facility that was contributed to the joint venture interest during construction, financing costs and required reserves, was estimated to be approximately \$10 billion at the time of our final investment decision.

Sempra LNG & Midstream has agreements totaling 1.45 Bcf per day of firm natural gas transportation service to the Cameron LNG JV facilities on the Cameron Interstate Pipeline with ENGIE S.A. and affiliates of Mitsubishi Corporation and Mitsui & Co., Ltd. The terms of these agreements are concurrent with the liquefaction and regasification tolling capacity agreements.

Sempra Energy and the project partners executed project financing documents for senior secured debt in an aggregate principal amount up to \$7.4 billion for the purpose of financing the cost of development and construction of the Cameron LNG JV liquefaction project. Sempra Energy has entered into guarantees under which it has severally guaranteed 50.2 percent of Cameron LNG JV's obligations under the project financing and financing-related agreements, for a maximum amount of up to \$3.9 billion. The project financing and completion guarantees became effective on October 1, 2014, and the guarantees will terminate upon financial completion of the project, which will occur upon satisfaction of certain conditions, including all three trains achieving commercial operation and meeting certain operational performance tests. We expect the project to achieve financial completion and the completion guarantees to be terminated approximately nine months after all three trains achieve commercial operation.

Large-scale construction projects like the design, development and construction of the Cameron LNG JV liquefaction facility involve numerous risks and uncertainties, including among others, the potential for unforeseen engineering challenges, substantial construction delays and increased costs. Cameron LNG JV has a turnkey EPC contract, and if the contractor becomes unwilling or unable to perform according to the terms and timetable of the EPC contract, the project could face substantial construction delays and potentially significantly increased costs. If the contractor's delays or failures are serious enough to cause the contractor to default under the EPC contract, such default could result in Cameron LNG JV's engagement of a substitute contractor. In October 2016, the EPC contractor indicated that the Cameron LNG project would not achieve its originally scheduled dates for completion and subsequently provided project schedules reflecting further delays to the Cameron LNG project.

During the course of construction of large projects like Cameron LNG, contractors often assert that they are owed additional compensation, schedule extensions, or both. Cameron LNG JV received information from the EPC contractor claiming it was owed additional amounts beyond the contract value and entitled to schedule extensions, including as a result of the impacts of Hurricane Harvey and other events impacting the project. In December 2017, Cameron LNG JV entered into a Settlement Agreement with the EPC contractor that settled claims by the EPC contractor that it was owed additional compensation beyond the original contract price and that it was entitled to schedule extensions under the EPC contract. The Settlement Agreement resolves all of the EPC contractor's known and unknown claims prior to December 17, 2017 and became effective in January 2018.

Under the Settlement Agreement, Cameron LNG JV has agreed to additional contract and bonus payments. These payments are subject to the EPC contractor's achievement of certain milestones, including milestones aligned to the completion of commissioning the LNG trains. In addition, the bonus payments become payable only if the EPC contractor satisfies certain additional milestones. The Settlement Agreement waives schedule-related liquidated damages related to the original contract schedule and reestablishes the start dates for such liquidated damages according to the settlement schedule.

Based on a number of factors, we continue to believe it is reasonable to expect that all three LNG trains at the Cameron LNG JV liquefaction facility will be producing LNG and start generating earnings in 2019. These factors include, among others, the terms of the Settlement Agreement, the project schedules received from the EPC contractor, Cameron LNG JV's own review of the project schedules, the assumptions underlying such schedules, the EPC contractor's progress to date, the remaining work to be performed, and the inherent risks in constructing and testing facilities such as the Cameron LNG JV liquefaction facility. For a discussion of the Cameron LNG JV and of these risks and other risks relating to the development of the Cameron LNG JV liquefaction project that could adversely affect our future performance, see Note 4 of the Notes to Consolidated Financial Statements and "Item 1A. Risk Factors."

These delays in the project and the terms of the Settlement Agreement increase the total estimated cost of the integrated Cameron LNG facility above the approximately \$10 billion estimated cost; however, the estimated increase is expected to be within the project contingency established by the Cameron LNG JV at the time of the final investment decision for the project in August 2014 and is not material to Sempra Energy.

Proposed Additional Cameron Liquefaction Expansion

Cameron LNG JV has received the major permits and FTA and non-FTA approvals necessary to expand the current configuration of the Cameron LNG JV liquefaction project from the current three liquefaction trains under construction. The proposed expansion project includes up to two additional liquefaction trains, capable of increasing LNG production capacity by approximately 9 Mtpa to 10 Mtpa, and up to two additional full containment LNG storage tanks (one of which was permitted with the original three-train project).

Under the Cameron LNG JV financing agreements, expansion of the Cameron LNG JV facilities beyond the first three trains is subject to certain restrictions and conditions, including among others, timing restrictions on expansion of the project unless appropriate prior consent is obtained from lenders. Under the Cameron LNG JV equity agreements, the expansion of the project requires the unanimous consent of all the partners, including with respect to the equity investment obligation of each partner. One of the partners indicated to Sempra Energy and the other partners that it does not intend to invest additional capital in Cameron LNG JV with respect to the expansion. As a result, discussions among the partners are taking place, and we are considering a variety of options to attempt to move this project forward. These activities have contributed to delays in developing firm pricing information and securing customer commitments, and there can be no assurance that these issues will be resolved in a timely manner, which could materially and adversely impact the near-term marketing of this expansion project and Cameron LNG JV's ability to secure customer commitments. In light of these developments, we are unable to predict when we and/or Cameron LNG JV might be able to move forward on this expansion project.

The expansion of the Cameron LNG JV facilities beyond the first three trains is subject to a number of risks and uncertainties, including amending the Cameron LNG JV agreement among the partners, obtaining customer commitments, completing the required commercial agreements, securing and maintaining all necessary permits, approvals and consents, obtaining financing, reaching a final investment decision among the Cameron LNG JV partners, and other factors associated with the potential investment. See "Item 1A. Risk Factors."

Other LNG Liquefaction Development

Design, regulatory and commercial activities are ongoing for potential LNG liquefaction developments at our Port Arthur, Texas site and at Sempra Mexico's ECA facility. For these development projects, we have met with potential customers and determined there is an interest in long-term contracts for LNG supplies beginning in the 2022 to 2025 time frame.

Port Arthur

In November 2016, Sempra LNG & Midstream submitted a request to the FERC seeking authorization to site, construct and operate the proposed Port Arthur LNG natural gas liquefaction and export facility in Port Arthur, Texas.

- The proposed project is designed to include
 - two natural gas liquefaction trains with production capability of approximately 13.5 Mtpa, or 698 Bcf per year;
 - three LNG storage tanks;
 - natural gas liquids and refrigerant storage;
 - feed gas pre-treatment facilities; and
 - two berths and associated marine and loading facilities.
- In June 2015, Sempra LNG & Midstream filed permit applications with the DOE for authorization to export the LNG produced from the proposed project to all current and future non-FTA countries.
- In August 2015, Sempra LNG & Midstream received authorization from the DOE to export the LNG produced from the proposed project to all current and future FTA countries.
- In June 2017, Sempra LNG & Midstream, Woodside Petroleum Ltd. and Korea Gas Corporation signed a memorandum of understanding that provides a framework for cooperation and joint discussion by the parties regarding key aspects of the potential development of the Port Arthur LNG project, including engineering and construction work, O&M activities, feed gas sourcing, offtake of LNG and the potential for Korea Gas Corporation to purchase LNG from, and become an equity participant in, the Port Arthur LNG project. The memorandum of understanding does not commit any party to buy or sell LNG or otherwise participate in the Port Arthur liquefaction LNG project.
- In February 2018, Sempra LNG & Midstream and Woodside Petroleum Ltd. entered into a project development agreement for the joint development of the proposed Port Arthur LNG liquefaction project. The agreement specifies how the parties will share costs, and establishes a framework for the parties to work jointly on permitting, design, engineering, commercial and marketing activities associated with developing the Port Arthur LNG liquefaction project.

Also, in November 2016, Sempra LNG & Midstream filed a permit application with the FERC for the Texas Connector Pipeline project that will provide natural gas transportation service for the Port Arthur LNG liquefaction project. In February 2017, Sempra LNG & Midstream initiated the FERC pre-filing review process for the Louisiana Connector Pipeline project, an additional pipeline project that would also provide natural gas transportation service for the Port Arthur LNG liquefaction project. The FERC application was filed in October 2017.

Development of the Port Arthur LNG liquefaction project is subject to a number of risks and uncertainties, including obtaining customer commitments, completing the required commercial agreements, such as joint venture agreements, LNG sales agreements and gas supply agreements; completing construction contracts; securing all necessary permits and approvals; obtaining financing and incentives; reaching a final investment decision; and other factors associated with the potential investment. See “Item 1A. Risk Factors.”

Energía Costa Azul

We further discuss Sempra LNG & Midstream’s participation in potential LNG liquefaction development at Sempra Mexico’s ECA facility above in “Sempra Mexico – Energía Costa Azul LNG Terminal.”

Natural Gas Storage Assets

The future performance of our natural gas storage assets could be impacted by ongoing changes in the U.S. natural gas market, which could lead to sustained diminished natural gas storage values.

The recorded value of our long-lived natural gas storage assets at December 31, 2017 is \$1.5 billion. Historically, the value of natural gas storage services has positively correlated with the difference between the seasonal prices of natural gas, among other factors. In general, over the past several years, seasonal differences in natural gas prices have declined, which have contributed to lower prices for storage services. As our legacy (higher rate) sales contracts mature at our Bay Gas and Mississippi Hub facilities, replacement sales contract rates have been and could continue to be lower than has historically been the case. Lower sales revenues may not be offset by cost reductions, which could lead to depressed asset values. Future investment in Bay Gas, Mississippi Hub and LA Storage will be dependent on market demand and estimates of long-term storage values. Our LA Storage development project construction permit expired in June 2017 and future development will require approval of a new construction permit by the FERC. The LA Storage project also includes an existing 23.3-mile pipeline header system, the LA Storage pipeline, that is not currently contracted.

We perform recovery testing of our recorded asset values when market conditions indicate that such values may not be recoverable. In the event such values are not recoverable, we would consider the fair value of these assets relative to their carrying value. To the extent the carrying value is in excess of the fair value, we would record a noncash impairment charge. A significant impairment charge related to our natural gas storage assets would have a material adverse effect on our results of operations in the period in which it is recorded.

RBS SEMPRA COMMODITIES

In three separate transactions in 2010 and one in early 2011, we and RBS, our partner in the RBS Sempra Commodities joint venture, sold substantially all of the businesses and assets of our commodities-marketing partnership. The investment balance of \$67 million at December 31, 2017 reflects remaining distributions expected to be received from the partnership as it is dissolved. The amount of distributions, if any, may be impacted by the matters we discuss related to RBS Sempra Commodities in “Other Litigation” in Note 15 of the Notes to Consolidated Financial Statements. In addition, amounts may be retained by the partnership for an extended period of time to help offset unanticipated future general and administrative costs necessary to complete the dissolution of the partnership.

OTHER SEMPRA ENERGY MATTERS

We may be further impacted by rapidly changing economic conditions. These conditions may also affect our counterparties. Moreover, the dollar may fluctuate significantly compared to some foreign currencies, especially in Mexico and South America where we have significant operations. We discuss these matters in “Impact of Foreign Currency and Inflation Rates on Results of Operations” above and in “Item 7A. Quantitative and Qualitative Disclosures About Market Risk.”

North American natural gas prices, when in decline, negatively affect profitability at Sempra LNG & Midstream. Also, a reduction in projected global demand for LNG could result in increased competition among those working on projects in an environment of declining LNG demand, such as the Sempra Energy-sponsored export initiatives. For a discussion of these risks and other risks involving changing commodity prices, see “Item 1A. Risk Factors.”

LITIGATION

We describe legal proceedings that could adversely affect our future performance in Note 15 of the Notes to Consolidated Financial Statements.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Management views certain accounting policies as critical because their application is the most relevant, judgmental, and/or material to our financial position and results of operations, and/or because they require the use of material judgments and estimates.

We describe our significant accounting policies in Note 1 of the Notes to Consolidated Financial Statements. We discuss choices among alternative accounting policies that are material to our financial statements and information concerning significant estimates with the audit committee of the Sempra Energy board of directors.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

SEMPRA ENERGY, SDG&E AND SOCIALGAS

CONTINGENCIES

Assumptions & Approach Used	<p>We accrue losses for the estimated impacts of various conditions, situations or circumstances involving uncertain outcomes. For loss contingencies, we accrue the loss if an event has occurred on or before the balance sheet date and:</p> <ul style="list-style-type: none"> ▪ information available through the date we file our financial statements indicates it is probable that a loss has been incurred, given the likelihood of uncertain future events, and ▪ the amount of the loss can be reasonably estimated. <p>We do not accrue contingencies that might result in gains. We continuously assess contingencies for litigation claims, environmental remediation and other events.</p>
Effect if Different Assumptions Used	Details of our issues in this area are discussed in Note 15 of the Notes to Consolidated Financial Statements.

REGULATORY ACCOUNTING

Assumptions & Approach Used	<p>As regulated entities, the California Utilities’ rates, as set and monitored by regulators, are designed to recover the cost of providing service and provide the opportunity to earn a reasonable return on their investments. The California Utilities record regulatory assets, which are generally costs that would otherwise be charged to expense, if it is probable that, through the ratemaking process, the utility will recover that asset from customers in future rates. Similarly, regulatory liabilities are recorded for amounts recovered in rates in advance or in excess of costs incurred. The California Utilities assess probabilities of future rate recovery associated with regulatory account balances at the end of each reporting period and whenever new and/or unusual events occur, such as:</p> <ul style="list-style-type: none"> ▪ changes in the regulatory and political environment or the utility’s competitive position ▪ issuance of a regulatory commission order ▪ passage of new legislation <p>To the extent that circumstances associated with regulatory balances change, the regulatory balances are evaluated and adjusted if appropriate.</p>
Effect if Different Assumptions Used	Adverse legislative or regulatory actions could materially impact the amounts of our regulatory assets and liabilities and could materially adversely impact our financial statements. Details of the California Utilities’ regulatory assets and liabilities and additional factors that management considers when assessing probabilities associated with regulatory balances are discussed in Notes 1, 13, 14 and 15 of the Notes to Consolidated Financial Statements.

SEMPRA ENERGY, SDG&E AND SOCIALGAS (CONTINUED)

INCOME TAXES

Assumptions & Approach Used	<p>Our income tax expense and related balance sheet amounts involve significant management judgments and estimates. As to the application of the recently enacted TCJA, these estimates are based on our application of currently available guidance and interpretations of the TCJA to our facts, which guidance and interpretation may change. Interpretive guidance issued by the SEC upon enactment of the TCJA permits adjustments in subsequent periods through 2018 to provisional amounts recorded in 2017 related to the TCJA. Amounts of deferred income tax assets and liabilities, as well as current and noncurrent accruals, involve judgments and estimates of the timing and probability of recognition of income and deductions by taxing authorities. When we evaluate the anticipated resolution of income tax issues, we consider</p> <ul style="list-style-type: none"> ▪ past resolutions of the same or similar issue ▪ the status of any income tax examination in progress ▪ positions taken by taxing authorities with other taxpayers with similar issues <p>The likelihood of deferred tax recovery is based on analyses of the deferred tax assets and our expectation of future taxable income, based on our strategic planning.</p>
Effect if Different Assumptions Used	<p>Actual income taxes could vary from estimated amounts because of:</p> <ul style="list-style-type: none"> ▪ future impacts of various items, including changes in tax laws, regulations, interpretations and rulings ▪ our financial condition in future periods ▪ the resolution of various income tax issues between us and taxing and regulatory authorities <p>We discuss details of our issues in this area in Note 6 of the Notes to Consolidated Financial Statements.</p>
Assumptions & Approach Used	<p>For an uncertain position to qualify for benefit recognition, the position must have at least a “more likely than not” chance of being sustained (based on the position’s technical merits) upon challenge by the respective authorities. The term “more likely than not” means a likelihood of more than 50 percent. If we do not have a more likely than not position with respect to a tax position, then we do not recognize any of the potential tax benefit associated with the position. A tax position that meets the “more likely than not” recognition is measured as the largest amount of tax benefit that is greater than 50 percent likely of being realized upon the effective resolution of the tax position.</p>
Effect if Different Assumptions Used	<p>Unrecognized tax benefits involve management’s judgment regarding the likelihood of the benefit being sustained. The final resolution of uncertain tax positions could result in adjustments to recorded amounts and may affect our results of operations, financial position and cash flows.</p> <p>We discuss additional information related to accounting for uncertainty in income taxes in Note 6 of the Notes to Consolidated Financial Statements.</p>

DERIVATIVES

Assumptions & Approach Used	<p>We record derivative instruments for which we do not apply a scope exception at fair value on the balance sheet. Depending on the purpose for the contract and the applicability of hedge accounting, the changes in fair value of derivatives may be offset in earnings, on the balance sheet, or in OCI. We use the normal purchase or sale exception for certain derivative contracts. Whenever possible, we use exchange quoted prices or other third-party pricing to estimate fair values; if no such data is available, we use internally developed models and other techniques. The assumed collectability of derivative assets and receivables considers</p> <ul style="list-style-type: none"> ▪ events specific to a given counterparty ▪ the tenor of the transaction ▪ the credit-worthiness of the counterparty
Effect if Different Assumptions Used	<p>The application of hedge accounting to certain derivatives and the normal purchase or sale accounting election are made on a contract-by-contract basis. Using hedge accounting or the normal purchase or sale election in a different manner could materially impact Sempra Energy’s results of operations. However, such alternatives would not have a significant impact on the California Utilities’ results of operations because regulatory accounting principles generally apply to their contracts. We provide details of our derivative instruments and our fair value approaches in Notes 9 and 10, respectively, of the Notes to Consolidated Financial Statements.</p>

SEMPRA ENERGY, SDG&E AND SOCALGAS (CONTINUED)**DEFINED BENEFIT PLANS**

Assumptions & Approach Used	<p>To measure our pension and other postretirement obligations, costs and liabilities, we rely on several assumptions. We consider current market conditions, including interest rates, in making these assumptions. We review these assumptions annually and update when appropriate.</p> <p>The critical assumptions used to develop the required estimates include the following key factors:</p> <ul style="list-style-type: none"> ▪ discount rates ▪ expected return on plan assets ▪ health care cost trend rates ▪ mortality rates ▪ rate of compensation increases ▪ termination and retirement rates ▪ utilization of postretirement welfare benefits ▪ payout elections (lump sum or annuity) ▪ lump sum interest rates
Effect if Different Assumptions Used	<p>The actuarial assumptions we use may differ materially from actual results due to:</p> <ul style="list-style-type: none"> ▪ return on plan assets ▪ changing market and economic conditions ▪ higher or lower withdrawal rates ▪ longer or shorter participant life spans ▪ more or fewer lump sum versus annuity payout elections made by plan participants ▪ retirement rates <p>These differences, other than those related to the California Utilities' plans, where rate recovery offsets the effects of the assumptions on earnings, may result in a significant impact to the amount of pension and other postretirement benefit expense we record. For plans other than those at the California Utilities, the approximate annual effect on earnings of a 100 bps increase or decrease in the assumed discount rate would be less than \$2 million and the effect of a 100 bps increase or decrease in the assumed rate of return on plan assets would be less than \$2 million.</p> <p>We provide additional information, including the impact of increases and decreases in the health care cost trend rate, in Note 7 of the Notes to Consolidated Financial Statements.</p>

SEMPRA ENERGY AND SDG&E**ASSET RETIREMENT OBLIGATIONS**

Assumptions & Approach Used	<p>SDG&E's legal AROs related to the decommissioning of SONGS are estimated based on a site specific study performed no less than every three years. The estimate of the obligations includes</p> <ul style="list-style-type: none"> ▪ estimated decommissioning costs, including labor, equipment, material and other disposal costs ▪ inflation adjustment applied to estimated cash flows ▪ discount rate based on a credit-adjusted risk-free rate ▪ actual decommissioning costs, progress to date and expected duration of decommissioning activities
Effect if Different Assumptions Used	<p>Changes in the estimated decommissioning costs, or in the assumptions and judgments made by management underlying these estimates, could cause revisions to the estimated total cost associated with retiring the assets. SDG&E's nuclear decommissioning expenses are subject to rate recovery and, therefore, rate-making accounting treatment is applied to SDG&E's nuclear decommissioning activities. SDG&E recognizes a regulatory asset, or liability, to the extent that its SONGS ARO exceeds, or is less than, the amount collected from customers and the amount earned in SDG&E's NDT.</p> <p>We provide additional detail in Note 13 of the Notes to Consolidated Financial Statements.</p>

SEMPRA ENERGY**IMPAIRMENT TESTING OF LONG-LIVED ASSETS, INCLUDING INTANGIBLE ASSETS**

Assumptions & Approach Used	Whenever events or changes in circumstances indicate that an asset's carrying amount may not be recoverable, we consider if the estimated future undiscounted cash flows are less than the carrying amount of the assets. If so, we estimate the fair value of these assets to determine the extent to which carrying value exceeds fair value. For these estimates, we may consider data from multiple valuation methods, including data from market participants. We exercise judgment to estimate the future cash flows and the useful lives of long-lived assets and to determine our intent to use the assets. Our intent to use or dispose of assets is subject to re-evaluation and can change over time.
Effect if Different Assumptions Used	If an impairment test is required, the fair value of long-lived assets can vary if differing estimates and assumptions are used in the valuation techniques applied as indicated by changing market or other conditions. We discuss impairment of long-lived assets in Note 1 of the Notes to Consolidated Financial Statements.

IMPAIRMENT TESTING OF GOODWILL

Assumptions & Approach Used	<p>On an annual basis or whenever events or changes in circumstances necessitate an evaluation, we consider whether goodwill may be impaired. For our annual goodwill impairment testing, we have the option to first make a qualitative assessment of whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount before applying the two-step, quantitative goodwill impairment test. If we elect to perform the qualitative assessment, we evaluate relevant events and circumstances, including but not limited to, macroeconomic conditions, industry and market considerations, cost factors, changes in key personnel and the overall financial performance of the reporting unit. If, after assessing these qualitative factors, we determine that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then we perform the two-step goodwill impairment test. When we perform the two-step, quantitative goodwill impairment test, we exercise judgment to develop estimates of the fair value of the reporting unit and compare that to the carrying value. Our fair value estimates are developed from the perspective of a knowledgeable market participant. We consider observable transactions in the marketplace for similar investments, if available, as well as an income-based approach such as a discounted cash flow analysis. A discounted cash flow analysis may be based directly on anticipated future revenues and expenses and may be performed based on free cash flows generated within the reporting unit. Critical assumptions that affect our estimates of fair value may include</p> <ul style="list-style-type: none"> ▪ consideration of market transactions ▪ future cash flows ▪ the appropriate risk-adjusted discount rate ▪ country risk ▪ entity risk
Effect if Different Assumptions Used	When we choose to make a qualitative assessment as discussed above, the two-step, quantitative goodwill impairment test is not required if we determine that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount. If we conclude that it is more likely than not that the fair value of a reporting unit is less than its carrying amount or when we choose to proceed directly to the two-step, quantitative goodwill impairment test, the test requires us to first determine if the carrying value of a reporting unit exceeds its fair value and if so, to measure the amount of goodwill impairment, if any. When determining if goodwill is impaired, the fair value of the reporting unit and goodwill can vary if differing estimates and assumptions are used in the valuation techniques applied as indicated by changing market or other conditions. As a result, recognizing a goodwill impairment may or may not be required. We determined that it is more likely than not that the estimated fair values of the reporting units in South America to which goodwill was allocated exceeded their carrying values based on our qualitative assessment, and that the estimated fair values of the reporting units in Mexico to which goodwill was allocated exceeded their carrying values based on our quantitative assessment, as of October 1, 2017, our most recent goodwill impairment testing date. We discuss goodwill in Note 1 of the Notes to Consolidated Financial Statements.

SEMPRA ENERGY (CONTINUED)**CARRYING VALUE OF EQUITY METHOD INVESTMENTS**

Assumptions & Approach Used	<p>We generally account for investments under the equity method when we have significant influence over, but do not have control of, the investee.</p> <p>We consider whether the fair value of each equity investment as a whole, not the underlying net assets, has declined and whether that decline is other than temporary. To help evaluate whether a decline in fair value below carrying value has occurred and if the decline is other than temporary, we may develop fair value estimates for the investment. Our fair value estimates are developed from the perspective of a knowledgeable market participant. In the absence of observable transactions in the marketplace for similar investments, we consider an income-based approach such as a discounted cash flow analysis or, with less weighting, the replacement cost of the underlying net assets. A discounted cash flow analysis may be based directly on anticipated future distributions from the investment, or may be performed based on free cash flows generated within the entity and adjusted for our ownership share total. When calculating estimates of fair or realizable values, we also consider whether we intend to hold or sell the investment. For certain investments, critical assumptions may include</p> <ul style="list-style-type: none">▪ equity sale offer price for the investment▪ transportation rates for natural gas▪ the appropriate risk-adjusted discount rate▪ the availability and costs of natural gas and liquefied natural gas▪ competing fuels (primarily propane) and electricity▪ estimated future power generation and associated tax credits▪ renewable power price expectations
Effect if Different Assumptions Used	<p>The risk assumptions applied by other market participants to value the investments could vary significantly or the appropriate approaches could be weighted differently. These differences could impact whether or not the fair value of the investment is less than its carrying value, and if so, whether that condition is other than temporary. This could result in an impairment charge or a different amount of impairment charge, and, in cases where an impairment charge has been recorded, additional loss or gain upon sale in the case of a sale transaction.</p> <p>We provide additional details in Notes 4 and 10 of the Notes to Consolidated Financial Statements.</p>

NEW ACCOUNTING STANDARDS

We discuss the relevant pronouncements that have recently become effective and have had or may have a significant effect on our financial statements in Note 2 of the Notes to Consolidated Financial Statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the risk of erosion of our cash flows, earnings, asset values and equity due to adverse changes in market prices, and interest and foreign currency rates.

RISK POLICIES

Sempra Energy has policies governing its market risk management and trading activities. Sempra Energy and the California Utilities maintain separate and independent risk management committees, organizations and processes for the California Utilities and for all non-CPUC regulated affiliates to provide oversight of these activities. The committees consist of senior officers who establish policy, oversee energy risk management activities, and monitor the results of trading and other activities to ensure compliance with our stated energy risk management and trading policies. These activities include, but are not limited to, daily monitoring of market positions that create credit, liquidity and market risk. The respective oversight organizations and committees are independent from the energy procurement departments.

Along with other tools, we use VaR and liquidity metrics to measure our exposure to market risk associated with the commodity portfolios. VaR is an estimate of the potential loss on a position or portfolio of positions over a specified holding period, based on normal market conditions and within a given statistical confidence interval. A liquidity metric is intended to monitor the amount of financial resources needed for meeting potential margin calls as forward market prices move. VaR and liquidity risk metrics are calculated independently by the respective risk management oversight organizations.

The California Utilities use power and natural gas derivatives to manage natural gas and electric price risk associated with servicing load requirements. The use of power and natural gas derivatives is subject to certain limitations imposed by company policy and is in compliance with risk management and trading activity plans that have been filed with and approved by the CPUC. We discuss revenue recognition in Note 1 and the additional market-risk information regarding derivative instruments in Note 9 of the Notes to Consolidated Financial Statements.

We have exposure to changes in commodity prices, interest rates and foreign currency rates and exposure to counterparty nonperformance. The following discussion of these primary market-risk exposures as of December 31, 2017 includes a discussion of how these exposures are managed.

COMMODITY PRICE RISK

Market risk related to physical commodities is created by volatility in the prices and basis of certain commodities. Our various subsidiaries are exposed, in varying degrees, to price risk, primarily to prices in the natural gas and electricity markets. Our policy is to manage this risk within a framework that considers the unique markets and operating and regulatory environments of each subsidiary.

Sempra Mexico, Sempra Renewables and Sempra LNG & Midstream are generally exposed to commodity price risk indirectly through their LNG, natural gas pipeline and storage, and power generating assets and their PPAs. These segments may utilize commodity transactions in the course of optimizing these assets. These transactions are typically priced based on market indices, but may also include fixed price purchases and sales of commodities. Any residual exposure is monitored as described above. A hypothetical 10-percent unfavorable change in commodity prices would not have resulted in a material change in the fair value of our commodity-based financial derivatives for these segments at December 31, 2017 and 2016. The impact of a change in energy commodity prices on our commodity-based financial derivative instruments at a point in time is not necessarily representative of the results that will be realized when the contracts are ultimately settled. Also, the impact of a change in energy commodity prices on our commodity-based financial derivative instruments does not typically include the generally offsetting impact of our underlying asset positions.

The California Utilities' market-risk exposure is limited due to CPUC-authorized rate recovery of the costs of commodity purchases, interstate and intrastate transportation, and storage activity. However, SoCalGas may, at times, be exposed to market risk as a result of incentive mechanisms that reward or penalize the utility for commodity costs below or above certain benchmarks for SoCalGas' GCIM. If commodity prices were to rise too rapidly, it is likely that volumes would decline. This decline would increase the per-unit fixed costs, which could lead to further volume declines. The California Utilities manage their risk within the parameters of their market risk management framework. As of and for the year ended December 31, 2017, the total VaR of the California Utilities' natural gas and electric positions was not material, and the procurement activities were in compliance with the procurement plans filed with and approved by the CPUC.

INTEREST RATE RISK

We are exposed to fluctuations in interest rates primarily as a result of our having issued short- and long-term debt. Subject to regulatory constraints, we periodically enter into interest rate swap agreements to moderate our exposure to interest rate changes and to lower our overall cost of borrowing.

The table below shows the nominal amount of long-term debt:

NOMINAL AMOUNT OF LONG-TERM DEBT⁽¹⁾ <i>(Dollars in millions)</i>						
	December 31, 2017			December 31, 2016		
	Sempra Energy Consolidated	SDG&E	SoCalGas	Sempra Energy Consolidated	SDG&E	SoCalGas
California Utilities fixed-rate	\$ 7,582	\$ 4,573	\$ 3,009	\$ 7,218	\$ 4,209	\$ 3,009
California Utilities variable-rate	295	295	—	445	445	—
Other fixed-rate	7,735	—	—	6,703	—	—
Other variable-rate	1,539	—	—	719	—	—

⁽¹⁾ Before the effects of acquisition-related fair value adjustments, interest rate swaps, reductions/increases for unamortized discount/premium and reduction for debt issuance costs, and excluding capital lease obligations and build-to-suit lease.

Interest rate risk sensitivity analysis measures interest rate risk by calculating the estimated changes in earnings that would result from a hypothetical change in market interest rates. If interest rates increased or decreased 10 percent on all of Sempra Energy's effective variable-rate, long-term debt at December 31, 2017, the change in earnings over the next 12-month period ended December 31, 2018 would be \$1 million. These hypothetical changes in earnings are based on our long-term debt position after the effect of interest rate swaps.

We provide further information about interest rate swap transactions in Note 9 of the Notes to Consolidated Financial Statements.

We also are subject to the effect of interest rate fluctuations on the assets of our pension plans, other postretirement benefit plans, and SDG&E's NDT. However, we expect the effects of these fluctuations, as they relate to the California Utilities, to be recovered in future rates.

CREDIT RISK

Credit risk is the risk of loss that would be incurred as a result of nonperformance of our counterparties' contractual obligations. We monitor credit risk through a credit-approval process and the assignment and monitoring of credit limits. We establish these credit limits based on risk and return considerations under terms customarily available in the industry.

As with market risk, we have policies governing the management of credit risk that are administered by the respective credit departments for each of the California Utilities and, on a combined basis, for all non-CPUC regulated affiliates and overseen by their separate risk management committees.

This oversight includes calculating current and potential credit risk on a daily basis and monitoring actual balances in comparison to approved limits. We avoid concentration of counterparties whenever possible, and we believe our credit policies significantly reduce overall credit risk. These policies include an evaluation of:

- prospective counterparties' financial condition (including credit ratings)
- collateral requirements
- the use of standardized agreements that allow for the netting of positive and negative exposures associated with a single counterparty
- downgrade triggers

We believe that we have provided adequate reserves for counterparty nonperformance.

When its development projects become operational, Sempra Infrastructure relies significantly on the ability of suppliers to perform under long-term agreements and on our ability to enforce contract terms in the event of nonperformance. Also, the factors that we consider in evaluating a development project include negotiating customer and supplier agreements and, therefore, we rely on these agreements for future performance. We also may condition our decision to go forward on development projects on first obtaining these customer and supplier agreements.

As noted above in “Interest Rate Risk,” we periodically enter into interest rate swap agreements to moderate exposure to interest rate changes and to lower the overall cost of borrowing. We would be exposed to interest rate fluctuations on the underlying debt should a counterparty to the swap fail to perform.

CREDIT RATINGS

The credit ratings of Sempra Energy, SDG&E and SoCalGas remained at investment grade levels in 2017. At December 31, 2017, Sempra Energy’s issuer rating with Moody’s was Baa1 with a negative outlook, SDG&E’s issuer rating A1 with a stable outlook and SoCalGas’ long-term rating A1 with a stable outlook. Sempra Energy’s corporate credit rating with S&P was BBB+ with a stable outlook, and SDG&E’s and SoCalGas’ corporate credit ratings were A with stable outlooks. Fitch Ratings’ long-term issuer default rating was BBB+ with a stable outlook for Sempra Energy, and A with stable outlooks for SDG&E and SoCalGas.

On October 5 and 9, 2017, Fitch Ratings and S&P, respectively, affirmed Sempra Energy’s long-term issuer credit rating following our announcement to acquire 100 percent of EFH with the currently contemplated financing structure. On December 20, 2017, Moody’s placed Sempra Energy’s credit ratings on negative outlook. Moody’s indicated that this action was triggered by our having entered into the comprehensive Stipulation with the Staff of the PUCT and other key stakeholders, which Moody’s described as a significant milestone in our attaining regulatory approval for the Merger. In addition, Moody’s indicated that a downgrade of Sempra Energy’s credit ratings over the 12 to 18 months after December 20, 2017 is likely if they anticipate that Sempra Energy’s consolidated credit metrics will remain weak, relative to Sempra Energy’s current credit rating, beyond 2019, specifically if our consolidated ratio of cash flow from operations before changes in working capital to debt remains below 18 percent (assuming successful completion of the Merger) for an extended period of time. Also, unrelated to the Merger, the TCJA could have an adverse impact on our credit ratings. Moody’s also indicated that a downgrade could also be considered if there is a further delay in the completion of the Cameron LNG project. We provide additional discussion regarding the Merger and financing risks in Notes 3 and 18 of the Notes to Consolidated Financial Statements and in “Item 1A. Risk Factors.”

Moody’s also issued a public comment on December 20, 2017 regarding recent wildfires in northern California and Ventura County, California and how the application of the doctrine of inverse condemnation under California law (which is a form of strict liability) may expose California IOUs, like SDG&E, to substantial liabilities if they are unable to recover costs from wildfires even when they have acted prudently. While Moody’s has not changed its assessment regarding California’s supportive regulatory environment, it did determine that the December 6, 2017 decision issued by the CPUC denying SDG&E’s request to recover approximately \$379 million of pretax costs associated with the 2007 wildfires (based on the CPUC’s finding that SDG&E did not reasonably operate the facilities involved in the wildfires) is credit negative for SDG&E, for Sempra Energy, and for other California utilities seeking to recover costs from wildfires. Moody’s further indicated that it may reassess its view of the California regulatory framework if it determines that the credit supportiveness of California’s regulatory environment has weakened (including as a result of the CPUC’s discretion in denying recovery of wildfire costs), which would also be credit negative and could lead to a downgrade of the credit ratings of California IOUs, including SDG&E, or those ratings being placed on negative outlook.

In addition and unrelated to the Merger, on September 21, 2017, S&P revised its debt ratings criteria, “Reflecting Subordination Risk in Corporate Issue Ratings,” and as a result of this new methodology, has indicated that it could downgrade its rating of Sempra Energy’s senior unsecured debt securities within the 12 months following its October 9, 2017 announcement if we do not complete the Merger under the financing plan currently contemplated or if the aggregate indebtedness of Sempra Energy’s subsidiaries continues to exceed 50 percent of Sempra Energy’s total consolidated debt. Any such downgrade or those ratings being placed on negative outlook may make it more difficult or costly for Sempra Energy to issue debt securities.

Sempra Energy, SDG&E and SoCalGas have committed lines of credit to provide liquidity and to support commercial paper. Borrowings under these facilities bear interest at benchmark rates plus a margin that varies with market index rates and each borrower’s credit rating. Each facility also requires a commitment fee on available unused credit that may be impacted by each borrower’s credit rating.

Under these committed lines, if Sempra Energy were to experience a ratings downgrade from its current level, the rate at which borrowings bear interest would increase by 25 to 50 bps, depending on the severity of the downgrade. The commitment fee on available unused credit would also increase 5 to 10 bps, depending on the severity of the downgrade.

Under these committed lines, if SDG&E or SoCalGas were to experience a ratings downgrade from its current level, the rate at which borrowings bear interest would increase by 12.5 to 25 bps, depending on the severity of the downgrade. The commitment fee on available unused credit would also increase 2.5 to 5 bps, depending on the severity of the downgrade.

For Sempra Energy and SDG&E, their credit ratings also may affect their respective credit limits related to derivative instruments, as we discuss in Note 9 of the Notes to Consolidated Financial Statements.

FOREIGN CURRENCY AND INFLATION RATE RISK

We discuss our foreign currency and inflation exposure in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Impact of Foreign Currency and Inflation Rates on Results of Operations.”

The hypothetical effect for every 10 percent appreciation in the U.S. dollar against the currencies of Mexico, Chile and Peru in which we have operations and investments are as follows:

HYPOTHETICAL EFFECTS FROM 10 PERCENT STRENGTHENING OF U.S. DOLLAR

(Dollars in millions)

	Hypothetical effects
Translation of 2017 earnings to U.S. dollars ⁽¹⁾	\$ (20)
Transactional exposure, before the effects of foreign currency derivatives ⁽²⁾	87
Translation of net assets of foreign subsidiaries and investment in foreign entities ⁽³⁾	(181)

⁽¹⁾ Amount represents the impact to earnings, primarily at our South American businesses, for a change in the average exchange rate throughout the reporting period.

⁽²⁾ Amount primarily represents the effects of currency exchange rate movement from December 31, 2017 on monetary assets and liabilities and translation of non-U.S. deferred income tax balances at our Mexican subsidiaries.

⁽³⁾ Amount represents the effects of currency exchange rate movement from December 31, 2017 recorded to OCI at the end of each reporting period, primarily at our South American businesses.

Monetary assets and liabilities at our Mexican subsidiaries that are denominated in U.S. dollars may fluctuate significantly throughout the year. These monetary assets and liabilities and certain nonmonetary assets and liabilities are adjusted for Mexican inflation for Mexican income tax purposes. Based on a net monetary liability position of \$3.1 billion, including those related to our investments in joint ventures, at December 31, 2017, the hypothetical effect of a 10 percent increase in the Mexican inflation rate is approximately \$56 million lower earnings as a result of higher income tax expense for our consolidated subsidiaries, as well as lower equity earnings for our joint ventures.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Our consolidated financial statements are listed on the Index to Consolidated Financial Statements set forth on page F-1 of this annual report on Form 10-K.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

Sempra Energy, SDG&E, SoCalGas

Sempra Energy, SDG&E and SoCalGas have designed and maintain disclosure controls and procedures to ensure that information required to be disclosed in their respective reports is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and is accumulated and communicated to the management of each company, including each respective principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. In designing and evaluating these controls and procedures, the management of each company recognizes that any system of controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives; therefore, the management of each company applies judgment in evaluating the cost-benefit relationship of other possible controls and procedures.

Under the supervision and with the participation of management, including the principal executive officers and principal financial officers of Sempra Energy, SDG&E and SoCalGas, each company evaluated the effectiveness of the design and operation of its disclosure controls and procedures as of December 31, 2017, the end of the period covered by this report. Based on these evaluations, the principal executive officers and principal financial officers of Sempra Energy, SDG&E and SoCalGas concluded that their respective company's disclosure controls and procedures were effective at the reasonable assurance level.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Sempra Energy, SDG&E, SoCalGas

The respective management of each company is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of the management of each company, including each company's principal executive officer and principal financial officer, the effectiveness of each company's internal control over financial reporting was evaluated based on the framework in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the evaluations, each company concluded that its internal control over financial reporting was effective as of December 31, 2017. Deloitte & Touche LLP audited the effectiveness of each company's internal control over financial reporting as of December 31, 2017, as stated in their reports, which are included in this annual report on Form 10-K.

There have been no changes in the companies' internal control over financial reporting during the most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, the companies' internal control over financial reporting.

REPORTS OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Sempra Energy

To the Board of Directors and Shareholders of Sempra Energy:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Sempra Energy and subsidiaries (the “Company”) as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2017, of the Company and our report dated February 27, 2018, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

San Diego, California
February 27, 2018

San Diego Gas & Electric Company

To the Board of Directors and Shareholder of San Diego Gas & Electric Company:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of San Diego Gas & Electric Company (the “Company”) as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2017, of the Company and our report dated February 27, 2018, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

San Diego, California
February 27, 2018

Southern California Gas Company

To the Board of Directors and Shareholders of Southern California Gas Company:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Southern California Gas Company (the “Company”) as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the financial statements as of and for the year ended December 31, 2017, of the Company and our report dated February 27, 2018, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

San Diego, California
February 27, 2018

ITEM 9B. OTHER INFORMATION

None.

PART III.

Because SDG&E meets the conditions of General Instructions I(1)(a) and (b) of Form 10-K and is therefore filing this report with a reduced disclosure format as permitted by General Instruction I(2), the information required by Items 10, 11, 12 and 13 below is not required for SDG&E. We have, however, provided the information required by Item 10 with respect to SDG&E's executive officers in "Item 1. Business – Executive Officers of the Registrants."

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

We provide the information required by Item 10 with respect to executive officers for Sempra Energy and SoCalGas in "Item 1. Business – Executive Officers of the Registrants." For Sempra Energy, all other information required by Item 10 is incorporated by reference from "Corporate Governance" and "Share Ownership" in the Proxy Statement to be filed for its May 2018 annual meeting of shareholders. For SoCalGas, all other information required by Item 10 is incorporated by reference from the company's Information Statement to be filed for its May 2018 annual meeting of shareholders.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated by reference from "Corporate Governance" and "Executive Compensation," including "Compensation Discussion and Analysis" and "Compensation Committee Report" in the Proxy Statement to be filed for the May 2018 annual meeting of shareholders for Sempra Energy and from the Information Statement to be filed for the May 2018 annual meeting of shareholders for SoCalGas.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

Information regarding securities authorized for issuance under equity compensation plans as required by Item 12 is included in "Item 5. Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities."

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS

The security ownership information required by Item 12 is incorporated by reference from "Share Ownership" in the Proxy Statement to be filed for the May 2018 annual meeting of shareholders for Sempra Energy and in the Information Statement to be filed for the May 2018 annual meeting of shareholders for SoCalGas.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 is incorporated by reference from "Corporate Governance" in the Proxy Statement to be filed for the May 2018 annual meeting of shareholders for Sempra Energy and from the Information Statement to be filed for the May 2018 annual meeting of shareholders for SoCalGas.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information regarding principal accountant fees and services, as required by Item 14, is presented below for Sempra Energy, SDG&E and SoCalGas. The following table shows the fees paid to Deloitte & Touche LLP, the independent registered public accounting firm for Sempra Energy, SDG&E and SoCalGas, for services provided for 2017 and 2016.

PRINCIPAL ACCOUNTANT FEES

(Dollars in thousands)

	Sempra Energy Consolidated		SDG&E		SoCalGas	
	Fees	Percent of total	Fees	Percent of total	Fees	Percent of total
2017:						
Audit fees:						
Consolidated financial statements and internal controls audits, subsidiary and statutory audits	\$ 10,049		\$ 2,443		\$ 2,724	
Regulatory filings and related services	610		35		—	
Total audit fees ⁽¹⁾	10,659	87%	2,478	91%	2,724	91%
Audit-related fees:						
Employee benefit plan audits	430		135		240	
Other audit-related services, accounting consultation ⁽¹⁾	1,000		38		25	
Total audit-related fees	1,430	12	173	6	265	9
Tax planning and compliance fees	118	1	65	2	—	—
All other fees	47	—	21	1	2	—
Total fees	\$ 12,254	100%	\$ 2,737	100%	\$ 2,991	100%
2016:						
Audit fees:						
Consolidated financial statements and internal controls audits, subsidiary and statutory audits	\$ 9,525		\$ 2,513		\$ 2,627	
Regulatory filings and related services	117		31		31	
Total audit fees	9,642	88%	2,544	90%	2,658	83%
Audit-related fees:						
Employee benefit plan audits	460		138		240	
Other audit-related services, accounting consultation	706		12		304	
Total audit-related fees	1,166	11	150	5	544	17
Tax planning and compliance fees	175	1	143	5	—	—
All other fees	15	—	3	—	—	—
Total fees	\$ 10,998	100%	\$ 2,840	100%	\$ 3,202	100%

⁽¹⁾ In 2017, Sempra Energy Consolidated includes \$1 million and \$0.3 million of audit and audit-related fees, respectively, related to our pending acquisition of EFH and associated financing transactions.

The Audit Committee of Sempra Energy's board of directors is directly responsible for the appointment, compensation, retention and oversight of the independent registered public accounting firm for Sempra Energy and its subsidiaries, including SDG&E and SoCalGas. As a matter of good corporate governance, the SDG&E and SoCalGas boards of directors also reviewed the performance of Deloitte & Touche LLP and concurred with the determination by the Sempra Energy Audit Committee to retain them as the independent registered public accounting firm for each of Sempra Energy, SDG&E and SoCalGas. Sempra Energy's board of directors has determined that each member of its Audit Committee is an independent director and is financially literate, and that Mr. Taylor, the chair of the committee, is an audit committee financial expert as defined by the rules of the SEC.

Except where pre-approval is not required by SEC rules, Sempra Energy's Audit Committee pre-approves all audit, audit-related and permissible non-audit services provided by Deloitte & Touche LLP for Sempra Energy and its subsidiaries. The committee's pre-approval policies and procedures provide for the general pre-approval of specific types of services and give detailed guidance to management as to the services that are eligible for general pre-approval. They require specific pre-approval of all other permitted services. For both types of pre-approval, the committee considers whether the services to be provided are consistent with maintaining the firm's independence. The policies and procedures also delegate authority to the chair of the committee to address any requests for pre-approval of services between committee meetings, with any pre-approval decisions to be reported to the committee at its next scheduled meeting.

PART IV.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

The following documents are filed as part of this report:

1. FINANCIAL STATEMENTS

Our consolidated financial statements are listed on the Index to Consolidated Financial Statements set forth on page F-1 of this annual report on Form 10-K.

2. FINANCIAL STATEMENT SCHEDULES

Schedule I is listed on the Index to Condensed Financial Information of Parent as set forth on page S-1 of this annual report on Form 10-K.

Any other schedule for which provision is made in Regulation S-X is not required under the instructions contained therein, is inapplicable or the information is included in the Consolidated Financial Statements and Notes thereto in this annual report on Form 10-K.

3. EXHIBITS

EXHIBIT INDEX

The exhibits filed under the Registration Statements, Proxy Statements and Forms 8-K, 10-K and 10-Q that are incorporated herein by reference were filed under Commission File Number 1-14201 (Sempra Energy), Commission File Number 1-40 (Pacific Lighting Corporation), Commission File Number 1-03779 (San Diego Gas & Electric Company) and/or Commission File Number 1-01402 (Southern California Gas Company).

The following exhibits relate to each registrant as indicated.

EXHIBIT 2 -- PLAN OF ACQUISITION, REORGANIZATION, ARRANGEMENT, LIQUIDATION OR SUCCESSION

Sempra Energy

- 2.1 Agreement and Plan of Merger, dated as of August 21, 2017, by and among Sempra Energy, Power Play Merger Sub I, Inc. (now known as Sempra Texas Merger Sub I, Inc.), Energy Future Intermediate Holding Company LLC and Energy Future Holdings Corp. (Incorporated by reference to Exhibit 2.1 to Sempra Energy Current Report on Form 8-K filed on August 25, 2017).
 - 2.1.1 First Amended Joint Plan of Reorganization of Energy Future Holdings Corp., et al., Pursuant to Chapter 11 of the Bankruptcy Code (Incorporated by reference to Exhibit 2.2 to Sempra Energy Current Report on Form 8-K filed on August 25, 2017).
 - 2.1.2 Waiver Agreement, dated as of October 3, 2017, by and among Sempra Energy, Sempra Texas Merger Sub I, Inc., Energy Future Intermediate Holding Company LLC and Energy Future Holdings Corp. (Incorporated by reference to Exhibit 2.1 to Sempra Energy Current Report on Form 8-K filed on October 6, 2017).
 - 2.1.3 Amendment No. 2 to the Agreement and Plan of Merger, dated as of February 15, 2018, by and among Sempra Energy, Sempra Texas Merger Sub I, Inc., Energy Future Intermediate Holding Company LLC and Energy Future Holdings Corp.

EXHIBIT 3 -- BYLAWS AND ARTICLES OF INCORPORATION

Sempra Energy

- 3.1 Amended and Restated Articles of Incorporation of Sempra Energy effective May 23, 2008 (Appendix B to the 2008 Sempra Energy Definitive Proxy Statement, filed on April 15, 2008).
- 3.2 Bylaws of Sempra Energy (as amended through December 15, 2015) (Sempra Energy Form 8-K filed on December 17, 2015, Exhibit 3.1).
- 3.3 Certificate of Determination of the 6% Mandatory Convertible Preferred Stock, Series A (including the form of certificate representing the 6% Mandatory Convertible Preferred Stock, Series A) effective January 5, 2018 (Sempra Energy Form 8-K filed on January 9, 2018, Exhibit 3.1).

San Diego Gas & Electric Company

- 3.4 Amended and Restated Articles of Incorporation of San Diego Gas & Electric Company effective August 15, 2014 (2014 SDG&E Form 10-K, Exhibit 3.4).
- 3.5 Bylaws of San Diego Gas & Electric (as amended through October 26, 2016) (SDG&E September 30, 2016 Form 10-Q, Exhibit 3.1).

Southern California Gas Company

- 3.6 Restated Articles of Incorporation of Southern California Gas Company effective October 7, 1996 (1996 SoCalGas Form 10-K, Exhibit 3.01).
- 3.7 Bylaws of Southern California Gas Company (as amended through January 30, 2017) (SoCalGas Form 8-K filed on January 31, 2017, Exhibit 3.1).

EXHIBIT 4 -- INSTRUMENTS DEFINING THE RIGHTS OF SECURITY HOLDERS, INCLUDING INDENTURES

The companies agree to furnish a copy of each such instrument to the Commission upon request.

Sempra Energy

- 4.1 Description of rights of Sempra Energy Common Stock (Amended and Restated Articles of Incorporation of Sempra Energy effective May 23, 2008, Exhibit 3.1 above).
- 4.2 Indenture dated as of February 23, 2000, between Sempra Energy and U.S. Bank Trust National Association, as Trustee (Sempra Energy Registration Statement on Form S-3 (No. 333-153425), filed on September 11, 2008, Exhibit 4.1).
- 4.3 Certificate of Determination of the 6% Mandatory Convertible Preferred Stock, Series A (including the form of certificate representing the 6% Mandatory Convertible Preferred Stock, Series A) effective January 5, 2018 (Exhibit 3.3 above).

Southern California Gas Company

- 4.4 Description of preferences of Preferred Stock, Preference Stock and Series Preferred Stock (Southern California Gas Company Restated Articles of Incorporation, Exhibit 3.6 above).

Sempra Energy / San Diego Gas & Electric Company

- 4.5^(P) Mortgage and Deed of Trust dated July 1, 1940 (SDG&E Registration Statement No. 2-4769, Exhibit B-3).
- 4.6^(P) Second Supplemental Indenture dated as of March 1, 1948 (SDG&E Registration Statement No. 2-7418, Exhibit B-5B).
- 4.7^(P) Ninth Supplemental Indenture dated as of August 1, 1968 (SDG&E Registration Statement No. 333-52150, Exhibit 4.5).

- 4.8^(P) Tenth Supplemental Indenture dated as of December 1, 1968 (SDG&E Registration Statement No. 2-36042, Exhibit 2-K).
- 4.9^(P) Sixteenth Supplemental Indenture dated August 28, 1975 (SDG&E Registration Statement No. 33-34017, Exhibit 4.2).

Sempra Energy / Southern California Gas Company

- 4.10^(P) First Mortgage Indenture of Southern California Gas Company to American Trust Company dated October 1, 1940 (Registration Statement No. 2-4504 filed by Southern California Gas Company on September 16, 1940, Exhibit B-4).
- 4.11^(P) Supplemental Indenture of Southern California Gas Company to American Trust Company dated as of August 1, 1955 (Registration Statement No. 2-11997 filed by Pacific Lighting Corporation on October 26, 1955, Exhibit 4.07).
- 4.12 Supplemental Indenture of Southern California Gas Company to American Trust Company dated as of December 1, 1956 (2006 Sempra Energy Form 10-K, Exhibit 4.09).
- 4.13 Supplemental Indenture of Southern California Gas Company to Wells Fargo Bank dated as of June 1, 1965 (2006 Sempra Energy Form 10-K, Exhibit 4.10).
- 4.14^(P) Supplemental Indenture of Southern California Gas Company to Wells Fargo Bank, National Association dated as of August 1, 1972 (Registration Statement No. 2-59832 filed by Southern California Gas Company on September 6, 1977, Exhibit 2.19).
- 4.15^(P) Supplemental Indenture of Southern California Gas Company to Wells Fargo Bank, National Association dated as of May 1, 1976 (Registration Statement No. 2-56034 filed by Southern California Gas Company on April 14, 1976, Exhibit 2.20).
- 4.16^(P) Supplemental Indenture of Southern California Gas Company to Wells Fargo Bank, National Association dated as of September 15, 1981 (Registration Statement No. 333-70654, Exhibit 4.24).

EXHIBIT 10 -- MATERIAL CONTRACTS

Sempra Energy

- 10.1 Plan Support Agreement, dated as of August 21, 2017 (Incorporated by reference to Exhibit 10.1 to Sempra Energy Current Report on Form 8-K filed on August 25, 2017).
- 10.2 Oncor Letter Agreement, dated as of August 25, 2017 (Incorporated by reference to Exhibit 10.1 to Sempra Energy Current Report on Form 8-K filed on August 28, 2017).

Sempra Energy / San Diego Gas & Electric Company / Southern California Gas Company

- 10.3 Form of Continental Forge and California Class Action Price Reporting Settlement Agreement dated as of January 4, 2006 (Form 8-K filed on January 5, 2006, Exhibit 99.1).

Sempra Energy / San Diego Gas & Electric Company

- 10.4 Amended and Restated Operating Order between San Diego Gas & Electric Company and the California Department of Water Resources effective March 10, 2011 (Sempra Energy March 31, 2011 Form 10-Q, Exhibit 10.4).
- 10.5 Amended and Restated Servicing Order between San Diego Gas & Electric Company and the California Department of Water Resources effective March 10, 2011 (Sempra Energy March 31, 2011 Form 10-Q, Exhibit 10.5).

Compensation

Sempra Energy / San Diego Gas & Electric Company / Southern California Gas Company

- 10.6 Form of Indemnification Agreement with Directors and Executive Officers (executed after January 2011) (Sempra Energy March 31, 2016 Form 10-Q, Exhibit 10.1).
- 10.7 Form of Sempra Energy Shared Services Executive Incentive Compensation Plan (2013 Sempra Energy Form 10-K, Exhibit 10.19).
- 10.8 Amended and Restated Sempra Energy 2013 Long-Term Incentive Plan (2015 Sempra Energy Form 10-K, Exhibit 10.5).
- 10.9 Form of Sempra Energy 2013 Long-Term Incentive Plan 2017 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure - S&P 500 Index (2016 Sempra Energy Form 10-K, Exhibit 10.7).
- 10.10 Form of Sempra Energy 2013 Long-Term Incentive Plan 2017 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure - S&P 500 Utilities Index (2016 Sempra Energy Form 10-K, Exhibit 10.8).
- 10.11 Form of Sempra Energy 2013 Long-Term Incentive Plan 2017 Performance-Based Restricted Stock Unit Award - EPS Growth Performance Measure (2016 Sempra Energy Form 10-K, Exhibit 10.9).
- 10.12 Form of Sempra Energy 2013 Long-Term Incentive Plan 2016 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure (2015 Sempra Energy Form 10-K, Exhibit 10.6).
- 10.13 Form of Sempra Energy 2013 Long-Term Incentive Plan 2016 Performance-Based Restricted Stock Unit Award - EPS Growth Performance Measure (2015 Sempra Energy Form 10-K, Exhibit 10.7).
- 10.14 Form of Sempra Energy 2013 Long-Term Incentive Plan 2016 and 2017 Restricted Stock Unit Award (2015 Sempra Energy Form 10-K, Exhibit 10.8).
- 10.15 Form of Sempra Energy 2013 Long-Term Incentive Plan 2015 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure (2014 Sempra Energy Form 10-K, Exhibit 10.19).
- 10.16 Form of Sempra Energy 2013 Long-Term Incentive Plan 2015 Performance-Based Restricted Stock Unit Award - EPS Growth Performance Measure (2014 Sempra Energy Form 10-K, Exhibit 10.20).
- 10.17 Form of Sempra Energy 2013 Long-Term Incentive Plan 2015 Performance-Based Restricted Stock Unit Award - Cameron LNG and Cumulative Net Income (2014 Sempra Energy Form 10-K, Exhibit 10.21).
- 10.18 Form of Sempra Energy 2013 Long-Term Incentive Plan 2015 Restricted Stock Unit Award Agreement (2015 Sempra Energy Form 10-K, Exhibit 10.12).
- 10.19 Form of Sempra Energy 2013 Long-Term Incentive Plan 2014 Restricted Stock Unit Award (Sempra Energy March 31, 2014 Form 10-Q, Exhibit 10.1).
- 10.20 Form of Sempra Energy 2013 Long-Term Incentive Plan 2014 Performance-Based Restricted Stock Unit Award - EPS Growth Performance Measure (Sempra Energy March 31, 2014 Form 10-Q, Exhibit 10.2).
- 10.21 Form of Sempra Energy 2013 Long-Term Incentive Plan 2014 Performance-Based Restricted Stock Unit Award - Relative Total Shareholder Return Performance Measure (Sempra Energy March 31, 2014 Form 10-Q, Exhibit 10.3).
- 10.22 Sempra Energy 2008 Long Term Incentive Plan (Appendix A to the 2008 Sempra Energy Definitive Proxy Statement, filed on April 15, 2008).

- 10.23 Form of Sempra Energy 2008 Long Term Incentive Plan, 2009 Nonqualified Stock Option Agreement (March 31, 2009 Sempra Energy Form 10-Q, Exhibit 10.2).
- 10.24 Form of Sempra Energy 2008 Long Term Incentive Plan, 2008 Nonqualified Stock Option Agreement (June 30, 2008 Sempra Energy Form 10-Q, Exhibit 10.4).
- 10.25 Amended and Restated Sempra Energy 2005 Deferred Compensation Plan, now known as Sempra Energy Employee and Director Retirement Savings Plan.
- 10.26 Amended and Restated Sempra Energy Deferred Compensation and Excess Savings Plan (2016 Sempra Energy Form 10-K, Exhibit 10.28).
- 10.27 2009 Amendment and Restatement of the Sempra Energy Supplemental Executive Retirement Plan effective July 1, 2009 (2015 Sempra Energy Form 10-K, Exhibit 10.28).
- 10.28 First Amendment to the 2009 Amendment and Restatement of the Sempra Energy Supplemental Executive Retirement Plan effective February 11, 2010 (2015 Sempra Energy Form 10-K, Exhibit 10.29).
- 10.29 Second Amendment to the 2009 Amendment and Restatement of the Sempra Energy Supplemental Executive Retirement Plan effective January 1, 2014 (2014 Sempra Energy Form 10-K, Exhibit 10.43).
- 10.30 2015 Amendment and Restatement of the Sempra Energy Cash Balance Restoration Plan effective November 10, 2015 (2015 Sempra Energy Form 10-K, Exhibit 10.31).
- 10.31 Sempra Energy Amended and Restated Executive Life Insurance Plan (2012 Sempra Energy Form 10-K, Exhibit 10.22).
- 10.32 Sempra Energy Executive Personal Financial Planning Program Policy Document (September 30, 2004 Sempra Energy Form 10-Q, Exhibit 10.11).
- 10.33 Form of Indemnification Agreement with Directors and Executive Officers (June 30, 2008 Sempra Energy Form 10-Q, Exhibit 10.2).
- 10.34 Sempra Energy Amended and Restated Executive Medical Plan (2008 Sempra Energy Form 10-K, Exhibit 10.26).
- 10.35 Severance Pay Agreement between Sempra Energy and John C. Baker, dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.13).
- 10.36 Severance Pay Agreement between Sempra Energy and Lee Schavrien, dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.14).
- 10.37 Severance Pay Agreement between Sempra Energy and Bruce A. Folkmann, dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.15).

Sempra Energy

- 10.38 Sempra Energy Executive Incentive Plan effective January 1, 2003 (2002 Sempra Energy Form 10-K, Exhibit 10.09).
- 10.39 Severance Pay Agreement between Sempra Energy and Steven D. Davis, dated January 1, 2017 (2016 Sempra Energy Form 10-K, Exhibit 10.39).
- 10.40 Severance Pay Agreement between Sempra Energy and Trevor Mihalik, dated January 1, 2017 (2016 Sempra Energy Form 10-K, Exhibit 10.40).
- 10.41 Severance Pay Agreement between Sempra Energy and Jeffrey W. Martin, dated January 1, 2017 (2016 Sempra Energy Form 10-K, Exhibit 10.41).

- 10.42 Severance Pay Agreement between Sempra Energy and Dennis Arriola, dated January 1, 2017 (2016 Sempra Energy Form 10-K, Exhibit 10.42).
- 10.43 Severance Pay Agreement between Sempra Energy and Debra L. Reed dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.1).
- 10.44 Amendment to the Amended and Restated Severance Pay Agreement between Sempra Energy and Mark A. Snell (Sempra Energy Form 8-K filed on September 15, 2011, Exhibit 10.1).
- 10.45 Amended and Restated Sempra Energy Severance Pay Agreement between Sempra Energy and Mark A. Snell, dated November 4, 2008 (2014 Sempra Energy Form 10-K, Exhibit 10.53).
- 10.46 Severance Pay Agreement between Sempra Energy and Joseph A. Householder dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.2).
- 10.47 Severance Pay Agreement between Sempra Energy and Martha B. Wyrsh, dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.3).
- 10.48 Severance Pay Agreement between Sempra Energy and G. Joyce Rowland dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.4).
- 10.49 Form of Sempra Energy Non-Employee Directors' Restricted Stock Unit Award (2014 Sempra Energy Form 10-K, Exhibit 10.59).
- 10.50 Form of 2017 Sempra Energy Non-Employee Directors' Initial Restricted Stock Unit Award.
- 10.51 Form of Sempra Energy 2008 Non-Employee Directors' Stock Plan, Nonqualified Stock Option Agreement (June 30, 2008 Sempra Energy Form 10-Q, Exhibit 10.5).
- 10.52 Sempra Energy Amended and Restated Sempra Energy Retirement Plan for Directors (June 30, 2008 Sempra Energy Form 10-Q, Exhibit 10.7).

Sempra Energy / San Diego Gas & Electric Company

- 10.53 Form of San Diego Gas & Electric Company Executive Incentive Compensation Plan (2013 Sempra Energy Form 10-K, Exhibit 10.64).
- 10.54 Severance Pay Agreement between Sempra Energy and Scott D. Drury dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.5).
- 10.55 Severance Pay Agreement between Sempra Energy and Caroline A. Winn dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.6).
- 10.56 Severance Pay Agreement between Sempra Energy and Erbin Keith, dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.7).
- 10.57 Severance Pay Agreement between Sempra Energy and Randall L. Clark, dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.8).

Sempra Energy / Southern California Gas Company

- 10.58 Form of Southern California Gas Company Executive Incentive Compensation Plan (2013 Sempra Energy Form 10-K, Exhibit 10.71).
- 10.59 Severance Pay Agreement between Sempra Energy and Patricia K. Wagner dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.9).

- 10.60 Severance Pay Agreement between Sempra Energy and J. Bret Lane, dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.10).
- 10.61 Severance Pay Agreement between Sempra Energy and Sharon L. Tomkins, dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.11).
- 10.62 Severance Pay Agreement between Sempra Energy and Hal D. Snyder, dated March 1, 2017 (Sempra Energy March 31, 2017 Form 10-Q, Exhibit 10.12).

Nuclear

Sempra Energy / San Diego Gas & Electric Company

- 10.63^(P) Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station, approved November 25, 1987 (1992 SDG&E Form 10-K, Exhibit 10.7).
- 10.64 Amendment No. 1 to the Qualified CPUC Decommissioning Master Trust Agreement dated September 22, 1994 (see Exhibit 10.63 above) (1994 SDG&E Form 10-K, Exhibit 10.56).
- 10.65 Second Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station (see Exhibit 10.63 above) (1994 SDG&E Form 10-K, Exhibit 10.57).
- 10.66 Third Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station (see Exhibit 10.63 above) (1996 SDG&E Form 10-K, Exhibit 10.59).
- 10.67 Fourth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station (see Exhibit 10.63 above) (1996 SDG&E Form 10-K, Exhibit 10.60).
- 10.68 Fifth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station (see Exhibit 10.63 above) (1999 SDG&E Form 10-K, Exhibit 10.26).
- 10.69 Sixth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station (see Exhibit 10.63 above) (1999 SDG&E Form 10-K, Exhibit 10.27).
- 10.70 Seventh Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated December 24, 2003 (see Exhibit 10.63 above) (2003 Sempra Energy Form 10-K, Exhibit 10.42).
- 10.71 Eighth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated October 12, 2011 (see Exhibit 10.63 above) (2011 SDG&E Form 10-K, Exhibit 10.70).
- 10.72 Ninth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated January 9, 2014 (see Exhibit 10.63 above) (2013 Sempra Energy Form 10-K, Exhibit 10.83).
- 10.73 Tenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 27, 2014 (see Exhibit 10.63 above) (Sempra Energy September 30, 2014 Form 10-Q, Exhibit 10.1).
- 10.74 Eleventh Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 27, 2014 (see Exhibit 10.63 above) (Sempra Energy September 30, 2014 Form 10-Q, Exhibit 10.2).

- 10.75 Twelfth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 27, 2014 (see Exhibit 10.63 above) (Sempra Energy September 30, 2014 Form 10-Q, Exhibit 10.3).
- 10.76 Thirteenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated January 1, 2015 (see Exhibit 10.63 above) (Sempra Energy 2015 Form 10-K, Exhibit 10.78).
- 10.77 Fourteenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated February 18, 2016 (see Exhibit 10.63 above) (Sempra Energy September 30, 2016 Form 10-Q, Exhibit 10.1).
- 10.78 Fifteenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 31, 2016 (see Exhibit 10.63 above) (Sempra Energy September 30, 2016 Form 10-Q, Exhibit 10.2).
- 10.79^(P) Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station, approved November 25, 1987 (1992 SDG&E Form 10-K, Exhibit 10.8).
- 10.80 First Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station (see Exhibit 10.79 above) (1996 SDG&E Form 10-K, Exhibit 10.62).
- 10.81 Second Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station (see Exhibit 10.79 above) (1996 SDG&E Form 10-K, Exhibit 10.63).
- 10.82 Third Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station (see Exhibit 10.79 above) (1999 SDG&E Form 10-K, Exhibit 10.31).
- 10.83 Fourth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station (see Exhibit 10.79 above) (1999 SDG&E Form 10-K, Exhibit 10.32).
- 10.84 Fifth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated December 24, 2003 (see Exhibit 10.79 above) (2003 Sempra Energy Form 10-K, Exhibit 10.48).
- 10.85 Sixth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated October 12, 2011 (see Exhibit 10.79 above) (2011 SDG&E Form 10-K, Exhibit 10.77).
- 10.86 Seventh Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated January 9, 2014 (see Exhibit 10.79 above) (2013 Sempra Energy Form 10-K, Exhibit 10.91).
- 10.87 Eighth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 27, 2014 (see Exhibit 10.79 above) (Sempra Energy September 30, 2014 Form 10-Q, Exhibit 10.4).
- 10.88 Ninth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 27, 2014 (see Exhibit 10.79 above) (Sempra Energy September 30, 2014 Form 10-Q, Exhibit 10.5).
- 10.89 Tenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 27, 2014 (see Exhibit 10.79 above) (Sempra Energy September 30, 2014 Form 10-Q, Exhibit 10.6).

- 10.90 Eleventh Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated January 1, 2015 (see Exhibit 10.79 above) (2015 Sempra Energy Form 10-K, Exhibit 10.90)
- 10.91 Twelfth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated February 18, 2016 (see Exhibit 10.79 above) (Sempra Energy September 30, 2016 Form 10-Q, Exhibit 10.3).
- 10.92 Thirteenth Amendment to the San Diego Gas & Electric Company Nuclear Facilities Non-Qualified CPUC Decommissioning Master Trust Agreement for San Onofre Nuclear Generating Station dated August 31, 2016 (see Exhibit 10.79 above) (Sempra Energy September 30, 2016 Form 10-Q, Exhibit 10.4).
- 10.93^(P) U. S. Department of Energy contract for disposal of spent nuclear fuel and/or high-level radioactive waste, entered into between the DOE and Southern California Edison Company, as agent for SDG&E and others; Contract DE-CR01-83NE44418, dated June 10, 1983 (1988 SDG&E Form 10-K, Exhibit 10N).

EXHIBIT 12 -- STATEMENTS RE: COMPUTATION OF RATIOS

Sempra Energy

- 12.1 Sempra Energy Computation of Ratio of Earnings to Fixed Charges for the years ended December 31, 2017, 2016, 2015, 2014 and 2013.

San Diego Gas & Electric Company

- 12.2 San Diego Gas & Electric Computation of Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends for the years ended December 31, 2017, 2016, 2015, 2014 and 2013.

Southern California Gas Company

- 12.3 Southern California Gas Company Computation of Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends for the years ended December 31, 2017, 2016, 2015, 2014, and 2013.

EXHIBIT 14 -- CODE OF ETHICS

San Diego Gas & Electric Company / Southern California Gas Company

- 14.1 Sempra Energy Code of Business Conduct and Ethics for Board of Directors and Senior Officers (also applies to directors and officers of San Diego Gas & Electric Company and Southern California Gas Company) (2006 SDG&E and SoCalGas Forms 10-K, Exhibit 14.01).

EXHIBIT 21 -- SUBSIDIARIES

Sempra Energy

- 21.1 Sempra Energy Schedule of Certain Subsidiaries at December 31, 2017.

EXHIBIT 23 -- CONSENTS OF EXPERTS AND COUNSEL

Sempra Energy

- 23.1 Sempra Energy Consent of Independent Registered Public Accounting Firm and Report on Schedule.

San Diego Gas & Electric Company

- 23.2 San Diego Gas & Electric Company Consent of Independent Registered Public Accounting Firm and Report on Schedule.

Southern California Gas Company

- 23.3 Southern California Gas Company Consent of Independent Registered Public Accounting Firm and Report on Schedule.

EXHIBIT 31 -- SECTION 302 CERTIFICATIONS

Sempra Energy

- 31.1 Certification of Sempra Energy's Principal Executive Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.
- 31.2 Certification of Sempra Energy's Principal Financial Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.

San Diego Gas & Electric Company

- 31.3 Certification of San Diego Gas & Electric Company's Principal Executive Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.
- 31.4 Certification of San Diego Gas & Electric Company's Principal Financial Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.

Southern California Gas Company

- 31.5 Certification of Southern California Gas Company's Principal Executive Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.
- 31.6 Certification of Southern California Gas Company's Principal Financial Officer pursuant to Rules 13a-14 and 15d-14 of the Securities Exchange Act of 1934.

EXHIBIT 32 -- SECTION 906 CERTIFICATIONS

Sempra Energy

- 32.1 Certification of Sempra Energy's Principal Executive Officer pursuant to 18 U.S.C. Sec. 1350.
- 32.2 Certification of Sempra Energy's Principal Financial Officer pursuant to 18 U.S.C. Sec. 1350.

San Diego Gas & Electric Company

- 32.3 Certification of San Diego Gas & Electric Company's Principal Executive Officer pursuant to 18 U.S.C. Sec. 1350.
- 32.4 Certification of San Diego Gas & Electric Company's Principal Financial Officer pursuant to 18 U.S.C. Sec. 1350.

Southern California Gas Company

- 32.5 Certification of Southern California Gas Company's Principal Executive Officer pursuant to 18 U.S.C. Sec. 1350.
- 32.6 Certification of Southern California Gas Company's Principal Financial Officer pursuant to 18 U.S.C. Sec. 1350.

EXHIBIT 99 -- ADDITIONAL EXHIBITS

Sempra Energy

- 99.1 Stipulation, dated as of December 12, 2017, regarding all issues in Docket No. 47675 by and among Sempra Energy, Oncor Electric Delivery Company LLC, the Staff of the Public Utility Commission of Texas, the Office of the Public Utility Counsel, the Steering Committee of Cities Served by Oncor and the Texas Industrial Energy Consumers, and any other parties who may subsequently become signatories to the Stipulation. (Incorporated by reference to Exhibit 99.1 to Sempra Energy Current Report on Form 8-K filed on December 15, 2017).

Sempra Energy / San Diego Gas & Electric Company

- 99.2 Revised Settlement Agreement, dated as of January 30, 2018, regarding the San Onofre Nuclear Generating Station Units 2 and 3 Order Instituting Investigation Proceeding, by and among San Diego Gas & Electric Company, Southern California Edison Company, the Alliance for Nuclear Responsibility, the California Large Energy Consumers Association, California State University, Citizens Oversight dba Coalition to Decommission San Onofre, the Coalition of California Utility Employees, the Direct Access Customer Coalition, Ruth Henricks, The Office of Ratepayer Advocates, The Utility Reform Network, and Women's Energy Matters. (Incorporated by reference to Exhibit 99.1 to Sempra Energy Current Report on Form 8-K filed on January 30, 2018).

EXHIBIT 101 -- INTERACTIVE DATA FILE

101.INS XBRL Instance Document

101.SCH XBRL Taxonomy Extension Schema Document

101.CAL XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy Extension Definition Linkbase Document

101.LAB XBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

^(P) Exhibit previously filed with the SEC in paper format.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

Sempra Energy:**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SEMPRA ENERGY,
(Registrant)

By: /s/ Debra L. Reed

Debra L. Reed
Chairman, President and Chief Executive Officer

Date: February 27, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Name/Title	Signature	Date
Principal Executive Officer: Debra L. Reed Chief Executive Officer	<u>/s/ Debra L. Reed</u>	February 27, 2018
Principal Financial Officer: J. Walker Martin Executive Vice President and Chief Financial Officer	<u>/s/ J. Walker Martin</u>	February 27, 2018
Principal Accounting Officer: Trevor I. Mihalik Senior Vice President, Controller and Chief Accounting Officer	<u>/s/ Trevor I. Mihalik</u>	February 27, 2018
Directors: Debra L. Reed, Chairman	<u>/s/ Debra L. Reed</u>	February 27, 2018
Alan L. Boeckmann, Director	<u>/s/ Alan L. Boeckmann</u>	February 27, 2018
Kathleen L. Brown, Director	<u>/s/ Kathleen L. Brown</u>	February 27, 2018
Andrés Conesa, Director	<u>/s/ Andrés Conesa</u>	February 27, 2018
Maria Contreras-Sweet, Director	<u>/s/ Maria Contreras-Sweet</u>	February 27, 2018
Pablo A. Ferrero, Director	<u>/s/ Pablo A. Ferrero</u>	February 27, 2018
William D. Jones, Director	<u>/s/ William D. Jones</u>	February 27, 2018
Bethany J. Mayer, Director	<u>/s/ Bethany J. Mayer</u>	February 27, 2018
William G. Ouchi, Ph.D., Director	<u>/s/ William G. Ouchi</u>	February 27, 2018
William C. Rusnack, Director	<u>/s/ William C. Rusnack</u>	February 27, 2018
Lynn Schenk, Director	<u>/s/ Lynn Schenk</u>	February 27, 2018
Jack T. Taylor, Director	<u>/s/ Jack T. Taylor</u>	February 27, 2018
James C. Yardley, Director	<u>/s/ James C. Yardley</u>	February 27, 2018

San Diego Gas & Electric Company:**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SAN DIEGO GAS & ELECTRIC COMPANY,
(Registrant)

By: /s/ Scott D. Drury

Scott D. Drury
President

Date: February 27, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934 (the Act), this report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Name/Title	Signature	Date
Principal Executive Officer:		
Scott D. Drury President	<u>/s/ Scott D. Drury</u>	February 27, 2018
Principal Financial and Accounting Officer:		
Bruce A. Folkmann Vice President, Controller, Chief Financial Officer and Chief Accounting Officer	<u>/s/ Bruce A. Folkmann</u>	February 27, 2018
Directors:		
Steven D. Davis, Non-Executive Chairman	<u>/s/ Steven D. Davis</u>	February 27, 2018
Scott D. Drury, Director	<u>/s/ Scott D. Drury</u>	February 27, 2018
J. Walker Martin, Director	<u>/s/ J. Walker Martin</u>	February 27, 2018
Trevor I. Mihalik, Director	<u>/s/ Trevor I. Mihalik</u>	February 27, 2018
G. Joyce Rowland, Director	<u>/s/ G. Joyce Rowland</u>	February 27, 2018
Caroline A. Winn, Director	<u>/s/ Caroline A. Winn</u>	February 27, 2018
Martha B. Wyrsh, Director	<u>/s/ Martha B. Wyrsh</u>	February 27, 2018

SUPPLEMENTAL INFORMATION TO BE FURNISHED WITH REPORTS FILED PURSUANT TO SECTION 15(d) OF THE ACT BY REGISTRANTS WHICH HAVE NOT REGISTERED SECURITIES PURSUANT TO SECTION 12 OF THE ACT:

No annual report, proxy statement, form of proxy or other soliciting material has been sent to security holders during the period covered by this annual report on Form 10-K, and no such materials are to be furnished to security holders subsequent to the filing of this annual report on Form 10-K.

Southern California Gas Company:**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SOUTHERN CALIFORNIA GAS COMPANY,
(Registrant)

By: /s/ Patricia K. Wagner

Patricia K. Wagner
Chief Executive Officer

Date: February 27, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Name/Title	Signature	Date
Principal Executive Officer: Patricia K. Wagner Chief Executive Officer	<u>/s/ Patricia K. Wagner</u>	February 27, 2018
Principal Financial and Accounting Officer: Bruce A. Folkmann Vice President, Controller, Chief Financial Officer and Chief Accounting Officer	<u>/s/ Bruce A. Folkmann</u>	February 27, 2018
Directors: Steven D. Davis, Non-Executive Chairman	<u>/s/ Steven D. Davis</u>	February 27, 2018
J. Bret Lane, Director	<u>/s/ J. Bret Lane</u>	February 27, 2018
J. Walker Martin, Director	<u>/s/ J. Walker Martin</u>	February 27, 2018
Trevor I. Mihalik, Director	<u>/s/ Trevor I. Mihalik</u>	February 27, 2018
G. Joyce Rowland, Director	<u>/s/ G. Joyce Rowland</u>	February 27, 2018
Patricia K. Wagner, Director	<u>/s/ Patricia K. Wagner</u>	February 27, 2018
Martha B. Wyrsh, Director	<u>/s/ Martha B. Wyrsh</u>	February 27, 2018

SEMPRA ENERGY
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REPORTS OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

SEMPRA ENERGY

To the Board of Directors and Shareholders of Sempra Energy:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Sempra Energy and subsidiaries (the “Company”) as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows, for each of the three years in the period ended December 31, 2017 (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2018, expressed an unqualified opinion on the Company’s internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ DELOITTE & TOUCHE LLP

San Diego, California

February 27, 2018

We have served as the Company’s auditor since 1935.

SAN DIEGO GAS & ELECTRIC COMPANY

To the Board of Directors and Shareholder of San Diego Gas & Electric Company:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of San Diego Gas & Electric Company (the “Company”) as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive income (loss), changes in equity, and cash flows, for each of the three years in the period ended December 31, 2017 (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2018, expressed an unqualified opinion on the Company’s internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ DELOITTE & TOUCHE LLP

San Diego, California
February 27, 2018

We have served as the Company’s auditor since 1935.

SOUTHERN CALIFORNIA GAS COMPANY

To the Board of Directors and Shareholders of Southern California Gas Company:

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Southern California Gas Company (the “Company”) as of December 31, 2017 and 2016, and the related statements of operations, comprehensive income (loss), changes in shareholders’ equity, and cash flows, for each of the three years in the period ended December 31, 2017 (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2018, expressed an unqualified opinion on the Company’s internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ DELOITTE & TOUCHE LLP

San Diego, California
February 27, 2018

We have served as the Company’s auditor since 1937.

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SEMPRA ENERGY
CONSOLIDATED STATEMENTS OF OPERATIONS

(Dollars in millions, except per share amounts)

	Years ended December 31,		
	2017	2016	2015
REVENUES			
Utilities	\$ 9,776	\$ 9,261	\$ 9,254
Energy-related businesses	1,431	922	977
Total revenues	11,207	10,183	10,231
EXPENSES AND OTHER INCOME			
Utilities:			
Cost of electric fuel and purchased power	(2,281)	(2,188)	(2,136)
Cost of natural gas	(1,190)	(1,067)	(1,134)
Energy-related businesses:			
Cost of natural gas, electric fuel and purchased power	(339)	(277)	(335)
Other cost of sales	(24)	(322)	(148)
Operation and maintenance	(3,117)	(2,970)	(2,886)
Depreciation and amortization	(1,490)	(1,312)	(1,250)
Franchise fees and other taxes	(436)	(426)	(423)
Write-off of wildfire regulatory asset	(351)	—	—
Impairment losses	(72)	(153)	(9)
Plant closure adjustment	—	—	26
Gain on sale of assets	3	134	70
Equity earnings, before income tax	34	6	104
Remeasurement of equity method investment	—	617	—
Other income, net	254	132	126
Interest income	46	26	29
Interest expense	(659)	(553)	(561)
Income before income taxes and equity earnings of certain unconsolidated subsidiaries	1,585	1,830	1,704
Income tax expense	(1,276)	(389)	(341)
Equity earnings, net of income tax	42	78	85
Net income	351	1,519	1,448
Earnings attributable to noncontrolling interests	(94)	(148)	(98)
Preferred dividends of subsidiary	(1)	(1)	(1)
Earnings	\$ 256	\$ 1,370	\$ 1,349
Basic earnings per common share	\$ 1.02	\$ 5.48	\$ 5.43
Weighted-average number of shares outstanding, basic (thousands)	251,545	250,217	248,249
Diluted earnings per common share	\$ 1.01	\$ 5.46	\$ 5.37
Weighted-average number of shares outstanding, diluted (thousands)	252,300	251,155	250,923

See Notes to Consolidated Financial Statements.

SEMPRA ENERGY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(Dollars in millions)

Years ended December 31, 2017, 2016 and 2015

	Sempra Energy shareholders' equity				
	Pretax amount	Income tax (expense) benefit	Net-of-tax amount	Noncontrolling interests (after-tax)	Total
2017:					
Net income	\$ 1,533	\$ (1,276)	\$ 257	\$ 94	\$ 351
Other comprehensive income (loss):					
Foreign currency translation adjustments	107	—	107	8	115
Financial instruments	2	1	3	12	15
Pension and other postretirement benefits	20	(8)	12	—	12
Total other comprehensive income	129	(7)	122	20	142
Comprehensive income	1,662	(1,283)	379	114	493
Preferred dividends of subsidiary	(1)	—	(1)	—	(1)
Comprehensive income, after preferred dividends of subsidiary	\$ 1,661	\$ (1,283)	\$ 378	\$ 114	\$ 492
2016:					
Net income	\$ 1,760	\$ (389)	\$ 1,371	\$ 148	\$ 1,519
Other comprehensive income (loss):					
Foreign currency translation adjustments	42	—	42	(3)	39
Financial instruments	(6)	11	5	17	22
Pension and other postretirement benefits	(13)	4	(9)	—	(9)
Total other comprehensive income	23	15	38	14	52
Comprehensive income	1,783	(374)	1,409	162	1,571
Preferred dividends of subsidiary	(1)	—	(1)	—	(1)
Comprehensive income, after preferred dividends of subsidiary	\$ 1,782	\$ (374)	\$ 1,408	\$ 162	\$ 1,570
2015:					
Net income	\$ 1,691	\$ (341)	\$ 1,350	\$ 98	\$ 1,448
Other comprehensive income (loss):					
Foreign currency translation adjustments	(260)	—	(260)	(30)	(290)
Financial instruments	(80)	33	(47)	5	(42)
Pension and other postretirement benefits	(3)	1	(2)	—	(2)
Total other comprehensive loss	(343)	34	(309)	(25)	(334)
Comprehensive income	1,348	(307)	1,041	73	1,114
Preferred dividends of subsidiary	(1)	—	(1)	—	(1)
Comprehensive income, after preferred dividends of subsidiary	\$ 1,347	\$ (307)	\$ 1,040	\$ 73	\$ 1,113

See Notes to Consolidated Financial Statements.

SEMPRA ENERGY
CONSOLIDATED BALANCE SHEETS

(Dollars in millions)

	December 31, 2017	December 31, 2016 ⁽¹⁾
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 288	\$ 349
Restricted cash	62	66
Accounts receivable – trade, net	1,307	1,390
Accounts receivable – other, net	277	164
Due from unconsolidated affiliates	37	26
Income taxes receivable	110	43
Inventories	307	258
Regulatory assets	325	348
Fixed-price contracts and other derivatives	66	83
Greenhouse gas allowances	299	40
Assets held for sale	127	201
Other	136	142
Total current assets	3,341	3,110
Other assets:		
Restricted cash	14	10
Due from unconsolidated affiliates	598	201
Regulatory assets	1,517	3,414
Nuclear decommissioning trusts	1,033	1,026
Investments	2,527	2,097
Goodwill	2,397	2,364
Other intangible assets	596	548
Dedicated assets in support of certain benefit plans	455	430
Insurance receivable for Aliso Canyon costs	418	606
Deferred income taxes	170	234
Greenhouse gas allowances	93	295
Sundry	792	520
Total other assets	10,610	11,745
Property, plant and equipment:		
Property, plant and equipment	48,108	43,624
Less accumulated depreciation and amortization	(11,605)	(10,693)
Property, plant and equipment, net (\$321 and \$354 at December 31, 2017 and 2016, respectively, related to VIE)	36,503	32,931
Total assets	\$ 50,454	\$ 47,786

⁽¹⁾ Reflects reclassifications to conform to current year presentation, which we discuss in Note 1.

See Notes to Consolidated Financial Statements.

SEMPRA ENERGY
CONSOLIDATED BALANCE SHEETS (CONTINUED)

(Dollars in millions)

	December 31, 2017	December 31, 2016 ⁽¹⁾
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term debt	\$ 1,540	\$ 1,779
Accounts payable – trade	1,350	1,346
Accounts payable – other	173	130
Due to unconsolidated affiliates	7	11
Dividends and interest payable	342	319
Accrued compensation and benefits	439	409
Regulatory liabilities	109	122
Current portion of long-term debt	1,427	913
Fixed-price contracts and other derivatives	109	83
Customer deposits	162	158
Reserve for Aliso Canyon costs	84	53
Greenhouse gas obligations	299	40
Liabilities held for sale	49	47
Other	545	517
Total current liabilities	6,635	5,927
Long-term debt (\$284 and \$293 at December 31, 2017 and 2016, respectively, related to VIE)	16,445	14,429
Deferred credits and other liabilities:		
Customer advances for construction	150	152
Due to unconsolidated affiliates	35	—
Pension and other postretirement benefit plan obligations, net of plan assets	1,148	1,208
Deferred income taxes	2,767	3,745
Deferred investment tax credits	28	28
Regulatory liabilities	3,922	2,876
Asset retirement obligations	2,732	2,431
Fixed-price contracts and other derivatives	316	405
Greenhouse gas obligations	—	171
Deferred credits and other	1,136	1,173
Total deferred credits and other liabilities	12,234	12,189
Commitments and contingencies (Note 15)		
Equity:		
Preferred stock (50 million shares authorized; none issued)	—	—
Common stock (750 million shares authorized; 251 million and 250 million shares outstanding at December 31, 2017 and 2016, respectively; no par value)	3,149	2,982
Retained earnings	10,147	10,717
Accumulated other comprehensive income (loss)	(626)	(748)
Total Sempra Energy shareholders' equity	12,670	12,951
Preferred stock of subsidiary	20	20
Other noncontrolling interests	2,450	2,270
Total equity	15,140	15,241
Total liabilities and equity	\$ 50,454	\$ 47,786

⁽¹⁾ Reflects reclassifications to conform to current year presentation, which we discuss in Note 1.

See Notes to Consolidated Financial Statements.

SEMPRA ENERGY
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in millions)

	Years ended December 31,		
	2017	2016 ⁽¹⁾	2015 ⁽¹⁾
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 351	\$ 1,519	\$ 1,448
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	1,490	1,312	1,250
Deferred income taxes and investment tax credits	1,160	217	239
Write-off of wildfire regulatory asset	351	—	—
Impairment losses	72	153	9
Plant closure adjustment	—	—	(26)
Gain on sale of assets	(3)	(134)	(70)
Equity earnings, net	(76)	(84)	(189)
Remeasurement of equity method investment	—	(617)	—
Fixed-price contracts and other derivatives	7	21	(10)
Other	149	62	66
Net change in other working capital components	57	(59)	699
Insurance receivable for Aliso Canyon costs	188	(281)	(325)
Changes in other assets	(214)	49	(169)
Changes in other liabilities	93	153	(24)
Net cash provided by operating activities	<u>3,625</u>	<u>2,311</u>	<u>2,898</u>
CASH FLOWS FROM INVESTING ACTIVITIES			
Expenditures for property, plant and equipment	(3,949)	(4,214)	(3,156)
Expenditures for investments and acquisitions, net of cash, cash equivalents and restricted cash acquired	(270)	(1,504)	(198)
Proceeds from sale of assets, net of cash sold	17	763	373
Distributions from investments	26	25	15
Purchases of nuclear decommissioning and other trust assets	(1,314)	(1,034)	(531)
Proceeds from sales by nuclear decommissioning and other trusts	1,314	1,134	577
Advances to unconsolidated affiliates	(531)	(25)	(31)
Repayments of advances to unconsolidated affiliates	9	11	74
Other	(2)	9	9
Net cash used in investing activities	<u>(4,700)</u>	<u>(4,835)</u>	<u>(2,868)</u>
CASH FLOWS FROM FINANCING ACTIVITIES			
Common dividends paid	(755)	(686)	(628)
Preferred dividends paid by subsidiary	(1)	(1)	(1)
Issuances of common stock	47	51	52
Repurchases of common stock	(15)	(56)	(74)
Issuances of debt (maturities greater than 90 days)	4,509	2,951	2,992
Payments on debt (maturities greater than 90 days)	(2,800)	(2,057)	(1,854)
(Decrease) increase in short-term debt, net	(36)	692	(622)
Advances from unconsolidated affiliates	35	—	—
Proceeds from sale of noncontrolling interests, net of \$3 and \$40 in offering costs, respectively	196	1,692	—
Net distributions to noncontrolling interests	(130)	(63)	(73)
Tax benefit related to share-based compensation	—	—	52
Other	(43)	(21)	(20)
Net cash provided by (used in) financing activities	<u>1,007</u>	<u>2,502</u>	<u>(176)</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	<u>7</u>	<u>(3)</u>	<u>(14)</u>
Decrease in cash, cash equivalents and restricted cash	(61)	(25)	(160)
Cash, cash equivalents and restricted cash, January 1	425	450	610
Cash, cash equivalents and restricted cash, December 31	<u>\$ 364</u>	<u>\$ 425</u>	<u>\$ 450</u>

⁽¹⁾ As adjusted for the retrospective adoption of ASU 2016-15 and ASU 2016-18, which we discuss in Note 2.

See Notes to Consolidated Financial Statements

SEMPRA ENERGY
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)

(Dollars in millions)

	Years ended December 31,		
	2017	2016 ⁽¹⁾	2015 ⁽¹⁾
CHANGES IN OTHER WORKING CAPITAL COMPONENTS			
(Excluding cash, cash equivalents and restricted cash, and debt due within one year)			
Accounts receivable	\$ 17	\$ (42)	\$ (99)
Income taxes receivable, net	(70)	3	39
Inventories	(49)	(20)	65
Regulatory balancing accounts	108	198	586
Other current assets	(12)	(41)	(19)
Accounts payable	83	122	(157)
Reserve for Aliso Canyon costs	31	(221)	274
Other current liabilities	(51)	(58)	10
Net change in other working capital components	<u>\$ 57</u>	<u>\$ (59)</u>	<u>\$ 699</u>
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Interest payments, net of amounts capitalized	\$ 619	\$ 532	\$ 537
Income tax payments, net of refunds	172	160	67
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES			
Acquisitions:			
Assets acquired, net of cash, cash equivalents and restricted cash	\$ 436	\$ 3,808	\$ 10
Value of equity method investment immediately prior to acquisition	(28)	(1,144)	—
Liabilities assumed	(261)	(1,322)	(2)
Accrued purchase price	—	—	(5)
Cash paid, net of cash, cash equivalents and restricted cash acquired	<u>\$ 147</u>	<u>\$ 1,342</u>	<u>\$ 3</u>
Accrued capital expenditures	\$ 562	\$ 626	\$ 566
Increase in capital lease obligations for investment in property, plant and equipment	504	—	24
Accrued Merger-related transaction costs	31	—	—
Financing of build-to-suit property	—	—	61
Redemption of industrial development bonds	—	—	79
Equitization of note receivable due from unconsolidated affiliate	19	—	—
Common dividends issued in stock	53	53	55
Dividends declared but not paid	214	196	180

⁽¹⁾ As adjusted for the retrospective adoption of ASU 2016-15 and ASU 2016-18, which we discuss in Note 2.

See Notes to Consolidated Financial Statements

SEMPRA ENERGY
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Dollars in millions)

Years ended December 31, 2017, 2016 and 2015

	Common stock	Retained earnings	Accumulated other comprehensive income (loss)	Sempra Energy shareholders' equity	Other non-controlling interests	Total equity
Balance at December 31, 2014	\$ 2,484	\$ 9,339	\$ (497)	\$ 11,326	\$ 774	\$ 12,100
Net income		1,350		1,350	98	1,448
Other comprehensive loss			(309)	(309)	(25)	(334)
Share-based compensation expense	52			52		52
Common stock dividends declared		(694)		(694)		(694)
Preferred dividends of subsidiary		(1)		(1)		(1)
Issuances of common stock	107			107		107
Repurchases of common stock	(74)			(74)		(74)
Tax benefit related to share-based compensation	52			52		52
Distributions to noncontrolling interests					(80)	(80)
Equity contributed by noncontrolling interests					3	3
Balance at December 31, 2015	2,621	9,994	(806)	11,809	770	12,579
Cumulative-effect adjustment from change in accounting principle		107		107		107
Net income		1,371		1,371	148	1,519
Other comprehensive income			38	38	14	52
Share-based compensation expense	52			52		52
Common stock dividends declared		(754)		(754)		(754)
Preferred dividends of subsidiary		(1)		(1)		(1)
Issuances of common stock	104			104		104
Repurchases of common stock	(56)			(56)		(56)
Sale of noncontrolling interests, net of offering costs	261		20	281	1,420	1,701
Distributions to noncontrolling interests					(65)	(65)
Equity contributed by noncontrolling interests					3	3
Balance at December 31, 2016	2,982	10,717	(748)	12,951	2,290	15,241
Net income		257		257	94	351
Other comprehensive income			122	122	20	142
Share-based compensation expense	82			82		82
Common stock dividends declared		(826)		(826)		(826)
Preferred dividends of subsidiary		(1)		(1)		(1)
Issuances of common stock	100			100		100
Repurchases of common stock	(15)			(15)		(15)
Sale of noncontrolling interests, net of offering costs					196	196
Distributions to noncontrolling interests					(132)	(132)
Equity contributed by noncontrolling interests					2	2
Balance at December 31, 2017	\$ 3,149	\$ 10,147	\$ (626)	\$ 12,670	\$ 2,470	\$ 15,140

See Notes to Consolidated Financial Statements.

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SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED STATEMENTS OF OPERATIONS

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Operating revenues			
Electric	\$ 3,935	\$ 3,754	\$ 3,719
Natural gas	541	499	500
Total operating revenues	4,476	4,253	4,219
Operating expenses			
Cost of electric fuel and purchased power	1,293	1,187	1,151
Cost of natural gas	164	127	153
Operation and maintenance	1,020	1,048	1,017
Depreciation and amortization	670	646	604
Franchise fees and other taxes	265	255	262
Write-off of wildfire regulatory asset	351	—	—
Plant closure adjustment	—	—	(26)
Total operating expenses	3,763	3,263	3,161
Operating income	713	990	1,058
Other income, net	66	50	36
Interest expense	(203)	(195)	(204)
Income before income taxes	576	845	890
Income tax expense	(155)	(280)	(284)
Net income	421	565	606
(Earnings) losses attributable to noncontrolling interest	(14)	5	(19)
Earnings attributable to common shares	\$ 407	\$ 570	\$ 587

See Notes to Consolidated Financial Statements.

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(Dollars in millions)

Years ended December 31, 2017, 2016 and 2015

	SDG&E shareholder's equity				
	Pretax amount	Income tax (expense) benefit	Net-of-tax amount	Noncontrolling interest (after-tax)	Total
2017:					
Net income	\$ 562	\$ (155)	\$ 407	\$ 14	\$ 421
Other comprehensive income (loss):					
Financial instruments	—	—	—	11	11
Pension and other postretirement benefits	(1)	1	—	—	—
Total other comprehensive (loss) income	(1)	1	—	11	11
Comprehensive income	\$ 561	\$ (154)	\$ 407	\$ 25	\$ 432
2016:					
Net income (loss)	\$ 850	\$ (280)	\$ 570	\$ (5)	\$ 565
Other comprehensive income (loss):					
Financial instruments	—	—	—	10	10
Total other comprehensive income	—	—	—	10	10
Comprehensive income	\$ 850	\$ (280)	\$ 570	\$ 5	\$ 575
2015:					
Net income	\$ 871	\$ (284)	\$ 587	\$ 19	\$ 606
Other comprehensive income (loss):					
Financial instruments	—	—	—	6	6
Pension and other postretirement benefits	7	(3)	4	—	4
Total other comprehensive income	7	(3)	4	6	10
Comprehensive income	\$ 878	\$ (287)	\$ 591	\$ 25	\$ 616

See Notes to Consolidated Financial Statements.

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED BALANCE SHEETS

(Dollars in millions)

	December 31, 2017	December 31, 2016 ⁽¹⁾
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 12	\$ 8
Restricted cash	6	11
Accounts receivable – trade, net	362	354
Accounts receivable – other, net	79	17
Due from unconsolidated affiliates	—	4
Income taxes receivable	—	122
Inventories	105	80
Prepaid expenses	58	59
Regulatory assets	316	340
Fixed-price contracts and other derivatives	42	58
Greenhouse gas allowances	116	16
Other	4	3
Total current assets	1,100	1,072
Other assets:		
Restricted cash	11	1
Regulatory assets	451	2,012
Nuclear decommissioning trusts	1,033	1,026
Greenhouse gas allowances	83	182
Sundry	328	176
Total other assets	1,906	3,397
Property, plant and equipment:		
Property, plant and equipment	19,787	17,844
Less accumulated depreciation and amortization	(4,949)	(4,594)
Property, plant and equipment, net (\$321 and \$354 at December 31, 2017 and 2016, respectively, related to VIE)	14,838	13,250
Total assets	\$ 17,844	\$ 17,719

⁽¹⁾ Reflects reclassifications to conform to current year presentation, which we discuss in Note 1.

See Notes to Consolidated Financial Statements.

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED BALANCE SHEETS (CONTINUED)

(Dollars in millions)

	December 31, 2017	December 31, 2016 ⁽¹⁾
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term debt	\$ 253	\$ —
Accounts payable	501	460
Due to unconsolidated affiliates	40	15
Interest payable	41	40
Accrued compensation and benefits	122	121
Accrued franchise fees	59	43
Current portion of long-term debt	220	191
Asset retirement obligations	77	79
Regulatory liabilities	18	—
Fixed-price contracts and other derivatives	60	61
Customer deposits	69	76
Greenhouse gas obligations	116	16
Other	46	66
Total current liabilities	1,622	1,168
Long-term debt (\$284 and \$293 at December 31, 2017 and 2016, respectively, related to VIE)	5,335	4,658
Deferred credits and other liabilities:		
Customer advances for construction	57	52
Pension and other postretirement benefit plan obligations, net of plan assets	182	232
Deferred income taxes	1,530	2,829
Deferred investment tax credits	18	16
Regulatory liabilities	2,225	1,725
Asset retirement obligations	762	751
Fixed-price contracts and other derivatives	153	189
Greenhouse gas obligations	—	72
Deferred credits and other	334	349
Total deferred credits and other liabilities	5,261	6,215
Commitments and contingencies (Note 15)		
Equity:		
Preferred stock (45 million shares authorized; none issued)	—	—
Common stock (255 million shares authorized; 117 million shares outstanding; no par value)	1,338	1,338
Retained earnings	4,268	4,311
Accumulated other comprehensive income (loss)	(8)	(8)
Total SDG&E shareholder's equity	5,598	5,641
Noncontrolling interest	28	37
Total equity	5,626	5,678
Total liabilities and equity	\$ 17,844	\$ 17,719

⁽¹⁾ Reflects reclassifications to conform to current year presentation, which we discuss in Note 1.
See Notes to Consolidated Financial Statements.

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in millions)

	Years ended December 31,		
	2017	2016 ⁽¹⁾	2015 ⁽¹⁾
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 421	\$ 565	\$ 606
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	670	646	604
Deferred income taxes and investment tax credits	(10)	258	195
Write-off of wildfire regulatory asset	351	—	—
Plant closure adjustment	—	—	(26)
Fixed-price contracts and other derivatives	(2)	(3)	(4)
Other	(22)	(35)	(16)
Changes in other assets	(108)	(20)	(125)
Changes in other liabilities	78	11	13
Changes in working capital components:			
Accounts receivable	(76)	(31)	(10)
Due to/from affiliates, net	(10)	(19)	21
Inventories	(25)	(5)	(2)
Other current assets	9	25	(24)
Income taxes	136	(115)	—
Accounts payable	75	39	(28)
Regulatory balancing accounts	56	35	474
Other current liabilities	4	(28)	(17)
Net cash provided by operating activities	<u>1,547</u>	<u>1,323</u>	<u>1,661</u>
CASH FLOWS FROM INVESTING ACTIVITIES			
Expenditures for property, plant and equipment	(1,555)	(1,399)	(1,133)
Purchases of nuclear decommissioning trust assets	(1,314)	(1,034)	(526)
Proceeds from sales by nuclear decommissioning trusts	1,314	1,134	577
Decrease (increase) in loans to affiliate, net	31	(31)	—
Other	9	6	5
Net cash used in investing activities	<u>(1,515)</u>	<u>(1,324)</u>	<u>(1,077)</u>
CASH FLOWS FROM FINANCING ACTIVITIES			
Common dividends paid	(450)	(175)	(300)
Issuances of debt (maturities greater than 90 days)	398	498	444
Payments on debt (maturities greater than 90 days)	(186)	(204)	(547)
Increase (decrease) in short-term debt, net	253	(114)	(131)
Capital distributions made by VIE, net	(34)	(21)	(30)
Other	(4)	(6)	(4)
Net cash used in financing activities	<u>(23)</u>	<u>(22)</u>	<u>(568)</u>
Increase (decrease) in cash, cash equivalents and restricted cash	9	(23)	16
Cash, cash equivalents and restricted cash, January 1	20	43	27
Cash, cash equivalents and restricted cash, December 31	<u>\$ 29</u>	<u>\$ 20</u>	<u>\$ 43</u>
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Interest payments, net of amounts capitalized	\$ 195	\$ 187	\$ 199
Income tax payments, net	27	137	88
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES			
Accrued capital expenditures	\$ 217	\$ 227	\$ 191
Increase in capital lease obligations for investment in property, plant and equipment	500	—	15

⁽¹⁾ As adjusted for the retrospective adoption of ASU 2016-15 and ASU 2016-18, which we discuss in Note 2.

See Notes to Consolidated Financial Statements

SAN DIEGO GAS & ELECTRIC COMPANY
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Dollars in millions)

Years ended December 31, 2017, 2016 and 2015

	Common stock	Retained earnings	Accumulated other comprehensive income (loss)	SDG&E shareholder's equity	Noncontrolling interest	Total equity
Balance at December 31, 2014	\$ 1,338	\$ 3,606	\$ (12)	\$ 4,932	\$ 60	\$ 4,992
Net income		587		587	19	606
Other comprehensive income			4	4	6	10
Common stock dividends declared		(300)		(300)		(300)
Distributions to noncontrolling interest					(32)	(32)
Balance at December 31, 2015	1,338	3,893	(8)	5,223	53	5,276
Cumulative-effect adjustment from change in accounting principle		23		23		23
Net income (loss)		570		570	(5)	565
Other comprehensive income					10	10
Common stock dividends declared		(175)		(175)		(175)
Distributions to noncontrolling interest					(23)	(23)
Equity contributed by noncontrolling interest					2	2
Balance at December 31, 2016	1,338	4,311	(8)	5,641	37	5,678
Net income		407		407	14	421
Other comprehensive income					11	11
Common stock dividends declared		(450)		(450)		(450)
Distributions to noncontrolling interest					(35)	(35)
Equity contributed by noncontrolling interest					1	1
Balance at December 31, 2017	\$ 1,338	\$ 4,268	\$ (8)	\$ 5,598	\$ 28	\$ 5,626

See Notes to Consolidated Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY
STATEMENTS OF OPERATIONS

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Operating revenues	\$ 3,785	\$ 3,471	\$ 3,489
Operating expenses			
Cost of natural gas	1,025	891	921
Operation and maintenance	1,479	1,385	1,361
Depreciation and amortization	515	476	461
Franchise fees and other taxes	144	140	129
Impairment losses	—	22	9
Total operating expenses	3,163	2,914	2,881
Operating income	622	557	608
Other income, net	36	32	30
Interest income	1	1	4
Interest expense	(102)	(97)	(84)
Income before income taxes	557	493	558
Income tax expense	(160)	(143)	(138)
Net income	397	350	420
Preferred dividend requirements	(1)	(1)	(1)
Earnings attributable to common shares	\$ 396	\$ 349	\$ 419

See Notes to Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY
STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(Dollars in millions)

Years ended December 31, 2017, 2016 and 2015

	Pretax amount	Income tax (expense) benefit	Net-of-tax amount
2017:			
Net income	\$ 557	\$ (160)	\$ 397
Other comprehensive income (loss):			
Pension and other postretirement benefits	1	—	1
Total other comprehensive income	1	—	1
Comprehensive income	\$ 558	\$ (160)	\$ 398
2016:			
Net income	\$ 493	\$ (143)	\$ 350
Other comprehensive income (loss):			
Financial instruments	1	—	1
Pension and other postretirement benefits	(6)	2	(4)
Total other comprehensive loss	(5)	2	(3)
Comprehensive income	\$ 488	\$ (141)	\$ 347
2015:			
Net income	\$ 558	\$ (138)	\$ 420
Other comprehensive income (loss):			
Financial instruments	1	(1)	—
Pension and other postretirement benefits	(2)	1	(1)
Total other comprehensive loss	(1)	—	(1)
Comprehensive income	\$ 557	\$ (138)	\$ 419

See Notes to Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY
BALANCE SHEETS

(Dollars in millions)

	December 31, 2017	December 31, 2016 ⁽¹⁾
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 8	\$ 12
Accounts receivable – trade, net	517	608
Accounts receivable – other, net	90	77
Due from unconsolidated affiliates	4	8
Income taxes receivable	10	2
Inventories	124	58
Regulatory assets	9	8
Greenhouse gas allowances	179	24
Other	38	39
Total current assets	979	836
Other assets:		
Regulatory assets	983	1,331
Insurance receivable for Aliso Canyon costs	418	606
Greenhouse gas allowances	9	109
Sundry	364	290
Total other assets	1,774	2,336
Property, plant and equipment:		
Property, plant and equipment	16,772	15,344
Less accumulated depreciation and amortization	(5,366)	(5,092)
Property, plant and equipment, net	11,406	10,252
Total assets	\$ 14,159	\$ 13,424

⁽¹⁾ Reflects reclassifications to conform to current year presentation, which we discuss in Note 1.

See Notes to Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY
BALANCE SHEETS (CONTINUED)

(Dollars in millions)

	December 31, 2017	December 31, 2016 ⁽¹⁾
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Short-term debt	\$ 116	\$ 62
Accounts payable – trade	502	481
Accounts payable – other	93	74
Due to unconsolidated affiliates	35	28
Accrued compensation and benefits	151	150
Regulatory liabilities	91	122
Current portion of long-term debt	501	—
Customer deposits	89	76
Reserve for Aliso Canyon costs	84	53
Greenhouse gas obligations	179	24
Other	205	171
Total current liabilities	2,046	1,241
Long-term debt	2,485	2,982
Deferred credits and other liabilities:		
Customer advances for construction	92	99
Pension obligation, net of plan assets	789	762
Deferred income taxes	995	1,709
Deferred investment tax credits	10	12
Regulatory liabilities	1,697	1,151
Asset retirement obligations	1,885	1,616
Greenhouse gas obligations	—	96
Deferred credits and other	253	246
Total deferred credits and other liabilities	5,721	5,691
Commitments and contingencies (Note 15)		
Shareholders' equity:		
Preferred stock (11 million shares authorized; 1 million shares outstanding)	22	22
Common stock (100 million shares authorized; 91 million shares outstanding; no par value)	866	866
Retained earnings	3,040	2,644
Accumulated other comprehensive income (loss)	(21)	(22)
Total shareholders' equity	3,907	3,510
Total liabilities and shareholders' equity	\$ 14,159	\$ 13,424

⁽¹⁾ Reflects reclassifications to conform to current year presentation, which we discuss in Note 1.

See Notes to Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY
STATEMENTS OF CASH FLOWS

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	\$ 397	\$ 350	\$ 420
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	515	476	461
Deferred income taxes and investment tax credits	137	103	127
Impairment losses	—	22	9
Other	11	(26)	(20)
Insurance receivable for Aliso Canyon costs	188	(281)	(325)
Changes in other assets	(80)	35	(91)
Changes in other liabilities	(13)	7	(7)
Changes in working capital components:			
Accounts receivable	72	37	(90)
Inventories	(66)	4	102
Other current assets	—	(13)	8
Accounts payable	39	36	(143)
Income taxes	(5)	(2)	8
Due to/from affiliates, net	7	6	(11)
Regulatory balancing accounts	53	163	112
Reserve for Aliso Canyon costs	31	(221)	274
Other current liabilities	20	(25)	46
Net cash provided by operating activities	<u>1,306</u>	<u>671</u>	<u>880</u>
CASH FLOWS FROM INVESTING ACTIVITIES			
Expenditures for property, plant and equipment	(1,367)	(1,319)	(1,352)
Decrease (increase) in loans to affiliate, net	—	50	(50)
Other	4	—	—
Net cash used in investing activities	<u>(1,363)</u>	<u>(1,269)</u>	<u>(1,402)</u>
CASH FLOWS FROM FINANCING ACTIVITIES			
Common dividends paid	—	—	(50)
Preferred dividends paid	(1)	(1)	(1)
Issuances of long-term debt	—	499	599
Payments on long-term debt	—	(3)	—
Increase (decrease) in short-term debt, net	54	62	(50)
Debt issuance costs	—	(5)	(3)
Net cash provided by financing activities	<u>53</u>	<u>552</u>	<u>495</u>
Decrease in cash and cash equivalents	(4)	(46)	(27)
Cash and cash equivalents, January 1	12	58	85
Cash and cash equivalents, December 31	<u>\$ 8</u>	<u>\$ 12</u>	<u>\$ 58</u>
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Interest payments, net of amounts capitalized	\$ 97	\$ 92	\$ 79
Income tax payments, net	28	41	1
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING ACTIVITY			
Accrued capital expenditures	\$ 208	\$ 207	\$ 189

See Notes to Financial Statements.

SOUTHERN CALIFORNIA GAS COMPANY
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(Dollars in millions)

Years ended December 31, 2017, 2016 and 2015

	Preferred stock	Common stock	Retained earnings	Accumulated other comprehensive income (loss)	Total shareholders' equity
Balance at December 31, 2014	\$ 22	\$ 866	\$ 1,911	\$ (18)	\$ 2,781
Net income			420		420
Other comprehensive loss				(1)	(1)
Preferred stock dividends declared			(1)		(1)
Common stock dividends declared			(50)		(50)
Balance at December 31, 2015	22	866	2,280	(19)	3,149
Cumulative-effect adjustment from change in accounting principle			15		15
Net income			350		350
Other comprehensive loss				(3)	(3)
Preferred stock dividends declared			(1)		(1)
Balance at December 31, 2016	22	866	2,644	(22)	3,510
Net income			397		397
Other comprehensive income				1	1
Preferred stock dividends declared			(1)		(1)
Balance at December 31, 2017	\$ 22	\$ 866	\$ 3,040	\$ (21)	\$ 3,907

See Notes to Financial Statements.

SEMPRA ENERGY AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. SIGNIFICANT ACCOUNTING POLICIES AND OTHER FINANCIAL DATA

PRINCIPLES OF CONSOLIDATION

Sempra Energy

Sempra Energy's Consolidated Financial Statements include the accounts of Sempra Energy, a California-based Fortune 500 energy-services holding company, and its consolidated subsidiaries and VIEs. Sempra Energy's principal operating units are

- Sempra Utilities, which includes our SDG&E, SoCalGas and Sempra South American Utilities reportable segments; and
- Sempra Infrastructure, which includes our Sempra Mexico, Sempra Renewables and Sempra LNG & Midstream reportable segments.

We provide descriptions of each of our segments in Note 16.

We refer to SDG&E and SoCalGas collectively as the California Utilities, which do not include our South American utilities or the utilities in our Sempra Infrastructure operating unit. Sempra Global is the holding company for most of our subsidiaries that are not subject to California utility regulation. All references in these Notes to "Sempra Utilities," "Sempra Infrastructure" and their respective reportable segments are not intended to refer to any legal entity with the same or similar name.

Our Sempra Mexico segment includes the operating companies of our subsidiary, IEnova, as well as certain holding companies and risk management activity. IEnova is a separate legal entity comprised of Sempra Energy's operations in Mexico. IEnova is included within our Sempra Mexico reportable segment, but is not the same in its entirety as the reportable segment. IEnova's financial results are reported in Mexico under International Financial Reporting Standards, as required by the Mexican Stock Exchange, where its shares are traded under the symbol IENOVA.

Sempra Energy uses the equity method to account for investments in companies over which we have the ability to exercise significant influence, but not control. We discuss our investments in unconsolidated entities in Notes 3, 4 and 10.

SDG&E

SDG&E's Consolidated Financial Statements include its accounts and the accounts of a VIE of which SDG&E is the primary beneficiary, as we discuss below in "Variable Interest Entities." SDG&E's common stock is wholly owned by Enova, which is a wholly owned subsidiary of Sempra Energy.

SoCalGas

SoCalGas' common stock is wholly owned by PE, which is a wholly owned subsidiary of Sempra Energy.

BASIS OF PRESENTATION

This is a combined report of Sempra Energy, SDG&E and SoCalGas. We provide separate information for SDG&E and SoCalGas as required. References in this report to "we," "our" and "Sempra Energy Consolidated" are to Sempra Energy and its consolidated entities, unless otherwise indicated by the context. We have eliminated intercompany accounts and transactions within the consolidated financial statements of each reporting entity.

Throughout this report, we refer to the following as Consolidated Financial Statements and Notes to Consolidated Financial Statements when discussed together or collectively:

- the Consolidated Financial Statements and related Notes of Sempra Energy and its subsidiaries and VIEs;
- the Consolidated Financial Statements and related Notes of SDG&E and its VIE; and
- the Financial Statements and related Notes of SoCalGas.

Balance Sheet Reclassifications

We have made certain balance sheet reclassifications at December 31, 2016 to conform to the current year presentation. Line item captions for various types of regulatory assets and liabilities have been combined or separated into four new line items: current

and noncurrent regulatory assets and current and noncurrent regulatory liabilities. The details of regulatory assets and liabilities are provided in Note 14. Additionally, greenhouse gas allowances have been separated from other current assets and sundry assets and greenhouse gas obligations have been separated from other current liabilities and deferred credits and other into four new line items: current and noncurrent greenhouse gas allowances and current and noncurrent greenhouse gas obligations. These reclassifications and related disclosures had no effect on our financial position as of December 31, 2016 and are intended to provide additional clarity into the financial position of Sempra Energy, SDG&E and SoCalGas. The following tables summarize the balance sheet line items affected by these reclassifications:

SEMPRA ENERGY CONSOLIDATED – BALANCE SHEET RECLASSIFICATIONS AT DECEMBER 31, 2016

(Dollars in millions)

	As previously presented	As currently presented
Current assets:		
Regulatory assets	\$ —	\$ 348
Greenhouse gas allowances	—	40
Regulatory balancing accounts – undercollected	259	—
Other	271	142
Other assets:		
Greenhouse gas allowances	—	295
Sundry	815	520
Current liabilities:		
Regulatory liabilities	—	122
Greenhouse gas obligations	—	40
Regulatory balancing accounts – overcollected	122	—
Other	557	517
Deferred credits and other liabilities:		
Regulatory liabilities	—	2,876
Greenhouse gas obligations	—	171
Regulatory liabilities arising from removal obligations	2,697	—
Deferred credits and other	1,523	1,173

SDG&E – BALANCE SHEET RECLASSIFICATIONS AT DECEMBER 31, 2016

(Dollars in millions)

	As previously presented	As currently presented
Current assets:		
Regulatory assets	\$ 81	\$ 340
Greenhouse gas allowances	—	16
Regulatory balancing accounts – net undercollected	259	—
Other	19	3
Other assets:		
Regulatory assets	—	2,012
Greenhouse gas allowances	—	182
Deferred taxes recoverable in rates	1,014	—
Other regulatory assets	998	—
Sundry	358	176
Current liabilities:		
Greenhouse gas obligations	—	16
Other	82	66
Deferred credits and other liabilities:		
Regulatory liabilities	—	1,725
Greenhouse gas obligations	—	72
Regulatory liabilities arising from removal obligations	1,725	—
Deferred credits and other	421	349

SOCALGAS – BALANCE SHEET RECLASSIFICATIONS AT DECEMBER 31, 2016*(Dollars in millions)*

	As previously presented	As currently presented
Current assets:		
Greenhouse gas allowances	\$ —	\$ 24
Other	63	39
Other assets:		
Regulatory assets	—	1,331
Greenhouse gas allowances	—	109
Regulatory assets arising from pension obligations	742	—
Other regulatory assets	589	—
Sundry	399	290
Current liabilities:		
Regulatory liabilities	—	122
Greenhouse gas obligations	—	24
Regulatory balancing accounts – net overcollected	122	—
Other	195	171
Deferred credits and other liabilities:		
Regulatory liabilities	—	1,151
Greenhouse gas obligations	—	96
Regulatory liabilities arising from removal obligations	972	—
Deferred credits and other	521	246

Use of Estimates in the Preparation of the Financial Statements

We have prepared our Consolidated Financial Statements in conformity with U.S. GAAP. This requires us to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes, including the disclosure of contingent assets and liabilities at the date of the financial statements. Although we believe the estimates and assumptions are reasonable, actual amounts ultimately may differ significantly from those estimates.

Subsequent Events

We evaluated events and transactions that occurred after December 31, 2017 through the date the financial statements were issued, and in the opinion of management, the accompanying statements reflect all adjustments and disclosures necessary for a fair presentation. See Note 18 for a discussion of certain financing transactions that were completed in January 2018.

EFFECTS OF REGULATION

The California Utilities' accounting policies and financial statements reflect the application of U.S. GAAP provisions governing rate-regulated operations and the policies of the CPUC and the FERC. Under these provisions, a regulated utility records regulatory assets, which are generally costs that would otherwise be charged to expense, if it is probable that, through the ratemaking process, the utility will recover those assets from customers. To the extent that recovery is no longer probable, the related regulatory assets are written off. Regulatory liabilities generally represent amounts collected from customers in advance of the actual expenditure by the utility. If the actual expenditures are less than amounts previously collected from ratepayers, the excess would be refunded to customers, generally by reducing future rates. Regulatory liabilities may also arise from other transactions such as unrealized gains on fixed price contracts and other derivatives or certain deferred income tax benefits that are passed through to customers in future rates. In addition, the California Utilities record regulatory liabilities when the CPUC or the FERC requires a refund to be made to customers or has required that a gain or other transaction of net allowable costs be given to customers over future periods.

Determining probability of recovery of regulatory assets requires significant judgment by management and may include, but is not limited to, consideration of:

- the nature of the event giving rise to the assessment;
- existing statutes and regulatory code;
- legal precedents;
- regulatory principles and analogous regulatory actions;
- testimony presented in regulatory hearings;
- regulatory orders;
- a commission-authorized mechanism established for the accumulation of costs;
- status of applications for rehearings or state court appeals;
- specific approval from a commission; and
- historical experience.

Sempra Mexico's natural gas distribution utility, Ecogas, also applies U.S. GAAP for rate-regulated utilities to its operations, including the same evaluation of probability of recovery of regulatory assets described above.

We provide information concerning regulatory assets and liabilities in Notes 13 and 14.

Sempra South American Utilities has controlling interests in two electric distribution utilities in South America, Chilquinta Energía in Chile and Luz del Sur in Peru, and their subsidiaries. Revenues are based on tariffs that are set by government agencies in their respective countries based on an efficient model distribution company defined by those agencies. Because the tariffs are based on a model and are intended to cover the costs of the model company, but are not based on the costs of the specific utility and may not result in full cost recovery, these utilities do not meet the requirements necessary for, and therefore do not apply, regulatory accounting treatment under U.S. GAAP.

Certain business activities at IEnova are regulated by the CRE and meet the regulatory accounting requirements of U.S. GAAP. Pipeline projects currently under construction by IEnova that meet the regulatory accounting requirements of U.S. GAAP record the impact of AFUDC related to equity. We discuss AFUDC below in "Property, Plant and Equipment."

Sempra LNG & Midstream owned Mobile Gas in southwest Alabama and Willmut Gas in Mississippi until they were sold in September 2016, as we discuss in Note 3. Mobile Gas and Willmut Gas also prepared their financial statements in accordance with the provisions of U.S. GAAP governing rate-regulated operations.

We discuss revenue recognition at our utilities in "Revenues" below.

FAIR VALUE MEASUREMENTS

We measure certain assets and liabilities at fair value on a recurring basis, primarily nuclear decommissioning and benefit plan trust assets and derivatives. We also measure certain assets at fair value on a non-recurring basis in certain circumstances. These assets can include goodwill, intangible assets, equity method investments and other long-lived assets.

"Fair value" is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (exit price).

A fair value measurement reflects the assumptions market participants would use in pricing an asset or liability based on the best available information. These assumptions include the risk inherent in a particular valuation technique (such as a pricing model) and the risks inherent in the inputs to the model. Also, we consider an issuer's credit standing when measuring its liabilities at fair value.

We establish a fair value hierarchy that prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurement). The three levels of the fair value hierarchy are as follows:

Level 1 – Pricing inputs are quoted prices available in active markets for identical assets or liabilities as of the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis. Our Level 1 financial instruments primarily consist of listed equities, U.S. government treasury securities, primarily in the NDT and benefit plan trusts, and exchange-traded derivatives.

Level 2 – Pricing inputs are other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the reporting date. Level 2 includes those financial instruments that are valued using models or other valuation methodologies. These models are primarily industry-standard models that consider various assumptions, including:

- quoted forward prices for commodities
- time value
- current market and contractual prices for the underlying instruments
- volatility factors
- other relevant economic measures

Substantially all of these assumptions are observable in the marketplace throughout the full term of the instrument, can be derived from observable data or are supported by observable levels at which transactions are executed in the marketplace. Our financial instruments in this category include listed equities, domestic corporate bonds, municipal bonds and other foreign bonds, primarily in the NDT and benefit plan trusts, and non-exchange-traded derivatives such as interest rate instruments and over-the-counter forwards and options.

Level 3 – Pricing inputs include significant inputs that are generally less observable from objective sources. These inputs may be used with internally developed methodologies that result in management’s best estimate of fair value from the perspective of a market participant. Our Level 3 financial instruments consist of CRRs and fixed-price electricity positions at SDG&E.

CASH AND CASH EQUIVALENTS

Cash equivalents are highly liquid investments with original maturities of three months or less at the date of purchase.

RESTRICTED CASH

Restricted cash at Sempra Energy was \$76 million at both December 31, 2017 and 2016, and includes:

- for SDG&E, \$17 million and \$12 million at December 31, 2017 and 2016, respectively, representing funds held by a trustee for Otay Mesa VIE to pay certain operating costs.
- for Sempra Mexico, \$56 million and \$61 million at December 31, 2017 and 2016, respectively, primarily denominated in Mexican pesos, representing funds to pay for rights-of-way, license fees, permits, topographic surveys and other costs pursuant to trust and debt agreements related to pipeline projects.
- for Sempra Renewables, \$3 million at both December 31, 2017 and 2016, primarily representing funds held in accordance with debt agreements at our wholly owned solar project.
- for Sempra South American Utilities, negligible amounts at both December 31, 2017 and 2016.

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported on the Consolidated Balance Sheets to the sum of such amounts reported on the Consolidated Statements of Cash Flows.

	At December 31,	
	2017	2016
RECONCILIATION OF CASH, CASH EQUIVALENTS AND RESTRICTED CASH		
<i>(Dollars in millions)</i>		
Sempra Energy Consolidated:		
Cash and cash equivalents	\$ 288	\$ 349
Restricted cash, current	62	66
Restricted cash, noncurrent	14	10
Total cash, cash equivalents and restricted cash on the Consolidated Statements of Cash Flows	\$ 364	\$ 425
SDG&E:		
Cash and cash equivalents	\$ 12	\$ 8
Restricted cash, current	6	11
Restricted cash, noncurrent	11	1
Total cash, cash equivalents and restricted cash on the Consolidated Statements of Cash Flows	\$ 29	\$ 20

COLLECTION ALLOWANCES

We record allowances for the collection of trade and other accounts and notes receivable, which include allowances for doubtful customer accounts and for other receivables. We show the changes in these allowances in the table below:

COLLECTION ALLOWANCES (Dollars in millions)	Years ended December 31,		
	2017	2016	2015
Sempra Energy Consolidated:			
Allowances for collection of receivables at January 1	\$ 35	\$ 32	\$ 34
Provisions for uncollectible accounts	16	23	20
Write-offs of uncollectible accounts	(18)	(20)	(22)
Allowances for collection of receivables at December 31	\$ 33	\$ 35	\$ 32
SDG&E:			
Allowances for collection of receivables at January 1	\$ 8	\$ 9	\$ 7
Provisions for uncollectible accounts	8	6	7
Write-offs of uncollectible accounts	(7)	(7)	(5)
Allowances for collection of receivables at December 31	\$ 9	\$ 8	\$ 9
SoCalGas:			
Allowances for collection of receivables at January 1	\$ 21	\$ 17	\$ 17
Provisions for uncollectible accounts	4	14	11
Write-offs of uncollectible accounts	(9)	(10)	(11)
Allowances for collection of receivables at December 31	\$ 16	\$ 21	\$ 17

We evaluate accounts receivable collectability using a combination of factors, including past due status based on contractual terms, trends in write-offs, the age of the receivable, counterparty creditworthiness, economic conditions and specific events, such as bankruptcies. Adjustments to collection allowances are made when necessary based on the results of analysis, the aging of receivables, and historical and industry trends.

We write off accounts receivable in the period in which we deem the receivable to be uncollectible. We record recoveries of accounts receivable previously written off when it is known that they will be received.

INVENTORIES

The California Utilities value natural gas inventory using the LIFO method. As inventories are sold, differences between the LIFO valuation and the estimated replacement cost are reflected in customer rates. These differences are generally temporary, but may become permanent if the natural gas inventory withdrawn from storage during the year is not replaced by year end. At December 31, 2016, SoCalGas recognized a permanent LIFO liquidation of \$33 million. The California Utilities generally value materials and supplies at the lower of average cost or net realizable value.

Sempra South American Utilities, Sempra Mexico, Sempra Renewables and Sempra LNG & Midstream value natural gas inventory and materials and supplies at the lower of average cost or net realizable value. Sempra Mexico and Sempra LNG & Midstream value LNG inventory using the first-in first-out method.

The components of inventories by segment are as follows:

INVENTORY BALANCES AT DECEMBER 31									
<i>(Dollars in millions)</i>									
	Natural gas		LNG		Materials and supplies		Total		
	2017	2016	2017	2016	2017	2016	2017	2016	
SDG&E	\$ 4	\$ 2	\$ —	\$ —	\$ 101	\$ 78	\$ 105	\$ 80	
SoCalGas ⁽¹⁾	75	11	—	—	49	47	124	58	
Sempra South American Utilities	—	—	—	—	30	27	30	27	
Sempra Mexico	—	—	7	6	2	1	9	7	
Sempra Renewables	—	—	—	—	5	4	5	4	
Sempra LNG & Midstream	30	79	4	3	—	—	34	82	
Sempra Energy Consolidated	\$ 109	\$ 92	\$ 11	\$ 9	\$ 187	\$ 157	\$ 307	\$ 258	

⁽¹⁾ At December 31, 2016, SoCalGas' natural gas inventory for core customers is net of an inventory loss related to the Aliso Canyon natural gas storage facility leak, which we discuss in Note 15.

INCOME TAXES

Income tax expense includes current and deferred income taxes. We record deferred income taxes for temporary differences between the book and the tax basis of assets and liabilities. ITCs from prior years are amortized to income by the California Utilities over the estimated service lives of the properties as required by the CPUC. At our other businesses, we reduce the book basis of the related asset by the amount of ITCs earned. At Sempra Renewables, PTCs are recognized in income tax expense as earned.

Under the regulatory accounting treatment required for flow-through temporary differences, as discussed in Note 6, the California Utilities and Sempra Mexico recognize

- regulatory assets to offset deferred tax liabilities if it is probable that the amounts will be recovered from customers; and
- regulatory liabilities to offset deferred tax assets if it is probable that the amounts will be returned to customers.

When there are uncertainties related to potential income tax benefits, in order to qualify for recognition, the position we take has to have at least a more likely than not chance of being sustained (based on the position's technical merits) upon challenge by the respective authorities. The term "more likely than not" means a likelihood of more than 50 percent. Otherwise, we may not recognize any of the potential tax benefit associated with the position. We recognize a benefit for a tax position that meets the more likely than not criterion at the largest amount of tax benefit that is greater than 50 percent likely of being realized upon its effective resolution.

Unrecognized tax benefits involve management's judgment regarding the likelihood of the benefit being sustained. The final resolution of uncertain tax positions could result in adjustments to recorded amounts and may affect our ETR.

On December 22, 2017, the TCJA was signed into law. As a result, all cumulative undistributed earnings from non-U.S. subsidiaries were deemed repatriated and subjected to a one-time U.S. federal deemed repatriation tax. To the extent we intend to repatriate cash into the U.S., incremental U.S. state and non-U.S. withholding taxes are accrued. We currently do not record deferred income taxes for other basis differences between financial statement and income tax investment amounts in non-U.S. subsidiaries to the extent the related cumulative undistributed earnings are indefinitely reinvested.

We provide additional information about income taxes in Note 6.

GREENHOUSE GAS ALLOWANCES AND OBLIGATIONS

The California Utilities, Sempra Mexico and Sempra LNG & Midstream are required by California AB 32 to acquire GHG allowances for every metric ton of carbon dioxide equivalent emitted into the atmosphere during electric generation and natural gas transportation. At the California Utilities, many GHG allowances are allocated to us on behalf of our customers at no cost. We record purchased and allocated GHG allowances at the lower of weighted-average cost or market. We measure the compliance obligation, which is based on emissions, at the carrying value of allowances held plus the fair value of additional allowances necessary to satisfy the obligation. The California Utilities balance costs and revenues associated with the GHG program through regulatory balancing accounts. Sempra Mexico and Sempra LNG & Midstream record the cost of GHG obligations in cost of sales. We remove the assets and liabilities from the balance sheets as the allowances are surrendered.

RENEWABLE ENERGY CERTIFICATES

RECs are energy rights established by governmental agencies for the environmental and social promotion of renewable electricity generation. A REC, and its associated attributes and benefits, can be sold separately from the underlying physical electricity associated with a renewable-based generation source in certain markets.

Retail sellers of electricity obtain RECs through renewable energy PPAs, internal generation or separate purchases in the market to comply with the RPS established by the governmental agencies. RECs provide documentation for the generation of a unit of renewable energy that is used to verify compliance with the RPS. The cost of RECs at SDG&E is recorded in Cost of Electric Fuel and Purchased Power, which is recoverable in rates, on the Consolidated Statements of Operations.

PROPERTY, PLANT AND EQUIPMENT

PP&E primarily represents the buildings, equipment and other facilities used by the Sempra Utilities to provide natural gas and electric utility services, and by the Sempra Infrastructure businesses in their operations, including construction work in progress at these operating units. PP&E also includes lease improvements and other equipment at Parent and Other, as well as property acquired under a build-to-suit lease, which we discuss further in Note 15.

Our plant costs include

- labor
- materials and contract services
- expenditures for replacement parts incurred during a major maintenance outage of a generating plant

In addition, the cost of utility plant at our rate-regulated businesses and PP&E under regulated projects that meet the regulatory accounting requirements of U.S. GAAP at Sempra Mexico and Sempra LNG & Midstream includes AFUDC. We discuss AFUDC below. The cost of other PP&E includes capitalized interest.

Maintenance costs are expensed as incurred. The cost of most retired depreciable utility plant assets less salvage value is charged to accumulated depreciation.

We discuss assets collateralized as security for certain indebtedness in Note 5.

PROPERTY, PLANT AND EQUIPMENT BY MAJOR FUNCTIONAL CATEGORY
(Dollars in millions)

	PP&E at December 31,		Depreciation rates for years ended December 31,		
	2017	2016	2017	2016	2015
SDG&E:					
Natural gas operations	\$ 2,186	\$ 1,897	2.40%	2.40%	2.52%
Electric distribution	6,975	6,497	3.92	3.86	3.79
Electric transmission ⁽¹⁾	5,626	5,152	2.71	2.66	2.62
Electric generation ⁽²⁾	2,435	1,932	4.05	4.00	3.89
Other electric ⁽³⁾	1,114	1,059	5.54	5.66	5.73
Construction work in progress ⁽¹⁾	1,451	1,307	NA	NA	NA
Total SDG&E	19,787	17,844			
SoCalGas:					
Natural gas operations ⁽⁴⁾	15,759	14,428	3.63	3.64	3.83
Other non-utility	32	34	5.28	6.55	3.95
Construction work in progress	981	882	NA	NA	NA
Total SoCalGas	16,772	15,344			
Other operating units and parent⁽⁵⁾:					
Land and land rights	416	381	22 to 55 years ⁽⁶⁾		33
Machinery and equipment:					
Utility electric distribution operations	1,751	1,519	12 to 60 years		52
Generating plants	2,242	1,874	2 to 100 years		31
LNG terminals	1,133	1,129	43 years		43
Pipelines and storage	4,408	3,242	3 to 55 years		43
Other	269	235	1 to 50 years		13
Construction work in progress	691	1,488	NA		NA
Other ⁽⁷⁾	639	568	1 to 80 years		33
	11,549	10,436			
Total Sempra Energy Consolidated	\$ 48,108	\$ 43,624			

⁽¹⁾ At December 31, 2017, includes \$440 million in electric transmission assets and \$29 million in construction work in progress related to SDG&E's 92-percent interest in the Southwest Powerlink transmission line, jointly owned by SDG&E with other utilities. SDG&E, and each of the other owners, holds its undivided interest as a tenant in common in the property. Each owner is responsible for its share of the project and participates in decisions concerning operations and capital expenditures. SDG&E's share of operating expenses is included in Sempra Energy's and SDG&E's Consolidated Statements of Operations.

⁽²⁾ Includes capital lease assets of \$757 million and \$258 million at December 31, 2017 and 2016, respectively.

⁽³⁾ Includes capital lease assets of \$22 million and \$21 million at December 31, 2017 and 2016, respectively.

⁽⁴⁾ Includes capital lease assets of \$34 million and \$32 million at December 31, 2017 and 2016, respectively.

⁽⁵⁾ Includes \$145 million and \$128 million at December 31, 2017 and 2016, respectively, of utility plant, primarily pipelines and other distribution assets, at Ecogas.

⁽⁶⁾ Estimated useful lives are for land rights.

⁽⁷⁾ Includes capital lease assets of \$136 million at both December 31, 2017 and 2016, related to a build-to-suit lease.

Depreciation expense is computed using the straight-line method over the asset's estimated original composite useful life, the CPUC-prescribed period for the California Utilities, or the remaining term of the site leases, whichever is shortest.

Depreciation expense on our Consolidated Statements of Operations is as follows:

DEPRECIATION EXPENSE
(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Sempra Energy Consolidated	\$ 1,422	\$ 1,236	\$ 1,178
SDG&E	621	583	544
SoCalGas	514	474	459

Accumulated depreciation on our Consolidated Balance Sheets is as follows:

ACCUMULATED DEPRECIATION			
<i>(Dollars in millions)</i>			
	December 31,		
	2017	2016	
SDG&E:			
Accumulated depreciation:			
Electric ⁽¹⁾	\$ 4,193	\$	3,873
Natural gas	756		721
Total SDG&E	<u>4,949</u>		<u>4,594</u>
SoCalGas:			
Accumulated depreciation of natural gas utility plant in service ⁽²⁾	5,352		5,079
Accumulated depreciation – other non-utility	14		13
Total SoCalGas	<u>5,366</u>		<u>5,092</u>
Other operating units and parent and other:			
Accumulated depreciation – other ⁽³⁾	972		755
Accumulated depreciation of utility electric distribution operations	318		252
	<u>1,290</u>		<u>1,007</u>
Total Sempra Energy Consolidated	\$ 11,605	\$	10,693

⁽¹⁾ Includes accumulated depreciation for capital lease assets of \$47 million and \$39 million at December 31, 2017 and 2016, respectively. Includes \$241 million at December 31, 2017 related to SDG&E's 92-percent interest in the Southwest Powerlink transmission line, jointly owned by SDG&E and other utilities.

⁽²⁾ Includes accumulated depreciation for capital lease assets of \$33 million and \$31 million at December 31, 2017 and 2016, respectively.

⁽³⁾ Includes \$39 million and \$33 million at December 31, 2017 and 2016, respectively, of accumulated depreciation for utility plant at Ecogas.

The California Utilities finance their construction projects with debt and equity funds. The CPUC and the FERC allow the recovery of the cost of these funds by the capitalization of AFUDC, calculated using rates authorized by the CPUC and the FERC, as a cost component of PP&E. The California Utilities earn a return on the capitalized AFUDC after the utility property is placed in service and recover the AFUDC from their customers over the expected useful lives of the assets.

Pipeline projects currently under construction by Sempra Mexico and Sempra LNG & Midstream that are both subject to certain regulation and meet U.S. GAAP regulatory accounting requirements record the impact of AFUDC.

We capitalize interest costs incurred to finance capital projects. We also capitalize interest on equity method investments that have not commenced planned principal operations.

Interest capitalized and AFUDC are as follows:

CAPITALIZED FINANCING COSTS			
<i>(Dollars in millions)</i>			
	Years ended December 31,		
	2017	2016	2015
Sempra Energy Consolidated	\$ 256	\$ 236	\$ 201
SDG&E	85	62	51
SoCalGas	60	55	49

GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill

Goodwill is the excess of the purchase price over the fair value of the identifiable net assets of acquired companies measured at the time of acquisition. Goodwill is not amortized, but we test it for impairment annually on October 1 or whenever events or changes in circumstances necessitate an evaluation. If the carrying value of the reporting unit, including goodwill, exceeds its fair value, and the book value of goodwill is greater than its fair value on the test date, we record a goodwill impairment loss.

For our annual goodwill impairment testing, under current U.S. GAAP guidance we have the option to first make a qualitative assessment of whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount before applying the two-step, quantitative goodwill impairment test. If we elect to perform the qualitative assessment, we evaluate relevant events and circumstances, including but not limited to, macroeconomic conditions, industry and market considerations, cost factors, changes in key personnel and the overall financial performance of the reporting unit. If, after assessing these qualitative factors, we determine that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then we perform the two-step goodwill impairment test. When we perform the two-step, quantitative goodwill impairment test, we exercise judgment to develop estimates of the fair value of the reporting unit and the corresponding goodwill. Our fair value estimates are developed from the perspective of a knowledgeable market participant. We consider observable transactions in the marketplace for similar investments, if available, as well as an income-based approach such as discounted cash flow analysis. A discounted cash flow analysis may be based directly on anticipated future revenues and expenses and may be performed based on free cash flows generated within the reporting unit. Critical assumptions that affect our estimates of fair value may include

- consideration of market transactions
- future cash flows
- the appropriate risk-adjusted discount rate
- country risk
- entity risk

Changes in the carrying amount of goodwill on the Sempra Energy Consolidated Balance Sheets are as follows:

GOODWILL				
<i>(Dollars in millions)</i>				
	Sempra South American Utilities	Sempra Mexico	Sempra LNG & Midstream	Total
Balance at December 31, 2015	\$ 722	\$ 25	\$ 72	\$ 819
Acquisition of businesses	—	1,590	—	1,590
Sale of business	—	—	(72)	(72)
Foreign currency translation ⁽¹⁾	27	—	—	27
Balance at December 31, 2016	749	1,615	—	2,364
Acquisition of business – measurement period adjustment	—	(13)	—	(13)
Foreign currency translation ⁽¹⁾	46	—	—	46
Balance at December 31, 2017	\$ 795	\$ 1,602	\$ —	\$ 2,397

⁽¹⁾ We record the offset of this fluctuation to Other Comprehensive Income (Loss).

In 2016, Sempra Mexico recorded goodwill of \$1,590 million in connection with the acquisitions of IEnova Pipelines and Ventika. In 2017, Sempra Mexico recorded a reduction to goodwill of \$13 million for a measurement period adjustment in connection with the acquisition of Ventika. Also in 2016, Sempra LNG & Midstream reduced goodwill by \$72 million in connection with the sale of EnergySouth. We discuss these acquisitions and the divestiture in Note 3.

Other Intangible Assets

Other Intangible Assets included on the Sempra Energy Consolidated Balance Sheets are as follows:

OTHER INTANGIBLE ASSETS (Dollars in millions)	Amortization period (years)	December 31,	
		2017	2016
Development rights	50	\$ 322	\$ 322
Renewable energy transmission and consumption permit	19	154	154
Storage rights	46	138	138
O&M agreement	23	66	—
Other	10 years to indefinite	18	18
		<u>698</u>	<u>632</u>
Less accumulated amortization:			
Development rights		(60)	(53)
Renewable energy transmission and consumption permit		(8)	—
Storage rights		(28)	(25)
Other		(6)	(6)
		<u>(102)</u>	<u>(84)</u>
		<u>\$ 596</u>	<u>\$ 548</u>

Other Intangible Assets primarily includes

- storage and development rights related to the Bay Gas and Mississippi Hub natural gas storage facilities.
- a renewable energy transmission and consumption permit previously granted by the CRE that was acquired in connection with the acquisition of the Ventika wind power generation facilities.
- a favorable O&M agreement acquired in connection with the acquisition of DEN, which we discuss in Note 3.

Amortization expense for intangible assets in 2017, 2016 and 2015 was \$18 million, \$11 million and \$10 million, respectively. We estimate the amortization expense for the next five years to be \$21 million per year.

LONG-LIVED ASSETS

We test long-lived assets for recoverability whenever events or changes in circumstances have occurred that may affect the recoverability or the estimated useful lives of long-lived assets. Long-lived assets include intangible assets subject to amortization, but do not include investments in unconsolidated subsidiaries. Events or changes in circumstances that indicate that the carrying amount of a long-lived asset may not be recoverable may include

- significant decreases in the market price of an asset
- a significant adverse change in the extent or manner in which we use an asset or in its physical condition
- a significant adverse change in legal or regulatory factors or in the business climate that could affect the value of an asset
- a current period operating or cash flow loss combined with a history of operating or cash flow losses or a projection of continuing losses associated with the use of a long-lived asset
- a current expectation that, more likely than not, a long-lived asset will be sold or otherwise disposed of significantly before the end of its previously estimated useful life

A long-lived asset may be impaired when the estimated future undiscounted cash flows are less than the carrying amount of the asset. If that comparison indicates that the asset's carrying value may not be recoverable, the impairment is measured based on the difference between the carrying amount and the fair value of the asset. This evaluation is performed at the lowest level for which separately identifiable cash flows exist.

VARIABLE INTEREST ENTITIES

We consolidate a VIE if we are the primary beneficiary of the VIE. Our determination of whether we are the primary beneficiary is based upon qualitative and quantitative analyses, which assess

- the purpose and design of the VIE;
- the nature of the VIE's risks and the risks we absorb;
- the power to direct activities that most significantly impact the economic performance of the VIE; and
- the obligation to absorb losses or the right to receive benefits that could be significant to the VIE.

SDG&E

SDG&E's power procurement is subject to reliability requirements that may require SDG&E to enter into various PPAs which include variable interests. SDG&E evaluates the respective entities to determine if variable interests exist and, based on the qualitative and quantitative analyses described above, if SDG&E, and thereby Sempra Energy, is the primary beneficiary.

Tolling Agreements

SDG&E has agreements under which it purchases power generated by facilities for which it supplies all of the natural gas to fuel the power plant (i.e., tolling agreements). SDG&E's obligation to absorb natural gas costs may be a significant variable interest. In addition, SDG&E has the power to direct the dispatch of electricity generated by these facilities. Based upon our analysis, the ability to direct the dispatch of electricity may have the most significant impact on the economic performance of the entity owning the generating facility because of the associated exposure to the cost of natural gas, which fuels the plants, and the value of electricity produced. To the extent that SDG&E (1) is obligated to purchase and provide fuel to operate the facility, (2) has the power to direct the dispatch, and (3) purchases all of the output from the facility for a substantial portion of the facility's useful life, SDG&E may be the primary beneficiary of the entity owning the generating facility. SDG&E determines if it is the primary beneficiary in these cases based on a qualitative approach in which we consider the operational characteristics of the facility, including its expected power generation output relative to its capacity to generate and the financial structure of the entity, among other factors. If we determine that SDG&E is the primary beneficiary, SDG&E and Sempra Energy consolidate the entity that owns the facility as a VIE.

Otay Mesa VIE

SDG&E has an agreement to purchase power generated at OMEC, a 605-MW generating facility. In addition to tolling, the agreement provides SDG&E with the option to purchase OMEC at the end of the contract term in April 2019, or upon earlier termination of the PPA, at a predetermined price subject to adjustments based on performance of the facility. If SDG&E does not exercise its option, under certain circumstances, it may be required to purchase the power plant for \$280 million, which we refer to as the put option.

The facility owner, OMEC LLC, is a VIE, which we refer to as Otay Mesa VIE, of which SDG&E is the primary beneficiary. SDG&E has no OMEC LLC voting rights, holds no equity in OMEC LLC and does not operate OMEC. In addition to the risks absorbed under the tolling agreement, SDG&E absorbs separately through the put option a significant portion of the risk that the value of Otay Mesa VIE could decline. Accordingly, SDG&E and Sempra Energy consolidate Otay Mesa VIE. Otay Mesa VIE's equity of \$28 million at December 31, 2017 and \$37 million at December 31, 2016 is included on the Consolidated Balance Sheets in Other Noncontrolling Interests for Sempra Energy and in Noncontrolling Interest for SDG&E.

OMEC LLC has a loan outstanding of \$295 million at December 31, 2017, the proceeds of which were used for the construction of OMEC. The loan is with third party lenders and is collateralized by OMEC's assets. SDG&E is not a party to the loan agreement and does not have any additional implicit or explicit financial responsibility to OMEC LLC. The loan fully matures in April 2019 and bears interest at rates varying with market rates. In addition, OMEC LLC has entered into interest rate swap agreements to moderate its exposure to interest rate changes. We provide additional information concerning the interest rate swaps in Note 9.

The Consolidated Financial Statements of Sempra Energy and SDG&E include the following amounts associated with Otay Mesa VIE. The amounts are net of eliminations of transactions between SDG&E and Otay Mesa VIE. The captions in the tables below correspond to SDG&E's Consolidated Balance Sheets and Consolidated Statements of Operations.

AMOUNTS ASSOCIATED WITH OTAY MESA VIE*(Dollars in millions)*

	December 31,	
	2017	2016
Cash and cash equivalents	\$ 4	\$ 6
Restricted cash	6	11
Inventories	4	3
Other	1	2
Total current assets	15	22
Restricted cash	11	1
Property, plant and equipment, net	321	354
Total assets	\$ 347	\$ 377
Current portion of long-term debt	\$ 10	\$ 10
Fixed-price contracts and other derivatives	10	13
Other	5	5
Total current liabilities	25	28
Long-term debt	284	293
Fixed-price contracts and other derivatives	3	12
Deferred credits and other	7	7
Noncontrolling interest	28	37
Total liabilities and equity	\$ 347	\$ 377

	Years ended December 31,		
	2017	2016	2015
Operating expenses			
Cost of electric fuel and purchased power	\$ (79)	\$ (79)	\$ (83)
Operation and maintenance	17	29	19
Depreciation and amortization	28	35	26
Total operating expenses	(34)	(15)	(38)
Operating income	34	15	38
Other income	2	—	—
Interest expense	(22)	(20)	(19)
Income (loss) before income taxes/Net Income (loss)	14	(5)	19
(Earnings) losses attributable to noncontrolling interest	(14)	5	(19)
Earnings attributable to common shares	\$ —	\$ —	\$ —

SDG&E has determined that no contracts, other than the one relating to Otay Mesa VIE mentioned above, result in SDG&E being the primary beneficiary of a VIE at December 31, 2017. In addition to the tolling agreements described above, other variable interests involve various elements of fuel and power costs, and other components of cash flows expected to be paid to or received by our counterparties. In most of these cases, the expectation of variability is not substantial, and SDG&E generally does not have the power to direct activities that most significantly impact the economic performance of the other VIEs. In addition, SDG&E is not exposed to losses or gains as a result of these other VIEs, because all such variability would be recovered in rates. If our ongoing evaluation of these VIEs were to conclude that SDG&E becomes the primary beneficiary and consolidation by SDG&E becomes necessary, the effects could be significant to the financial position and liquidity of SDG&E and Sempra Energy. We provide additional information about PPAs with power plant facilities that are VIEs of which SDG&E is not the primary beneficiary in Note 15.

Sempra Renewables

In the fourth quarters of 2017 and 2016, certain of Sempra Renewables' wind and solar power generation projects became held by limited liability companies whose members are Sempra Renewables and financial institutions. The financial institutions are noncontrolling tax equity investors to which earnings, tax attributes and cash flows are allocated in accordance with the respective limited liability company agreements. These entities are VIEs and Sempra Energy is the primary beneficiary, generally due to Sempra Energy's power as the operator of the renewable energy projects to direct the activities that most significantly impact the economic performance of these VIEs. As the primary beneficiary of these tax equity limited liability companies, we consolidate them.

The Consolidated Financial Statements of Sempra Energy include the following amounts associated with these entities.

AMOUNTS ASSOCIATED WITH TAX EQUITY ARRANGEMENTS

(Dollars in millions)

	December 31,	
	2017	2016
Cash and cash equivalents	\$ 23	\$ 88
Accounts receivable – trade, net	5	3
Inventories	1	—
Other	1	—
Total current assets	30	91
Sundry	2	—
Property, plant and equipment, net	1,412	926
Total assets	1,444	1,017
Accounts payable	42	68
Other	1	7
Total current liabilities	43	75
Asset retirement obligations	40	27
Deferred income taxes	10	—
Deferred credits and other	1	—
Total deferred credits and other liabilities	94	102
Other noncontrolling interests	631	468
Net assets less other noncontrolling interests	\$ 719	\$ 447
	Years ended December 31,	
	2017	2016
REVENUES		
Energy-related businesses	\$ 61	\$ 2
EXPENSES		
Operation and maintenance	(9)	(1)
Depreciation and amortization	(32)	—
Income before income taxes	20	1
Income tax expense	(4)	—
Net income	16	1
Losses attributable to noncontrolling interests ⁽¹⁾	23	4
Earnings	\$ 39	\$ 5

⁽¹⁾ Net income or loss attributable to the noncontrolling interests is computed using the HLBV method and is not based on ownership percentages.

Sempra LNG & Midstream

Sempra Energy's equity method investment in Cameron LNG JV is considered to be a VIE principally due to contractual provisions that transfer certain risks to customers. Sempra Energy is not the primary beneficiary because we do not have the power to direct the most significant activities of Cameron LNG JV. We will continue to evaluate Cameron LNG JV for any changes that may impact our determination of the primary beneficiary. The carrying value of our investment in Cameron LNG JV, including amounts recognized in AOCI related to interest-rate cash flow hedges at Cameron LNG JV, was \$997 million at both December 31, 2017 and 2016. Our maximum exposure to loss includes the carrying value of our investment and guarantees we have provided. We discuss our investment in the Cameron LNG JV, including related guarantees, in Note 4.

Other Variable Interest Entities

Sempra Energy's other businesses also enter into arrangements which could include variable interests. We evaluate these arrangements and applicable entities based upon the qualitative and quantitative analyses described above. Certain of these entities are service or project companies that are VIEs. As the primary beneficiary of these companies, we consolidate them; however, their financial statements are not material to the financial statements of Sempra Energy. In all other cases, we have determined that these contracts are not variable interests in a VIE and therefore are not subject to the U.S. GAAP requirements concerning the consolidation of VIEs.

ASSET RETIREMENT OBLIGATIONS

For tangible long-lived assets, we record asset retirement obligations for the present value of liabilities of future costs expected to be incurred when assets are retired from service, if the retirement process is legally required and if a reasonable estimate of fair value can be made. We also record a liability if a legal obligation to perform an asset retirement exists and can be reasonably estimated, but performance is conditional upon a future event. We record the estimated retirement cost over the life of the related asset by depreciating the asset retirement cost (measured as the present value of the obligation at the time the asset is placed into service), and accreting the obligation until the liability is settled. Our rate-regulated entities, including the California Utilities, record regulatory assets or liabilities as a result of the timing difference between the recognition of costs in accordance with U.S. GAAP and costs recovered through the rate-making process.

We have recorded asset retirement obligations related to various assets, including:

SDG&E and SoCalGas

- fuel and storage tanks
- natural gas transmission systems
- natural gas distribution systems
- hazardous waste storage facilities
- asbestos-containing construction materials

SDG&E

- decommissioning of nuclear power facilities
- electric distribution and transmission systems
- energy storage systems
- site restoration of a former power plant
- power generation plant (natural gas)

SoCalGas

- underground natural gas storage facilities and wells

Sempra South American Utilities

- electric distribution and transmission systems

Sempra Mexico

- power generation plant (natural gas) (classified as held for sale at December 31, 2017)
- natural gas distribution and transportation systems
- LNG terminal
- LPG terminal
- wind farm

Sempra Renewables

- certain power generation plants (solar and wind)

Sempra LNG & Midstream

- natural gas transportation systems
- underground natural gas storage facilities

The changes in asset retirement obligations are as follows:

CHANGES IN ASSET RETIREMENT OBLIGATIONS

(Dollars in millions)

	Sempra Energy Consolidated		SDG&E		SoCalGas	
	2017	2016	2017	2016	2017	2016
Balance as of January 1 ⁽¹⁾	\$ 2,553	\$ 2,255	\$ 830	\$ 828	\$ 1,659	\$ 1,383
Accretion expense	109	101	39	38	66	61
Liabilities incurred and acquired	34	35	17	—	—	—
Deconsolidation and reclassification ⁽²⁾	—	(16)	—	—	—	—
Payments	(63)	(47)	(61)	(46)	(2)	—
Revisions ⁽³⁾	244	225	14	10	230	215
Balance at December 31 ⁽¹⁾	\$ 2,877	\$ 2,553	\$ 839	\$ 830	\$ 1,953	\$ 1,659

⁽¹⁾ Current portions of the obligations for Sempra Energy Consolidated and SoCalGas are included in Other Current Liabilities on the Consolidated Balance Sheets.

⁽²⁾ Deconsolidated \$12 million due to the September 2016 sale of EnergySouth and reclassified \$4 million to Liabilities Held for Sale, as we discuss in Note 3.

⁽³⁾ In 2017, revised estimates were primarily related to underground natural gas storage facilities and wells at SoCalGas. In 2016, revised estimates were related to changes in the cost of removal rates primarily for natural gas assets based on updated cost studies approved in the 2016 GRC FD.

CONTINGENCIES

We accrue losses for the estimated impacts of various conditions, situations or circumstances involving uncertain outcomes. For loss contingencies, we accrue the loss if an event has occurred on or before the balance sheet date and:

- information available through the date we file our financial statements indicates it is probable that a loss has been incurred, given the likelihood of uncertain future events; and
- the amount of the loss can be reasonably estimated.

We do not accrue contingencies that might result in gains. We continuously assess contingencies for litigation claims, environmental remediation and other events.

LEGAL FEES

Legal fees that are associated with a past event for which a liability has been recorded are accrued when it is probable that fees also will be incurred and amounts are estimable.

COMPREHENSIVE INCOME

Comprehensive income includes all changes in the equity of a business enterprise (except those resulting from investments by owners and distributions to owners), including:

- foreign currency translation adjustments
- certain hedging activities
- changes in unamortized net actuarial gain or loss and prior service cost related to pension and other postretirement benefits plans
- unrealized gains or losses on available-for-sale securities

The Consolidated Statements of Comprehensive Income (Loss) show the changes in the components of OCI, including the amounts attributable to noncontrolling interests. The following tables present the changes in AOCI by component and amounts reclassified out of AOCI to net income, excluding amounts attributable to noncontrolling interests, for the years ended December 31:

CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) BY COMPONENT⁽¹⁾
(Dollars in millions)

	Foreign currency translation adjustments	Financial instruments	Pension and other postretirement benefits	Total accumulated other comprehensive income (loss)
Sempra Energy Consolidated:				
Balance as of December 31, 2014	\$ (322)	\$ (90)	\$ (85)	\$ (497)
OCI before reclassifications	(260)	(57)	(10)	(327)
Amounts reclassified from AOCI	—	10	8	18
Net OCI	(260)	(47)	(2)	(309)
Balance as of December 31, 2015	(582)	(137)	(87)	(806)
OCI before reclassifications	42	(7)	(15)	20
Amounts reclassified from AOCI ⁽²⁾	13	19	6	38
Net OCI	55	12	(9)	58
Balance as of December 31, 2016	(527)	(125)	(96)	(748)
OCI before reclassifications	107	(4)	—	103
Amounts reclassified from AOCI	—	7	12	19
Net OCI	107	3	12	122
Balance as of December 31, 2017	\$ (420)	\$ (122)	\$ (84)	\$ (626)
SDG&E:				
Balance as of December 31, 2014			\$ (12)	\$ (12)
OCI before reclassifications			3	3
Amounts reclassified from AOCI			1	1
Net OCI			4	4
Balance as of December 31, 2015			(8)	(8)
OCI before reclassifications			(1)	(1)
Amounts reclassified from AOCI			1	1
Net OCI			—	—
Balance as of December 31, 2016			(8)	(8)
OCI before reclassifications			(1)	(1)
Amounts reclassified from AOCI			1	1
Net OCI			—	—
Balance as of December 31, 2017			\$ (8)	\$ (8)
SoCalGas:				
Balance as of December 31, 2014		\$ (14)	\$ (4)	\$ (18)
OCI before reclassifications		—	(1)	(1)
Net OCI		—	(1)	(1)
Balance as of December 31, 2015		(14)	(5)	(19)
OCI before reclassifications		—	(4)	(4)
Amounts reclassified from AOCI		1	—	1
Net OCI		1	(4)	(3)
Balance as of December 31, 2016		(13)	(9)	(22)
Amounts reclassified from AOCI		—	1	1
Net OCI		—	1	1
Balance as of December 31, 2017		\$ (13)	\$ (8)	\$ (21)

⁽¹⁾ All amounts are net of income tax, if subject to tax, and exclude noncontrolling interests.

⁽²⁾ Total AOCI includes \$20 million associated with the October 2016 sale of noncontrolling interests, discussed below in "Sale of Noncontrolling Interests – Sempra Mexico – Follow-On Offerings," which does not impact the Consolidated Statement of Comprehensive Income.

RECLASSIFICATIONS OUT OF ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)
(Dollars in millions)

Details about accumulated other comprehensive income (loss) components	Amounts reclassified from accumulated other comprehensive income (loss)			Affected line item on Consolidated Statements of Operations
	Years ended December 31,			
	2017	2016	2015	
Sempra Energy Consolidated:				
Financial instruments:				
Interest rate and foreign exchange instruments ⁽¹⁾	\$ (4)	\$ 17	\$ 18	Interest Expense
Interest rate instruments	8	10	12	Equity Earnings, Before Income Tax
Interest rate and foreign exchange instruments	—	7	—	Remeasurement of Equity Method Investment
Interest rate and foreign exchange instruments	12	5	13	Equity Earnings, Net of Income Tax
Foreign exchange instruments	(2)	—	—	Revenues: Energy-Related Businesses
Commodity contracts not subject to rate recovery	9	(6)	(14)	Revenues: Energy-Related Businesses
Total before income tax	23	33	29	
	(6)	(6)	(4)	Income Tax Expense
Net of income tax	17	27	25	
	(10)	(15)	(15)	Earnings Attributable to Noncontrolling Interests
	<u>\$ 7</u>	<u>\$ 12</u>	<u>\$ 10</u>	
Pension and other postretirement benefits:				
Amortization of actuarial loss ⁽²⁾	\$ 18	\$ 10	\$ 14	
Amortization of prior service cost ⁽²⁾	1	1	—	
Total before income tax	19	11	14	
	(7)	(5)	(6)	Income Tax Expense
Net of income tax	<u>\$ 12</u>	<u>\$ 6</u>	<u>\$ 8</u>	
Total reclassifications for the period, net of tax	\$ 19	\$ 18	\$ 18	
SDG&E:				
Financial instruments:				
Interest rate instruments ⁽¹⁾	\$ 13	\$ 12	\$ 12	Interest Expense
	(13)	(12)	(12)	(Earnings) Losses Attributable to Noncontrolling Interest
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	
Pension and other postretirement benefits:				
Amortization of actuarial loss ⁽²⁾	\$ 1	\$ 1	\$ 1	
Total reclassifications for the period, net of tax	\$ 1	\$ 1	\$ 1	
SoCalGas:				
Financial instruments:				
Interest rate instruments	\$ —	\$ 1	\$ 1	Interest Expense
	—	—	(1)	Income Tax Expense
Net of income tax	<u>\$ —</u>	<u>\$ 1</u>	<u>\$ —</u>	
Pension and other postretirement benefits:				
Amortization of prior service cost ⁽²⁾	\$ 1	\$ —	\$ —	
Total reclassifications for the period, net of tax	\$ 1	\$ 1	\$ —	

⁽¹⁾ Amounts include Otay Mesa VIE. All of SDG&E's interest rate derivative activity relates to Otay Mesa VIE.

⁽²⁾ Amounts are included in the computation of net periodic benefit cost (see "Net Periodic Benefit Cost" in Note 7).

NONCONTROLLING INTERESTS

Ownership interests that are held by owners other than Sempra Energy and SDG&E in subsidiaries or entities consolidated by them are accounted for and reported as noncontrolling interests. Noncontrolling interests are reported as a separate component of equity on the Consolidated Balance Sheets. Earnings/losses attributable to the noncontrolling interests are separately identified on the Consolidated Statements of Operations, and net income/loss and comprehensive income/loss attributable to noncontrolling interests are separately identified on the Consolidated Statements of Comprehensive Income (Loss) and Consolidated Statements of Changes in Equity.

Sale of Noncontrolling Interests

Sempra Mexico – Follow-On Offerings

On October 13, 2016, IEnova priced a private follow-on offering of its common stock (which trades under the symbol IENOVA on the Mexican Stock Exchange) in the U.S. and outside of Mexico (the International Offering) and a concurrent public common stock offering in Mexico (the Mexican Offering) at 80.00 Mexican pesos per share. The initial purchasers in the International Offering and the underwriters in the Mexican Offering were granted a 30-day option to purchase additional common shares at the global offering price, less the underwriting discount, to cover overallocments. These options were exercised on October 17, 2016. Sempra Energy also participated in the Mexican Offering by purchasing 83,125,000 shares of common stock for approximately \$351 million. After the offerings, including the issuance of shares pursuant to the exercise of the overallocment options, the aggregate shares of common stock sold in the offerings totaled 380,000,000.

The net proceeds of the offerings were approximately \$1.57 billion in U.S. dollars or 29.86 billion Mexican pesos. IEnova used the net proceeds of the offerings to repay debt financing, including the \$1.15 billion bridge loan from Sempra Global that was used to finance the IEnova Pipelines acquisition, \$100 million in loans from its parent and \$250 million of borrowings under its revolving credit facility. Additionally, \$50 million of net proceeds was used to partially fund the Ventika acquisition. Remaining proceeds were used to fund capital expenditures and for general corporate purposes. We discuss these acquisitions in Note 3.

All U.S. dollar equivalents presented here are based on an exchange rate of 18.96 Mexican pesos to 1.00 U.S. dollar as of October 13, 2016, the pricing date for the offerings. Net proceeds are after reduction for underwriting discounts and commissions and offering expenses. Upon completion of the offerings on October 19, 2016 (including the issuance of shares pursuant to the exercise of the overallocment options), Sempra Energy's beneficial ownership of IEnova decreased from approximately 81.1 percent to 66.4 percent, which did not result in a change in control. When there are changes in noncontrolling interests of a subsidiary that do not result in a change of control, any difference between carrying value and fair value related to the change in ownership is recorded as an adjustment to shareholders' equity. As a result of the offerings, we recorded an increase in Sempra Energy's shareholders' equity of \$281 million, net of \$351 million for our participation in the Mexican Offering, and a \$948 million increase in Other Noncontrolling Interests for the sale of IEnova shares to third parties.

The International Offering was exempt from registration under the U.S. Securities Act of 1933, as amended (the Securities Act), and shares in the International Offering were offered and sold only to qualified institutional buyers pursuant to Rule 144A under the Securities Act and to persons outside of the U.S., in accordance with Regulation S under the Securities Act. The shares were not registered under the Securities Act or any state securities laws, and may not be offered or sold in the U.S. absent registration or an applicable exemption from the registration requirements of the Securities Act and applicable securities laws.

Sempra Renewables – Tax Equity Arrangements

In the fourth quarter of 2017, Sempra Renewables entered into membership interest purchase agreements with financial institutions to form two separate tax equity limited liability companies: one that includes a Sempra Renewables' portfolio of four solar power generation projects located in Fresno County, California and one for a wind power generation project located in Huron County, Michigan. For the solar power generation projects, Sempra Renewables received \$104 million, net of offering costs, in tax equity funding for three of the four phases in the fourth quarter of 2017. Additional funding for the fourth phase of the tax equity arrangement is subject to conditions precedent that we expect to occur in the first half of 2018. Under the purchase agreement for the wind power generation project, Sempra Renewables received cash proceeds of \$92 million, net of offering costs, and the formation of the tax equity arrangement occurred in December 2017.

In December 2016, Sempra Renewables closed a transaction with a financial institution to form a portfolio tax equity limited liability company that includes three Sempra Renewables solar power generation projects. Also in December 2016, Sempra Renewables closed another transaction with two financial institutions to form a tax equity limited liability company involving a Sempra Renewables wind power generation project. Sempra Renewables received cash proceeds of \$474 million, net of offering costs, for the sale of noncontrolling interests relating to these transactions.

Sempra Renewables consolidates these entities and after the funding dates, reports noncontrolling interests representing the financial institutions' respective membership interests in the tax equity arrangements.

The financial institutions are noncontrolling, tax equity investors that are allocated earnings, tax attributes and cash flows in accordance with the respective limited liability company agreements. Sempra Renewables has determined that these tax equity arrangements represent substantive profit-sharing arrangements. Sempra Renewables has further determined that the appropriate method for attributing income and loss to the noncontrolling interests each period is a balance sheet approach referred to as the HLBV method. Under the HLBV method, the amounts of income and loss attributable to the noncontrolling interests in Sempra Energy's Consolidated Statements of Operations reflect changes in the amounts the members would hypothetically receive at each balance sheet date under the liquidation provisions of the respective limited liability company agreements, assuming the net assets of these entities were liquidated at recorded amounts, after taking into account any capital transactions, such as contributions or distributions, between the entities and the members.

Preferred Stock

The preferred stock at SoCalGas is presented at Sempra Energy as a noncontrolling interest at December 31, 2017 and 2016. Sempra Energy records charges against income related to noncontrolling interests for preferred stock dividends declared by SoCalGas. We provide additional information regarding SoCalGas' preferred stock in Note 11.

Other Noncontrolling Interests

At December 31, 2017 and 2016, we reported the following noncontrolling ownership interests held by others (not including preferred shareholders) recorded in Other Noncontrolling Interests in Total Equity on Sempra Energy's Consolidated Balance Sheets:

OTHER NONCONTROLLING INTERESTS				
<i>(Dollars in millions)</i>				
	Percent ownership held by others		Equity held by noncontrolling interests	
	December 31,		December 31,	
	2017	2016	2017	2016
SDG&E:				
Otay Mesa VIE	100%	100%	\$ 28	\$ 37
Sempra South American Utilities:				
Chilquinta Energía subsidiaries ⁽¹⁾	22.9 - 43.4	23.1 - 43.4	24	22
Luz del Sur	16.4	16.4	189	173
Tecsur	9.8	9.8	4	4
Sempra Mexico:				
IEnova ⁽²⁾	33.6	33.6	1,532	1,524
Sempra Renewables:				
Tax equity arrangements – wind ⁽³⁾	NA	NA	181	92
Tax equity arrangements – solar ⁽³⁾	NA	NA	450	376
Sempra LNG & Midstream:				
Bay Gas	9.1	9.1	28	27
Liberty Gas Storage, LLC	23.3	23.3	14	14
Southern Gas Transmission Company ⁽⁴⁾	—	49.0	—	1
Total Sempra Energy			\$ 2,450	\$ 2,270

⁽¹⁾ Chilquinta Energía has four subsidiaries with noncontrolling interests held by others. Percentage range reflects the highest and lowest ownership percentages among these subsidiaries.

⁽²⁾ IEnova has a subsidiary with a 10-percent noncontrolling interest held by others. The equity held by noncontrolling interests is negligible at December 31, 2017 and 2016.

⁽³⁾ Net income or loss attributable to the noncontrolling interests is computed using the HLBV method and is not based on ownership percentages.

⁽⁴⁾ We sold our assets in Southern Gas Transmission Company in August 2017.

REVENUES

California Utilities

Our California Utilities generate revenues primarily from deliveries to their customers of electricity by SDG&E and natural gas by both SoCalGas and SDG&E and from related services. We record these revenues following the accrual method and recognize them upon delivery and performance. As described below, recorded revenues include those authorized by the CPUC to support our operations (“decoupled revenue”), as well as commodity costs that are passed through to core gas customers and electric customers:

- Decoupled revenue – The regulatory framework permits the California Utilities to recover authorized revenue based on estimated annual demand forecasts approved in regular proceedings before the CPUC. Any difference between actual demand and the annual demand approved in the proceedings is recovered or refunded in authorized revenue in a subsequent period. This design, commonly known as “decoupling,” is intended to minimize any impact on earnings due to variability in volumetric demand for electricity and natural gas.
- Commodity costs – The regulatory framework authorizes the California Utilities to recover the actual cost of natural gas procured and delivered to their core customers in rates substantially as incurred. Actual electricity procurement costs are recovered as power is delivered, or to the extent actual amounts vary from forecasts, generally recovered or refunded within a subsequent period. The California Utilities may also record revenue from CPUC-approved incentive awards, some of which require approval by the CPUC prior to being recognized. SDG&E bids and self-schedules its generation into the CAISO energy market on a day-ahead and real-time basis and self-schedules power to serve the demand of its customers. Generally, SDG&E is a net purchaser of power. The CAISO settles SDG&E costs and revenues on an hourly and real-time net basis.

Sempra South American Utilities

Our electric distribution utilities in South America, Chilquinta Energía and Luz del Sur, serve primarily regulated customers, and their revenues are based on tariffs that are set by the CNE in Chile and the OSINERGMIN in Peru.

The tariffs charged are based on an efficient model distribution company defined by Chilean law in the case of Chilquinta Energía, and OSINERGMIN in the case of Luz del Sur. The tariffs include O&M, an internal rate of return on the new replacement value of depreciable assets, charges for the use of transmission systems, and a component for the value added by the distributor. Tariffs are designed to provide for a pass-through to customers of transmission and energy charges, recovery of reasonable operating and administrative costs, incentives to reduce costs and make needed capital investments and a regulated rate of return on the distributor’s regulated asset base.

Sempra Infrastructure

Our natural gas utilities outside of California apply U.S. GAAP for revenue recognition consistent with the California Utilities, namely Ecogas, our natural gas utility in Mexico, and Mobile Gas and Willmut Gas, our natural gas utilities in Alabama and Mississippi, respectively, that were sold in September 2016.

The table below shows the total utilities revenues in Sempra Energy’s Consolidated Statements of Operations for each of the last three years. The revenues include amounts for services rendered but unbilled (approximately one-half month’s deliveries) at the end of each year.

TOTAL UTILITIES REVENUES AT SEMPR ENERGY CONSOLIDATED⁽¹⁾

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Electric revenues	\$ 5,415	\$ 5,211	\$ 5,158
Natural gas revenues	4,361	4,050	4,096
Total	\$ 9,776	\$ 9,261	\$ 9,254

⁽¹⁾ Excludes intercompany revenues.

We provide additional information about our utility revenue recognition in “Effects of Regulation” above.

Energy-Related Businesses

Sempra South American Utilities

Sempra South American Utilities generates revenues from energy-services companies that provide electric construction services and recognizes these revenues when services are provided in accordance with contractual agreements. The energy-services company in Chile also generates revenue from selling electricity to non-regulated customers.

Sempra Mexico

Sempra Mexico recognizes revenues from:

- pipeline transportation and storage of natural gas, LPG and ethane as capacity is provided. Certain of the revenues recognized from pipelines are under contracts that are accounted for as operating leases;
- sale of natural gas as deliveries are made;
- an LNG regasification terminal that generates revenues from reservation and usage fees under terminal capacity agreements and nitrogen injection service agreements as capacity is provided;
- wind power generation facilities that generate revenues from selling electricity as the power is delivered at the interconnection point; and
- TdM, a natural gas-fired power plant that generates revenues from selling electricity and/or capacity to the CAISO and to governmental, public utility and wholesale power marketing entities as the power is delivered at the interconnection point. At December 31, 2017, TdM is classified as held for sale, as we discuss in Note 3.

Sempra Mexico reports revenue net of VAT in Mexico. Sempra Mexico's revenues also include net realized gains and losses on settlements of energy derivatives and net unrealized gains and losses from the change in fair values of energy derivatives.

Sempra Renewables

For consolidated entities, Sempra Renewables generates revenues from the sale of solar and wind power and related green attributes pursuant to PPAs, and recognizes these revenues when the power is delivered. It also generates revenues for managing certain of its solar and wind project joint ventures. Approximately half of the revenues generated from assets under PPAs are accounted for as operating leases.

Sempra LNG & Midstream

Sempra LNG & Midstream records revenues from contractual counterparty obligations for non-delivery of LNG cargoes, as well as revenues from the sale of LNG and natural gas as deliveries are made to counterparties. Sempra LNG & Midstream also recognizes revenues from natural gas storage and transportation operations for services provided in accordance with contractual agreements. Sempra LNG & Midstream revenues also include net realized gains and losses on settlements of energy derivatives and net unrealized gains and losses from the change in fair values of energy derivatives. Prior to April 2015, Sempra LNG & Midstream generated revenues from selling electricity and/or capacity from its Mesquite Power plant (see Note 3) to the CAISO and to governmental, public utility and wholesale power marketing entities. Sempra LNG & Midstream recognized these revenues as the electricity was delivered and capacity was provided.

OTHER COST OF SALES

Other Cost of Sales primarily includes

- pipeline capacity costs, including the permanent release of pipeline capacity in 2016 and the associated recoveries in 2017, at Sempra LNG & Midstream;
- pipeline transportation and natural gas marketing costs at Sempra LNG & Midstream;
- electric construction services costs at Sempra South American Utilities' energy-services companies; and
- energy management service fees and costs associated with construction performed for and invoiced to third parties at Sempra Mexico.

OPERATION AND MAINTENANCE EXPENSES

Operation and Maintenance includes O&M and general and administrative costs, consisting primarily of personnel costs, purchased materials and services, litigation expense and rent.

FOREIGN CURRENCY TRANSLATION

Our operations in South America and our natural gas distribution utility in Mexico use their local currency as their functional currency. The assets and liabilities of their foreign operations are translated into U.S. dollars at current exchange rates at the end of the reporting period, and revenues and expenses are translated at average exchange rates for the year. The resulting noncash translation adjustments do not enter into the calculation of earnings or retained earnings, but are reflected in OCI and in AOCI.

Cash flows of these consolidated foreign subsidiaries are translated into U.S. dollars using average exchange rates for the period. We report the effect of exchange rate changes on cash balances held in foreign currencies in "Effect of Exchange Rate Changes on Cash, Cash Equivalents and Restricted Cash" on the Sempra Energy Consolidated Statements of Cash Flows.

Currency transaction losses in a currency other than the entity's functional currency were \$35 million, \$1 million and \$7 million for the years ended December 31, 2017, 2016 and 2015, respectively, and are included in Other Income, Net, on the Sempra Energy Consolidated Statements of Operations.

TRANSACTIONS WITH AFFILIATES

Amounts due from and to unconsolidated affiliates at Sempra Energy Consolidated, SDG&E and SoCalGas are as follows:

	December 31,	
	2017	2016
AMOUNTS DUE FROM (TO) UNCONSOLIDATED AFFILIATES		
<i>(Dollars in millions)</i>		
Sempra Energy Consolidated:		
Total due from various unconsolidated affiliates – current	\$ 37	\$ 26
Sempra South American Utilities ⁽¹⁾ :		
Eletrans – 4% Note ⁽²⁾	\$ 103	\$ 96
Other related party receivables	1	1
Sempra Mexico ⁽¹⁾ :		
IMG – Note due March 15, 2022 ⁽³⁾	487	—
DEN – Notes due November 14, 2018 ⁽⁴⁾	—	90
Energía Sierra Juárez – Note ⁽⁵⁾	7	14
Total due from unconsolidated affiliates – noncurrent	\$ 598	\$ 201
Total due to various unconsolidated affiliates – current	\$ (7)	\$ (11)
Sempra Mexico ⁽¹⁾ :		
Total due to unconsolidated affiliates – noncurrent – TAG – Note due December 20, 2021 ⁽⁶⁾	\$ (35)	\$ —
SDG&E:		
Sempra Energy ⁽⁷⁾	\$ —	\$ 3
Various affiliates	—	1
Total due from unconsolidated affiliates – current	\$ —	\$ 4
Sempra Energy	\$ (30)	\$ —
SoCalGas	(4)	(8)
Various affiliates	(6)	(7)
Total due to unconsolidated affiliates – current	\$ (40)	\$ (15)
Income taxes due from Sempra Energy ⁽⁸⁾	\$ 27	\$ 159
SoCalGas:		
Total due from unconsolidated affiliates – current – SDG&E	\$ 4	\$ 8
Total due to unconsolidated affiliates – current – Sempra Energy	\$ (35)	\$ (28)
Income taxes due from Sempra Energy ⁽⁸⁾	\$ 10	\$ 5

⁽¹⁾ Amounts include principal balances plus accumulated interest outstanding.

⁽²⁾ U.S. dollar-denominated loan, at a fixed interest rate with no stated maturity date, to provide project financing for the construction of transmission lines at Eletrans, comprising joint ventures of Chilquinta Energía.

⁽³⁾ Mexican peso-denominated revolving line of credit for up to \$14.0 billion Mexican pesos or approximately \$718 million U.S. dollar-equivalent, at a variable interest rate based on the 91-day Interbank Equilibrium Interest Rate plus 220 bps (9.87 percent at December 31, 2017), to finance construction of the natural gas marine pipeline.

⁽⁴⁾ Four U.S. dollar-denominated loans, at a variable interest rate based on the 30-day LIBOR plus 450 bps (5.27 percent at December 31, 2016), to finance the Los Ramones Norte pipeline project. In November 2017, IEnova acquired the remaining 50-percent interest in DEN and DEN became a wholly owned, consolidated subsidiary of IEnova.

⁽⁵⁾ U.S. dollar-denominated loan, at a variable interest rate based on the 30-day LIBOR plus 637.5 bps (7.94 percent at December 31, 2017) with no stated maturity date, to finance the first phase of the Energía Sierra Juárez wind project, which is a joint venture of IEnova.

⁽⁶⁾ U.S. dollar-denominated loan, at a variable interest rate based on 6-month LIBOR plus 290 bps (4.74 percent at December 31, 2017).

⁽⁷⁾ At December 31, 2016, net receivable included outstanding advances to Sempra Energy of \$31 million at an interest rate of 0.68 percent.

⁽⁸⁾ SDG&E and SoCalGas are included in the consolidated income tax return of Sempra Energy and are allocated income tax expense from Sempra Energy in an amount equal to that which would result from each company having always filed a separate return.

Revenues and cost of sales from unconsolidated affiliates are as follows:

REVENUES AND COST OF SALES FROM UNCONSOLIDATED AFFILIATES			
<i>(Dollars in millions)</i>			
	Years ended December 31,		
	2017	2016	2015
Revenues:			
Sempra Energy Consolidated	\$ 43	\$ 25	\$ 26
SDG&E	8	7	10
SoCalGas	74	76	75
Cost of Sales:			
Sempra Energy Consolidated	\$ 47	\$ 72	\$ 107
SDG&E	71	64	49

California Utilities

Sempra Energy, SDG&E and SoCalGas provide certain services to each other and are charged an allocable share of the cost of such services. Also, from time-to-time, SDG&E and SoCalGas may make short-term advances of surplus cash to Sempra Energy at interest rates based on the federal funds rate plus a margin of 13 to 20 bps, depending on the loan balance.

SoCalGas provides natural gas transportation and storage services for SDG&E and charges SDG&E for such services monthly. SoCalGas records revenues and SDG&E records a corresponding amount to cost of sales.

SDG&E and SoCalGas charge one another, as well as other Sempra Energy affiliates, for shared asset depreciation. SoCalGas and SDG&E record revenues and the affiliates record corresponding amounts to O&M.

The natural gas supply for SDG&E's and SoCalGas' core natural gas customers is purchased by SoCalGas as a combined procurement portfolio managed by SoCalGas. Core customers are primarily residential and small commercial and industrial customers. This core gas procurement function is considered a shared service; therefore, revenues and costs related to SDG&E are presented net in SoCalGas' Statements of Operations.

SDG&E has a 20-year contract for up to 155 MW of renewable power supplied from the Energía Sierra Juárez wind power generation facility. Energía Sierra Juárez is a 50-percent owned and unconsolidated joint venture of Sempra Mexico that commenced operations in June 2015.

Sempra Mexico

Sempra Mexico, through its wholly owned subsidiaries, DEN and IEnova Pipelines, provides operating and maintenance services to TAG, and also provides personnel under an administrative services arrangement.

Sempra Renewables

Sempra Renewables, through its wholly owned subsidiary, Sempra Renewables Services, Inc. (formerly known as Sempra Global Services, Inc.), provides project administration and operating and maintenance services to certain of its renewable energy unconsolidated joint ventures.

Sempra LNG & Midstream

Sempra LNG & Midstream provides project administration and operating and maintenance services to Cameron LNG JV, and also provides personnel under an administrative services arrangement.

Sempra LNG & Midstream has an agreement with Rockies Express for capacity on REX. In the second quarter of 2016, Sempra LNG & Midstream permanently released certain pipeline capacity with Rockies Express and others, as we discuss in Note 15.

Guarantees

Sempra Energy has provided guarantees to certain of its joint ventures as we discuss in Note 4.

RESTRICTED NET ASSETS

Sempra Energy Consolidated

As we discuss below, the California Utilities have restrictions on the amount of funds that can be transferred to Sempra Energy by dividend, advance or loan as a result of conditions imposed by various regulators. Additionally, certain other Sempra Energy subsidiaries are subject to various financial and other covenants and other restrictions contained in debt and credit agreements (described in Note 5) and in other agreements that limit the amount of funds that can be transferred to Sempra Energy. At December 31, 2017, Sempra Energy was in compliance with all covenants related to its debt agreements.

At December 31, 2017, the amount of restricted net assets of consolidated entities of Sempra Energy, including the California Utilities discussed below, that may not be distributed to Sempra Energy in the form of a loan or dividend is \$8.6 billion. Additionally, the amount of restricted net assets of our unconsolidated entities is \$7.4 billion. Although the restrictions cap the amount of funding that the various operating subsidiaries can provide to Sempra Energy, we do not believe these restrictions will have a significant impact on our ability to access cash to pay dividends and fund operating needs.

As we discuss in Note 4, \$89 million of Sempra Energy's consolidated retained earnings balance represents undistributed earnings of equity method investments at December 31, 2017.

Sempra Utilities

The CPUC's regulation of the California Utilities' capital structures limits the amounts available for dividends and loans to Sempra Energy. At December 31, 2017, Sempra Energy could have received combined loans and dividends of approximately \$469 million, funded by long-term debt issuance, from SDG&E and approximately \$736 million from SoCalGas.

The payment and amount of future dividends by SDG&E and SoCalGas are at the discretion of their respective boards of directors. The following restrictions limit the amount of retained earnings that may be paid as common stock dividends or loaned to Sempra Energy from either utility:

- The CPUC requires that SDG&E's and SoCalGas' common equity ratios be no lower than one percentage point below the CPUC-authorized percentage of each entity's authorized capital structure. The authorized percentage at December 31, 2017 is 52 percent at both SDG&E and SoCalGas.
- The FERC requires SDG&E to maintain a common equity ratio of 30 percent or above.
- The California Utilities have a combined revolving credit line that requires each utility to maintain a ratio of consolidated indebtedness to consolidated capitalization (as defined in the agreement) of no more than 65 percent, as we discuss in Note 5.

Based on these restrictions, at December 31, 2017, SDG&E's restricted net assets were \$5.1 billion and SoCalGas' restricted net assets were \$3.2 billion, which could not be transferred to Sempra Energy.

At Sempra South American Utilities, Peru requires domestic corporations to maintain minimum legal reserves as a percentage of capital stock, resulting in restricted net assets of \$35 million at Luz del Sur at December 31, 2017.

Sempra Infrastructure

Significant restrictions of Sempra Infrastructure subsidiaries include

- Mexico requires domestic corporations to maintain minimum legal reserves as a percentage of capital stock, resulting in restricted net assets of \$198 million at Sempra Energy's consolidated Mexican subsidiaries at December 31, 2017.
- Wholly owned IEnova Pipelines has a long-term debt agreement that requires it to maintain a reserve account to pay the projects' debt. Under this restriction, net assets totaling \$19 million are restricted at December 31, 2017.
- Wholly owned Ventika has long-term debt agreements that require it to maintain reserve accounts to pay the projects' debt. The debt agreements may limit the project companies' ability to incur liens, incur additional indebtedness, make investments, pay cash dividends and undertake certain additional actions. Under these restrictions, net assets totaling \$34 million are restricted at December 31, 2017.
- Energía Sierra Juárez, a 50-percent owned and unconsolidated joint venture of Sempra Mexico, has long-term debt agreements that require the establishment and funding of project and reserve accounts to which the proceeds of loans, letter of credit borrowings, project revenues and other amounts are deposited and applied in accordance with the debt agreements. The long-term debt agreements also limit the joint venture's ability to incur liens, incur additional indebtedness, make acquisitions and undertake certain actions. Under these restrictions, net assets totaling \$9 million are restricted at December 31, 2017.
- TAG, a 50-percent owned and unconsolidated joint venture of Sempra Mexico, has a long-term debt agreement that requires it to maintain a reserve account to pay projects' debt. Under these restrictions, net assets totaling \$82 million are restricted at December 31, 2017.

- Wholly owned Copper Mountain Solar 1 has a long-term debt agreement that requires the establishment and funding of project accounts to which the proceeds of loans, project revenues and other amounts are deposited and applied in accordance with the debt agreement. This long-term debt agreement also limits the solar project's ability to incur liens, incur additional indebtedness, make acquisitions and undertake certain actions, while also requiring maintenance of certain debt ratios. Under these restrictions, net assets totaling \$8 million are restricted at December 31, 2017.
- Tax equity limited liability companies at Sempra Renewables are required to maintain completion reserve depository accounts to be used to pay for trailing construction costs that become due subsequent to the tax equity transaction closing. At December 31, 2017, as a result of these requirements, there were total restricted net assets at these tax equity limited liability companies of approximately \$19 million.
- 50- and 25-percent owned and unconsolidated joint ventures at Sempra Renewables have debt agreements that require each joint venture to maintain reserve accounts in order to pay the projects' debt service and O&M requirements. We discuss Sempra Energy guarantees associated with these requirements in Note 4. At December 31, 2017, as a result of these requirements, there were total restricted net assets at these joint ventures of approximately \$265 million.
- Sempra LNG & Midstream has an equity method investment in Cameron LNG JV, which has debt agreements that require the establishment and funding of project accounts to which the proceeds of loans, project revenues and other amounts are deposited and applied in accordance with the debt agreements. The debt agreements require the joint venture to maintain reserve accounts in order to pay the project debt service, and also contain restrictions related to the payment of dividends and other distributions to the members of the joint venture. We discuss Sempra Energy guarantees associated with Cameron LNG JV's debt agreements in Note 4. Under these restrictions, net assets of Cameron LNG JV of approximately \$7.0 billion are restricted at December 31, 2017.

OTHER INCOME, NET

Other Income, Net on the Consolidated Statements of Operations consists of the following:

OTHER INCOME, NET (Dollars in millions)	Years ended December 31,		
	2017	2016	2015
Sempra Energy Consolidated:			
Allowance for equity funds used during construction	\$ 168	\$ 116	\$ 107
Investment gains ⁽¹⁾	56	23	3
Gains (losses) on interest rate and foreign exchange instruments, net	47	(32)	(4)
Foreign currency transaction losses ⁽²⁾	(35)	(1)	(7)
Sale of other investments	3	5	11
Electrical infrastructure relocation income	3	10	7
Interest on regulatory balancing accounts, net	3	4	3
Sundry, net	9	7	6
Total	\$ 254	\$ 132	\$ 126
SDG&E:			
Allowance for equity funds used during construction	\$ 63	\$ 46	\$ 37
Interest on regulatory balancing accounts, net	3	3	3
Sundry, net	—	1	(4)
Total	\$ 66	\$ 50	\$ 36
SoCalGas:			
Allowance for equity funds used during construction	\$ 44	\$ 40	\$ 36
Interest on regulatory balancing accounts, net	—	1	—
Sundry, net	(8)	(9)	(6)
Total	\$ 36	\$ 32	\$ 30

⁽¹⁾ Represents investment gains on dedicated assets in support of our executive retirement and deferred compensation plans. These amounts are partially offset by corresponding changes in compensation expense related to the plans, recorded in Operation and Maintenance on the Consolidated Statements of Operations.

⁽²⁾ Includes \$35 million loss from translation of Mexican peso-denominated loan to IMG JV to U.S. dollars.

NOTE 2. NEW ACCOUNTING STANDARDS

We describe below recent pronouncements that have had or may have a significant effect on our financial condition, results of operations, cash flows or disclosures.

ASU 2014-09, “Revenue from Contracts with Customers,” ASU 2015-14, “Deferral of the Effective Date,” ASU 2016-08, “Principal versus Agent Considerations (Reporting Revenue Gross versus Net),” ASU 2016-10, “Identifying Performance Obligations and Licensing” and ASU 2016-12, “Narrow-Scope Improvements and Practical Expedients”: ASU 2014-09 adds ASC 606 to provide accounting guidance for the recognition of revenue from contracts with customers and affects all entities that enter into contracts to provide goods or services to their customers. The guidance also provides a model for the measurement and recognition of gains and losses on the sale of certain nonfinancial assets, such as property and equipment, including real estate. This guidance must be adopted using either a full retrospective approach for all periods presented in the period of adoption or a modified retrospective approach. Amending ASU 2014-09, ASU 2016-08 clarifies the implementation guidance on principal versus agent considerations, ASU 2016-10 clarifies the determination of whether a good or service is separately identifiable from other promises and revenue recognition related to licenses of intellectual property, and ASU 2016-12 provides guidance on transition, collectability, noncash consideration, and the presentation of sales and other similar taxes. The ASUs are codified in ASC 606.

ASU 2015-14 defers the effective date of ASC 606 by one year for all entities and permits early adoption on a limited basis. For public entities, ASC 606 is effective for fiscal years beginning after December 15, 2017, with early adoption permitted for fiscal years beginning after December 15, 2016, and is effective for interim periods in the year of adoption. We adopted ASC 606 on January 1, 2018, applying the modified retrospective transition method to all contracts as of January 1, 2018 and elected to use certain practical expedients available under the transition guidance. The impact from adoption was not material to our financial statements, and the timing of our revenue recognition has remained materially consistent before and after the adoption of ASC 606. The new revenue standard provides specific guidance for combining contracts, which will result in a prospective reclassification between cost of sales and revenues within our Sempra LNG & Midstream segment. This reclassification has no impact on Sempra Energy’s consolidated revenues or cost of sales. Our additional disclosures about the nature, amount, timing and uncertainty of revenues arising from contracts with customers will be included in our Notes to Consolidated Financial Statements beginning in the first quarter of 2018.

ASU 2016-01, “Recognition and Measurement of Financial Assets and Financial Liabilities”: In addition to the presentation and disclosure requirements for financial instruments, ASU 2016-01 requires entities to measure equity investments, other than those accounted for under the equity method, at fair value and recognize changes in fair value in net income. Entities will no longer be able to use the cost method of accounting for equity securities. However, for equity investments without readily determinable fair values that do not qualify for the practical expedient to estimate fair value using net asset value per share, entities may elect a measurement alternative that will allow those investments to be recorded at cost, less impairment, and adjusted for subsequent observable price changes. Entities must record a cumulative-effect adjustment to the balance sheet as of the beginning of the first reporting period in which the standard is adopted, except for equity investments without readily determinable fair values, for which the guidance will be applied prospectively. There is an outstanding FASB exposure draft which clarifies that the prospective transition approach for equity investments without readily determinable fair values is meant only for instances in which the measurement alternative is elected.

For public entities, ASU 2016-01 is effective for fiscal years beginning after December 15, 2017. We adopted ASU 2016-01 on January 1, 2018 and it will not materially affect our financial condition, results of operations or cash flows.

ASU 2016-02, “Leases” and ASU 2018-01, “Land Easement Practical Expedient for Transition to Topic 842”: ASU 2016-02 requires entities to include substantially all leases on the balance sheet by requiring the recognition of right-of-use assets and lease liabilities for all leases. Entities may elect to exclude from the balance sheet those leases with a maximum possible term of less than 12 months. For lessees, a lease is classified as finance or operating, and the asset and liability are initially measured at the present value of the lease payments. For lessors, accounting for leases is largely unchanged from previous provisions of U.S. GAAP, other than certain changes to align lessor accounting to specific changes made to lessee accounting and ASC 606. ASU 2016-02 also requires new qualitative and quantitative disclosures for both lessees and lessors. ASU 2018-01 allows entities to elect a transition practical expedient that would exclude application of ASU 2016-02 to land easements that existed prior to its adoption, if they were not accounted for as leases under previous U.S. GAAP.

For public entities, these ASUs are effective for fiscal years beginning after December 15, 2018, with early adoption permitted, and are effective for interim periods in the year of adoption. ASU 2016-02 requires lessees and lessors to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The modified retrospective

approach includes practical expedients that may be elected, which would allow entities to continue to account for leases that commence before the effective date of the standard in accordance with previous U.S. GAAP unless the lease is modified, except for the lessee requirement to begin recognizing right-of-use assets and lease liabilities for all operating leases on the balance sheet at the reporting date. We are currently evaluating the effect of the standards on our ongoing financial reporting and plan to adopt the standards on January 1, 2019. As part of our evaluation, we formed a steering committee comprised of members from relevant Sempra Energy business units, are compiling our population of contracts and are preparing our lease accounting assessments. Based on our assessment to date, we have determined that we will elect the practical expedients available under the transition guidance described above. We continue to monitor outstanding issues currently being addressed by the FASB, including guidance under a FASB exposure draft that would allow entities an optional transition method to apply ASU 2016-02 in the period of adoption rather than in the earliest period presented. Conclusions that the FASB reaches on outstanding issues may impact our application of these ASUs.

ASU 2016-13, “Measurement of Credit Losses on Financial Instruments”: ASU 2016-13 changes how entities will measure credit losses for most financial assets and certain other instruments. The standard introduces an “expected credit loss” impairment model that requires immediate recognition of estimated credit losses expected to occur over the remaining life of most financial assets measured at amortized cost, including trade and other receivables, loan commitments and financial guarantees. ASU 2016-13 also requires use of an allowance to record estimated credit losses on available-for-sale debt securities and expands disclosure requirements regarding an entity’s assumptions, models and methods for estimating the credit losses.

For public entities, ASU 2016-13 is effective for fiscal years beginning after December 15, 2019, with early adoption permitted for fiscal years beginning after December 15, 2018. We are currently evaluating the effect of the standard on our ongoing financial reporting and have not yet selected the year in which we will adopt the standard.

ASU 2016-15, “Classification of Certain Cash Receipts and Cash Payments” and ASU 2016-18, “Restricted Cash”: ASU 2016-15 provides guidance on how certain cash receipts and cash payments are to be presented and classified in the statement of cash flows to reduce diversity in practice. Of the eight issues addressed in ASU 2016-15, we were impacted by the following issues:

- Issue 1 – debt prepayment or debt extinguishment costs
- Issue 3 – contingent consideration payments made after a business combination
- Issue 5 – proceeds from the settlement of corporate-owned life insurance policies (including bank-owned life insurance policies)

ASU 2016-18 requires amounts classified as restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. A reconciliation between the balance sheet and the statement of cash flows must be disclosed when the balance sheet includes more than one line item for cash, cash equivalents, restricted cash and restricted cash equivalents. ASU 2016-15 and ASU 2016-18 must be adopted retrospectively. We early adopted ASU 2016-15 and ASU 2016-18 in the fourth quarter of 2017. Neither ASU impacted SoCalGas’ Statements of Cash Flows.

Upon adoption of ASU 2016-15 and ASU 2016-18, the Sempra Energy and SDG&E Consolidated Statements of Cash Flows for the years ended December 31, 2016 and 2015 were impacted as follows:

IMPACT FROM ADOPTION OF ASU 2016-15 AND ASU 2016-18*(Dollars in millions)*

	Years ended December 31,					
	2016			2015		
	As previously reported	Effect of adoption	As adjusted	As previously reported	Effect of adoption	As adjusted
Sempra Energy Consolidated Statements of Cash Flows:						
Cash flows from operating activities:						
Adjustments to reconcile net income to net cash provided by operating activities – other	\$ 63	\$ (1)	\$ 62	\$ 66	\$ —	\$ 66
Changes in other assets	56	(7)	49	(162)	(7)	(169)
Net cash provided by operating activities	2,319	(8)	2,311	2,905	(7)	2,898
Cash flows from investing activities:						
Expenditures for investments and acquisition of businesses, net of cash and cash equivalents acquired	(1,582)	1,582	—	(200)	200	—
Expenditures for investments and acquisitions, net of cash, cash equivalents and restricted cash acquired	—	(1,504)	(1,504)	—	(198)	(198)
Increases in restricted cash	(139)	139	—	(100)	100	—
Decreases in restricted cash	175	(175)	—	93	(93)	—
Other	—	9	9	1	8	9
Net cash used in investing activities	(4,886)	51	(4,835)	(2,885)	17	(2,868)
Cash flows from financing activities:						
Other	(10)	(11)	(21)	(17)	(3)	(20)
Net cash provided by (used in) financing activities	2,513	(11)	2,502	(173)	(3)	(176)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	(14)	14	—
Effect of exchange rate changes on cash, cash equivalents and restricted cash	—	(3)	(3)	—	(14)	(14)
Decrease in cash and cash equivalents	(54)	54	—	(167)	167	—
Decrease in cash, cash equivalents, and restricted cash	—	(25)	(25)	—	(160)	(160)
Cash and cash equivalents, January 1	403	(403)	—	570	(570)	—
Cash, cash equivalents and restricted cash, January 1	—	450	450	—	610	610
Cash and cash equivalents, December 31	349	(349)	—	403	(403)	—
Cash, cash equivalents and restricted cash, December 31	—	425	425	—	450	450
SDG&E Consolidated Statements of Cash Flows:						
Cash flows from operating activities:						
Changes in other assets	\$ (16)	\$ (4)	\$ (20)	\$ (122)	\$ (3)	\$ (125)
Net cash provided by operating activities	1,327	(4)	1,323	1,664	(3)	1,661
Cash flows from investing activities:						
Increases in restricted cash	(49)	49	—	(39)	39	—
Decreases in restricted cash	60	(60)	—	35	(35)	—
Other	—	6	6	—	5	5
Net cash used in investing activities	(1,319)	(5)	(1,324)	(1,086)	9	(1,077)
Cash flows from financing activities:						
Other ⁽¹⁾	(4)	(2)	(6)	(2)	(2)	(4)
Net cash used in financing activities	(20)	(2)	(22)	(566)	(2)	(568)
(Decrease) increase in cash and cash equivalents	(12)	12	—	12	(12)	—
(Decrease) increase in cash, cash equivalents, and restricted cash	—	(23)	(23)	—	16	16
Cash and cash equivalents, January 1	20	(20)	—	8	(8)	—
Cash, cash equivalents and restricted cash, January 1	—	43	43	—	27	27
Cash and cash equivalents, December 31	8	(8)	—	20	(20)	—
Cash, cash equivalents and restricted cash, December 31	—	20	20	—	43	43

⁽¹⁾ Previously labeled "Debt issuance costs."

ASU 2017-01, “Clarifying the Definition of a Business”: ASU 2017-01 narrows the definition of a business and provides a framework to assist entities in determining whether a transaction involves an asset or a business. Specifically, the ASU provides a “screen” for determining when an integrated set of assets and activities (collectively referred to as a “set”) is not a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or group of similar identifiable assets, the set is not a business. If the screen threshold is not met, a set cannot be considered a business unless it includes an input and a substantive process that together significantly contribute to the ability to create outputs. ASU 2017-01 must be applied prospectively on or after the effective date. Early adoption is permitted. We early adopted ASU 2017-01 on July 1, 2017.

ASU 2017-04, “Simplifying the Test for Goodwill Impairment”: ASU 2017-04 removes the second step of the goodwill impairment test, which requires a hypothetical purchase price allocation. An entity will be required to apply a one-step quantitative test and record the amount of goodwill impairment as the excess of a reporting unit’s carrying amount over its fair value, not to exceed the carrying amount of goodwill. For public entities, ASU 2017-04 is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019, with early adoption permitted. The amendments are to be applied on a prospective basis. We have not yet selected the year in which we will adopt the standard.

ASU 2017-05, “Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets”: ASU 2017-05 clarifies the scope of accounting for the derecognition or partial sale of nonfinancial assets to exclude all businesses and nonprofit activities. ASU 2017-05 also provides a definition for in-substance nonfinancial assets and additional guidance on partial sales of nonfinancial assets. For public entities, ASU 2017-05 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period, with early adoption permitted. Entities may apply a full retrospective or modified retrospective approach. Under a modified retrospective approach, entities are required to apply the guidance to any transactions that are not completed as of the adoption date. We adopted the standard in conjunction with our adoption of ASC 606 on January 1, 2018 using the modified retrospective transition method. As we discuss in Note 1, Sempra Renewables expects the formation of a tax equity arrangement to be completed in the first half of 2018. While the arrangement would be in the scope of this ASU, we do not expect it to have a material impact on our financial condition, results of operations or cash flows.

ASU 2017-07, “Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost”: ASU 2017-07 requires the service cost component of net periodic benefit costs to be presented in the same income statement line item as other employee compensation costs arising from services rendered during the period and the other components of net periodic benefit costs to be presented separately outside of operating income. The guidance also allows only the service cost component to be eligible for capitalization. For public entities, ASU 2017-07 is effective for annual reporting periods beginning after December 15, 2017, with early adoption permitted as of the beginning of an annual period for which financial statements have not been issued or made available for issuance. Amendments are to be applied retrospectively for presentation of costs and prospectively for capitalization of service costs. The guidance allows a practical expedient that permits use of previously disclosed service costs and other costs from the pension and other postretirement benefit plan note in the comparative periods as appropriate estimates when retrospectively changing the presentation of these costs in the statements of operations. We adopted the standard on January 1, 2018 and elected the practical expedient available under the transition guidance.

In 2018, we expect the adoption of ASU 2017-07 to have the following impact on our Consolidated Statements of Operations for the years ended December 31, 2017 and 2016:

EXPECTED IMPACT FROM ADOPTION OF ASU 2017-07

(Dollars in millions)

	Years ended December 31,			
	2017		2016	
	As reported	Recast	As reported	Recast
Sempra Energy Consolidated Statements of Operations:				
Operation and maintenance	\$ 3,117	\$ 3,096	\$ 2,970	\$ 2,976
Other income, net	254	233	132	138
SDG&E Consolidated Statements of Operations:				
Operation and maintenance	\$ 1,020	\$ 1,024	\$ 1,048	\$ 1,062
Operating income	713	709	990	976
Other income, net	66	70	50	64
SoCalGas Statements of Operations:				
Operation and maintenance	\$ 1,479	\$ 1,474	\$ 1,385	\$ 1,391
Operating income	622	627	557	551
Other income, net	36	31	32	38

ASU 2017-12, "Targeted Improvements to Accounting for Hedging Activities": ASU 2017-12 changes the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge accounting results. More specifically, the guidance expands the exposures that can be hedged to align with an entity's risk management strategies, alleviates documentation requirements, eliminates the concept of recognizing periodic hedge ineffectiveness for cash flow and net investment hedges and requires entities to present the entire change in the fair value of a hedging instrument in the same income statement line item as the earnings effect of the hedged item. For public entities, ASU 2017-12 is effective for fiscal years beginning after December 15, 2018, with early adoption permitted. If an entity early adopts ASU 2017-12 in an interim period, any transition adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. Entities will adopt ASU 2017-12 by applying a modified retrospective approach to the accounting for existing hedging relationships and will prospectively apply the new presentation and disclosure requirements. Transition elections are available for all hedges that exist at the date of adoption. We early adopted ASU 2017-12 on January 1, 2018, and it will not materially affect our financial condition, results of operations or cash flows.

ASU 2018-02, "Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income": ASU 2018-02 contains amendments that allow a reclassification from AOCI to retained earnings for stranded tax effects resulting from the TCJA. Under ASU 2018-02, an entity will be required to provide certain disclosures regarding stranded tax effects, including its accounting policy related to releasing the income tax effects from AOCI. The amendments in this update can be applied either as of the beginning of the period of adoption or retrospectively as of the date of enactment of the TCJA and to each period in which the effect of the TCJA is recognized. For public entities, ASU 2018-02 is effective for annual reporting periods beginning after December 15, 2018, including interim periods therein, with early adoption permitted. We are currently evaluating the effect of the standard on our financial reporting and have not yet selected the adoption method or the year in which we will adopt the standard.

NOTE 3. ACQUISITION AND DIVESTITURE ACTIVITY

We consolidate assets acquired and liabilities assumed as of the purchase date and include earnings from acquisitions in consolidated earnings after the purchase date.

ACQUISITIONS

SEMPRA MEXICO

2017 Acquisition

Ductos y Energéticos del Norte, S. de R.L. de C.V.

On November 15, 2017, IEnova completed the asset acquisition of PEMEX's 50-percent interest in DEN, a joint venture that holds a 50-percent interest in the Los Ramones Norte pipeline through TAG, for a purchase price of \$165 million (exclusive of \$18 million of cash and cash equivalents acquired), plus the assumption of \$96 million of short-term debt. This acquisition increased IEnova's ownership interest in DEN through IEnova Pipelines from 50 percent to 100 percent, and increased IEnova's indirect ownership interest in TAG from 25 percent to 50 percent. IEnova Pipelines previously accounted for its 50-percent interest in DEN as an equity method investment. At closing, DEN became a wholly owned, consolidated subsidiary of IEnova Pipelines. DEN will continue to account for its interest in TAG as an equity method investment. This acquisition also included a \$66 million intangible asset that represents a favorable O&M agreement, which has an amortization period of 23 years.

2016 Acquisitions

The following table summarizes the total fair value of the 2016 business combinations at Sempra Mexico, described below, and the final purchase price allocations of the assets acquired and liabilities assumed at the dates of acquisition:

PURCHASE PRICE ALLOCATIONS

(Dollars in millions)

	IEnova Pipelines		Ventika	
	At September 26, 2016 ⁽¹⁾		At December 14, 2016 ⁽²⁾	
Fair value of business combination:				
Cash consideration (fair value of total consideration)	\$	1,144	\$	310
Fair value of equity interest in IEnova Pipelines immediately prior to acquisition		1,144		—
Total fair value of business combination	\$	2,288	\$	310
Recognized amounts of identifiable assets acquired and liabilities assumed:				
Cash and cash equivalents	\$	66	\$	—
Restricted cash		—		68
Accounts receivable		39		14
Other current assets		6		1
Other intangible assets		—		154
Deferred income taxes		—		36
Regulatory assets		33		—
Property, plant and equipment		1,248		673
Other noncurrent assets		1		3
Short-term debt		—		(125)
Accounts payable		(11)		(1)
Due to unconsolidated affiliates		(3)		—
Current portion of long-term debt		(49)		(7)
Fixed-price contracts and other derivatives, current		(6)		(4)
Other current liabilities		(20)		(8)
Long-term debt		(315)		(478)
Asset retirement obligations		(5)		(2)
Deferred income taxes		(127)		(120)
Fixed-price contracts and other derivatives, noncurrent		(19)		(10)
Other noncurrent liabilities		(11)		—
Total identifiable net assets		827		194
Goodwill		1,461		116
Total fair value of business combination	\$	2,288	\$	310

⁽¹⁾ During the fourth quarter of 2016, we received additional information regarding IEnova Pipelines' deferred income taxes as of the acquisition date, primarily related to basis differences in IEnova Pipelines' PP&E. As a result, we recorded measurement period adjustments that resulted in a net increase to goodwill of \$86 million, an increase in deferred income tax liabilities of \$119 million and \$33 million of regulatory assets related to deferred income taxes on AFUDC.

⁽²⁾ During the fourth quarter of 2017, we received additional information regarding Ventika's deferred income taxes as of the acquisition date, primarily related to net operating loss carryforwards. As a result, we recorded a measurement period adjustment that resulted in a decrease to goodwill and an increase in deferred income tax assets of \$13 million.

IEnova Pipelines, S. de R.L. de C.V. (formerly known as Gasoductos de Chihuahua, S. de R.L. de C.V., or GdC)

Background and Financing. On September 26, 2016, IEnova completed the acquisition of PEMEX's 50-percent interest in IEnova Pipelines, which develops and operates energy infrastructure in Mexico, for a purchase price of \$1.144 billion (exclusive of \$66 million of cash and cash equivalents acquired), plus the assumption of \$364 million of long-term debt, increasing IEnova's ownership interest in IEnova Pipelines to 100 percent. IEnova Pipelines became a consolidated subsidiary of IEnova on this date. Prior to the acquisition date, IEnova owned 50 percent of IEnova Pipelines and accounted for its interest as an equity method investment.

The assets involved in the acquisition included three natural gas pipelines, an ethane pipeline, and a liquid petroleum gas pipeline and associated storage terminal. The transaction excluded the Los Ramones Norte pipeline, in which IEnova continued to hold an indirect 25-percent ownership interest through IEnova Pipelines' interest in DEN until November 2017, as we discuss above.

IEnova paid \$1.078 billion in cash (\$1.144 billion purchase price less \$66 million of cash and cash equivalents acquired), which was funded using interim financing provided by Sempra Global through a \$1.15 billion bridge loan to IEnova. Sempra Global funded the majority of the transaction using commercial paper borrowings. As we discuss in Note 1, in October 2016, IEnova completed a private follow-on offering of its common stock in the U.S. and outside of Mexico and a concurrent public common stock offering in Mexico. IEnova used a portion of the net proceeds from the offerings to fully repay the Sempra Global bridge loan.

Purchase Price Allocation. We accounted for this business combination using the acquisition method of accounting whereby the total fair value of the business acquired is allocated to identifiable assets acquired and liabilities assumed based on their respective fair values, with any excess recognized as goodwill at the Sempra Mexico reportable segment. None of the goodwill is expected to be deductible in Mexico or the U.S. for income tax purposes.

Gain on Remeasurement of Equity Method Investment. In the year ended December 31, 2016, we recorded a pretax gain of \$617 million (\$432 million after-tax) for the excess of the acquisition-date fair value of Sempra Mexico's previously held equity interest in IEnova Pipelines over the carrying value of that interest, included as Remeasurement of Equity Method Investment on the Sempra Energy Consolidated Statement of Operations. We used a market approach to measure the acquisition-date fair value of IEnova's equity interest in IEnova Pipelines immediately prior to the business acquisition. We discuss non-recurring fair value measures and the associated accounting impact of the IEnova Pipelines acquisition in Note 10.

Valuation of IEnova Pipelines' Assets and Liabilities. Based on the nature of the Mexico regulatory environment and the oversight surrounding the establishment and maintenance of rates that IEnova Pipelines charges for services on its assets, IEnova Pipelines applies the guidance under the provisions of U.S. GAAP governing rate-regulated operations. Therefore, when determining the fair value of the acquired assets and liabilities assumed, we considered the effect of regulation on a market participant's view of the highest and best use of the assets, in particular for the fair value of IEnova Pipelines' PP&E. Under U.S. GAAP, regulation is viewed as being a characteristic (restriction) of a regulated entity's PP&E, and the impact of regulation is considered a fundamental input to measuring the fair value of PP&E in a business combination involving a regulated business.

Under this premise, the fair value of the PP&E of a regulated business is generally assumed to be equivalent to carrying value for financial reporting purposes. Management concluded that the carrying value of IEnova Pipelines' PP&E is representative of fair value.

We applied an income approach, specifically the discounted cash flow method, to measure the fair value of debt and derivatives. We valued debt by discounting future debt payments by a market yield, and we valued derivatives by discounting the future interest payments under the fixed and floating rates using current market data.

For substantially all other assets and liabilities, we determined that historical carrying value approximates fair value due to their short-term nature.

Impact on Operating Results. We incurred acquisition costs of \$4 million and \$1 million in the years ended December 31, 2016 and 2015, respectively. These costs are included in Operation and Maintenance on the Sempra Energy Consolidated Statements of Operations.

For the year ended December 31, 2016, the Sempra Energy Consolidated Statement of Operations includes \$82 million of revenues and \$33 million of earnings (after noncontrolling interests) from IEnova Pipelines since the September 26, 2016 date of acquisition.

Ventika, S.A.P.I. de C.V. and Ventika II, S.A.P.I. de C.V.

Background and Financing. On December 14, 2016, IEnova acquired 100 percent of the equity interests in the Ventika wind power generation facilities for cash consideration of \$310 million and the assumption of \$610 million of existing debt. Ventika is a 252-MW wind farm located in Nuevo Leon, Mexico, that began commercial operations in April 2016. All of Ventika's generation capacity is contracted under 20-year, U.S. dollar-denominated PPAs with five private off-takers. The acquisition was funded using \$50 million of net proceeds from the IEnova equity offerings that we discuss in Note 1, \$250 million of borrowings against Sempra Mexico's revolving credit facility, and \$10 million of available cash at IEnova. The acquisition also included \$68 million of restricted cash that represents funds set aside for servicing debt, operations, and other costs pursuant to the long-term debt agreements.

Purchase Price Allocation. We accounted for this business combination using the acquisition method of accounting whereby the total fair value of the business acquired is allocated to identifiable assets acquired and liabilities assumed based on their respective fair values, with any excess recognized as goodwill at the Sempra Mexico reportable segment. None of the goodwill is expected to be deductible in Mexico or in the U.S. for income tax purposes.

Valuation of Ventika’s Assets and Liabilities. The fair values of the tangible and intangible assets acquired and liabilities assumed were recognized based on their preliminary values at the acquisition date. Significant inputs used to measure the fair values of the acquired PP&E, intangible asset, debt, and derivatives are as follows:

- PP&E – We applied an income approach using market-based discounted cash flows. We used the pricing included in the existing PPAs, which was determined to reflect current market rates in the Mexican renewable energy market.
- Intangible asset – Ventika is the holder of a renewable energy transmission and consumption permit that allows it to transmit its generated power to various locations within Mexico at beneficial rates and reduces the administrative burden to manage transmitting power to off-takers. With recent renewable energy market reforms in Mexico, these transmission and consumption permits are no longer available, resulting in higher tariffs for generators. We applied an income approach based on a cash flow differential approach that measures the fair value of the transmission rights by comparing the operating expenses under the transmission and consumption permit as compared to under the new, higher tariffs. This acquired intangible asset has an amortization period of 19 years, reflecting the remaining life of the transmission and consumption transmission permit at the time of acquisition.
- Debt – Using an income approach, we valued debt by discounting future debt payments by a market yield commensurate with the remaining term of the loans.
- Derivatives – Using an income approach, we valued derivatives by discounting the future interest payments under the fixed and floating rates using current market data.

Additionally, we recognized deferred income taxes on Ventika’s existing NOLs, and for the difference between the fair values and tax bases of the net assets acquired using the Mexican statutory rate.

For substantially all other assets and liabilities, we determined that historical carrying value approximates fair value due to their short-term nature.

Impact on Operating Results. We incurred acquisition costs of \$1 million in the year ended December 31, 2016, which are included in Operation and Maintenance on the Sempra Energy Consolidated Statement of Operations.

For the year ended December 31, 2016, the Sempra Energy Consolidated Statement of Operations includes \$4 million of revenues and \$3 million of earnings (after noncontrolling interests) from Ventika since the December 14, 2016 date of acquisition.

Unaudited Pro Forma Information

The following table presents unaudited pro forma information for the years ended December 31, 2016 and 2015, combining the historical results of operations of Sempra Energy, IEnova Pipelines and Ventika as though the acquisitions occurred on January 1, 2015. The pro forma information is not necessarily indicative of results that would have been achieved had the businesses been combined during the periods presented or the results that we will experience going forward.

UNAUDITED PRO FORMA INFORMATION – SEMPRA ENERGY CONSOLIDATED			
<i>(Dollars in millions)</i>			
	Years ended December 31,		
	2016	2015	
Revenues	\$ 10,463	\$ 10,473	
Net income	1,145	1,938	
Earnings	1,058	1,641	

The unaudited pro forma information above assumes

- the related IEnova equity offerings, discussed above and in Note 1, occurred on January 1, 2015, which results in a change in Sempra Energy’s noncontrolling interest in IEnova from 18.9 percent to 33.6 percent for all periods presented;
- the proceeds from the IEnova equity offerings were used to fund the acquisitions, instead of the bridge loan that was provided by Sempra Global to IEnova for the IEnova Pipelines acquisition, therefore interest expense on the commercial paper borrowings supporting the bridge loan is excluded for all periods presented;
- interest expense on the borrowings against Sempra Mexico’s revolving credit facility began when Ventika’s commercial operations commenced in April 2016;
- equity earnings, net of income tax, from IEnova Pipelines that were previously included in Sempra Energy’s results have been excluded for both periods presented;
- the gain related to the remeasurement of our previously held equity interest in IEnova Pipelines has been included in the year ended December 31, 2015, and accordingly, the year ended December 31, 2016 was adjusted to exclude the gain; and

- acquisition-related transaction costs have been included in the year ended December 31, 2015, and accordingly, the year ended December 31, 2016 was adjusted to exclude them.

Most of Sempra Mexico's operations, including IEnova Pipelines and Ventika, use the U.S. dollar as their functional currency.

SEMPRA RENEWABLES

On July 10, 2017, Sempra Renewables paid \$124 million in cash for an asset acquisition of a portfolio of four solar projects located in Fresno County, California, that were under construction. We placed three of the four projects into service in the fourth quarter of 2017 and expect to place the fourth project into service in the first half of 2018. When fully constructed, the portfolio will be capable of producing up to 200 MW of solar power. The solar projects are fully contracted under four long-term PPAs, with an average contract term of 18 years.

In July 2016, Sempra Renewables acquired a 100-percent interest in a 100-MW wind farm in Huron County, Michigan, with a 15-year PPA, for a total purchase price of \$22 million. Sempra Renewables paid \$18 million in cash on the acquisition date and paid the remaining \$4 million in cash on achievement of certain construction milestones in the fourth quarter of 2016. We placed this wind farm into service in November 2017.

In March 2015, Sempra Renewables invested \$8 million to acquire a 100-percent interest in a 78-MW wind development project in Stearns County, Minnesota. The wind farm has a 20-year PPA with a load serving entity and began commercial operation in December 2016.

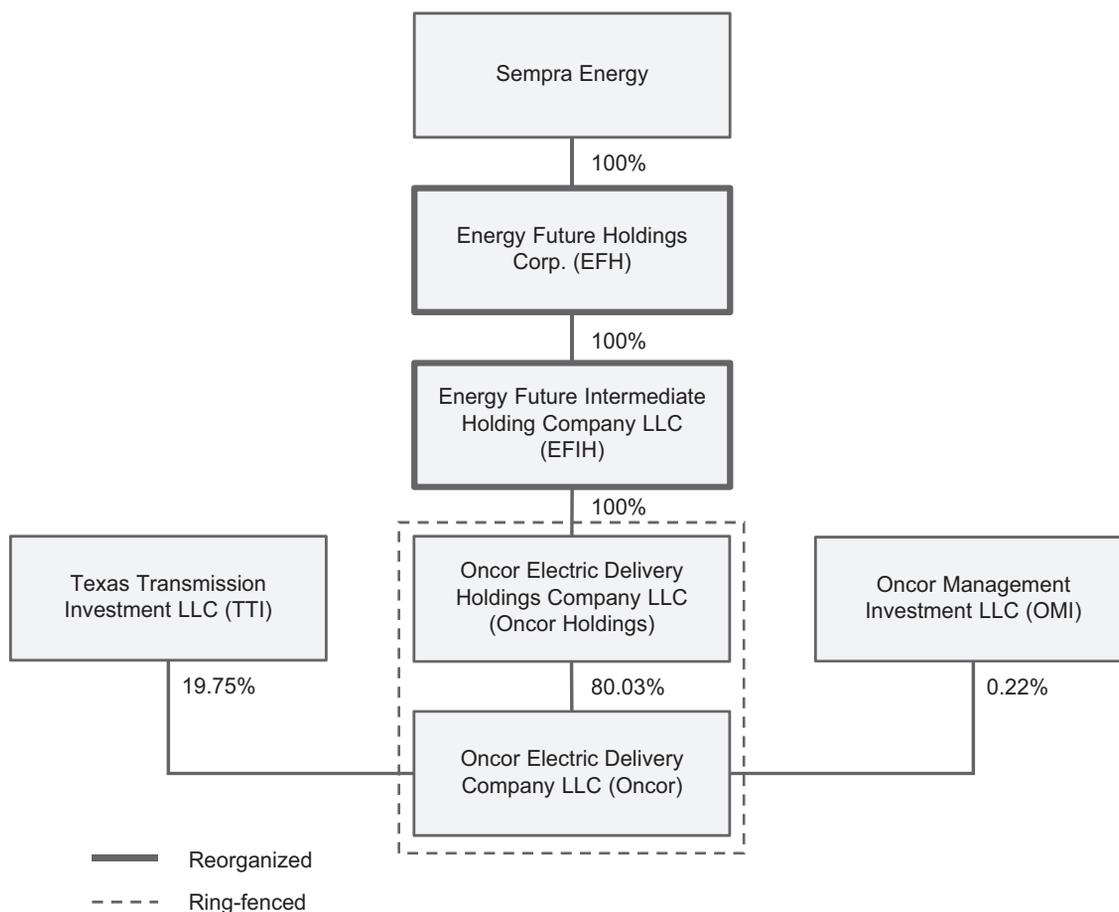
PENDING ACQUISITION

SEMPRA ENERGY

Energy Future Holdings Corp.

On August 21, 2017, Sempra Energy entered into an Agreement and Plan of Merger, as supplemented by a Waiver Agreement dated October 3, 2017 and an amendment dated February 15, 2018 (together referred to as the Merger Agreement), with Energy Future Holdings Corp., the indirect owner of 80.03 percent of Oncor Electric Delivery Company LLC. Oncor is a regulated electric distribution and transmission business that operates the largest distribution and transmission system in Texas. Following closing, this acquisition will expand our regulated earnings base, while serving as a platform for future growth in the Texas energy market and U.S. Gulf Coast region. Under the Merger Agreement, we will pay the Merger Consideration of \$9.45 billion in cash.

Pursuant to the Merger Agreement and subject to the satisfaction of certain closing conditions described below, EFH will be merged with an indirect subsidiary of Sempra Energy, with EFH continuing as the surviving company and an indirect, wholly owned subsidiary of Sempra Energy (the Merger), as follows:



The foregoing is a simplified ownership structure that does not show all the subsidiaries of, or other equity interests owned by, these entities.

TTI, an investment vehicle indirectly owned by third parties unaffiliated with EFH or Sempra Energy, owns 19.75 percent of Oncor’s outstanding membership interests, and certain current and former directors and officers of Oncor indirectly beneficially own 0.22 percent of Oncor’s outstanding membership interests through their ownership of Class B membership interests in OMI. On October 3, 2017, Sempra Energy provided written confirmation to Oncor Holdings and Oncor that, contemporaneously with the closing of the Merger, equivalent value (approximately \$25.9 million) will be provided in exchange for the Class B membership interests in OMI for cash or, if mutually agreed by the parties, alternative benefit and/or incentive plans. The consummation of the Merger is not conditioned on the acquisition of the interest in OMI, and there has been no formal agreement by us or the owners of these interests to accept the terms of our written confirmation.

Merger Consideration and Financing

Under the Merger Agreement, Sempra Energy will pay Merger Consideration of \$9.45 billion in cash. We intend to initially finance the Merger Consideration of \$9.45 billion, as well as associated transaction costs, with the net proceeds from debt and equity issuances, including proceeds from the common stock, mandatory convertible preferred stock and debt offerings completed in January 2018, which we discuss in Note 18, and initial additional financing consisting of up to \$2.7 billion aggregate principal amount of commercial paper, although we may reduce the amount of commercial paper by borrowings under our revolving credit facilities and cash from operations. We expect to ultimately fund approximately 65 percent of the Merger Consideration, along with the associated transaction costs, with the net proceeds from sales of Sempra Energy common stock and other equity securities and approximately 35 percent with the net proceeds from issuances of Sempra Energy debt securities. However, we

may use cash from operations and proceeds from asset sales in place of some of the equity financing. Some of the equity issuances will likely occur following the Merger, including common stock to be sold pursuant to the forward sale agreements entered into in connection with the common stock offering discussed in Note 18, to repay outstanding indebtedness, including indebtedness we incur to initially finance the Merger Consideration and associated transaction costs. The total amount of equity we ultimately issue may be reduced by cash from operations and proceeds from asset sales.

In addition, we have agreed that, within 60 days of the Merger, we will contribute our proportionate share of the aggregate investment in Oncor in an amount necessary for Oncor to achieve a capital structure consisting of 57.5 percent long-term debt and 42.5 percent equity, as calculated for regulatory purposes.

We have incurred transaction costs of \$43 million as of December 31, 2017. These costs are included in Sundry on the Sempra Energy Consolidated Balance Sheet, and will be charged against related gross proceeds of equity offerings, debt offerings and/or included in the basis of EFH's equity method investment in Oncor Holdings upon consummation of the Merger. If the Merger does not occur, the transaction costs that would be included in the basis of EFH's equity method investment in Oncor Holdings will be expensed.

Ring-Fencing

In April 2014, EFH and the substantial majority of its subsidiaries filed voluntary petitions for relief under Chapter 11 of the U.S. Bankruptcy Code in the Bankruptcy Court. The bankruptcy does not include Oncor Holdings or Oncor. Certain existing "ring-fencing" measures, governance mechanisms and restrictions will remain in effect following the Merger, which are intended to enhance Oncor Holdings' and Oncor's separateness from their owners and to mitigate the risk that these entities would be negatively impacted by the bankruptcy of, or other adverse financial developments affecting, EFH or its other subsidiaries or the owners of EFH. In accordance with the ring-fencing measures and commitments made by Sempra Energy as part of the Joint Application to the PUCT for regulatory approval of the Merger, and the Stipulation with key stakeholders entered into in connection with that proceeding, Sempra Energy and Oncor will be subject to certain restrictions following the Merger. Sempra Energy will not control Oncor Holdings or Oncor, and the ring-fencing measures, governance mechanisms and restrictions will limit our ability to direct the management, policies and operations of Oncor Holdings and Oncor, including the deployment or disposition of their assets, declarations of dividends, strategic planning and other important corporate issues and actions. These limitations include limited representation on the Oncor Holdings and Oncor boards of directors. Following consummation of the Merger, if the Stipulation is approved by the PUCT, the board of directors of Oncor is expected to consist of thirteen members and be constituted as follows:

- seven members will be independent directors in all material respects under the rules of the New York Stock Exchange in relation to Sempra Energy and its subsidiaries and affiliated entities and any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings (and those directors must have no material relationship with Sempra Energy or its affiliates or any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings at the time of the Merger or within the previous ten years) ("independent directors");
- two members will be designated by Sempra Energy;
- two members will be appointed by TTI. If Sempra Energy acquires TTI's interest in Oncor, the two board positions on the Oncor board of directors that TTI is entitled to appoint shall be eliminated, and the size of the Oncor board of directors will be reduced by two; and
- two members will be current or former officers of Oncor (the Oncor Officer Directors). In order for a current or former officer of Oncor to be eligible to serve as an Oncor Officer Director, such officer cannot have worked for Sempra Energy or any of its affiliates (excluding Oncor Holdings and Oncor) or any other entity with a direct or indirect ownership interest in Oncor or Oncor Holdings in the ten years prior to such officer being employed by Oncor. Oncor Holdings, at the direction of EFIH (a subsidiary of EFH, which will be a wholly owned indirect subsidiary of, and controlled by, Sempra Energy following the Merger), will have the right to nominate and/or seek the removal of the Oncor Officer Directors, with such nomination or removal subject to approval by a majority of the Oncor board of directors.

Oncor Holdings will also continue to have a majority of independent directors following the consummation of the Merger. Thus, Oncor Holdings and Oncor will continue to be managed independently (i.e., ring-fenced). Upon consummation of the acquisition, we will consolidate EFH, and EFH will continue to account for its ownership interest in Oncor Holdings as an equity method investment.

Settlement Agreement Regarding Joint Application

In December 2017 and January 2018, Sempra Energy and Oncor entered into a comprehensive Stipulation with 10 intervening parties, including the Staff of the PUCT, reflecting the parties' settlement of all issues in the PUCT proceeding regarding the Joint

Application. Pursuant to the Stipulation, the parties have agreed that Sempra Energy's acquisition of EFH is in the public interest and will bring substantial benefits.

The Stipulation includes regulatory commitments by Sempra Energy, most of which are similar to the regulatory commitments made by Sempra Energy as part of the Joint Application and are consistent with the "ring-fencing" measures currently in place. Sempra Energy and Oncor are entitled to seek modifications of the PUCT order to be entered in the proceedings regarding the Joint Application, which modifications would be subject to PUCT approval.

On January 5, 2018, Oncor, Sempra Energy and the Staff of the PUCT jointly filed with the PUCT, requesting that the PUCT approve the Merger consistent with the Stipulation. As of January 31, 2018, all 10 intervening parties including the Staff of the PUCT, had agreed to the Stipulation.

Closing Conditions

The Merger is subject to customary closing conditions, including the approval of the Bankruptcy Court, the PUCT, the Vermont Department of Financial Regulation, and the FERC, among others, as well as receipt of a private letter ruling from the IRS and the issuance of certain tax opinions regarding the Merger.

On September 6, 2017, the Bankruptcy Court approved EFH's and EFIG's entry into the Merger Agreement. Under the terms of the Merger Agreement, a \$190 million termination fee would be owed to Sempra Energy if EFH or EFIG terminates the Merger Agreement in certain circumstances and consummates an alternative proposal with a third party.

On October 5, 2017, Sempra Energy and Oncor filed a joint application with the PUCT and an application with the FERC seeking approval of the Merger. On October 12, 2017, the ALJ in the PUCT proceeding issued an order deeming the joint application sufficient. On October 16, 2017, the PUCT set a procedural schedule to complete a review of Sempra Energy's and Oncor's change-in-control request within 180 days of the filing of the joint application on October 5, 2017.

On November 2, 2017, EFH received a supplemental private letter ruling from the IRS that provides that the Merger will not affect the tax-free treatment of the 2016 Vistra (formerly TCEH Corp.) spinoff from EFH. This ruling satisfies the closing condition described above.

On November 29, 2017, Sempra Energy received the necessary approval from the Vermont Department of Financial Regulation.

On December 11, 2017, the FERC issued an order authorizing the Merger, subject to customary conditions.

On February 26, 2018, the Bankruptcy Court held a hearing to consider confirmation of EFH's plan of reorganization and final approval of the Merger. At the conclusion of the hearing, the Bankruptcy Court ruled that it will confirm the plan of reorganization and approve the Merger and that it will promptly enter an order reflecting such ruling.

We currently expect the Merger will close in the first half of 2018, although there can be no assurance that the Merger will be completed on that timetable, or at all.

ASSETS HELD FOR SALE

We classify assets as held for sale when management approves and commits to a formal plan to actively market an asset for sale and we expect the sale to close within the next 12 months. Upon classifying an asset as held for sale, we record the asset at the lower of its carrying value or its estimated fair value reduced for selling costs.

SEMPRA MEXICO

Termoeléctrica de Mexicali

In February 2016, management approved a plan to market and sell Sempra Mexico's TdM, a 625-MW natural gas-fired power plant located in Mexicali, Baja California, Mexico. As a result, we stopped depreciating the plant and classified it as held for sale.

In connection with the sales process, in late September 2016 and early July 2017, Sempra Mexico received market information indicating that the fair value of TdM was less than its carrying value. After performing analysis of the information, Sempra Mexico reduced the carrying value of TdM by recognizing noncash impairment charges of \$131 million (\$111 million after-tax) in the third quarter of 2016 and \$71 million in the second quarter of 2017, recorded in Impairment Losses on Sempra Energy's Consolidated Statements of Operations. We discuss non-recurring fair value measures and the associated accounting impact on TdM in Note 10.

In connection with TdM's classification as held for sale, we recognized an \$8 million income tax benefit in 2017 and an \$8 million income tax expense in 2016, for a deferred Mexican income tax liability related to the excess of carrying value over the tax basis. As the Mexican income tax on this outside basis difference is based on current carrying value, foreign exchange rates and inflation, such amount could change in future periods until the date of sale. We continue to actively pursue the sale of TdM, which we expect to be completed in 2018.

At December 31, 2017, the carrying amounts of the major classes of assets and related liabilities held for sale associated with TdM are as follows:

ASSETS HELD FOR SALE AT DECEMBER 31, 2017

(Dollars in millions)

	TdM
Inventories	\$ 10
Other current assets	59
Property, plant and equipment, net	56
Other noncurrent assets	2
Total assets held for sale	<u>\$ 127</u>
Accounts payable	\$ 5
Other current liabilities	38
Asset retirement obligations	5
Other noncurrent liabilities	1
Total liabilities held for sale	<u>\$ 49</u>

DIVESTITURES

SEMPRA RENEWABLES

Rosamond Solar

In December 2015, Sempra Renewables sold its 100-percent interest in Rosamond Solar, a development project located in Antelope Valley, California for \$26 million in cash. Upon completion of the sale that was comprised of \$18 million of net PP&E, Sempra Renewables recognized a pretax gain of \$8 million (\$5 million after-tax), which is included in Gain on Sale of Assets on our Consolidated Statement of Operations.

SEMPRA LNG & MIDSTREAM

EnergySouth Inc.

In September 2016, Sempra LNG & Midstream completed the sale of EnergySouth, the parent company of Mobile Gas and Willmut Gas, to Spire Inc. (formerly The Laclede Group, Inc.) for cash proceeds of \$318 million, net of \$2 million cash sold, with the buyer assuming debt of \$67 million. We recognized a pretax gain on the sale of \$130 million (\$78 million after-tax) in the year ended December 31, 2016, in Gain on Sale of Assets on Sempra Energy's Consolidated Statement of Operations. On September 12, 2016, Sempra LNG & Midstream deconsolidated EnergySouth.

The following table summarizes the deconsolidation:

DECONSOLIDATION OF SUBSIDIARY	
<i>(Dollars in millions)</i>	
	EnergySouth
Proceeds from sale, net of transaction costs	\$ 304
Cash	(2)
Other current assets	(17)
Property, plant and equipment, net	(199)
Goodwill	(72)
Other noncurrent assets	(65)
Current liabilities	25
Long-term debt	67
Other noncurrent liabilities	89
Gain on sale	<u>\$ 130</u>

Investment in Rockies Express

In March 2016, Sempra LNG & Midstream entered into an agreement to sell its 25-percent interest in Rockies Express to a subsidiary of Tallgrass Development, LP for cash consideration of \$440 million, subject to adjustment at closing. The transaction closed in May 2016 for total cash proceeds of \$443 million.

At the date of the agreement, the carrying value of Sempra LNG & Midstream's investment in Rockies Express was \$484 million. Following the execution of the agreement, Sempra LNG & Midstream measured the fair value of its equity method investment at \$440 million, and recognized a \$44 million (\$27 million after-tax) impairment in Equity Earnings, Before Income Tax, on the Sempra Energy Consolidated Statement of Operations. We discuss non-recurring fair value measures and the associated accounting impact on our investment in Rockies Express in Note 10.

We discuss Sempra LNG & Midstream's 2016 permanent release of pipeline capacity that it held with Rockies Express and others in Note 15.

Mesquite Power Plant

In April 2015, Sempra LNG & Midstream sold the remaining 625-MW block of the Mesquite Power plant that was classified as held for sale at December 31, 2014, together with a related power sales contract, for net cash proceeds of \$347 million. We recognized a pretax gain on the sale of \$61 million (\$36 million after-tax), included in Gain on Sale of Assets on our Consolidated Statement of Operations.

NOTE 4. INVESTMENTS IN UNCONSOLIDATED ENTITIES

We generally account for investments under the equity method when we have significant influence over, but do not have control of, these entities. In these cases, our pro rata shares of the entities' net assets are included in Investments on the Consolidated Balance Sheets. We adjust each investment for our share of each investee's earnings or losses, dividends, and other comprehensive income or loss. We evaluate the carrying value of unconsolidated entities for impairment under the U.S. GAAP provisions for equity method investments.

We provide the carrying value of our investments and earnings (losses) on these investments below:

EQUITY METHOD AND OTHER INVESTMENT BALANCES

(Dollars in millions)

	December 31,	
	2017	2016
Sempra South American Utilities:		
Eletrans ⁽¹⁾	\$ 16	\$ (8)
Sempra Mexico:		
DEN	—	42
Energía Sierra Juárez ⁽²⁾	39	38
IMG ⁽³⁾	221	100
TAG ⁽⁴⁾	364	—
Sempra Renewables:		
Wind:		
Auwahi Wind	42	41
Broken Bow 2 Wind	32	35
Cedar Creek 2 Wind	72	75
Flat Ridge 2 Wind	255	271
Fowler Ridge 2 Wind	44	43
Mehoopany Wind	89	92
Solar:		
California solar partnership	107	113
Copper Mountain Solar 2	35	33
Copper Mountain Solar 3	44	42
Mesquite Solar 1	81	86
Other	12	13
Sempra LNG & Midstream:		
Cameron LNG JV ⁽⁵⁾	997	997
Parent and other:		
RBS Sempra Commodities	67	67
Total equity method investments	2,517	2,080
Other	10	17
Total	\$ 2,527	\$ 2,097

⁽¹⁾ Reflects losses on forward exchange contracts entered into to manage the foreign currency exchange rate risk of the CLF relative to the U.S. dollar, related to certain construction commitments that are denominated in CLF. The contracts settle based on anticipated payments to vendors, generally monthly, ending in July 2018.

⁽²⁾ The carrying value of our equity method investment is \$12 million higher than the underlying equity in the net assets of the investee due to the remeasurement of our retained investment to fair value in 2014.

⁽³⁾ The carrying value of our equity method investment is \$5 million higher than the underlying equity in the net assets of the investee due to guarantees, which we discuss below.

⁽⁴⁾ The carrying value of our equity method investment is \$130 million higher than the underlying equity in the net assets of the investee due to equity method goodwill.

⁽⁵⁾ The carrying value of our equity method investment is \$237 million and \$190 million higher than the underlying equity in the net assets of the investee at December 31, 2017 and 2016, respectively, primarily due to guarantees, which we discuss below, and interest capitalized on the investment, as the joint venture has not commenced its planned principal operations.

EARNINGS (LOSSES) FROM EQUITY METHOD INVESTMENTS*(Dollars in millions)*

	Years ended December 31,		
	2017	2016	2015
Earnings (losses) recorded before income tax:			
Sempra Renewables:			
Wind:			
Auwahi Wind	\$ 5	\$ 4	\$ 4
Broken Bow 2 Wind	(2)	(2)	(2)
Cedar Creek 2 Wind	(2)	(2)	(6)
Flat Ridge 2 Wind	(13)	(7)	(12)
Fowler Ridge 2 Wind	4	4	4
Mehoopany Wind	(1)	—	(1)
Solar:			
California solar partnership	7	7	6
Copper Mountain Solar 2	5	6	7
Copper Mountain Solar 3	8	8	8
Mesquite Solar 1	18	17	16
Other	—	(1)	—
Sempra LNG & Midstream:			
Cameron LNG JV	5	(2)	5
Rockies Express Pipeline	—	(26)	79
Parent and other:			
RBS Sempra Commodities	—	—	(4)
	<u>\$ 34</u>	<u>\$ 6</u>	<u>\$ 104</u>
Earnings (losses) recorded net of income tax⁽¹⁾:			
Sempra South American Utilities:			
Eletrans	\$ 4	\$ 3	\$ (4)
Sempra Mexico:			
DEN	(13)	5	—
Energía Sierra Juárez	—	6	6
IEnova Pipelines	—	64	83
IMG	45	—	—
TAG	6	—	—
	<u>\$ 42</u>	<u>\$ 78</u>	<u>\$ 85</u>

⁽¹⁾ As the earnings (losses) from these investments are recorded net of income tax, they are presented below the income tax expense line, so as not to impact our ETR.

Our share of the undistributed earnings of equity method investments was \$89 million and \$44 million at December 31, 2017 and 2016, respectively. These balances do not include remaining distributions of \$67 million associated with our investment in RBS Sempra Commodities and expected to be received from the partnership as it is dissolved, as we discuss below.

SEMPRA SOUTH AMERICAN UTILITIES

In February 2017, Sempra South American Utilities recorded the equitization of its \$19 million note receivable due from Eletrans, resulting in an increase in its investment in this unconsolidated joint venture. During the year ended December 31, 2017, Sempra South American Utilities invested cash of \$1 million in Eletrans.

SEMPRA MEXICO

IEnova Pipelines, DEN and TAG

On September 26, 2016, IEnova completed the acquisition of the remaining 50-percent interest in IEnova Pipelines and IEnova Pipelines became a consolidated subsidiary. Prior to the acquisition date, IEnova owned 50 percent of IEnova Pipelines and accounted for its interest as an equity method investment. As of the acquisition date, IEnova accounted for IEnova Pipelines' 50-percent interest in DEN as an equity method investment.

On November 15, 2017, IEnova acquired the remaining 50-percent interest in DEN, and DEN became a consolidated subsidiary. Since the acquisition date, IEnova accounts for DEN's 50-percent interest in TAG as an equity method investment. We discuss these acquisitions in Note 3.

IMG

In June 2016, IMG, a joint venture between IEnova and a subsidiary of TransCanada, was awarded the right to build, own and operate the Sur de Texas-Tuxpan natural gas marine pipeline by the CFE. IEnova has a 40-percent interest in the project and accounts for its interest as an equity method investment, and TransCanada owns the remaining 60-percent interest. The marine pipeline is fully contracted under a 25-year natural gas transportation service contract with the CFE. We expect the project to be completed in the second half of 2018. During the years ended December 31, 2017 and 2016, Sempra Mexico invested cash of \$72 million and \$100 million respectively, in the IMG joint venture.

SEMPRA RENEWABLES

Sempra Renewables has 50-percent interests in wind and solar energy generation facilities in operation in the U.S. The generating capacities of the facilities are contracted under long-term PPAs. These facilities are accounted for under the equity method. During the years ended December 31, 2016 and 2015, Sempra Renewables invested cash of \$18 million and \$21 million, respectively, in its unconsolidated joint ventures.

SEMPRA LNG & MIDSTREAM

Rockies Express

As we discuss in Note 3, in May 2016, Sempra LNG & Midstream sold its 25-percent interest in Rockies Express, a partnership that operates a natural gas pipeline, REX, that links the Rocky Mountain region to the upper Midwest and the eastern U.S. In 2015, Sempra LNG & Midstream invested \$113 million of cash in Rockies Express to repay project debt that matured in early 2015.

Cameron LNG JV

The Cameron LNG JV is a joint venture partnership that was formed in October 2014 among Sempra Energy and three project partners. The Cameron LNG existing regasification terminal that was contributed to the joint venture included two marine berths and three LNG storage tanks, and facilities capable of processing 1.5 Bcf of natural gas per day. The current liquefaction project, which is utilizing Cameron LNG JV's existing facilities, is comprised of three liquefaction trains and is being designed to a nameplate capacity of 13.9 Mtpa of LNG, with an expected export capability of 12 Mtpa of LNG, or approximately 1.7 Bcf per day. As of October 2014, Sempra LNG & Midstream began accounting for its investment in Cameron LNG JV under the equity method.

During the years ended December 31, 2017, 2016 and 2015, Sempra LNG & Midstream capitalized \$47 million, \$47 million and \$49 million, respectively, of interest related to this equity method investment that has not commenced planned principal operations. During the years ended December 31, 2017 and 2015, Sempra LNG & Midstream invested \$1 million and \$10 million, respectively, of cash in Cameron LNG JV.

Cameron LNG JV Financing

General. In August 2014, Cameron LNG JV entered into finance documents (collectively, Loan Facility Agreements) for senior secured financing in an initial aggregate principal amount of up to \$7.4 billion under three debt facilities provided by the Japan Bank for International Cooperation (JBIC) and 29 international commercial banks, some of which will benefit from insurance coverage provided by Nippon Export and Investment Insurance (NEXI).

The Cameron LNG JV Loan Facility Agreements and related finance documents provide senior secured term loans with a maturity date of July 15, 2030. The proceeds of the loans will be used for financing the cost of development and construction of the three-train Cameron LNG project. The Loan Facility Agreements and related finance documents contain customary representations and affirmative and negative covenants for project finance facilities of this kind with the lenders of the type participating in the Cameron LNG JV financing.

Interest. The weighted-average all-in cost of the loans outstanding under all the Loan Facility Agreements (and based on certain assumptions as to timing of drawdown) is 1.59 percent per annum over LIBOR prior to financial completion of the project and 1.78 percent per annum over LIBOR following financial completion of the project. The Loan Facility Agreements require Cameron LNG JV to hedge 50 percent of outstanding borrowings to fix the interest rate, beginning in 2016. The hedges are to remain in place until the debt principal has been amortized by 50 percent. In November 2014, Cameron LNG JV entered into floating-to-fixed interest rate swaps for approximately \$3.7 billion notional amount, resulting in an effective fixed rate of 3.19 percent for the LIBOR component of the interest rate on the loans. In June 2015, Cameron LNG JV entered into additional floating-to-fixed interest rate swaps effective starting in 2020, for approximately \$1.5 billion notional amount, resulting in an effective fixed rate of 3.32 percent for the LIBOR component of the interest rate on the loans.

Guarantees. In August 2014, Sempra Energy entered into agreements for the benefit of all of Cameron LNG JV's creditors under the Loan Facility Agreements and related finance documents. Pursuant to these agreements, Sempra Energy has severally guaranteed 50.2 percent of Cameron LNG JV's obligations under the Loan Facility Agreements and related finance documents, or a maximum amount of \$3.9 billion. Guarantees for the remaining 49.8 percent of Cameron LNG JV's senior secured financing have been provided by the other project partners. The Sempra Energy guarantee of 50.2 percent of Cameron LNG JV's financing became effective upon effectiveness of the joint venture. Sempra Energy's agreements and guarantees will terminate upon financial completion of the three-train Cameron LNG project, which is subject to satisfaction of certain conditions, including all three trains achieving commercial operations and meeting certain operational performance tests. We expect the project to achieve financial completion and the guarantees to be terminated approximately nine months after all three trains achieve commercial operation. Sempra Energy recorded a liability of \$82 million in October 2014, with an associated carrying value of \$26 million at December 31, 2017, for the fair value of its obligations associated with the Loan Facility Agreements and related finance documents, which constitute guarantees. This liability is being reduced on a straight-line basis over the duration of the guarantees by recognizing equity earnings from Cameron LNG JV, included in Equity Earnings, Before Income Tax.

In August 2014, Sempra Energy and the other project partners entered into a transfer restrictions agreement with Société Générale, as intercreditor agent for the lenders under the Loan Facility Agreements. Pursuant to the transfer restriction agreement, Sempra Energy agreed to certain restrictions on its ability to dispose of Sempra Energy's indirect fully diluted economic and beneficial ownership interests in Cameron LNG JV. These restrictions vary over time. Prior to financial completion of the three-train Cameron LNG project, Sempra Energy must retain 37.65 percent of such interest in Cameron LNG JV. Starting six months after financial completion of the three-train Cameron LNG project, Sempra Energy must retain at least 10 percent of the indirect fully diluted economic and beneficial ownership interest in Cameron LNG JV. In addition, at all times, a Sempra Energy controlled (but not necessarily wholly owned) subsidiary must directly own 50.2 percent of the membership interests of the Cameron LNG JV.

Events of Default. Cameron LNG JV's Loan Facility Agreements and related finance documents contain events of default customary for such financings, including events of default for: failure to pay principal and interest on the due date; insolvency of Cameron LNG JV; abandonment of the project; expropriation; unenforceability or termination of the finance documents; and a failure to achieve financial completion of the project by a financial completion deadline date of September 30, 2021 (with up to an additional 365 days extension beyond such date permitted in cases of force majeure). A delay in construction that results in a failure to achieve financial completion of the project by this financial completion deadline date would therefore result in an event of default under Cameron LNG JV's financing and a potential demand on Sempra Energy's guarantees.

Security. To support Cameron LNG JV's obligations under the Loan Facility Agreements and related finance documents, Cameron LNG JV has granted security over all of its assets, subject to customary exceptions, and all equity interests in Cameron LNG JV have been pledged to HSBC Bank USA, National Association, as security trustee for the benefit of all of Cameron LNG JV's creditors. As a result, an enforcement action by the lenders taken in accordance with the finance documents could result in the exercise of such security interests by the lenders and the loss of ownership interests in Cameron LNG JV by Sempra Energy and the other project partners.

The security trustee under Cameron LNG JV's financing can demand that a payment be made by Sempra Energy under its guarantees of Sempra Energy's 50.2-percent share of senior debt obligations due and payable either on the date such amounts were due from Cameron LNG JV (taking into account cure periods) in the event of a failure by Cameron LNG JV to pay such senior debt obligations when they become due or within 10 business days in the event of an acceleration of senior debt obligations

under the terms of the finance documents. If an event of default occurs under the Sempra Energy completion agreement, the security trustee can demand that Sempra Energy purchase its 50.2-percent share of all then outstanding senior debt obligations within five business days (other than in the case of a bankruptcy default, which is automatic).

RBS SEMPRA COMMODITIES

RBS Sempra Commodities is a United Kingdom limited liability partnership formed by Sempra Energy and RBS in 2008 to own and operate the commodities-marketing businesses previously operated through wholly owned subsidiaries of Sempra Energy. We and RBS sold substantially all of the partnership's businesses and assets in four separate transactions completed in 2010 and 2011. We account for our investment in RBS Sempra Commodities under the equity method, and report miscellaneous costs since the sale of the business in Parent and Other.

In April 2011, we and RBS entered into a letter agreement (Letter Agreement) which amended certain provisions of the agreements that formed RBS Sempra Commodities. The Letter Agreement addresses the wind-down of the partnership and the distribution of the partnership's remaining assets. The investment balance of \$67 million at December 31, 2017 reflects remaining distributions expected to be received from the partnership in accordance with the Letter Agreement. The timing and amount of distributions, if any, may be impacted by the matters we discuss related to RBS Sempra Commodities in Note 15 in "Legal Proceedings – Other Litigation." In addition, amounts may be retained by the partnership for an extended period of time to help offset unanticipated future general and administrative costs necessary to complete the dissolution of the partnership.

In connection with the Letter Agreement described above, we also released RBS from its indemnification obligations with respect to items for which JP Morgan, one of the buyers of the partnership's businesses, has agreed to indemnify us.

SUMMARIZED FINANCIAL INFORMATION

We present summarized financial information below, aggregated for all of our equity method investments for the periods in which we were invested in the entity. The amounts below represent the aggregate financial position and results of operations of 100 percent of each of Sempra Energy's equity method investments.

SUMMARIZED FINANCIAL INFORMATION

(Dollars in millions)

	Years ended December 31,		
	2017 ⁽¹⁾	2016 ⁽²⁾	2015
Gross revenues	\$ 846	\$ 1,079	\$ 1,533
Operating expense	(590)	(726)	(845)
Income from operations	256	353	688
Interest expense	(217)	(127)	(312)
Net income/Earnings ⁽³⁾	116	252	440
	At December 31,		
	2017 ⁽¹⁾	2016 ⁽²⁾	
Current assets	\$ 974	\$ 704	
Noncurrent assets	14,087	9,970	
Current liabilities	797	629	
Noncurrent liabilities	9,809	6,627	

⁽¹⁾ On November 15, 2017, IEnova completed the asset acquisition of PEMEX's 50-percent interest in DEN, increasing its ownership percentage to 100 percent. At December 31, 2017, DEN is no longer an equity method investment.

⁽²⁾ On September 26, 2016, IEnova completed the acquisition of PEMEX's 50-percent interest in IEnova Pipelines, increasing its ownership percentage to 100 percent, and on May 9, 2016, Sempra LNG & Midstream sold its 25-percent interest in Rockies Express. At December 31, 2016, IEnova Pipelines and Rockies Express are no longer equity method investments.

⁽³⁾ Except for our investments in South America and Mexico, there was no income tax recorded by the entities, as they are primarily domestic partnerships.

GUARANTEES

Project financing at our solar and wind joint ventures generally requires the joint venture partners, for each partner's interest, to return cash to the projects in the event that the projects do not meet certain cash flow criteria or in the event that the projects' debt service, O&M, and firm transmission and PTC reserve accounts are not maintained at specific thresholds. In some cases, the joint

venture partners have provided guarantees to the lenders in lieu of the projects funding the reserve account requirements. We recorded liabilities for the fair value of certain of our obligations associated with these guarantees and the liabilities are being amortized over their expected lives. The outstanding loans at our solar and wind joint ventures are not guaranteed by the partners, but are secured by project assets.

IEnova has an indirect 40-percent ownership interest and TransCanada has an indirect 60-percent ownership interest in IMG. IEnova and TransCanada have each provided guarantees to third parties associated with construction of IMG's Sur de Texas-Tuxpan natural gas marine pipeline. The aggregate amount of the obligations guaranteed by IEnova shall not exceed \$288 million and will terminate upon completion of all guaranteed obligations. IEnova expects the construction giving rise to these guarantees to be completed by the end of 2018.

At December 31, 2017, we provided guarantees aggregating a maximum of \$183 million with an associated aggregated carrying value of \$6 million for guarantees related to project financing. In addition, at December 31, 2017, we provided guarantees to joint ventures aggregating a maximum of \$370 million with an associated aggregated carrying value of \$3 million, primarily related to PPAs and EPC contracts.

NOTE 5. DEBT AND CREDIT FACILITIES

LINES OF CREDIT

At December 31, 2017, Sempra Energy Consolidated had an aggregate of \$4.3 billion in three primary committed lines of credit for Sempra Energy, Sempra Global and the California Utilities to provide liquidity and to support commercial paper, the principal terms of which we describe below. Available unused credit on these lines at December 31, 2017 was approximately \$3.0 billion. Our foreign operations have additional general purpose credit facilities aggregating \$1.8 billion at December 31, 2017. Available unused credit on these lines totaled \$1.4 billion at December 31, 2017.

PRIMARY U.S. COMMITTED LINES OF CREDIT

(Dollars in millions)

	At December 31, 2017		
	Total facility	Commercial paper outstanding ⁽¹⁾	Available unused credit
Sempra Energy ⁽²⁾	\$ 1,000	\$ —	\$ 1,000
Sempra Global ⁽³⁾	2,335	(931)	1,404
California Utilities ⁽⁴⁾ :			
SDG&E	750	(253)	497
SoCalGas	750	(116)	634
Less: subject to a combined limit of \$1 billion for both utilities	(500)	—	(500)
	1,000	(369)	631
Total	\$ 4,335	\$ (1,300)	\$ 3,035

⁽¹⁾ Because the commercial paper programs are supported by these lines, we reflect the amount of commercial paper outstanding as a reduction to the available unused credit.

⁽²⁾ The facility also provides for issuance of up to \$400 million of letters of credit on behalf of Sempra Energy with the amount of borrowings otherwise available under the facility reduced by the amount of outstanding letters of credit. No letters of credit were outstanding at December 31, 2017.

⁽³⁾ Sempra Energy guarantees Sempra Global's obligations under the credit facility.

⁽⁴⁾ The facility also provides for the issuance of letters of credit on behalf of each utility subject to a combined letter of credit commitment of \$250 million for both utilities. The amount of borrowings otherwise available under the facility is reduced by the amount of outstanding letters of credit. No letters of credit were outstanding at December 31, 2017.

Related to the committed lines of credit in the table above:

- Each is a 5-year syndicated revolving credit agreement expiring in October 2020.
- Citibank N.A. serves as administrative agent for the Sempra Energy and Sempra Global facilities and JPMorgan Chase Bank, N.A. serves as administrative agent for the California Utilities combined facility.
- Each facility has a syndicate of 21 lenders. No single lender has greater than a 7-percent share in any facility.

- Sempra Energy, SDG&E and SoCalGas must maintain a ratio of indebtedness to total capitalization (as defined in each agreement) of no more than 65 percent at the end of each quarter. Each entity is in compliance with this and all other financial covenants under its respective credit facility at December 31, 2017.
- Borrowings bear interest at benchmark rates plus a margin that varies with Sempra Energy's credit ratings in the case of the Sempra Energy and Sempra Global lines of credit, and with the borrowing utility's credit rating in the case of the California Utilities line of credit.
- The California Utilities' obligations under their agreement are individual obligations, and a default by one utility would not constitute a default by the other utility or preclude borrowings by, or the issuance of letters of credit on behalf of, the other utility.

On January 17, 2018, pursuant to the terms of the Sempra Energy and Sempra Global credit facilities, the amounts available under the lines of credit were increased by \$250 million, from \$1.0 billion to \$1.25 billion, for Sempra Energy and by \$850 million, from \$2.335 billion to \$3.185 billion, for Sempra Global. This additional borrowing capacity is available to us for working capital, capital expenditures and other general corporate purposes, and is intended to provide us with additional liquidity and to support commercial paper that we may utilize from time to time to fund our strategic and growth initiatives.

CREDIT FACILITIES IN SOUTH AMERICA AND MEXICO

(U.S. dollar equivalent in millions)

	Denominated in	At December 31, 2017		
		Total facility	Amount outstanding	Available unused credit
Sempra South American Utilities ⁽¹⁾ :				
Peru ⁽²⁾	Peruvian sol	\$ 465	\$ (169) ⁽³⁾	\$ 296
Chile	Chilean peso	115	—	115
Sempra Mexico:				
IEnova ⁽⁴⁾	U.S. dollar	1,170	(137)	1,033
Total		\$ 1,750	\$ (306)	\$ 1,444

⁽¹⁾ The credit facilities were entered into to finance working capital and for general corporate purposes and expire between 2018 and 2021.

⁽²⁾ The Peruvian facilities require a debt to equity ratio of no more than 170 percent, with which we were in compliance at December 31, 2017.

⁽³⁾ Includes bank guarantees of \$18 million.

⁽⁴⁾ Five-year revolver expiring in August 2020 with a syndicate of eight lenders.

Outside of these domestic and foreign committed credit facilities, we have bilateral unsecured standby letter of credit capacity with select lenders that is uncommitted and supported by reimbursement agreements. At December 31, 2017, we had approximately \$629 million in standby letters of credit outstanding under these agreements.

WEIGHTED-AVERAGE INTEREST RATES

The weighted-average interest rates on the total short-term debt at Sempra Energy Consolidated were 1.92 percent and 1.51 percent at December 31, 2017 and 2016, respectively. The weighted-average interest rate on total short-term debt at SDG&E was 1.65 percent at December 31, 2017. The weighted-average interest rates on total short-term debt at SoCalGas were 1.64 percent and 0.75 percent at December 31, 2017 and 2016, respectively.

BRIDGE FACILITY RELATED TO THE PENDING ACQUISITION OF ENERGY FUTURE HOLDINGS CORP.

At December 31, 2017, Sempra Energy had a commitment letter from a syndicate of banks, subject to customary conditions, for a \$4.0 billion, 364-day senior unsecured bridge facility to backstop a portion of our obligations to pay the Merger Consideration for the acquisition of EFH, which we discuss in Note 3. The \$4.0 billion commitment is reduced by the amount of funds received through Sempra Energy's sales of equity securities and debt securities, subject in each case to certain exceptions, and increases in our borrowing capacity under our existing revolving credit facilities. At December 31, 2017, we had no amounts outstanding under this bridge facility. Following the completion of the common stock offering and the mandatory convertible preferred stock offering, which closed on January 9, 2018, the facility was terminated. We discuss the offerings in Note 18.

LONG-TERM DEBT

The following tables show the detail and maturities of long-term debt outstanding:

LONG-TERM DEBT (Dollars in millions)	December 31,	
	2017	2016
SDG&E		
First mortgage bonds (collateralized by plant assets):		
Bonds at variable rates (1.151% at December 31, 2016) March 9, 2017	\$ —	\$ 140
1.65% July 1, 2018 ⁽¹⁾	161	161
3% August 15, 2021	350	350
1.914% payable 2015 through February 2022	161	197
3.6% September 1, 2023	450	450
2.5% May 15, 2026	500	500
6% June 1, 2026	250	250
5.875% January and February 2034 ⁽¹⁾	176	176
5.35% May 15, 2035	250	250
6.125% September 15, 2037	250	250
4% May 1, 2039 ⁽¹⁾	75	75
6% June 1, 2039	300	300
5.35% May 15, 2040	250	250
4.5% August 15, 2040	500	500
3.95% November 15, 2041	250	250
4.3% April 1, 2042	250	250
3.75% June 1, 2047	400	—
	<u>4,573</u>	<u>4,349</u>
Other long-term debt:		
OMECE LLC variable-rate loan (5.2925% after floating-to-fixed rate swaps effective 2007), payable 2013 through April 2019 (collateralized by OMECE plant assets)	295	305
Capital lease obligations:		
Purchased-power contracts	731	239
Other	1	1
	<u>1,027</u>	<u>545</u>
	5,600	4,894
Current portion of long-term debt	(220)	(191)
Unamortized discount on long-term debt	(11)	(11)
Unamortized debt issuance costs	(34)	(34)
Total SDG&E	<u>5,335</u>	<u>4,658</u>
SoCalGas		
First mortgage bonds (collateralized by plant assets):		
5.45% April 15, 2018	250	250
1.55% June 15, 2018	250	250
3.15% September 15, 2024	500	500
3.2% June 15, 2025	350	350
2.6% June 15, 2026	500	500
5.75% November 15, 2035	250	250
5.125% November 15, 2040	300	300
3.75% September 15, 2042	350	350
4.45% March 15, 2044	250	250
	<u>3,000</u>	<u>3,000</u>
Other long-term debt (uncollateralized):		
1.875% Notes payable 2016 through May 2026 ⁽¹⁾	4	4
5.67% Notes January 18, 2028	5	5
Capital lease obligations	1	—
	<u>10</u>	<u>9</u>
	3,010	3,009
Current portion of long-term debt	(501)	—
Unamortized discount on long-term debt	(7)	(7)
Unamortized debt issuance costs	(17)	(20)
Total SoCalGas	<u>2,485</u>	<u>2,982</u>

LONG-TERM DEBT (CONTINUED)*(Dollars in millions)*

	December 31,	
	2017	2016
Sempra Energy		
Other long-term debt (uncollateralized):		
2.3% Notes April 1, 2017	\$ —	\$ 600
6.15% Notes June 15, 2018	500	500
9.8% Notes February 15, 2019	500	500
1.625% Notes October 7, 2019	500	500
2.4% Notes March 15, 2020	500	500
2.85% Notes November 15, 2020	400	400
Notes at variable rates (2.038% at December 31, 2017) March 15, 2021	850	—
2.875% Notes October 1, 2022	500	500
4.05% Notes December 1, 2023	500	500
3.55% Notes June 15, 2024	500	500
3.75% Notes November 15, 2025	350	350
3.25% Notes June 15, 2027	750	—
6% Notes October 15, 2039	750	750
Fair value adjustments for interest rate swaps, net	(1)	(3)
Build-to-suit lease ⁽²⁾	138	137
Sempra South American Utilities		
Other long-term debt (uncollateralized):		
Chilquinta Energía — 4.25% Series B Bonds October 30, 2030	205	185
Luz del Sur		
Bank loans 5.18% to 6.7% payable 2016 through December 2018	53	75
Corporate bonds at 4.75% to 8.75% payable 2014 through September 2029	415	346
Other bonds at 3.77% to 4.61% payable 2020 through May 2022	6	7
Capital lease obligations	6	6
Sempra Mexico		
Other long-term debt (uncollateralized unless otherwise noted):		
Notes February 8, 2018 at variable rates (2.66% after floating-to-fixed rate cross-currency swaps effective 2013)	66	63
6.3% Notes February 2, 2023 (4.12% after cross-currency swap)	198	189
Notes at variable rates (4.63% after floating-to-fixed rate swaps effective 2014), payable 2016 through December 2026, collateralized by plant assets	314	352
3.75% Notes January 14, 2028	300	—
Bank loans including \$251 at a weighted-average fixed rate of 6.67%, \$178 at variable rates (weighted-average rate of 6.29% after floating-to-fixed rate swaps effective 2014) and \$39 at variable rates (4.62% at December 31, 2017), payable 2016 through March 2032, collateralized by plant assets	468	481
4.875% Notes January 14, 2048	540	—
Sempra Renewables		
Other long-term debt (collateralized by project assets):		
Loan at variable rates (3.325% at December 31, 2017) payable 2012 through December 2028 except for \$59 at 3.668% after floating-to-fixed rate swaps effective June 2012 ⁽¹⁾	77	84
Sempra LNG & Midstream		
Other long-term debt (uncollateralized unless otherwise noted):		
Notes at 2.87% to 3.51% October 1, 2026 ⁽¹⁾	20	20
8.45% Notes payable 2012 through December 2017, collateralized by parent guarantee	—	6
	9,405	7,548
Current portion of long-term debt	(706)	(722)
Unamortized discount on long-term debt	(13)	(10)
Unamortized premium on long-term debt	4	4
Unamortized debt issuance costs	(65)	(31)
Total other Sempra Energy	8,625	6,789
Total Sempra Energy Consolidated	\$ 16,445	\$ 14,429

⁽¹⁾ *Callable long-term debt not subject to make-whole provisions.*⁽²⁾ *We discuss this lease in Note 15.*

MATURITIES OF LONG-TERM DEBT⁽¹⁾*(Dollars in millions)*

	SDG&E	SoCalGas	Other Sempra Energy	Total Sempra Energy Consolidated
2018	\$ 207	\$ 500	\$ 705	\$ 1,412
2019	321	—	1,098	1,419
2020	36	—	997	1,033
2021	385	—	961	1,346
2022	18	—	629	647
Thereafter	3,901	2,509	4,872	11,282
Total	\$ 4,868	\$ 3,009	\$ 9,262	\$ 17,139

⁽¹⁾ Excludes capital lease obligations, build-to-suit lease, market value adjustments for interest rate swaps, discounts, premiums and debt issuance costs.

Various long-term obligations totaling \$8.4 billion at Sempra Energy Consolidated at December 31, 2017 are unsecured. This includes unsecured long-term obligations totaling \$9 million at SoCalGas. There were no unsecured long-term obligations at SDG&E.

CALLABLE LONG-TERM DEBT

At the option of Sempra Energy, SDG&E and SoCalGas, certain debt at December 31, 2017 is callable subject to premiums:

CALLABLE LONG-TERM DEBT*(Dollars in millions)*

	SDG&E	SoCalGas	Other Sempra Energy	Total Sempra Energy Consolidated
Not subject to make-whole provisions	\$ 412	\$ 4	\$ 97	\$ 513
Subject to make-whole provisions	4,161	3,005	7,058	14,224

In addition, the OMEC LLC project financing loan discussed in Note 1, with \$295 million of outstanding borrowings at December 31, 2017, may be prepaid at OMEC LLC's option.

FIRST MORTGAGE BONDS

The California Utilities issue first mortgage bonds secured by a lien on utility plant. The California Utilities may issue additional first mortgage bonds if in compliance with the provisions of their bond agreements (indentures). These indentures require, among other things, the satisfaction of pro forma earnings-coverage tests on first mortgage bond interest and the availability of sufficient mortgaged property to support the additional bonds, after giving effect to prior bond redemptions. The most restrictive of these tests (the property test) would permit the issuance, subject to CPUC authorization, of additional first mortgage bonds of \$4.7 billion at SDG&E and \$1.1 billion at SoCalGas at December 31, 2017.

In June 2017, SDG&E publicly offered and sold \$400 million of 3.75-percent, first mortgage bonds maturing in June 2047. SDG&E used the proceeds from the offering to repay outstanding commercial paper.

OTHER LONG-TERM DEBT***Sempra Energy***

In January 2018, Sempra Energy publicly offered and sold an aggregate principal amount of \$5.0 billion of fixed and floating rate notes, which we discuss in Note 18.

In October 2017, Sempra Energy publicly offered and sold \$850 million of floating rate notes, maturing in March 2021. The floating rate notes bear interest at a rate equal to the three-month LIBOR plus 45 bps. The interest rate is reset quarterly. Sempra

Energy used a substantial portion of the net proceeds from the offering to repay outstanding commercial paper, with remaining proceeds used for general corporate purposes.

In June 2017, Sempra Energy publicly offered and sold \$750 million of 3.25-percent, fixed rate notes maturing in June 2027. Sempra Energy used the proceeds from the offering to repay outstanding commercial paper.

SDG&E

In 2015, SDG&E entered into a CPUC-approved 25-year PPA with a peaker plant facility. Construction of the peaker plant facility was completed and delivery of contracted power commenced in June 2017, at which time we recorded a \$500 million capital lease obligation on SDG&E's and Sempra Energy's Consolidated Balance Sheets.

Sempra South American Utilities

Luz del Sur has outstanding corporate bonds and bank loans that are denominated in the local currency. In February 2017, Luz del Sur publicly offered and sold \$50 million of corporate bonds at 6.375 percent, maturing in February 2023. In December 2017, Luz del Sur publicly offered and sold \$50 million of corporate bonds at 5.9375 percent, maturing in December 2027.

Sempra Mexico

In December 2017, Sempra Mexico offered and sold in a private placement \$300 million of 3.75-percent, fixed rate notes maturing in January 2028 and \$540 million of 4.875-percent, fixed rate notes maturing in January 2048. Sempra Mexico used a substantial portion of the net proceeds from the offering to repay outstanding short-term debt, with remaining proceeds used for general corporate purposes.

INTEREST RATE SWAPS

We discuss our fair value and cash flow hedging interest rate swaps in Note 9.

NOTE 6. INCOME TAXES

Reconciliation of net U.S. statutory federal income tax rates to the ETRs is as follows:

	Years ended December 31,		
	2017	2016	2015
RECONCILIATION OF FEDERAL INCOME TAX RATES TO EFFECTIVE INCOME TAX RATES			
Sempra Energy Consolidated:			
U.S. federal statutory income tax rate	35%	35%	35%
Effects of the TCJA	55	—	—
Utility depreciation	6	4	5
Foreign exchange and inflation effects ⁽¹⁾	3	(2)	(2)
State income taxes, net of federal income tax benefit	1	1	1
Utility repairs expenditures	(6)	(4)	(5)
Tax credits	(4)	(3)	(4)
Self-developed software expenditures	(4)	(3)	(3)
Non-U.S. earnings taxed at lower statutory income tax rates ⁽²⁾	(3)	(3)	(2)
Allowance for equity funds used during construction	(3)	(2)	(2)
Resolution of prior years' income tax items	(2)	—	(3)
Share-based compensation	—	(2)	—
Other, net	3	—	—
Effective income tax rate	81%	21%	20%
SDG&E:			
U.S. federal statutory income tax rate	35%	35%	35%
Depreciation	7	5	4
Effects of the TCJA	5	—	—
State income taxes, net of federal income tax benefit	3	5	5
Repairs expenditures	(8)	(4)	(4)
Self-developed software expenditures	(6)	(3)	(3)
Allowance for equity funds used during construction	(4)	(2)	(2)
Resolution of prior years' income tax items	(4)	(1)	(2)
Share-based compensation	—	(1)	—
Other, net	(1)	(1)	(1)
Effective income tax rate	27%	33%	32%
SoCalGas:			
U.S. federal statutory income tax rate	35%	35%	35%
Depreciation	9	9	8
State income taxes, net of federal income tax benefit	3	2	4
Repairs expenditures	(8)	(9)	(10)
Self-developed software expenditures	(5)	(6)	(6)
Allowance for equity funds used during construction	(3)	(2)	(2)
Resolution of prior years' income tax items	(2)	2	(3)
Share-based compensation	—	(1)	—
Other, net	—	(1)	(1)
Effective income tax rate	29%	29%	25%

⁽¹⁾ Primarily due to fluctuation of the Mexican peso against the U.S. dollar. We record income tax expense (benefit) from the transactional effects of foreign currency and inflation because of significant appreciation (depreciation) of the Mexican peso. We also recognize gains (losses) in Other Income, Net, on the Consolidated Statements of Operations from foreign currency derivatives that are partially hedging Sempra Mexico parent's exposure to movements in the Mexican peso from its controlling interest in IEnova.

⁽²⁾ Related to operations in Mexico, Chile and Peru.

On December 22, 2017, the TCJA was signed into law. This legislation significantly changes the IRC. Under U.S. GAAP, certain effects of the TCJA are required to be recognized upon enactment, and, as a result, Sempra Energy, SDG&E, and SoCalGas recorded the related effects in 2017.

The TCJA reduces the U.S. statutory corporate income tax rate from 35 percent to 21 percent, effective January 1, 2018, which will be applied to future U.S. earnings. U.S. GAAP requires that deferred income tax assets and liabilities, including NOLs, be remeasured at the income tax rate expected to apply when those temporary differences reverse and that the effects of any change to such income tax rate be recognized in the period when the change was enacted. This remeasurement resulted in significant reductions in deferred income tax balances at Sempra Energy Consolidated, SDG&E and SoCalGas.

The remeasurement of deferred income tax balances at SDG&E and SoCalGas resulted in excess deferred income taxes that previously have been collected from ratepayers at the higher rate. These excess deferred income taxes have been recorded as regulatory liabilities as of December 31, 2017 and will be refunded to ratepayers in accordance with the IRC's normalization provisions and as determined by the CPUC and FERC.

Our 2017 financial statements were materially impacted by the effects of the TCJA, primarily related to two provisions:

- **Lower U.S. statutory corporate income tax rate:** The change in the U.S. statutory corporate federal income tax rate from 35 percent to 21 percent resulted in income tax expense of \$182 million for the year ended December 31, 2017 for Sempra Energy Consolidated because of the remeasurement of deferred income tax balances. SDG&E's and SoCalGas' impacts were primarily offset with adjustments to regulatory liabilities, however, they also recorded \$28 million and \$2 million of income tax expense, respectively, for the year ended December 31, 2017 associated with the TCJA.
- **Deemed repatriation:** The TCJA imposes a one-time tax for deemed repatriation of foreign undistributed earnings as determined under U.S. federal tax law. Under this provision, a U.S. shareholder must include in taxable income its pro-rata share of foreign undistributed earnings, which are taxed at 15.5 percent on cash or cash equivalents and 8 percent on cumulative other earnings. Sempra Energy Consolidated recorded deemed repatriation tax expense of \$328 million. Based on our preliminary analysis, we currently anticipate using our existing NOLs to offset the deemed repatriation tax liability. In addition, we plan to repatriate these foreign undistributed earnings (estimated to be approximately \$4 billion) that have now been taxed at the U.S. federal level. As a result, for the year ended December 31, 2017, we accrued \$360 million of U.S. state and non-U.S. withholding tax expense on this expected future repatriation. This liability could change as a result of various factors, such as interpretation and clarification of the TCJA provisions, changes in foreign tax laws, foreign currency movements, the source of cash to be repatriated or adjustments to our provisional estimates, as we discuss below.

We have not recorded deferred income tax with respect to remaining basis differences of approximately \$1 billion between financial statement and income tax investment amounts in our non-U.S subsidiaries as of December 31, 2017 because we consider them to be indefinitely reinvested. It is not practicable to determine the hypothetical amount of tax that might be payable if the underlying basis differences were realized. If these basis differences were realized, we would need to adjust our income tax provision in the period we determine that they are no longer indefinitely reinvested.

EFFECTS OF THE TAX CUTS AND JOBS ACT OF 2017

(Dollars in millions)

	Sempra Energy Consolidated	SDG&E	SoCalGas
Consolidated Balance Sheets:			
Decrease in net deferred income tax liabilities due to remeasurement	\$ (2,220)	\$ (1,400)	\$ (972)
Increase in net regulatory liabilities from remeasurement of deferred income tax assets and liabilities	\$ 2,402	\$ 1,428	\$ 974
Consolidated Statements of Operations:			
Income tax expense related to remeasurement of deferred income tax assets and liabilities	\$ 182	\$ 28	\$ 2
Income tax expense related to deemed repatriation	328	—	—
U.S. state and non-U.S. withholding tax expense related to expected future repatriation of foreign earnings	360	—	—
Total increase in income tax expense	\$ 870	\$ 28	\$ 2

We recorded the effects of the TCJA in 2017 using our best estimates and the information available to us through the date the financial statements were issued. However, our analysis is ongoing and as such, the income tax effects that we have recorded are provisional.

As permitted by and in accordance with the guidance issued by the SEC, we may adjust our provisional estimates in future reporting periods throughout 2018 as we complete our analysis and as more information becomes available, and these adjustments may affect earnings. Events and information that may result in adjustments to our provisional estimates include interpretations or rulings by the U.S. Department of the Treasury or states, the filing of our 2017 income tax return and the finalization of our calculation of foreign undistributed earnings.

For SDG&E and SoCalGas, the CPUC requires flow-through rate-making treatment for the current income tax benefit or expense arising from certain property-related and other temporary differences between the treatment for financial reporting and income tax, which will reverse over time. Under the regulatory accounting treatment required for these flow-through temporary differences, deferred income tax assets and liabilities are not recorded to deferred income tax expense, but rather to a regulatory asset or liability, which impacts the current ETR. As a result, changes in the relative size of these items compared to pretax income, from period to period, can cause variations in the ETR. The following items are subject to flow-through treatment:

- repairs expenditures related to a certain portion of utility plant fixed assets
- the equity portion of AFUDC
- a portion of the cost of removal of utility plant assets
- utility self-developed software expenditures
- depreciation on a certain portion of utility plant assets
- state income taxes

The AFUDC related to equity recorded for regulated construction projects at Sempra Mexico has similar flow-through treatment.

The 2016 GRC FD issued by the CPUC in June 2016 required SDG&E and SoCalGas to each establish a two-way income tax expense memorandum account to track certain revenue variances resulting from certain differences between the income tax expense forecasted in the GRC and the income tax expense incurred from 2016 through 2018. The tracking accounts will remain open until the CPUC decides to close the accounts, which we expect will be reviewed in the 2019 GRC proceedings. We expect that certain amounts recorded in the tracking accounts may give rise to regulatory assets or liabilities. We discuss the tracking accounts further in Note 14.

The geographic components of Income Before Income Taxes and Equity Earnings of Certain Unconsolidated Subsidiaries at Sempra Energy Consolidated are as follows:

GEOGRAPHIC COMPONENTS			
<i>(Dollars in millions)</i>			
	Pretax book income		
	Years ended December 31,		
	2017	2016	2015
U.S.	\$ 878	\$ 773	\$ 1,189
Non-U.S.	707	1,057	515
Total	\$ 1,585	\$ 1,830	\$ 1,704

U.S. pretax book income decreased in 2016 compared to 2015 at the California Utilities primarily due to the reallocation of 2012-2015 income tax benefits generated from income tax repairs deductions to ratepayers pursuant to the 2016 GRC FD, as we discuss in Note 14; at Sempra LNG & Midstream for the loss on permanent release of pipeline capacity, as we discuss in Note 15; and the impairment charge related to the investment in Rockies Express, as we discuss in Note 3. U.S. pretax income remained lower in 2017 due to the write-off of SDG&E's wildfire regulatory asset, as we discuss in Note 15. Non-U.S. pretax book income was lower in 2017 and 2015 compared to 2016 primarily due to the noncash gain in 2016 associated with the remeasurement of our equity interest in IEnova Pipelines, as we discuss in Note 3.

The components of income tax expense are as follows:

INCOME TAX EXPENSE (BENEFIT)

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Sempra Energy Consolidated:			
Current:			
U.S. federal	\$ —	\$ —	\$ 3
U.S. state	—	1	(24)
Non-U.S.	116	171	123
Total	116	172	102
Deferred:			
U.S. federal	536	78	242
U.S. state	297	9	34
Non-U.S.	327	135	(32)
Total	1,160	222	244
Deferred investment tax credits	—	(5)	(5)
Total income tax expense	\$ 1,276	\$ 389	\$ 341
SDG&E:			
Current:			
U.S. federal	\$ 100	\$ —	\$ 12
U.S. state	65	22	77
Total	165	22	89
Deferred:			
U.S. federal	29	223	233
U.S. state	(41)	38	(35)
Total	(12)	261	198
Deferred investment tax credits	2	(3)	(3)
Total income tax expense	\$ 155	\$ 280	\$ 284
SoCalGas:			
Current:			
U.S. federal	\$ —	\$ —	\$ (1)
U.S. state	23	40	12
Total	23	40	11
Deferred:			
U.S. federal	144	123	122
U.S. state	(5)	(18)	7
Total	139	105	129
Deferred investment tax credits	(2)	(2)	(2)
Total income tax expense	\$ 160	\$ 143	\$ 138

We show the components of deferred income taxes, which reflect the effects of the TCJA, at December 31 for Sempra Energy Consolidated, SDG&E and SoCalGas in the tables below:

DEFERRED INCOME TAXES – SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	December 31,	
	2017	2016
Deferred income tax liabilities:		
Differences in financial and tax bases of fixed assets, investments and other assets ⁽¹⁾	\$ 4,233	\$ 6,111
U.S. state and non-U.S. withholding tax on repatriation of foreign earnings	360	—
Regulatory balancing accounts	376	783
Property taxes	37	63
Other deferred income tax liabilities	117	143
Total deferred income tax liabilities	<u>5,123</u>	<u>7,100</u>
Deferred income tax assets:		
Tax credits	1,066	431
Net operating losses	968	2,304
Compensation-related items	199	252
Postretirement benefits	251	434
Other deferred income tax assets	115	87
Accrued expenses not yet deductible	60	112
Deferred income tax assets before valuation allowances	<u>2,659</u>	<u>3,620</u>
Less: valuation allowances	133	31
Total deferred income tax assets	<u>2,526</u>	<u>3,589</u>
Net deferred income tax liability ⁽²⁾	<u>\$ 2,597</u>	<u>\$ 3,511</u>

⁽¹⁾ In addition to the financial over tax basis differences in fixed assets, the amount also includes financial over tax basis differences in various interests in partnerships and certain subsidiaries.

⁽²⁾ At December 31, 2017 and 2016, includes \$170 million and \$234 million, respectively, recorded as a noncurrent asset and \$2,767 million and \$3,745 million, respectively, recorded as a noncurrent liability on the Consolidated Balance Sheets.

DEFERRED INCOME TAXES – SDG&E AND SOCIALGAS

(Dollars in millions)

	SDG&E		SoCalGas	
	December 31,		December 31,	
	2017	2016	2017	2016
Deferred income tax liabilities:				
Differences in financial and tax bases of utility plant and other assets	\$ 1,472	\$ 2,549	\$ 987	\$ 1,699
Regulatory balancing accounts	113	379	271	411
Property taxes	26	42	12	21
Other	10	10	1	4
Total deferred income tax liabilities	<u>1,621</u>	<u>2,980</u>	<u>1,271</u>	<u>2,135</u>
Deferred income tax assets:				
Net operating losses	—	—	58	83
Tax credits	7	27	15	17
Postretirement benefits	43	98	152	244
Compensation-related items	5	8	25	32
State income taxes	14	—	7	19
Accrued expenses not yet deductible	3	7	12	20
Other	19	11	7	11
Total deferred income tax assets	<u>91</u>	<u>151</u>	<u>276</u>	<u>426</u>
Net deferred income tax liability	<u>\$ 1,530</u>	<u>\$ 2,829</u>	<u>\$ 995</u>	<u>\$ 1,709</u>

The following table summarizes our unused NOLs and tax credit carryforwards at December 31, 2017.

NET OPERATING LOSSES AND TAX CREDIT CARRYFORWARDS			
<i>(Dollars in millions)</i>			
		Unused amount at December 31, 2017	Year expiration begins
Sempra Energy Consolidated:			
U.S. federal:			
NOLs ⁽¹⁾	\$	3,145	2031
General business tax credits ⁽¹⁾		389	2032
Foreign tax credits ⁽²⁾		631	2024
U.S. state ⁽²⁾ :			
NOLs		2,295	2019
General business tax credits		51	2018
Non-U.S. ⁽²⁾			
NOLs		607	2018
SoCalGas:			
U.S. federal ⁽¹⁾ :			
NOLs	\$	334	2032
General business tax credits		12	2031

⁽¹⁾ We have recorded deferred income tax benefits on these NOLs and tax credits, in total, because we currently believe they will be realized on a more-likely-than-not-basis.

⁽²⁾ We have not recorded deferred income tax benefits on a portion of these NOLs and tax credits because we currently believe they will not be realized on a more-likely-than-not-basis, as discussed below.

At December 31, 2017, Sempra Energy recorded a valuation allowance against a portion of its total deferred income tax assets, as shown above in the “Deferred Income Taxes – Sempra Energy Consolidated” table. A valuation allowance is recorded when, based on more-likely-than-not criteria, negative evidence outweighs positive evidence with regard to our ability to realize a deferred income tax asset in the future. Of the valuation allowances recorded to date, the negative evidence outweighs the positive evidence primarily due to cumulative pretax losses in various U.S. state and non-U.S. jurisdictions resulting in a deferred income tax asset related to NOLs, as shown in the “Net Operating Losses and Tax Credit Carryforwards” table above, that we currently do not believe will be realized on a more-likely-than-not basis. Of Sempra Energy’s total valuation allowance of \$133 million at December 31, 2017, \$20 million is related to non-U.S. NOLs and tax credits, \$30 million to U.S. state NOLs and tax credits, and \$83 million to U.S. foreign tax credits. Of Sempra Energy’s total valuation allowance of \$31 million at December 31, 2016, \$1 million was related to non-U.S. NOLs and \$30 million to U.S. state NOLs and tax credits.

Following is a reconciliation of the changes in unrecognized income tax benefits and the potential effect on our ETR for the years ended December 31:

RECONCILIATION OF UNRECOGNIZED INCOME TAX BENEFITS

(Dollars in millions)

	2017	2016	2015
Sempra Energy Consolidated:			
Balance at January 1	\$ 90	\$ 87	\$ 117
Increase in prior period tax positions	22	2	10
Decrease in prior period tax positions	(15)	(2)	—
Increase in current period tax positions	4	6	8
Settlements with taxing authorities	(12)	(3)	(48)
Balance at December 31	<u>\$ 89</u>	<u>\$ 90</u>	<u>\$ 87</u>
Of December 31 balance, amounts related to tax positions that if recognized in future years would			
decrease the effective tax rate ⁽¹⁾	\$ (77)	\$ (87)	\$ (83)
increase the effective tax rate ⁽¹⁾	20	36	32
SDG&E:			
Balance at January 1	\$ 22	\$ 20	\$ 14
Increase in prior period tax positions	9	—	5
Decrease in prior period tax positions	(11)	—	—
Increase in current period tax positions	—	2	2
Settlements with taxing authorities	(10)	—	(1)
Balance at December 31	<u>\$ 10</u>	<u>\$ 22</u>	<u>\$ 20</u>
Of December 31 balance, amounts related to tax positions that if recognized in future years would			
decrease the effective tax rate ⁽¹⁾	\$ (7)	\$ (19)	\$ (16)
increase the effective tax rate ⁽¹⁾	1	13	11
SoCalGas:			
Balance at January 1	\$ 29	\$ 27	\$ 19
Increase in prior period tax positions	3	—	2
Decrease in prior period tax positions	—	(2)	—
Increase in current period tax positions	4	4	6
Settlements with taxing authorities	(1)	—	—
Balance at December 31	<u>\$ 35</u>	<u>\$ 29</u>	<u>\$ 27</u>
Of December 31 balance, amounts related to tax positions that if recognized in future years would			
decrease the effective tax rate ⁽¹⁾	\$ (26)	\$ (29)	\$ (27)
increase the effective tax rate ⁽¹⁾	20	24	21

⁽¹⁾ Includes temporary book and tax differences that are treated as flow-through for ratemaking purposes, as discussed above.

It is reasonably possible that within the next 12 months, unrecognized income tax benefits could decrease due to the following:

POSSIBLE DECREASES IN UNRECOGNIZED INCOME TAX BENEFITS WITHIN 12 MONTHS

(Dollars in millions)

	At December 31,		
	2017	2016	2015
Sempra Energy Consolidated:			
Expiration of statutes of limitations on tax assessments	\$ —	\$ (2)	\$ (2)
Potential resolution of audit issues with various U.S. federal, state and local and non-U.S. taxing authorities	(8)	(36)	(32)
	<u>\$ (8)</u>	<u>\$ (38)</u>	<u>\$ (34)</u>
SDG&E:			
Expiration of statutes of limitations on tax assessments	\$ —	\$ (1)	\$ (1)
Potential resolution of audit issues with various U.S. federal, state and local taxing authorities	(6)	(10)	(8)
	<u>\$ (6)</u>	<u>\$ (11)</u>	<u>\$ (9)</u>
SoCalGas:			
Potential resolution of audit issues with various U.S. federal, state and local taxing authorities	\$ (2)	\$ (25)	\$ (22)

Amounts accrued for interest and penalties associated with unrecognized income tax benefits are included in Income Tax Expense on the Consolidated Statements of Operations. Sempra Energy Consolidated accrued a negligible amount and \$1 million for interest expense and penalties at December 31, 2017 and 2016, respectively, on the Consolidated Balance Sheets, and recorded negligible amounts of interest income and penalties in each of 2017 and 2016 and \$2 million in 2015 on the Consolidated Statements of Operations. SDG&E and SoCalGas accrued negligible amounts of interest expense and penalties at December 31, 2017 and 2016 on the Consolidated Balance Sheets, and recorded negligible amounts of interest expense and penalties in 2017, 2016 and 2015 on the Consolidated Statements of Operations.

INCOME TAX AUDITS

Sempra Energy is subject to U.S. federal income tax as well as income tax of multiple state and non-U.S. jurisdictions. We remain subject to examination for U.S. federal tax years after 2013. We are subject to examination by major state tax jurisdictions for tax years after 2008. Certain major non-U.S. income tax returns for tax years 2008 through the present are open to examination. We are also open to examination for non-U.S. income tax returns related to our prior interest in our commodities business, which we divested in 2010, for years 1996 through 2010.

In addition, we have filed state refund claims for tax years back to 2006. The pre-2009 tax years for our major state tax jurisdictions are closed to new issues; therefore, no additional tax may be assessed by the taxing authorities for these tax years.

SDG&E and SoCalGas are subject to U.S. federal income tax as well as income tax of state jurisdictions. They remain subject to examination for U.S. federal tax years after 2013 and by state tax jurisdictions for tax years after 2008.

NOTE 7. EMPLOYEE BENEFIT PLANS

We are required by applicable U.S. GAAP to:

- recognize an asset for a plan’s overfunded status or a liability for a plan’s underfunded status in the statement of financial position;
- measure a plan’s assets and its obligations that determine its funded status as of the end of the fiscal year (with limited exceptions); and
- recognize changes in the funded status of pension and PBOP plans in the year in which the changes occur. Generally, those changes are reported in OCI and as a separate component of shareholders’ equity.

The detailed information presented below covers the employee benefit plans of Sempra Energy and its consolidated subsidiaries.

Sempra Energy has funded and unfunded noncontributory traditional defined benefit and cash balance plans, including separate plans for SDG&E and SoCalGas, which collectively cover all eligible employees, including members of the Sempra Energy board

of directors who were participants in a predecessor plan on or before June 1, 1998. Pension benefits under the traditional defined benefit plans are based on service and final average earnings, while the cash balance plans provide benefits using a career average earnings methodology.

Inova has an unfunded noncontributory defined benefit plan covering all employees. Chilquinta Energía has an unfunded noncontributory defined benefit plan covering all employees hired before October 1, 1981 and an unfunded noncontributory termination indemnity plan covering represented employees. The plans generally provide defined benefits to retirees based on date of hire, years of service and final average earnings.

Sempra Energy also has PBOP plans, including separate plans for SDG&E and SoCalGas, which collectively cover all domestic and certain foreign employees. The life insurance plans are both contributory and noncontributory, and the health care plans are contributory. Participants' contributions are adjusted annually. Other postretirement benefits include medical benefits for retirees' spouses.

Chilquinta Energía also has two noncontributory postretirement benefit plans which cover represented employees – a health care plan and an energy subsidy plan that provides for reduced energy rates. The health care plan includes benefits for retirees' spouses and dependents.

Pension and other postretirement benefits costs and obligations are dependent on assumptions used in calculating such amounts. We review these assumptions on an annual basis and update them as appropriate. We consider current market conditions, including interest rates, in making these assumptions. We use a December 31 measurement date for all of our plans.

RABBI TRUST

In support of its Supplemental Executive Retirement, Cash Balance Restoration and Deferred Compensation Plans, Sempra Energy maintains dedicated assets, including a Rabbi Trust and investments in life insurance contracts, which totaled \$455 million and \$430 million at December 31, 2017 and 2016, respectively.

PENSION AND OTHER POSTRETIREMENT BENEFIT PLANS

Special Termination Benefits Affecting 2017 and 2016

In 2017, certain represented and in 2016, certain nonrepresented employees age 62 or older with 5 years of service or age 55 to 61 with 10 years of service that retired under the Voluntary Retirement Enhancement Program offered in either of those years received an additional postretirement health benefit in the form of a \$100,000 Health Reimbursement Account. We treated the benefit obligation attributable to the Health Reimbursement Account as a special termination benefit. This resulted in increases to the recorded liability for PBOP and net periodic benefit cost of \$18 million for each of Sempra Energy Consolidated and SoCalGas in 2017, and \$26 million for Sempra Energy Consolidated, \$14 million for SDG&E and \$11 million for SoCalGas in 2016.

The Voluntary Retirement Enhancement Program resulted in a higher than expected number of retirements in 2017 and 2016. As a result, the total lump sum benefits paid from the Sempra Energy nonqualified and SoCalGas qualified pension plans in 2017, and the SDG&E qualified pension plan in 2016, exceeded the settlement threshold, which triggered settlement accounting. This resulted in a reduction of the recorded pension liability and pension plan assets of \$194 million at Sempra Energy Consolidated and \$175 million at SoCalGas in 2017, and \$75 million at each of Sempra Energy Consolidated and SDG&E in 2016. This also resulted in settlement charges in net periodic benefit cost of \$38 million at Sempra Energy Consolidated and \$30 million at SoCalGas in 2017, and \$16 million at each of Sempra Energy Consolidated and SDG&E in 2016. The settlement charges at SoCalGas in 2017, and at SDG&E in 2016, were recorded as regulatory assets on the Consolidated Balance Sheets. Measurement dates of December 31, 2017 and 2016 were used for the respective settlement accounting triggered in each year, as the year-to-date lump sum benefit payments first exceeded the settlement threshold in December of both of those years.

Divestiture Affecting 2016

On September 12, 2016, Sempra LNG & Midstream completed the sale of EnergySouth, the parent company of Mobile Gas and Willmut Gas, as we discuss in Note 3. The benefit obligations and plan assets of the benefit plans that covered employees of Mobile Gas and Willmut Gas were transferred to the buyer on the date of sale. This resulted in decreases to the recorded pension liability and other postretirement benefit plan liability of \$61 million and \$6 million, respectively, and decreases to pension plan assets and other postretirement benefit plan assets of \$44 million and \$4 million, respectively, for Sempra Energy Consolidated.

Benefit Obligations and Assets

The following three tables provide a reconciliation of the changes in the plans' projected benefit obligations and the fair value of assets during 2017 and 2016, and a statement of the funded status at December 31, 2017 and 2016:

PROJECTED BENEFIT OBLIGATION, FAIR VALUE OF ASSETS AND FUNDED STATUS SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2017	2016	2017	2016
CHANGE IN PROJECTED BENEFIT OBLIGATION				
Net obligation at January 1	\$ 3,679	\$ 3,649	\$ 922	\$ 963
Service cost	117	107	21	20
Interest cost	151	160	39	42
Contributions from plan participants	—	—	20	20
Actuarial loss (gain)	286	116	6	(81)
Benefit payments	(182)	(217)	(63)	(61)
Divestiture of EnergySouth	—	(61)	—	(6)
Plan amendments	1	—	—	—
Special termination benefits	—	—	18	26
Curtailments	(1)	—	—	—
Settlements	(194)	(75)	—	(1)
Net obligation at December 31	<u>3,857</u>	<u>3,679</u>	<u>963</u>	<u>922</u>
CHANGE IN PLAN ASSETS				
Fair value of plan assets at January 1	2,459	2,484	1,057	1,003
Actual return on plan assets	421	207	185	94
Employer contributions	155	104	10	6
Contributions from plan participants	—	—	20	20
Benefit payments	(182)	(217)	(63)	(61)
Divestiture of EnergySouth	—	(44)	—	(4)
Settlements	(194)	(75)	—	(1)
Fair value of plan assets at December 31	<u>2,659</u>	<u>2,459</u>	<u>1,209</u>	<u>1,057</u>
Funded status at December 31	\$ (1,198)	\$ (1,220)	\$ 246	\$ 135
Net recorded (liability) asset at December 31	\$ (1,198)	\$ (1,220)	\$ 246	\$ 135

PROJECTED BENEFIT OBLIGATION, FAIR VALUE OF ASSETS AND FUNDED STATUS
SAN DIEGO GAS & ELECTRIC COMPANY
(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2017	2016	2017	2016
CHANGE IN PROJECTED BENEFIT OBLIGATION				
Net obligation at January 1	\$ 935	\$ 965	\$ 190	\$ 165
Service cost	29	29	5	5
Interest cost	38	41	8	7
Contributions from plan participants	—	—	7	7
Actuarial loss (gain)	50	7	(9)	6
Benefit payments	(83)	(25)	(16)	(14)
Special termination benefits	—	—	—	14
Settlements	—	(75)	—	—
Transfer of liability from (to) other plans	2	(7)	—	—
Net obligation at December 31	<u>971</u>	<u>935</u>	<u>185</u>	<u>190</u>
CHANGE IN PLAN ASSETS				
Fair value of plan assets at January 1	714	752	169	161
Actual return on plan assets	120	59	30	13
Employer contributions	22	3	5	2
Contributions from plan participants	—	—	7	7
Benefit payments	(83)	(25)	(16)	(14)
Settlements	—	(75)	—	—
Transfer of assets from other plans	3	—	—	—
Fair value of plan assets at December 31	<u>776</u>	<u>714</u>	<u>195</u>	<u>169</u>
Funded status at December 31	<u>\$ (195)</u>	<u>\$ (221)</u>	<u>\$ 10</u>	<u>\$ (21)</u>
Net recorded (liability) asset at December 31	<u>\$ (195)</u>	<u>\$ (221)</u>	<u>\$ 10</u>	<u>\$ (21)</u>

**PROJECTED BENEFIT OBLIGATION, FAIR VALUE OF ASSETS AND FUNDED STATUS
SOUTHERN CALIFORNIA GAS COMPANY**

(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2017	2016	2017	2016
CHANGE IN PROJECTED BENEFIT OBLIGATION				
Net obligation at January 1	\$ 2,343	\$ 2,255	\$ 691	\$ 752
Service cost	76	67	14	14
Interest cost	98	101	29	32
Contributions from plan participants	—	—	13	13
Actuarial loss (gain)	216	77	16	(86)
Benefit payments	(73)	(158)	(44)	(45)
Special termination benefits	—	—	18	11
Settlements	(175)	—	—	—
Transfer of liability from other plans	1	1	—	—
Net obligation at December 31	<u>2,486</u>	<u>2,343</u>	<u>737</u>	<u>691</u>
CHANGE IN PLAN ASSETS				
Fair value of plan assets at January 1	1,579	1,537	870	822
Actual return on plan assets	269	128	151	79
Employer contributions	93	72	3	1
Contributions from plan participants	—	—	13	13
Benefit payments	(73)	(158)	(44)	(45)
Settlements	(175)	—	—	—
Transfer of assets from other plans	1	—	—	—
Fair value of plan assets at December 31	<u>1,694</u>	<u>1,579</u>	<u>993</u>	<u>870</u>
Funded status at December 31	<u>\$ (792)</u>	<u>\$ (764)</u>	<u>\$ 256</u>	<u>\$ 179</u>
Net recorded (liability) asset at December 31	<u>\$ (792)</u>	<u>\$ (764)</u>	<u>\$ 256</u>	<u>\$ 179</u>

Actuarial losses (gains) fluctuate based on changes in assumptions that we describe below in “Assumptions for Pension and Other Postretirement Benefit Plans” and updates to census data. In 2017, 2016 and 2015, the Society of Actuaries released updated mortality improvement projection scales, reflecting changes to projected observed longevity improvements in its mortality tables. We have incorporated these assumptions, adjusted for the Sempra Energy companies’ actual mortality experience, in our calculations for each of those years. Actuarial losses in pension plans at Sempra Energy Consolidated in 2017 were driven primarily by actuarial losses at SDG&E and SoCalGas due to a decrease in discount rates and, additionally at SoCalGas, actuarial losses due to updated census data. Actuarial losses in PBOP plans at Sempra Energy Consolidated in 2017 were driven primarily by actuarial losses at SDG&E and SoCalGas due to a decrease in discount rates, offset by actuarial gains at SDG&E and partially offset by actuarial gains at SoCalGas due to a reduction in the 2018 expected health care costs.

Net Assets and Liabilities

The assets and liabilities of the pension and PBOP plans are affected by changing market conditions as well as when actual plan experience is different than assumed. Such events result in investment gains and losses, which we defer and recognize in pension and other postretirement benefit costs over a period of years. Our funded pension and PBOP plans use the asset smoothing method, except for those at SDG&E. This method develops an asset value that recognizes realized and unrealized investment gains and losses over a three-year period. This adjusted asset value, known as the market-related value of assets, is used in conjunction with an expected long-term rate of return to determine the expected return-on-assets component of net periodic cost. SDG&E does not use the asset smoothing method, but rather recognizes realized and unrealized investment gains and losses during the current year.

The 10-percent corridor accounting method is used at Sempra Energy Consolidated, SDG&E and SoCalGas. Under the corridor accounting method, if as of the beginning of a year unrecognized net gain or loss exceeds 10 percent of the greater of the projected benefit obligation or the market-related value of plan assets, the excess is amortized over the average remaining service period of active participants. The asset smoothing and 10-percent corridor accounting methods help mitigate volatility of net periodic costs from year to year.

We recognize the overfunded or underfunded status of defined benefit pension and other postretirement plans as assets or liabilities, respectively; unrecognized changes in these assets and/or liabilities are normally recorded in Accumulated Other Comprehensive Income (Loss) on the balance sheet. The California Utilities record regulatory assets and liabilities that offset the funded pension and other postretirement plans' assets or liabilities, as these costs are expected to be recovered in future utility rates based on agreements with regulatory agencies.

The California Utilities record annual pension and other postretirement net periodic benefit costs equal to the contributions to their plans as authorized by the CPUC. The annual contributions to the pension plans are limited to a minimum required funding amount as determined by the IRS. The annual contributions to PBOP plans are equal to the lesser of the maximum tax deductible amount or the net periodic cost calculated in accordance with U.S. GAAP for pension and PBOP plans. Until the date of sale, Mobile Gas recorded annual pension and other postretirement net periodic benefit costs based on an estimate of the net periodic cost at the beginning of the year calculated in accordance with U.S. GAAP for pension and PBOP plans, as authorized by the Alabama Public Service Commission. Any differences between booked net periodic benefit cost and amounts contributed to the pension and other postretirement plans for the California Utilities are disclosed as regulatory adjustments in accordance with U.S. GAAP for rate-regulated entities.

The net (liability) asset is included in the following categories on the Consolidated Balance Sheets at December 31:

PENSION AND OTHER POSTRETIREMENT BENEFIT OBLIGATIONS, NET OF PLAN ASSETS AT DECEMBER 31

(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2017	2016	2017	2016
Sempra Energy Consolidated:				
Noncurrent assets	\$ —	\$ —	\$ 266	\$ 179
Current liabilities	(69)	(56)	(1)	—
Noncurrent liabilities	(1,129)	(1,164)	(19)	(44)
Net recorded (liability) asset	\$ (1,198)	\$ (1,220)	\$ 246	\$ 135
SDG&E:				
Noncurrent assets	\$ —	\$ —	\$ 10	\$ —
Current liabilities	(13)	(10)	—	—
Noncurrent liabilities	(182)	(211)	—	(21)
Net recorded (liability) asset	\$ (195)	\$ (221)	\$ 10	\$ (21)
SoCalGas:				
Noncurrent assets	\$ —	\$ —	\$ 256	\$ 179
Current liabilities	(3)	(2)	—	—
Noncurrent liabilities	(789)	(762)	—	—
Net recorded (liability) asset	\$ (792)	\$ (764)	\$ 256	\$ 179

Amounts recorded in AOCI at December 31, 2017 and 2016, net of income tax effects and amounts recorded as regulatory assets, are as follows:

AMOUNTS IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

(Dollars in millions)

	Pension benefits		Other postretirement benefits	
	2017	2016	2017	2016
Sempra Energy Consolidated:				
Net actuarial (loss) gain	\$ (84)	\$ (95)	\$ 4	\$ 3
Prior service cost	(4)	(4)	—	—
Total	\$ (88)	\$ (99)	\$ 4	\$ 3
SDG&E:				
Net actuarial loss	\$ (8)	\$ (8)		
SoCalGas:				
Net actuarial loss	\$ (6)	\$ (6)		
Prior service cost	(2)	(3)		
Total	\$ (8)	\$ (9)		

The accumulated benefit obligation for defined benefit pension plans at December 31, 2017 and 2016 was as follows:

ACCUMULATED BENEFIT OBLIGATION

(Dollars in millions)

	Sempra Energy Consolidated		SDG&E		SoCalGas	
	2017	2016	2017	2016	2017	2016
Accumulated benefit obligation	\$ 3,551	\$ 3,465	\$ 930	\$ 904	\$ 2,241	\$ 2,167

Sempra Energy, SDG&E and SoCalGas each have a funded pension plan. We also have unfunded pension plans at Sempra Energy, SDG&E, SoCalGas, IEnova and Chilquinta Energía. The following table shows the obligations of funded pension plans with benefit obligations in excess of plan assets at December 31:

OBLIGATIONS OF FUNDED PENSION PLANS

(Dollars in millions)

	2017		2016	
Sempra Energy Consolidated:				
Projected benefit obligation	\$ 3,623	\$ 3,431		
Accumulated benefit obligation	3,334	3,227		
Fair value of plan assets	2,659	2,459		
SDG&E:				
Projected benefit obligation	\$ 939	\$ 902		
Accumulated benefit obligation	900	874		
Fair value of plan assets	776	714		
SoCalGas:				
Projected benefit obligation	\$ 2,462	\$ 2,320		
Accumulated benefit obligation	2,220	2,148		
Fair value of plan assets	1,694	1,579		

Net Periodic Benefit Cost

The following three tables provide the components of net periodic benefit cost and pretax amounts recognized in OCI for the years ended December 31:

NET PERIODIC BENEFIT COST AND AMOUNTS RECOGNIZED IN OCI SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	Pension benefits			Other postretirement benefits		
	2017	2016	2015	2017	2016	2015
NET PERIODIC BENEFIT COST						
Service cost	\$ 117	\$ 107	\$ 114	\$ 21	\$ 20	\$ 26
Interest cost	151	160	154	39	42	44
Expected return on assets	(161)	(166)	(173)	(66)	(69)	(68)
Amortization of:						
Prior service cost (credit)	11	11	11	1	—	(4)
Actuarial loss (gain)	36	30	38	(4)	(1)	—
Settlement and curtailment charges	38	16	4	—	—	—
Special termination benefits	—	—	—	18	26	—
Regulatory adjustment	(42)	(57)	(110)	—	(11)	12
Total net periodic benefit cost	<u>150</u>	<u>101</u>	<u>38</u>	<u>9</u>	<u>7</u>	<u>10</u>
CHANGES IN PLAN ASSETS AND BENEFIT OBLIGATIONS RECOGNIZED IN OCI						
Net loss (gain)	—	26	17	(2)	(2)	(4)
Prior service cost	1	—	4	—	—	—
Amortization of actuarial loss	(18)	(10)	(14)	—	—	—
Amortization of prior service cost	(1)	(1)	—	—	—	—
Total recognized in OCI	<u>(18)</u>	<u>15</u>	<u>7</u>	<u>(2)</u>	<u>(2)</u>	<u>(4)</u>
Total recognized in net periodic benefit cost and OCI	<u>\$ 132</u>	<u>\$ 116</u>	<u>\$ 45</u>	<u>\$ 7</u>	<u>\$ 5</u>	<u>\$ 6</u>

NET PERIODIC BENEFIT COST AND AMOUNTS RECOGNIZED IN OCI SAN DIEGO GAS & ELECTRIC COMPANY

(Dollars in millions)

	Pension benefits			Other postretirement benefits		
	2017	2016	2015	2017	2016	2015
NET PERIODIC BENEFIT COST						
Service cost	\$ 29	\$ 29	\$ 29	\$ 5	\$ 5	\$ 7
Interest cost	38	41	39	8	7	8
Expected return on assets	(47)	(49)	(54)	(11)	(12)	(11)
Amortization of:						
Prior service cost	1	1	8	3	3	3
Actuarial loss (gain)	9	10	2	—	(1)	—
Settlement charge	—	16	—	—	—	—
Special termination benefits	—	—	—	—	14	—
Regulatory adjustment	(8)	(45)	(20)	—	(14)	—
Total net periodic benefit cost	<u>22</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>2</u>	<u>7</u>
CHANGES IN PLAN ASSETS AND BENEFIT OBLIGATIONS RECOGNIZED IN OCI						
Net loss (gain)	2	1	(6)	—	—	—
Amortization of actuarial loss	(1)	(1)	(1)	—	—	—
Total recognized in OCI	<u>1</u>	<u>—</u>	<u>(7)</u>	<u>—</u>	<u>—</u>	<u>—</u>
Total recognized in net periodic benefit cost and OCI	<u>\$ 23</u>	<u>\$ 3</u>	<u>\$ (3)</u>	<u>\$ 5</u>	<u>\$ 2</u>	<u>\$ 7</u>

NET PERIODIC BENEFIT COST AND AMOUNTS RECOGNIZED IN OCI
SOUTHERN CALIFORNIA GAS COMPANY

(Dollars in millions)

	Pension benefits			Other postretirement benefits		
	2017	2016	2015	2017	2016	2015
NET PERIODIC BENEFIT COST						
Service cost	\$ 76	\$ 67	\$ 74	\$ 14	\$ 14	\$ 17
Interest cost	98	101	98	29	32	34
Expected return on assets	(103)	(103)	(106)	(53)	(56)	(56)
Amortization of:						
Prior service cost (credit)	9	9	9	(3)	(4)	(7)
Actuarial loss (gain)	19	11	21	(3)	—	—
Settlement charge	30	—	—	—	—	—
Special termination benefits	—	—	—	18	11	—
Regulatory adjustment	(34)	(12)	(90)	—	3	12
Total net periodic benefit cost	95	73	6	2	—	—
CHANGES IN PLAN ASSETS AND BENEFIT OBLIGATIONS						
RECOGNIZED IN OCI						
Net loss	—	4	—	—	—	—
Prior service cost	—	2	2	—	—	—
Amortization of prior service cost	(1)	—	—	—	—	—
Total recognized in OCI	(1)	6	2	—	—	—
Total recognized in net periodic benefit cost and OCI	\$ 94	\$ 79	\$ 8	\$ 2	\$ —	\$ —

The estimated net loss for the pension and PBOP plans that will be amortized from AOCI into net periodic benefit cost in 2018 is \$10 million for Sempra Energy Consolidated and \$1 million for each of SDG&E and SoCalGas. The estimated prior service cost that will be similarly amortized in 2018 is \$1 million for each of Sempra Energy Consolidated and SoCalGas and a negligible amount for SDG&E.

Assumptions for Pension and Other Postretirement Benefit Plans

Benefit Obligation and Net Periodic Benefit Cost

Except for the IEnova and Chilquinta Energía plans, we develop the discount rate assumptions based on the results of a third party modeling tool that matches each plan's expected cash flows to interest rates and expected maturity values of individually selected bonds in a hypothetical portfolio. The model controls the level of accumulated surplus that may result from the selection of bonds based solely on their premium yields by limiting the number of years to look back for selection to 3 years for pre-30-year and 6 years for post-30-year benefit payments. Additionally, the model ensures that an adequate number of bonds are selected in the portfolio by limiting the amount of the plan's benefit payments that can be met by a single bond to 7.5 percent.

We selected individual bonds from a universe of Bloomberg AA-rated bonds that:

- have an outstanding issue of at least \$50 million;
- are non-callable (or callable with make-whole provisions);
- exclude collateralized bonds; and
- exclude the top and bottom 10 percent of yields to avoid relying on bonds which might be mispriced or misgraded.

This selection methodology also mitigates the impact of market volatility on the portfolio by excluding bonds with the following characteristics:

- The issuer is on review for downgrade by a major rating agency if the downgrade would eliminate the issuer from the portfolio.
- Recent events have caused significant price volatility to which rating agencies have not reacted.
- Lack of liquidity is causing price quotes to vary significantly from broker to broker.

We believe that this bond selection approach provides the best estimate of discount rates to estimate settlement values for our plans' benefit obligations as required by applicable U.S. GAAP.

We develop the discount rate assumptions for the plans at IEnova by constructing a synthetic government zero coupon bond yield curve from the available market data, based on duration matching, and we add a risk spread to allow for the yields of high-quality corporate bonds. We develop the discount rate assumptions for the plans at Chilquinta Energía based on 10-year Chilean government bond yields and the expected local long-term rate of inflation. These methods for developing the discount rate are required when there is no deep market for high quality corporate bonds.

Long-term return on assets is based on the weighted-average of the plans' investment allocation as of the measurement date and the expected returns for those asset types.

We amortize prior service cost using straight line amortization over average future service (or average expected lifetime for plans where participants are substantially inactive employees), which is an alternative method allowed under U.S. GAAP.

The significant assumptions affecting benefit obligation and net periodic benefit cost are as follows:

**WEIGHTED-AVERAGE ASSUMPTIONS USED TO DETERMINE BENEFIT OBLIGATION
AT DECEMBER 31**

	Pension benefits		Other postretirement benefits	
	2017	2016	2017	2016
Sempra Energy Consolidated:				
Discount rate	3.65%	4.08%	3.70%	4.19%
Rate of compensation increase	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00
SDG&E:				
Discount rate	3.64%	4.08%	3.65%	4.15%
Rate of compensation increase	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00
SoCalGas:				
Discount rate	3.65%	4.10%	3.70%	4.20%
Rate of compensation increase	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00

**WEIGHTED-AVERAGE ASSUMPTIONS USED TO DETERMINE NET PERIODIC BENEFIT COST
YEARS ENDED DECEMBER 31**

	Pension benefits			Other postretirement benefits		
	2017	2016	2015	2017	2016	2015
Sempra Energy Consolidated:						
Discount rate	4.08%	4.46%	4.09%	4.19%	4.49%	4.15%
Expected return on plan assets	7.00	7.00	7.00	6.47	6.98	6.98
Rate of compensation increase	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00
SDG&E:						
Discount rate	4.08%	4.35%	4.00%	4.15%	4.50%	4.15%
Expected return on plan assets	7.00	7.00	7.00	6.91	6.90	6.91
Rate of compensation increase	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00
SoCalGas:						
Discount rate	4.10%	4.50%	4.15%	4.20%	4.50%	4.15%
Expected return on plan assets	7.00	7.00	7.00	6.37	7.00	7.00
Rate of compensation increase	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00	2.00-10.00

Health Care Cost Trend Rates

Assumed health care cost trend rates have a significant effect on the amounts that we report for the health care plan costs. Following are the health care cost trend rates applicable to our postretirement benefit plans:

ASSUMED HEALTH CARE COST TREND RATES AT DECEMBER 31

	Other postretirement benefit plans ⁽¹⁾					
	Pre-65 retirees			Retirees aged 65 years and older		
	2017	2016	2015	2017	2016	2015
Health care cost trend rate assumed for next year	7.00%	8.00%	8.10%	5.00%	5.50%	5.50%
Rate to which the cost trend rate is assumed to decline (the ultimate trend)	5.00%	5.00%	5.00%	4.50%	4.50%	4.50%
Year the rate reaches the ultimate trend	2022	2022	2022	2022	2022	2022

⁽¹⁾ Excludes Mobile Gas plan. For Mobile Gas, which we deconsolidated on September 12, 2016, the health care cost trend rate assumed for next year for all retirees was 8.10 percent in 2015; the ultimate trend was 5.00 percent in 2015; and the year the rate reaches the ultimate trend was 2022 in 2015. For Chilquinta Energía, the health care cost trend rate assumed for next year, and the ultimate trend, was 3.00 percent in each of 2017, 2016 and 2015.

A one-percent change in assumed health care cost trend rates would have had the following effects in 2017:

EFFECT OF ONE-PERCENT CHANGE IN ASSUMED HEALTH CARE COST TREND RATES

(Dollars in millions)

	Sempra Energy Consolidated		SDG&E		SoCalGas	
	1% increase	1% decrease	1% increase	1% decrease	1% increase	1% decrease
Effect on total of service and interest cost components of net periodic postretirement health care benefit cost	\$ 5	\$ (4)	\$ 1	\$ —	\$ 4	\$ (3)
Effect on the health care component of the accumulated other postretirement benefit obligations	53	(44)	3	(2)	48	(40)

Plan Assets

Investment Allocation Strategy for Sempra Energy's Pension Master Trust

Sempra Energy's pension master trust holds the investments for our pension plans and a portion of the investments for our PBOP plans. We maintain additional trusts as we discuss below for certain of the California Utilities' PBOP plans. Other than through indexing strategies, the trusts do not invest in securities of Sempra Energy.

The current asset allocation objective for the pension master trust is to protect the funded status of the plans while generating sufficient returns to cover future benefit payments and accruals. We assess the portfolio performance by comparing actual returns with relevant benchmarks. Currently, the pension plans' target asset allocations are

- 38 percent domestic equity
- 26 percent international equity
- 18 percent long credit
- 8 percent ultra-long duration government securities
- 5 percent return-seeking credit
- 5 percent real assets

The asset allocation of the plans is reviewed by our Plan Funding Committee and our Pension and Benefits Investment Committee (the Committees) on a regular basis. When evaluating strategic asset allocations, the Committees consider many variables, including:

- long-term cost
- variability and level of contributions
- funded status
- a range of expected outcomes over varying confidence levels

We maintain asset allocations at strategic levels with reasonable bands of variance.

In accordance with the Sempra Energy pension investment guidelines, derivative financial instruments may be used by the pension master trust's equity and fixed income portfolio investment managers to equitize cash, hedge certain exposures, and as substitutes for certain types of fixed income securities.

Rate of Return Assumption

The expected return on assets in our pension and PBOP plans is based on the weighted-average of the plans' investment allocations to specific asset classes as of the measurement date. We arrive at a 7-percent expected return on assets by considering both the historical and forecasted long-term rates of return on those asset classes. We expect a return of between 7 percent and 9 percent on return-seeking assets and between 3 percent and 5 percent for risk-mitigating assets. Certain trusts that hold assets for the SDG&E other postretirement benefit plan are subject to taxation, which impacts the expected after-tax return on assets in the plan.

Concentration of Risk

Plan assets are diversified across global equity and bond markets, and concentration of risk in any one economic, industry, maturity or geographic sector is limited.

Investment Strategy for SDG&E's and SoCalGas' Other Postretirement Benefit Plans

SDG&E's and SoCalGas' PBOP plans are funded by cash contributions from SDG&E and SoCalGas and their current retirees. The assets of these plans are placed into the pension master trust and other Voluntary Employee Beneficiary Association trusts. Certain assets of SoCalGas' PBOP plans, which are held in the pension master trust, are invested based on an allocation that seeks to mitigate risks for the assets of these plans, with 38 percent invested in return-seeking and 62 percent invested in risk-mitigating assets. The assets in the Voluntary Employee Beneficiary Association trusts are invested at an allocation similar to the pension master trust, with 74 percent invested in return-seeking and 26 percent invested in risk-mitigating assets. These allocations are periodically reviewed to ensure that plan assets are best positioned to meet plan obligations.

Fair Value of Pension and Other Postretirement Benefit Plan Assets

We classify the investments in Sempra Energy's pension master trust and the trusts for the California Utilities' PBOP plans based on the fair value hierarchy, except for certain investments measured at net asset value (NAV).

The following are descriptions of the valuation methods and assumptions we use to estimate the fair values of investments held by pension and other postretirement benefit plan trusts.

Equity Securities – Equity securities are valued using quoted prices listed on nationally recognized securities exchanges.

Fixed Income Securities – Certain fixed income securities are valued at the closing price reported in the active market in which the security is traded. Other fixed income securities are valued based on yields currently available on comparable securities of issuers with similar credit ratings. When quoted prices are not available for identical or similar securities, the security is valued under a discounted cash flows approach that maximizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable, such as credit and liquidity risks. Certain high yield fixed-income securities are valued by applying a price adjustment to the bid side to calculate a mean and ask value. Adjustments can vary based on maturity, credit standing, and reported trade frequencies. The bid to ask spread is determined by the investment manager based on the review of the available market information.

Registered Investment Companies – Investments in mutual funds sponsored by a registered investment company are valued based on exchange listed prices. Where the value is a quoted price in an active market, the investment is classified within Level 1 of the fair value hierarchy. Investments in certain fixed income securities are valued under a discounted cash flows

approach that maximizes observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable, such as credit and liquidity risks for the remaining fixed income securities.

Common/Collective Trusts – Investments in common/collective trust funds are valued based on the NAV of units owned, which is based on the current fair value of the funds' underlying assets.

Private Equity Funds – These funds consist of investments in private equities that are held by limited partnerships following various strategies, including private equity and corporate finance. These partnerships generally have limited lives of 10 years, after which liquidating distributions will be received. The value is determined based on the NAV of the proportionate share of an ownership interest in partners' capital. Holdings in these types of private equity funds are negligible, as the funds are well past their expected investment term and have distributed the bulk of proceeds from investment sales.

Derivative Financial Instruments – Forward currency contracts are valued at the prevailing forward exchange rate of the underlying currencies, and unrealized gain (loss) is recorded daily. Fixed income futures and options are marked to market daily. Equity index future contracts are valued at the last sales price quoted on the exchange on which they primarily trade.

While management believes the valuation methods described above are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

We provide more discussion of fair value measurements in Notes 1 and 10. The following tables set forth by level within the fair value hierarchy a summary of the investments in our pension and other postretirement benefit plan trusts measured at fair value on a recurring basis.

There were no transfers into or out of Level 1, Level 2 or Level 3 for Sempra Energy Consolidated, SDG&E or SoCalGas during the periods presented and there were no changes in the valuation techniques used.

SDG&E and SoCalGas each hold a proportionate share of investment assets in the pension master trust at Sempra Energy Consolidated. The fair values of our pension plan assets by asset category are as follows:

FAIR VALUE MEASUREMENTS – INVESTMENT ASSETS OF PENSION PLANS

(Dollars in millions)

	Fair value at December 31, 2017		
	Level 1	Level 2	Total
Sempra Energy Consolidated:			
Equity securities:			
Domestic	\$ 946	\$ —	\$ 946
International	538	—	538
Registered investment companies	102	—	102
Fixed income securities:			
Domestic government bonds	242	27	269
International government bonds	—	12	12
Domestic corporate bonds	—	338	338
International corporate bonds	—	64	64
Registered investment companies	—	6	6
Other	—	1	1
Total investment assets in the fair value hierarchy	<u>\$ 1,828</u>	<u>\$ 448</u>	2,276
Investments measured at NAV:			
Common/collective trusts			384
Private equity funds			4
Total investment assets ⁽¹⁾			<u>\$ 2,664</u>
SDG&E's proportionate share of investment assets			\$ 777
SoCalGas' proportionate share of investment assets			\$ 1,697

	Fair value at December 31, 2016		
	Level 1	Level 2	Total
Sempra Energy Consolidated:			
Equity securities:			
Domestic	\$ 884	\$ —	\$ 884
International	522	—	522
Registered investment companies	127	—	127
Fixed income securities:			
Domestic government bonds	214	32	246
International government bonds	—	9	9
Domestic corporate bonds	—	346	346
International corporate bonds	—	94	94
Registered investment companies	—	14	14
Total investment assets in the fair value hierarchy	<u>\$ 1,747</u>	<u>\$ 495</u>	2,242
Investments measured at NAV:			
Common/collective trusts			223
Private equity funds			4
Total investment assets ⁽²⁾			<u>\$ 2,469</u>
SDG&E's proportionate share of investment assets			\$ 717
SoCalGas' proportionate share of investment assets			\$ 1,585

(1) Excludes cash and cash equivalents of \$13 million and accounts payable of \$18 million.

(2) Excludes cash and cash equivalents of \$14 million and accounts payable of \$24 million.

The fair values by asset category of the PBOP plan assets held in the pension master trust and in the additional trusts for SoCalGas' PBOP plans and SDG&E's PBOP plan trusts are as follows:

FAIR VALUE MEASUREMENTS – INVESTMENT ASSETS OF OTHER POSTRETIREMENT BENEFIT PLANS

(Dollars in millions)

	Fair value at December 31, 2017		
	Level 1	Level 2	Total
SDG&E:			
Equity securities:			
Domestic	\$ 46	\$ —	\$ 46
International	26	—	26
Registered investment companies	52	—	52
Fixed income securities:			
Domestic government bonds	12	1	13
International government bonds	—	1	1
Domestic corporate bonds	—	17	17
International corporate bonds	—	3	3
Registered investment companies	—	17	17
Total investment assets in the fair value hierarchy	136	39	175
Investments measured at NAV – Common/collective trusts			20
Total investment assets ⁽¹⁾			195
SoCalGas:			
Equity securities:			
Domestic	78	—	78
International	44	—	44
Registered investment companies	41	—	41
Fixed income securities:			
Domestic government bonds	125	13	138
International government bonds	—	7	7
Domestic corporate bonds	—	164	164
International corporate bonds	—	28	28
Registered investment companies	—	85	85
Total investment assets in the fair value hierarchy	288	297	585
Investments measured at NAV – Common/collective trusts			406
Total investment assets ⁽²⁾			991
Other Sempra Energy:			
Equity securities:			
Domestic	7	—	7
International	5	—	5
Registered investment companies	1	—	1
Fixed income securities:			
Domestic government bonds	1	1	2
Domestic corporate bonds	—	2	2
International corporate bonds	—	1	1
Total investment assets in the fair value hierarchy	14	4	18
Investments measured at NAV – Common/collective trusts			2
Private equity funds			1
Total other Sempra Energy investment assets			21
Total Sempra Energy Consolidated investment assets in the fair value hierarchy	\$ 438	\$ 340	
Total Sempra Energy Consolidated investment assets ⁽³⁾			\$ 1,207

⁽¹⁾ Excludes cash and cash equivalents of \$1 million and accounts payable of \$1 million held in SDG&E PBOP plan trusts.

⁽²⁾ Excludes cash and cash equivalents of \$4 million and accounts payable of \$2 million held in SoCalGas PBOP plan trusts.

⁽³⁾ Excludes cash and cash equivalents of \$5 million and accounts payable of \$3 million at Sempra Energy Consolidated.

FAIR VALUE MEASUREMENTS – INVESTMENT ASSETS OF OTHER POSTRETIREMENT BENEFIT PLANS
(Dollars in millions)

	Fair value at December 31, 2016		
	Level 1	Level 2	Total
SDG&E:			
Equity securities:			
Domestic	\$ 41	\$ —	\$ 41
International	24	—	24
Registered investment companies	46	—	46
Fixed income securities:			
Domestic government bonds	10	1	11
Domestic corporate bonds	—	16	16
International corporate bonds	—	3	3
Registered investment companies	—	17	17
Total investment assets in the fair value hierarchy	<u>121</u>	<u>37</u>	<u>158</u>
Investments measured at NAV – Common/collective trusts			<u>11</u>
Total investment assets ⁽¹⁾			<u>169</u>
SoCalGas:			
Equity securities:			
Domestic	130	—	130
International	77	—	77
Registered investment companies	46	—	46
Fixed income securities:			
Domestic government bonds	52	8	60
International government bonds	—	2	2
Domestic corporate bonds	—	94	94
International corporate bonds	—	28	28
Registered investment companies	—	47	47
Total investment assets in the fair value hierarchy	<u>305</u>	<u>179</u>	<u>484</u>
Investments measured at NAV – Common/collective trusts			<u>386</u>
Total investment assets ⁽²⁾			<u>870</u>
Other Sempra Energy:			
Equity securities:			
Domestic	6	—	6
International	3	—	3
Fixed income securities:			
Domestic government bonds	1	—	1
International government bonds	—	1	1
Domestic corporate bonds	—	2	2
International corporate bonds	—	1	1
Registered investment companies	—	1	1
Total investment assets in the fair value hierarchy	<u>10</u>	<u>5</u>	<u>15</u>
Investments measured at NAV – Common/collective trusts			<u>3</u>
Total other Sempra Energy investment assets			<u>18</u>
Total Sempra Energy Consolidated investment assets in the fair value hierarchy	\$ 436	\$ 221	
Total Sempra Energy Consolidated investment assets ⁽³⁾			\$ 1,057

⁽¹⁾ Excludes cash and cash equivalents of \$1 million and accounts payable of \$1 million held in SDG&E PBOP plan trusts.

⁽²⁾ Excludes cash and cash equivalents of \$4 million and accounts payable of \$4 million held in SoCalGas PBOP plan trusts.

⁽³⁾ Excludes cash and cash equivalents of \$5 million and accounts payable of \$5 million at Sempra Energy Consolidated.

Future Payments

We expect to contribute the following amounts to our pension and PBOP plans in 2018:

EXPECTED CONTRIBUTIONS			
<i>(Dollars in millions)</i>			
	Sempra Energy Consolidated	SDG&E	SoCalGas
Pension plans	\$ 226	\$ 48	\$ 113
Other postretirement benefit plans	9	3	2

The following table shows the total benefits we expect to pay for the next 10 years to current employees and retirees from the plans or from company assets.

EXPECTED BENEFIT PAYMENTS						
<i>(Dollars in millions)</i>						
	Sempra Energy Consolidated		SDG&E		SoCalGas	
	Pension benefits	Other postretirement benefits	Pension benefits	Other postretirement benefits	Pension benefits	Other postretirement benefits
2018	\$ 351	\$ 52	\$ 90	\$ 10	\$ 192	\$ 38
2019	304	52	76	10	188	39
2020	294	54	74	10	179	40
2021	285	53	71	11	173	40
2022	273	53	68	11	172	40
2023-2027	1,217	262	314	52	782	197

PROFIT SHARING PLANS

Under Chilean law, Chilquinta Energía is required to pay all employees either (1) 30 percent of Chilquinta Energía's taxable income after deducting a 10-percent return on equity, allocated in proportion to the annual salary of each employee or (2) 25 percent of each employee's annual salary, with a maximum mandatory profit sharing of 4.75 months of Chile's legal minimum salary. Chilquinta Energía has elected the second option but calculates the profit sharing amounts with actual employee salaries instead of the legal minimum salary, resulting in a higher cost. The amounts are paid out each pay period. Chilquinta Energía recorded annual profit sharing expense of \$7 million for 2017, \$5 million for 2016 and \$3 million for 2015 related to this plan.

Under Peruvian law, Luz del Sur is required to pay their employees 5 percent of Luz del Sur's taxable income, paid once a year and allocated as follows: 50 percent based on each employee's annual hours worked and 50 percent based on each employee's annual salary. Luz del Sur recorded annual profit sharing expense of \$12 million in 2017 and \$10 million in both 2016 and 2015 related to this plan.

SAVINGS PLANS

Sempra Energy offers trustee savings plans to all domestic employees, all employees in Mexico and certain employees in Chile. Employee participation, employee contributions and employer matching contributions are subject to the provisions of the respective plans, and for employee contributions, limits imposed by the respective governmental authorities.

Employer contributions to the savings plans were as follows:

EMPLOYER CONTRIBUTIONS TO SAVINGS PLANS			
<i>(Dollars in millions)</i>			
	2017	2016	2015
Sempra Energy Consolidated	\$ 41	\$ 42	\$ 43
SDG&E	14	15	17
SoCalGas	22	22	21

The market value of Sempra Energy common stock held by the savings plans was \$1.1 billion at both December 31, 2017 and 2016.

NOTE 8. SHARE-BASED COMPENSATION

SEMPRA ENERGY EQUITY COMPENSATION PLANS

Sempra Energy has share-based compensation plans intended to align employee and shareholder objectives related to the long-term growth of Sempra Energy. The plans permit a wide variety of share-based awards, including:

- non-qualified stock options
- incentive stock options
- restricted stock awards
- restricted stock units
- stock appreciation rights
- performance awards
- stock payments
- dividend equivalents

Eligible employees, including those from the California Utilities, participate in Sempra Energy's share-based compensation plans as a component of their compensation package.

In the three years ended December 31, 2017, Sempra Energy had the following types of equity awards outstanding:

- *Non-Qualified Stock Options*: Options to purchase common stock have an exercise price equal to the market price of the common stock at the date of grant, are service-based, become exercisable over a four-year period, and expire 10 years from the date of grant. Vesting and/or the ability to exercise may be accelerated upon a change in control, in accordance with severance pay agreements, in accordance with the terms of the grant, or upon eligibility for retirement. Options are subject to forfeiture or earlier expiration when an employee terminates employment.
- *Performance-Based Restricted Stock Units*: These RSU awards generally vest in Sempra Energy common stock at the end of three-year (for awards granted during or after 2015) or four-year performance periods based on Sempra Energy's total return to shareholders relative to that of specified market indices or based on the compound annual growth rate of Sempra Energy's EPS. The comparative market indices for the awards that vest based on total return to shareholders are the S&P 500 Utilities Index and the S&P 500 Index. We primarily use long-term analyst consensus growth estimates for S&P 500 Utilities Index peer companies to develop our targets for awards that vest based on EPS growth.
 - For awards granted in 2013 or earlier, if Sempra Energy's total return to shareholders exceeds target levels, up to an additional 50 percent of the number of granted RSUs may be issued.
 - For awards granted during or after 2014, up to an additional 100 percent of the granted RSUs may be issued if total return to shareholders or EPS growth exceeds target levels.
 - For awards granted in 2015 and 2016, and certain awards granted in 2017, that vest based on Sempra Energy's total return to shareholders, a modifier adds 20 percent to the award's payout (as initially calculated based on total return to shareholders relative to that of specified market indices) for total shareholder return performance in the top quartile relative to historical benchmark data for Sempra Energy and reduces the award's payout by 20 percent for performance in the bottom quartile. However, in no event will more than an additional 100 percent of the granted RSUs be issued. If performance falls within the second or third quartiles, the modifier is not triggered, and the payout is based solely on total return to shareholders relative to that of specified market indices.

If Sempra Energy's total return to shareholders or EPS growth is below the target levels but above threshold performance levels, shares are subject to partial vesting on a pro rata basis.

- *Other Performance-Based Restricted Stock Units*: RSUs were granted in 2014 and 2015 in connection with the creation of Cameron LNG JV.
 - The 2014 awards vest to the extent that the Compensation Committee of Sempra Energy's board of directors determines that the objectives of the joint venture are continuing to be achieved. These awards vest on the anniversary of the grant date over a period of either two or three years.
 - The 2015 awards vest to the extent that the Compensation Committee of Sempra Energy's board of directors determines that Sempra Energy has achieved positive cumulative net income for fiscal years 2015 through 2017 and Cameron LNG JV has commenced commercial operations of the first train.

- *Service-Based Restricted Stock Units*: RSUs may also be service-based; these generally vest at the end of three-year (for awards granted during or after 2015) or four-year service periods.
- *Restricted Stock Awards*: RSAs are solely service-based and generally vest at the end of four years of service. Accelerated vesting of RSAs may occur upon eligibility for retirement. Holders of RSAs have full voting rights.

For RSA and RSU awards, vesting may be subject to earlier forfeiture upon termination of employment and accelerated vesting upon a change in control under the applicable long-term incentive plan, in accordance with severance pay agreements, or at the discretion of the Compensation Committee of Sempra Energy's board of directors. Dividend equivalents on shares subject to RSAs and RSUs are reinvested to purchase additional common shares that become subject to the same vesting conditions as the RSAs and RSUs to which the dividends relate.

In April 2013, the IEnova board of directors approved the IEnova 2013 Long-Term Incentive Plan. The purpose of this plan is to align the interests of employees and directors of IEnova with its shareholders. All awards issued from this plan and any related dividend equivalents will settle in cash at vesting based on the price of IEnova common stock. In 2017, 2016 and 2015, IEnova granted 1,043,709 RSUs, 378,367 RSUs and 278,538 RSUs, respectively, from this plan, 1,374,114 of which remain outstanding at December 31, 2017. During 2017, 2016 and 2015, IEnova paid cash of \$2 million, \$1 million and \$4 million, respectively, to settle vested awards.

SHARE-BASED AWARDS AND COMPENSATION EXPENSE

At December 31, 2017, 5,589,925 common shares were authorized and available for future grants of share-based awards. Our practice is to satisfy share-based awards by issuing new shares rather than by open-market purchases.

We measure and recognize compensation expense for all share-based payment awards made to our employees and directors based on estimated fair values on the date of grant. We recognize compensation costs net of an estimated forfeiture rate (based on historical experience) and recognize the compensation costs for non-qualified stock options, RSAs and RSUs on a straight-line basis over the requisite service period of the award, which is generally three or four years. However, in the year that an employee becomes eligible for retirement, the remaining expense related to the employee's awards is recognized immediately. Substantially all awards outstanding are classified as equity instruments; therefore, we recognize additional paid in capital as we recognize the compensation expense associated with the awards. Beginning in 2016, we recognize in earnings the tax benefits (or deficiencies) resulting from tax deductions that are in excess of (or less than) tax benefits related to compensation cost recognized for share-based payments. In 2015, \$52 million in excess tax benefits was recorded within Sempra Energy's Shareholders' Equity.

Sempra Energy subsidiaries record an expense for the plans to the extent that subsidiary employees participate in the plans and/or the subsidiaries are allocated a portion of the Sempra Energy plans' corporate staff costs. Total share-based compensation expense for all of Sempra Energy's share-based awards was comprised as follows:

	Years ended December 31,		
	2017	2016	2015
SHARE-BASED COMPENSATION EXPENSE			
<i>(Dollars in millions)</i>			
Sempra Energy Consolidated:			
Share-based compensation expense, before income taxes	\$ 78	\$ 46	\$ 48
Income tax benefit	(31)	(18)	(19)
	<u>\$ 47</u>	<u>\$ 28</u>	<u>\$ 29</u>
Capitalized share-based compensation cost	\$ 9	\$ 7	\$ 6
Excess income tax benefit	\$ —	\$ (34)	\$ —
SDG&E:			
Share-based compensation expense, before income taxes	\$ 13	\$ 7	\$ 8
Income tax benefit	(5)	(3)	(3)
	<u>\$ 8</u>	<u>\$ 4</u>	<u>\$ 5</u>
Capitalized share-based compensation cost	\$ 5	\$ 4	\$ 4
Excess income tax benefit	\$ —	\$ (7)	\$ —
SoCalGas:			
Share-based compensation expense, before income taxes	\$ 17	\$ 8	\$ 10
Income tax benefit	(7)	(3)	(4)
	<u>\$ 10</u>	<u>\$ 5</u>	<u>\$ 6</u>
Capitalized share-based compensation cost	\$ 4	\$ 3	\$ 2
Excess income tax benefit	\$ —	\$ (4)	\$ —

SEMPRA ENERGY NON-QUALIFIED STOCK OPTIONS

We use a Black-Scholes option-pricing model to estimate the fair value of each non-qualified stock option grant. The use of a valuation model requires us to make certain assumptions about selected model inputs. Expected volatility is calculated based on the historical volatility of Sempra Energy's common stock price. We base the average expected life for options on the contractual term of the option and expected employee exercise and post-termination behavior. The risk-free interest rate is based on U.S. Treasury zero-coupon issues with a remaining term equal to the expected life assumed at the date of the grant.

The following table shows a summary of non-qualified stock options at December 31, 2017 and activity for the year then ended:

	Common shares under option	Weighted- average exercise price	Weighted- average remaining contractual term (in years)	Aggregate intrinsic value (in millions)
Outstanding at January 1, 2017	360,255	\$ 52.46		
Exercised	(164,454)	\$ 55.04		
Outstanding at December 31, 2017	<u>195,801</u>	\$ 50.30	1.5	\$ 11
Vested at December 31, 2017	195,801	\$ 50.30	1.5	\$ 11
Exercisable at December 31, 2017	195,801	\$ 50.30	1.5	\$ 11

The aggregate intrinsic value at December 31, 2017 is the total of the difference between Sempra Energy's closing common stock price and the exercise price for all in-the-money options. The aggregate intrinsic value for non-qualified stock options exercised in the last three years was

- \$9 million in 2017
- \$8 million in 2016
- \$12 million in 2015

No stock options were granted in 2017, 2016 or 2015. All outstanding stock options were fully vested and all compensation cost related to stock options had been recognized as of December 31, 2014.

We received cash of \$9 million from stock option exercises during 2017.

SEMPRA ENERGY RESTRICTED STOCK AWARDS AND UNITS

We use a Monte-Carlo simulation model to estimate the fair value of our RSAs and our RSUs that vest based on Sempra Energy's total return to shareholders. Our determination of fair value is affected by the historical volatility of the common stock price for Sempra Energy and its peer group companies. The valuation also is affected by the risk-free rates of return, and a number of other variables. Below are key assumptions for awards granted in 2017, 2016 and 2015 for Sempra Energy:

	Years ended December 31,		
	2017	2016	2015
Risk-free rate of return	1.5%	1.3%	1.1%
Stock price volatility	17	16	14

Restricted Stock Awards

No RSAs were granted in 2017, 2016 or 2015. All outstanding RSAs were fully vested and all compensation cost related to RSAs had been recognized as of December 31, 2016. The total fair value of RSA shares vested during the year was a negligible amount in 2016 and \$1 million in 2015.

Restricted Stock Units

We provide below a summary of Sempra Energy's RSUs as of December 31, 2017 and the activity during the year.

	Performance-based restricted stock units		Service-based restricted stock units	
	Units	Weighted-average grant-date fair value	Units	Weighted-average grant-date fair value
Nonvested at January 1, 2017	1,954,322	\$ 88.58	305,736	\$ 94.68
Granted	424,760	\$ 110.54	93,619	\$ 101.88
Vested	(637,577)	\$ 57.42	(108,880)	\$ 79.61
Forfeited	(39,888)	\$ 103.17	(4,580)	\$ 97.84
Nonvested at December 31, 2017 ⁽¹⁾	<u>1,701,617</u>	\$ 105.84	<u>285,895</u>	\$ 98.81
Expected to vest at December 31, 2017	1,670,885	\$ 105.38	282,106	\$ 98.65

⁽¹⁾ Each RSU represents the right to receive one share of our common stock if applicable performance conditions are satisfied. For all performance-based RSUs, except for those issued in connection with the creation of Cameron LNG JV, up to an additional 50 percent (100 percent for awards granted during or after 2014) of the shares represented by the RSUs may be issued if Sempra Energy exceeds target performance conditions.

The total fair value of RSU shares vested during the year was \$45 million in 2017 and \$46 million in each of 2016 and 2015.

The \$17 million of total compensation cost related to nonvested RSUs not yet recognized as of December 31, 2017 is expected to be recognized over a weighted-average period of 1.9 years. The weighted-average per-share fair values for performance-based

RSUs granted were \$100.37 and \$123.30 in 2016 and 2015, respectively. The weighted-average per-share fair values for service-based RSUs granted were \$93.59 and \$111.43 in 2016 and 2015, respectively.

NOTE 9. DERIVATIVE FINANCIAL INSTRUMENTS

We use derivative instruments primarily to manage exposures arising in the normal course of business. Our principal exposures are commodity market risk, benchmark interest rate risk and foreign exchange rate exposures. Our use of derivatives for these risks is integrated into the economic management of our anticipated revenues, anticipated expenses, assets and liabilities. Derivatives may be effective in mitigating these risks (1) that could lead to declines in anticipated revenues or increases in anticipated expenses, or (2) that our asset values may fall or our liabilities increase. Accordingly, our derivative activity summarized below generally represents an impact that is intended to offset associated revenues, expenses, assets or liabilities that are not included in the tables below.

In certain cases, we apply the normal purchase or sale exception to derivative instruments and have other commodity contracts that are not derivatives. These contracts are not recorded at fair value and are therefore excluded from the disclosures below.

In all other cases, we record derivatives at fair value on the Consolidated Balance Sheets. We designate each derivative as (1) a cash flow hedge, (2) a fair value hedge, or (3) undesignated. Depending on the applicability of hedge accounting and, for the California Utilities and other operations subject to regulatory accounting, the requirement to pass impacts through to customers, the impact of derivative instruments may be offset in other comprehensive income (loss) (cash flow hedge), on the balance sheet (fair value hedges and regulatory offsets), or recognized in earnings. We classify cash flows from the settlements of derivative instruments as operating activities on the Consolidated Statements of Cash Flows.

HEDGE ACCOUNTING

We may designate a derivative as a cash flow hedging instrument if it effectively converts anticipated cash flows associated with revenues or expenses to a fixed dollar amount. We may utilize cash flow hedge accounting for derivative commodity instruments, foreign currency instruments and interest rate instruments. Designating cash flow hedges is dependent on the business context in which the instrument is being used, the effectiveness of the instrument in offsetting the risk that the future cash flows of a given revenue or expense item may vary, and other criteria.

We may designate an interest rate derivative as a fair value hedging instrument if it effectively converts our own debt from a fixed interest rate to a variable rate. The combination of the derivative and debt instrument results in fixing that portion of the fair value of the debt that is related to benchmark interest rates. Designating fair value hedges is dependent on the instrument being used, the effectiveness of the instrument in offsetting changes in the fair value of our debt instruments, and other criteria.

ENERGY DERIVATIVES

Our market risk is primarily related to natural gas and electricity price volatility and the specific physical locations where we transact. We use energy derivatives to manage these risks. The use of energy derivatives in our various businesses depends on the particular energy market, and the operating and regulatory environments applicable to the business, as follows:

- The California Utilities use natural gas and electricity derivatives, for the benefit of customers, with the objective of managing price risk and basis risks, and stabilizing and lowering natural gas and electricity costs. These derivatives include fixed price natural gas and electricity positions, options, and basis risk instruments, which are either exchange-traded or over-the-counter financial instruments, or bilateral physical transactions. This activity is governed by risk management and transacting activity plans that have been filed with and approved by the CPUC. Natural gas and electricity derivative activities are recorded as commodity costs that are offset by regulatory account balances and are recovered in rates. Net commodity cost impacts on the Consolidated Statements of Operations are reflected in Cost of Electric Fuel and Purchased Power or in Cost of Natural Gas.
- SDG&E is allocated and may purchase CRRs, which serve to reduce the regional electricity price volatility risk that may result from local transmission capacity constraints. Unrealized gains and losses do not impact earnings, as they are offset by regulatory account balances. Realized gains and losses associated with CRRs, which are recoverable in rates, are recorded in Cost of Electric Fuel and Purchased Power on the Consolidated Statements of Operations.
- Sempra Mexico, Sempra LNG & Midstream and Sempra Renewables may use natural gas and electricity derivatives, as appropriate, to optimize the earnings of their assets which support the following businesses: LNG, natural gas transportation and storage, and power generation. Gains and losses associated with undesignated derivatives are recognized in Energy-Related Businesses Revenues or in Cost of Natural Gas, Electric Fuel and Purchased Power on the Consolidated Statements of Operations. Certain of these derivatives may also be designated as cash flow hedges. Sempra Mexico may also use natural gas

energy derivatives with the objective of managing price risk and lowering natural gas prices at its Mexican distribution operations. These derivatives, which are recorded as commodity costs that are offset by regulatory account balances and recovered in rates, are recognized in Cost of Natural Gas on the Consolidated Statements of Operations.

- From time to time, our various businesses, including the California Utilities, may use other energy derivatives to hedge exposures such as the price of vehicle fuel and GHG allowances.

We summarize net energy derivative volumes at December 31, 2017 and 2016 as follows:

NET ENERGY DERIVATIVE VOLUMES				
<i>(Quantities in millions)</i>				
Commodity	Unit of measure	December 31,		
		2017	2016	
California Utilities:				
SDG&E:				
Natural gas	MMBtu	39	48	
Electricity	MWh	3	4	
Congestion revenue rights	MWh	59	48	
SoCalGas – natural gas	MMBtu	—	1	
Energy-Related Businesses:				
Sempra LNG & Midstream – natural gas	MMBtu	3	31	
Sempra Mexico – natural gas	MMBtu	4	—	

In addition to the amounts noted above, we frequently use commodity derivatives to manage risks associated with the physical locations of contractual obligations and assets, such as natural gas purchases and sales.

INTEREST RATE DERIVATIVES

We are exposed to interest rates primarily as a result of our current and expected use of financing. The California Utilities, as well as Sempra Energy and its other subsidiaries and joint ventures, periodically enter into interest rate derivative agreements intended to moderate our exposure to interest rates and to lower our overall costs of borrowing. We may utilize interest rate swaps typically designated as fair value hedges, as a means to achieve our targeted level of variable rate debt as a percent of total debt. In addition, we may utilize interest rate swaps, typically designated as cash flow hedges, to lock in interest rates on outstanding debt or in anticipation of future financings. Separately, Otay Mesa VIE has entered into interest rate swap agreements, designated as cash flow hedges, to moderate its exposure to interest rate changes.

At December 31, 2017 and 2016, the net notional amounts of our interest rate derivatives, excluding joint ventures, were:

INTEREST RATE DERIVATIVES					
<i>(Dollars in millions)</i>					
	December 31, 2017		December 31, 2016		
	Notional debt	Maturities	Notional debt	Maturities	
Sempra Energy Consolidated:					
Cash flow hedges ⁽¹⁾	\$ 861	2018-2032	\$ 924	2017-2032	
SDG&E:					
Cash flow hedge ⁽¹⁾	295	2018-2019	305	2017-2019	

⁽¹⁾ Includes Otay Mesa VIE. All of SDG&E's interest rate derivatives relate to Otay Mesa VIE.

FOREIGN CURRENCY DERIVATIVES

We utilize cross-currency swaps to hedge exposure related to Mexican peso-denominated debt at our Mexican subsidiaries and joint ventures. These cash flow hedges exchange our Mexican peso-denominated principal and interest payments into the U.S. dollar and swap Mexican variable interest rates for U.S. fixed interest rates. From time to time, Sempra Mexico and its joint ventures may use other foreign currency derivatives to hedge exposures related to cash flows associated with revenues from contracts denominated in Mexican pesos that are indexed to the U.S. dollar.

We are also exposed to exchange rate movements at our Mexican subsidiaries and joint ventures, which have U.S. dollar-denominated cash balances, receivables, payables and debt (monetary assets and liabilities) that give rise to Mexican currency exchange rate movements for Mexican income tax purposes. They also have deferred income tax assets and liabilities denominated in the Mexican peso, which must be translated to U.S. dollars for financial reporting purposes. In addition, monetary assets and liabilities and certain nonmonetary assets and liabilities are adjusted for Mexican inflation for Mexican income tax purposes. We utilize foreign currency derivatives as a means to manage the risk of exposure to significant fluctuations in our income tax expense and equity earnings from these impacts; however, we generally do not hedge our deferred income tax assets and liabilities or inflation.

In addition, Sempra South American Utilities and its joint ventures use foreign currency derivatives to manage foreign currency rate risk. We discuss these derivatives at Chilquinta Energía's Eletrans joint venture investment in Note 4.

At December 31, 2017 and 2016, the net notional amounts of our foreign currency derivatives, excluding joint ventures, were:

	December 31, 2017		December 31, 2016	
	Notional amount	Maturities	Notional amount	Maturities
Sempra Energy Consolidated:				
Cross-currency swaps	\$ 408	2018-2023	\$ 408	2017-2023
Other foreign currency derivatives ⁽¹⁾	345	2018-2019	86	2017-2018

⁽¹⁾ In the first quarter of 2018, we entered into foreign currency derivatives with notional amounts totaling \$650 million that expire between December 2018 and January 2019.

FINANCIAL STATEMENT PRESENTATION

The Consolidated Balance Sheets reflect the offsetting of net derivative positions and cash collateral with the same counterparty when a legal right of offset exists. The following tables provide the fair values of derivative instruments on the Consolidated Balance Sheets at December 31, 2017 and 2016, including the amount of cash collateral receivables that were not offset, as the cash collateral was in excess of liability positions.

DERIVATIVE INSTRUMENTS ON THE CONSOLIDATED BALANCE SHEETS
(Dollars in millions)

December 31, 2017

	Current assets: Fixed-price contracts and other derivatives ⁽¹⁾	Other assets: Sundry	Current liabilities: Fixed-price contracts and other derivatives ⁽²⁾	Deferred credits and other liabilities: Fixed-price contracts and other derivatives
Sempra Energy Consolidated:				
Derivatives designated as hedging instruments:				
Interest rate and foreign exchange instruments ⁽³⁾	\$ 5	\$ 2	\$ (51)	\$ (165)
Derivatives not designated as hedging instruments:				
Foreign exchange instruments	—	—	(1)	—
Commodity contracts not subject to rate recovery	81	8	(72)	(6)
Associated offsetting commodity contracts	(67)	(5)	67	5
Commodity contracts subject to rate recovery	28	101	(65)	(120)
Associated offsetting commodity contracts	—	(1)	—	1
Associated offsetting cash collateral	—	—	19	4
Net amounts presented on the balance sheet	47	105	(103)	(281)
Additional cash collateral for commodity contracts not subject to rate recovery	2	—	—	—
Additional cash collateral for commodity contracts subject to rate recovery	17	—	—	—
Total ⁽⁴⁾	\$ 66	\$ 105	\$ (103)	\$ (281)
SDG&E:				
Derivatives designated as hedging instruments:				
Interest rate instruments ⁽³⁾	\$ —	\$ —	\$ (10)	\$ (3)
Derivatives not designated as hedging instruments:				
Commodity contracts subject to rate recovery	26	101	(63)	(120)
Associated offsetting commodity contracts	—	(1)	—	1
Associated offsetting cash collateral	—	—	19	4
Net amounts presented on the balance sheet	26	100	(54)	(118)
Additional cash collateral for commodity contracts subject to rate recovery	16	—	—	—
Total ⁽⁴⁾	\$ 42	\$ 100	\$ (54)	\$ (118)
SoCalGas:				
Derivatives not designated as hedging instruments:				
Commodity contracts subject to rate recovery	\$ 2	\$ —	\$ (2)	\$ —
Net amounts presented on the balance sheet	2	—	(2)	—
Additional cash collateral for commodity contracts subject to rate recovery	1	—	—	—
Total	\$ 3	\$ —	\$ (2)	\$ —

⁽¹⁾ Included in Current Assets: Other for SoCalGas.

⁽²⁾ Included in Current Liabilities: Other for SoCalGas.

⁽³⁾ Includes Otay Mesa VIE. All of SDG&E's amounts relate to Otay Mesa VIE.

⁽⁴⁾ Normal purchase contracts previously measured at fair value are excluded.

DERIVATIVE INSTRUMENTS ON THE CONSOLIDATED BALANCE SHEETS
(Dollars in millions)

December 31, 2016

	Current assets: Fixed-price contracts and other derivatives ⁽¹⁾	Other assets: Sundry	Current liabilities: Fixed-price contracts and other derivatives ⁽²⁾	Deferred credits and other liabilities: Fixed-price contracts and other derivatives
Sempra Energy Consolidated:				
Derivatives designated as hedging instruments:				
Interest rate and foreign exchange instruments ⁽³⁾	\$ 7	\$ 2	\$ (24)	\$ (228)
Commodity contracts not subject to rate recovery	—	—	(14)	—
Derivatives not designated as hedging instruments:				
Commodity contracts not subject to rate recovery	248	36	(254)	(28)
Associated offsetting commodity contracts	(242)	(27)	242	27
Associated offsetting cash collateral	—	(1)	16	1
Commodity contracts subject to rate recovery	37	73	(57)	(150)
Associated offsetting commodity contracts	(9)	(1)	9	1
Associated offsetting cash collateral	—	—	5	13
Net amounts presented on the balance sheet	41	82	(77)	(364)
Additional cash collateral for commodity contracts not subject to rate recovery	10	—	—	—
Additional cash collateral for commodity contracts subject to rate recovery	32	—	—	—
Total ⁽⁴⁾	\$ 83	\$ 82	\$ (77)	\$ (364)
SDG&E:				
Derivatives designated as hedging instruments:				
Interest rate instruments ⁽³⁾	\$ —	\$ —	\$ (13)	\$ (12)
Derivatives not designated as hedging instruments:				
Commodity contracts subject to rate recovery	33	73	(51)	(150)
Associated offsetting commodity contracts	(6)	(1)	6	1
Associated offsetting cash collateral	—	—	3	13
Net amounts presented on the balance sheet	27	72	(55)	(148)
Additional cash collateral for commodity contracts not subject to rate recovery	1	—	—	—
Additional cash collateral for commodity contracts subject to rate recovery	30	—	—	—
Total ⁽⁴⁾	\$ 58	\$ 72	\$ (55)	\$ (148)
SoCalGas:				
Derivatives not designated as hedging instruments:				
Commodity contracts subject to rate recovery	\$ 4	\$ —	\$ (6)	\$ —
Associated offsetting commodity contracts	(3)	—	3	—
Associated offsetting cash collateral	—	—	2	—
Net amounts presented on the balance sheet	1	—	(1)	—
Additional cash collateral for commodity contracts not subject to rate recovery	1	—	—	—
Additional cash collateral for commodity contracts subject to rate recovery	2	—	—	—
Total	\$ 4	\$ —	\$ (1)	\$ —

⁽¹⁾ Included in Current Assets: Other for SoCalGas.

⁽²⁾ Included in Current Liabilities: Other for SoCalGas.

⁽³⁾ Includes Otay Mesa VIE. All of SDG&E's amounts relate to Otay Mesa VIE.

⁽⁴⁾ Normal purchase contracts previously measured at fair value are excluded.

The table below includes the effects of derivative instruments designated as fair value hedges on the Consolidated Statements of Operations for the years ended December 31, 2016 and 2015. There were no fair value hedges outstanding during the year ended December 31, 2017.

		Pretax gain (loss) on derivatives recognized in earnings	
		Years ended December 31,	
Location		2016	2015
Sempra Energy Consolidated:			
Interest rate instruments	Interest Expense	\$ 3	\$ 6
Interest rate instruments	Other Income, Net	(2)	(5)
Total ⁽¹⁾		\$ 1	\$ 1

⁽¹⁾ There was no hedge ineffectiveness in 2016 or 2015. All other changes in the fair value of the interest rate swap agreements are exactly offset by changes in the fair value of the underlying long-term debt and recorded in Other Income, Net.

The effects of derivative instruments designated as cash flow hedges on the Consolidated Statements of Operations and in OCI and AOCI for the years ended December 31 were:

		Pretax gain (loss) recognized in OCI			Pretax gain (loss) reclassified from AOCI into earnings		
		Years ended December 31,			Years ended December 31,		
Location		2017	2016	2015	2017	2016	2015
Sempra Energy Consolidated:							
Interest rate and foreign exchange instruments ⁽¹⁾	Interest Expense	\$ 19	\$ (8)	\$ (18)	\$ 4	\$ (17)	\$ (18)
Interest rate instruments	Equity Earnings, Before Income Tax	(25)	(9)	(80)	(8)	(10)	(12)
Interest rate and foreign exchange instruments	Remeasurement of Equity Method Investment	—	—	—	—	(7)	—
Interest rate and foreign exchange instruments	Equity Earnings, Net of Income Tax	(9)	5	(20)	(12)	(5)	(13)
Foreign exchange instruments	Revenues: Energy-Related Businesses	4	4	—	2	—	—
Commodity contracts not subject to rate recovery	Revenues: Energy-Related Businesses	3	(13)	12	(9)	6	14
Total ⁽²⁾		\$ (8)	\$ (21)	\$ (106)	\$ (23)	\$ (33)	\$ (29)
SDG&E:							
Interest rate instruments ⁽¹⁾⁽³⁾	Interest Expense	\$ (2)	\$ (2)	\$ (6)	\$ (13)	\$ (12)	\$ (12)
SoCalGas:							
Interest rate instruments	Interest Expense	\$ —	\$ —	\$ —	\$ —	\$ (1)	\$ (1)

⁽¹⁾ Amounts include Otay Mesa VIE. All of SDG&E's interest rate derivative activity relates to Otay Mesa VIE.

⁽²⁾ There was \$5 million, \$4 million and \$2 million of losses from ineffectiveness related to these cash flow hedges in 2017, 2016 and 2015, respectively.

⁽³⁾ There was negligible hedge ineffectiveness related to these cash flow hedges in 2017, 2016 and 2015.

For Sempra Energy Consolidated, we expect that net losses of \$33 million, which are net of income tax benefit, that are currently recorded in AOCI (including \$9 million of losses in noncontrolling interest related to Otay Mesa VIE at SDG&E) related to cash flow hedges will be reclassified into earnings during the next twelve months as the hedged items affect earnings. SoCalGas expects that \$1 million of losses, net of income tax benefit, that are currently recorded in AOCI related to cash flow hedges will be reclassified into earnings during the next twelve months as the hedged items affect earnings. Actual amounts ultimately reclassified into earnings depend on the interest rates in effect when derivative contracts mature.

For all forecasted transactions, the maximum remaining term over which we are hedging exposure to the variability of cash flows at December 31, 2017 is approximately 14 years and 1 year for Sempra Energy Consolidated and SDG&E, respectively. The maximum remaining term for which we are hedging exposure to the variability of cash flows at our equity method investees is 18 years.

The effects of derivative instruments not designated as hedging instruments on the Consolidated Statements of Operations for the years ended December 31 were:

UNDESIGNATED DERIVATIVE IMPACTS

(Dollars in millions)

	Location	Pretax gain (loss) on derivatives recognized in earnings		
		Years ended December 31,		
		2017	2016	2015
Sempra Energy Consolidated:				
Interest rate and foreign exchange instruments	Other Income, Net	\$ 49	\$ (32)	\$ (4)
Foreign exchange instruments	Equity Earnings, Net of Income Tax	1	3	(4)
Commodity contracts not subject to rate recovery	Revenues: Energy-Related Businesses	16	(18)	42
Commodity contracts not subject to rate recovery	Operation and Maintenance	—	1	(1)
Commodity contracts subject to rate recovery	Cost of Electric Fuel and Purchased Power	54	(53)	(126)
Commodity contracts subject to rate recovery	Cost of Natural Gas	(2)	(4)	1
Total		\$ 118	\$ (103)	\$ (92)
SDG&E:				
Commodity contracts subject to rate recovery	Cost of Electric Fuel and Purchased Power	\$ 54	\$ (53)	\$ (126)
SoCalGas:				
Commodity contracts not subject to rate recovery	Operation and Maintenance	\$ —	\$ 1	\$ (1)
Commodity contracts subject to rate recovery	Cost of Natural Gas	(2)	(4)	1
Total		\$ (2)	\$ (3)	\$ —

CONTINGENT FEATURES

For Sempra Energy Consolidated and SDG&E, certain of our derivative instruments contain credit limits which vary depending on our credit ratings. Generally, these provisions, if applicable, may reduce our credit limit if a specified credit rating agency reduces our ratings. In certain cases, if our credit ratings were to fall below investment grade, the counterparty to these derivative liability instruments could request immediate payment or demand immediate and ongoing full collateralization.

For Sempra Energy Consolidated, the total fair value of this group of derivative instruments in a net liability position at December 31, 2017 and 2016 is \$6 million and \$10 million, respectively. At December 31, 2017, if the credit ratings of Sempra Energy were reduced below investment grade, \$6 million of additional assets could be required to be posted as collateral for these derivative contracts.

For SDG&E, the total fair value of this group of derivative instruments in a net liability position at December 31, 2017 and 2016 is \$1 million and negligible, respectively. At December 31, 2017, if the credit ratings of SDG&E were reduced below investment grade, \$1 million of additional assets could be required to be posted as collateral for these derivative contracts.

For Sempra Energy Consolidated, SDG&E and SoCalGas, some of our derivative contracts contain a provision that would permit the counterparty, in certain circumstances, to request adequate assurance of our performance under the contracts. Such additional assurance, if needed, is not material and is not included in the amounts above.

NOTE 10. FAIR VALUE MEASUREMENTS

RECURRING FAIR VALUE MEASURES

The three tables below, by level within the fair value hierarchy, set forth our financial assets and liabilities that were accounted for at fair value on a recurring basis at December 31, 2017 and 2016. We classify financial assets and liabilities in their entirety based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement requires judgment, and may affect the valuation of fair value assets and liabilities, and their placement within the fair value hierarchy.

The fair value of commodity derivative assets and liabilities is presented in accordance with our netting policy, as we discuss in Note 9 in “Financial Statement Presentation.”

The determination of fair values, shown in the tables below, incorporates various factors, including but not limited to, the credit standing of the counterparties involved and the impact of credit enhancements (such as cash deposits, letters of credit and priority interests).

Our financial assets and liabilities that were accounted for at fair value on a recurring basis at December 31, 2017 and 2016 in the tables below include the following:

- Nuclear decommissioning trusts reflect the assets of SDG&E’s NDT, excluding cash balances. A third party trustee values the trust assets using prices from a pricing service based on a market approach. We validate these prices by comparison to prices from other independent data sources. Securities are valued using quoted prices listed on nationally recognized securities exchanges or based on closing prices reported in the active market in which the identical security is traded (Level 1). Other securities are valued based on yields that are currently available for comparable securities of issuers with similar credit ratings (Level 2).
- For commodity contracts, interest rate derivatives and foreign exchange instruments, we primarily use a market approach with market participant assumptions to value these derivatives. Market participant assumptions include those about risk, and the risk inherent in the inputs to the valuation techniques. These inputs can be readily observable, market corroborated, or generally unobservable. We have exchange-traded derivatives that are valued based on quoted prices in active markets for the identical instruments (Level 1). We also may have other commodity derivatives that are valued using industry standard models that consider quoted forward prices for commodities, time value, current market and contractual prices for the underlying instruments, volatility factors, and other relevant economic measures (Level 2). Level 3 recurring items relate to CRRs and long-term, fixed-price electricity positions at SDG&E, as we discuss below in “Level 3 Information.”
- Rabbi Trust investments include marketable securities that we value using a market approach based on closing prices reported in the active market in which the identical security is traded (Level 1). These investments in marketable securities were negligible at both December 31, 2017 and 2016.

There were no transfers into or out of Level 1, Level 2 or Level 3 for Sempra Energy Consolidated, SDG&E or SoCalGas during the periods presented.

RECURRING FAIR VALUE MEASURES – SEMPRA ENERGY CONSOLIDATED
(Dollars in millions)

	Fair value at December 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Nuclear decommissioning trusts:				
Equity securities	\$ 491	\$ 5	\$ —	\$ 496
Debt securities:				
Debt securities issued by the U.S. Treasury and other				
U.S. government corporations and agencies	45	9	—	54
Municipal bonds	—	250	—	250
Other securities	—	217	—	217
Total debt securities	45	476	—	521
Total nuclear decommissioning trusts ⁽¹⁾	536	481	—	1,017
Interest rate and foreign exchange instruments	—	7	—	7
Commodity contracts not subject to rate recovery	5	12	—	17
Effect of netting and allocation of collateral ⁽²⁾	2	—	—	2
Commodity contracts subject to rate recovery	—	2	126	128
Effect of netting and allocation of collateral ⁽²⁾	12	—	5	17
Total	\$ 555	\$ 502	\$ 131	\$ 1,188
Liabilities:				
Interest rate and foreign exchange instruments	\$ —	\$ 217	\$ —	\$ 217
Commodity contracts not subject to rate recovery	—	6	—	6
Commodity contracts subject to rate recovery	23	7	154	184
Effect of netting and allocation of collateral ⁽²⁾	(23)	—	—	(23)
Total	\$ —	\$ 230	\$ 154	\$ 384

	Fair value at December 31, 2016			
	Level 1	Level 2	Level 3	Total
Assets:				
Nuclear decommissioning trusts:				
Equity securities	\$ 508	\$ —	\$ —	\$ 508
Debt securities:				
Debt securities issued by the U.S. Treasury and other				
U.S. government corporations and agencies	36	16	—	52
Municipal bonds	—	206	—	206
Other securities	—	141	—	141
Total debt securities	36	363	—	399
Total nuclear decommissioning trusts ⁽¹⁾	544	363	—	907
Interest rate and foreign exchange instruments	—	9	—	9
Commodity contracts not subject to rate recovery	—	15	—	15
Effect of netting and allocation of collateral ⁽²⁾	2	7	—	9
Commodity contracts subject to rate recovery	1	3	96	100
Effect of netting and allocation of collateral ⁽²⁾	27	—	5	32
Total	\$ 574	\$ 397	\$ 101	\$ 1,072
Liabilities:				
Interest rate and foreign exchange instruments	\$ —	\$ 252	\$ —	\$ 252
Commodity contracts not subject to rate recovery	16	11	—	27
Effect of netting and allocation of collateral ⁽²⁾	(17)	—	—	(17)
Commodity contracts subject to rate recovery	19	8	170	197
Effect of netting and allocation of collateral ⁽²⁾	(18)	—	—	(18)
Total	\$ —	\$ 271	\$ 170	\$ 441

⁽¹⁾ Excludes cash balances and cash equivalents.

⁽²⁾ Includes the effect of the contractual ability to settle contracts under master netting agreements and with cash collateral, as well as cash collateral not offset.

RECURRING FAIR VALUE MEASURES – SDG&E
(Dollars in millions)

	Fair value at December 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Nuclear decommissioning trusts:				
Equity securities	\$ 491	\$ 5	\$ —	\$ 496
Debt securities:				
Debt securities issued by the U.S. Treasury and other				
U.S. government corporations and agencies	45	9	—	54
Municipal bonds	—	250	—	250
Other securities	—	217	—	217
Total debt securities	45	476	—	521
Total nuclear decommissioning trusts ⁽¹⁾	536	481	—	1,017
Commodity contracts subject to rate recovery	—	—	126	126
Effect of netting and allocation of collateral ⁽²⁾	11	—	5	16
Total	\$ 547	\$ 481	\$ 131	\$ 1,159
Liabilities:				
Interest rate instruments	\$ —	\$ 13	\$ —	\$ 13
Commodity contracts subject to rate recovery	23	5	154	182
Effect of netting and allocation of collateral ⁽²⁾	(23)	—	—	(23)
Total	\$ —	\$ 18	\$ 154	\$ 172

	Fair value at December 31, 2016			
	Level 1	Level 2	Level 3	Total
Assets:				
Nuclear decommissioning trusts:				
Equity securities	\$ 508	\$ —	\$ —	\$ 508
Debt securities:				
Debt securities issued by the U.S. Treasury and other				
U.S. government corporations and agencies	36	16	—	52
Municipal bonds	—	206	—	206
Other securities	—	141	—	141
Total debt securities	36	363	—	399
Total nuclear decommissioning trusts ⁽¹⁾	544	363	—	907
Commodity contracts not subject to rate recovery	—	—	—	—
Effect of netting and allocation of collateral ⁽²⁾	1	—	—	1
Commodity contracts subject to rate recovery	1	2	96	99
Effect of netting and allocation of collateral ⁽²⁾	25	—	5	30
Total	\$ 571	\$ 365	\$ 101	\$ 1,037
Liabilities:				
Interest rate instruments	\$ —	\$ 25	\$ —	\$ 25
Commodity contracts subject to rate recovery	17	7	170	194
Effect of netting and allocation of collateral ⁽²⁾	(16)	—	—	(16)
Total	\$ 1	\$ 32	\$ 170	\$ 203

⁽¹⁾ Excludes cash balances and cash equivalents.

⁽²⁾ Includes the effect of the contractual ability to settle contracts under master netting agreements and with cash collateral, as well as cash collateral not offset.

RECURRING FAIR VALUE MEASURES – SOCIALGAS*(Dollars in millions)*

	Fair value at December 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets:				
Commodity contracts subject to rate recovery	\$ —	\$ 2	\$ —	\$ 2
Effect of netting and allocation of collateral ⁽¹⁾	1	—	—	1
Total	\$ 1	\$ 2	\$ —	\$ 3
Liabilities:				
Commodity contracts subject to rate recovery	\$ —	\$ 2	\$ —	\$ 2
Total	\$ —	\$ 2	\$ —	\$ 2

	Fair value at December 31, 2016			
	Level 1	Level 2	Level 3	Total
Assets:				
Commodity contracts not subject to rate recovery	\$ —	\$ —	\$ —	\$ —
Effect of netting and allocation of collateral ⁽¹⁾	1	—	—	1
Commodity contracts subject to rate recovery	—	1	—	1
Effect of netting and allocation of collateral ⁽¹⁾	2	—	—	2
Total	\$ 3	\$ 1	\$ —	\$ 4
Liabilities:				
Commodity contracts subject to rate recovery	\$ 2	\$ 1	\$ —	\$ 3
Effect of netting and allocation of collateral ⁽¹⁾	(2)	—	—	(2)
Total	\$ —	\$ 1	\$ —	\$ 1

⁽¹⁾ Includes the effect of the contractual ability to settle contracts under master netting agreements and with cash collateral, as well as cash collateral not offset.

Level 3 Information

The following table sets forth reconciliations of changes in the fair value of CRRs and long-term, fixed-price electricity positions classified as Level 3 in the fair value hierarchy for Sempra Energy Consolidated and SDG&E:

LEVEL 3 RECONCILIATIONS⁽¹⁾*(Dollars in millions)*

	Years ended December 31,		
	2017	2016	2015
Balance at January 1	\$ (74)	\$ 19	\$ 107
Realized and unrealized gains (losses)	34	(120)	(134)
Allocated transmission instruments	6	8	12
Settlements	6	19	34
Balance at December 31	\$ (28)	\$ (74)	\$ 19
Change in unrealized gains (losses) relating to instruments still held at December 31	\$ 30	\$ (101)	\$ (27)

⁽¹⁾ Excludes the effect of contractual ability to settle contracts under master netting agreements.

SDG&E's Energy and Fuel Procurement department, in conjunction with SDG&E's finance group, is responsible for determining the appropriate fair value methodologies used to value and classify CRRs and long-term, fixed-price electricity positions on an ongoing basis. Inputs used to determine the fair value of CRRs and fixed-price electricity positions are reviewed and compared with market conditions to determine reasonableness. SDG&E expects all costs related to these instruments to be recoverable through customer rates. As such, there is no impact to earnings from changes in the fair value of these instruments.

CRRs are recorded at fair value based almost entirely on the most current auction prices published by the CAISO, an objective source. Annual auction prices are published once a year, typically in the middle of November, and are the basis for valuing CRRs settling in the following year. For the CRRs settling from January 1 to December 31, the auction price inputs, at a given location, are in the following ranges:

CONGESTION REVENUE RIGHTS AUCTION PRICE INPUTS				
Settlement year	Price per MWh			
2018	\$ (7.25)	to	\$	11.99
2017	(11.88)	to		6.93
2016	(23.81)	to		10.23

The impact associated with discounting is negligible. Because these auction prices are a less observable input, these instruments are classified as Level 3. The fair value of these instruments is derived from auction price differences between two locations. Positive values between two locations represent expected future reductions in congestion costs, whereas negative values between two locations represent expected future charges. Valuation of our CRRs is sensitive to a change in auction price. If auction prices at one location increase (decrease) relative to another location, this could result in a higher (lower) fair value measurement. We summarize CRR volumes in Note 9.

Long-term, fixed-price electricity positions that are valued using significant unobservable data are classified as Level 3 because the contract terms relate to a delivery location or tenor for which observable market rate information is not available. The fair value of the net electricity positions classified as Level 3 is derived from a discounted cash flow model using market electricity forward price inputs. These inputs range from \$22.55 per MWh to \$51.01 per MWh at December 31, 2017, and \$17.40 per MWh to \$56.67 per MWh at December 31, 2016. A significant increase or decrease in market electricity forward prices would result in a significantly higher or lower fair value, respectively. We summarize long-term, fixed-price electricity position volumes in Note 9.

Realized gains and losses associated with CRRs and long-term electricity positions, which are recoverable in rates, are recorded in Cost of Electric Fuel and Purchased Power on the Consolidated Statements of Operations. Unrealized gains and losses are recorded as regulatory assets and liabilities, and therefore also do not affect earnings.

Fair Value of Financial Instruments

The fair values of certain of our financial instruments (cash, accounts and notes receivable, short-term amounts due to/from unconsolidated affiliates, dividends and accounts payable, short-term debt and customer deposits) approximate their carrying amounts because of the short-term nature of these instruments. Investments in life insurance contracts that we hold in support of our Supplemental Executive Retirement, Cash Balance Restoration and Deferred Compensation Plans are carried at cash surrender values, which represent the amount of cash that could be realized under the contracts. The following table provides the carrying amounts and fair values of certain other financial instruments that are not recorded at fair value on the Consolidated Balance Sheets at December 31, 2017 and 2016:

FAIR VALUE OF FINANCIAL INSTRUMENTS						
<i>(Dollars in millions)</i>						
	December 31, 2017					
	Carrying amount	Fair value			Total	
		Level 1	Level 2	Level 3		
Sempra Energy Consolidated:						
Long-term amounts due from unconsolidated affiliates ⁽¹⁾	\$ 604	\$ —	\$ 528	\$ 96	\$ 624	
Long-term amounts due to unconsolidated affiliates	35	—	32	—	32	
Total long-term debt ⁽²⁾⁽³⁾	17,138	817	17,134	458	18,409	
SDG&E:						
Total long-term debt ⁽³⁾⁽⁴⁾	\$ 4,868	\$ —	\$ 5,073	\$ 295	\$ 5,368	
SoCalGas:						
Total long-term debt ⁽⁵⁾	\$ 3,009	\$ —	\$ 3,192	\$ —	\$ 3,192	
	December 31, 2016					
	Carrying amount	Fair value			Total	
		Level 1	Level 2	Level 3		
Sempra Energy Consolidated:						
Long-term amounts due from unconsolidated affiliates ⁽¹⁾	\$ 184	\$ —	\$ 91	\$ 84	\$ 175	
Total long-term debt ⁽²⁾⁽³⁾	15,068	—	15,455	492	15,947	
SDG&E:						
Total long-term debt ⁽³⁾⁽⁴⁾	\$ 4,654	\$ —	\$ 4,727	\$ 305	\$ 5,032	
SoCalGas:						
Total long-term debt ⁽⁵⁾	\$ 3,009	\$ —	\$ 3,131	\$ —	\$ 3,131	

⁽¹⁾ Excluding accumulated interest outstanding of \$29 million and \$17 million at December 31, 2017 and 2016, respectively, and excluding foreign currency translation of \$35 million on a Mexican peso-denominated loan at December 31, 2017.

⁽²⁾ Before reductions for unamortized discount (net of premium) and debt issuance costs of \$143 million and \$109 million at December 31, 2017 and 2016, respectively, and excluding build-to-suit and capital lease obligations of \$877 million and \$383 million at December 31, 2017 and 2016, respectively. We discuss our long-term debt in Note 5.

⁽³⁾ Level 3 instruments include \$295 million and \$305 million at December 31, 2017 and 2016, respectively, related to Otay Mesa VIE.

⁽⁴⁾ Before reductions for unamortized discount and debt issuance costs of \$45 million at December 31, 2017 and 2016, respectively, and excluding capital lease obligations of \$732 million and \$240 million at December 31, 2017 and 2016, respectively.

⁽⁵⁾ Before reductions for unamortized discount and debt issuance costs of \$24 million and \$27 million at December 31, 2017 and 2016, respectively, and excluding capital lease obligations of \$1 million at December 31, 2017.

We determine the fair value of certain long-term amounts due from/to unconsolidated affiliates and long-term debt based on a market approach using quoted market prices for identical or similar securities in thinly-traded markets (Level 2). We value certain other long-term amounts due from unconsolidated affiliates using a perpetuity approach based on the obligation's fixed interest rate, the absence of a stated maturity date and a discount rate reflecting local borrowing costs (Level 3). We value other long-term debt using an income approach based on the present value of estimated future cash flows discounted at rates available for similar securities (Level 3).

We provide the fair values for the securities held in the NDT funds related to SONGS in Note 13.

NON-RECURRING FAIR VALUE MEASURES

Sempra Mexico

IEnova Pipelines. In September 2016, IEnova completed the acquisition of PEMEX's 50-percent interest in IEnova Pipelines, increasing its ownership interest to 100 percent. As a result of IEnova obtaining control over IEnova Pipelines, in the year ended December 31, 2016, Sempra Mexico recognized a pretax gain of \$617 million (\$432 million after-tax) for the excess of the acquisition-date fair value of its previously held equity interest in IEnova Pipelines (\$1.144 billion) over the carrying value of that interest (\$520 million) and losses reclassified from AOCI (\$7 million), included as Remeasurement of Equity Method Investment on Sempra Energy's Consolidated Statement of Operations. The valuation technique used to measure the acquisition-date fair value of our equity interest in IEnova Pipelines immediately prior to the business acquisition was based on the fair value of the entire business combination (\$2.288 billion) less the fair value of the consideration paid (\$1.144 billion, the equity sale price). We discuss the IEnova Pipelines acquisition in Note 3.

TdM. In February 2016, management approved a plan to market and sell Sempra Mexico's TdM natural gas-fired power plant, and classified it as held for sale on the Sempra Energy Consolidated Balance Sheet, as we discuss in Note 3. In September 2016, we received market information that indicated that the fair value of TdM may be less than its carrying value. As a result, after performing an analysis of the information, Sempra Mexico reduced the carrying value of TdM by recognizing a noncash impairment charge of \$131 million (\$111 million after-tax) in the third quarter of 2016. In 2017, Sempra Mexico received a purchase price offer resulting from negotiations with an active market participant. This new market information indicated that the fair value of TdM was lower than its carrying value at June 30, 2017. As a result, in the second quarter of 2017, Sempra Mexico further reduced the carrying value of TdM by recognizing a noncash impairment charge of \$71 million. Impairments recorded for TdM are included in Impairment Losses on Sempra Energy's Consolidated Statements of Operations. Market values resulting from a third-party bidding process and a purchase price offer are considered to be Level 2 inputs in the fair value hierarchy, as they represent observable pricing inputs.

Sempra LNG & Midstream

Rockies Express. As we discuss in Note 3, in March 2016, Sempra LNG & Midstream agreed to sell its 25-percent interest in Rockies Express for cash consideration of \$440 million, subject to adjustment at closing. In March 2016, we recorded a noncash impairment of our investment in Rockies Express of \$44 million (\$27 million after-tax). The charge is included in Equity Earnings, Before Income Tax, on the Sempra Energy Consolidated Statement of Operations for the year ended December 31, 2016. We considered the sale price for our equity interest in Rockies Express to be a market participants' view of the total value of Rockies Express and measured the fair value of our investment based on the equity sale price.

The following table summarizes significant inputs impacting our non-recurring fair value measures:

NON-RECURRING FAIR VALUE MEASURES – SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	Estimated fair value	Valuation technique	Fair value hierarchy	% of fair value measurement	Inputs used to develop measurement	Range of inputs
Investment in IEnova Pipelines	\$ 1,144 ⁽¹⁾	Market approach	Level 2	100%	Equity sale price	100%
TdM	\$ 145 ⁽²⁾	Market approach	Level 2	100%	Purchase price offers	100%
TdM	\$ 62 ⁽³⁾	Market approach	Level 2	100%	Purchase price offer	100%
Investment in Rockies Express	\$ 440 ⁽⁴⁾	Market approach	Level 2	100%	Equity sale price	100%

⁽¹⁾ At measurement date of September 26, 2016, immediately prior to acquiring a 100-percent ownership interest in IEnova Pipelines.

⁽²⁾ At measurement date of September 29, 2016.

⁽³⁾ At measurement date of June 30, 2017. At December 31, 2017, TdM has a carrying value of \$78 million, reflecting subsequent business activity, and is classified as held for sale.

⁽⁴⁾ At measurement date of March 29, 2016. On May 9, 2016, Sempra LNG & Midstream sold its equity interest in Rockies Express.

NOTE 11. PREFERRED STOCK

Sempra Energy and SDG&E are authorized to issue up to 50 million and 45 million shares of preferred stock, respectively. At December 31, 2017 and 2016, Sempra Energy and SDG&E have no preferred stock outstanding. The rights, preferences, privileges and restrictions for any new series of preferred stock would be established by each company's board of directors at the time of issuance.

In January 2018, Sempra Energy issued 17,250,000 shares of mandatory convertible preferred stock and received proceeds of approximately \$1.69 billion (net of underwriting discounts, but before related expenses), which we discuss in Note 18.

SoCalGas is authorized to issue up to an aggregate of 11 million shares of preferred stock, series preferred stock and preference stock. At December 31, 2017 and 2016, SoCalGas has the following preferred stock outstanding:

PREFERRED STOCK OUTSTANDING <i>(Dollars in millions, except per share amounts)</i>	December 31,	
	2017	2016
\$25 par value, authorized 1,000,000 shares:		
6% Series, 79,011 shares outstanding	\$ 3	\$ 3
6% Series A, 783,032 shares outstanding	19	19
SoCalGas - Total preferred stock	22	22
Less: 50,970 shares of the 6% Series outstanding owned by Pacific Enterprises	(2)	(2)
Sempra Energy - Total preferred stock of subsidiary	\$ 20	\$ 20

None of SoCalGas' outstanding preferred stock is callable, and no shares are subject to mandatory redemption.

All outstanding shares have one vote per share, cumulative preferences as to dividends and liquidation preferences of \$25 per share plus any unpaid dividends.

In addition to the outstanding preferred stock above, SoCalGas' articles of incorporation authorize 5 million shares of series preferred stock and 5 million shares of preference stock, both without par value and with cumulative preferences as to dividends and liquidation value. The preference stock would rank junior to all series of preferred stock and series preferred stock. Other rights and privileges of any new series of such stock would be established by the SoCalGas board of directors at the time of issuance.

NOTE 12. SEMPRA ENERGY – SHAREHOLDERS' EQUITY AND EARNINGS PER SHARE

The following table provides EPS computations for the years ended December 31, 2017, 2016 and 2015. Basic EPS is calculated by dividing earnings attributable to common stock by the weighted-average number of common shares outstanding for the year. Diluted EPS includes the potential dilution of common stock equivalent shares that could occur if securities or other contracts to issue common stock were exercised or converted into common stock.

EARNINGS PER SHARE COMPUTATIONS AND DIVIDENDS DECLARED*(Dollars in millions, except per share amounts; shares in thousands)*

	Years ended December 31,		
	2017	2016	2015
Numerator:			
Earnings/Income attributable to common shares	\$ 256	\$ 1,370	\$ 1,349
Denominator:			
Weighted-average common shares outstanding for basic EPS ⁽¹⁾	251,545	250,217	248,249
Dilutive effect of stock options, RSAs and RSUs ⁽²⁾	755	938	2,674
Weighted-average common shares outstanding for diluted EPS	252,300	251,155	250,923
EPS:			
Basic	\$ 1.02	\$ 5.48	\$ 5.43
Diluted	\$ 1.01	\$ 5.46	\$ 5.37
Dividends declared per share of common stock ⁽³⁾	\$ 3.29	\$ 3.02	\$ 2.80

⁽¹⁾ Includes average fully vested RSUs held in our Deferred Compensation Plan of 609 in 2017, 568 in 2016 and 491 in 2015. These fully vested RSUs are included in weighted-average common shares outstanding for basic EPS because there are no conditions under which the corresponding shares will not be issued.

⁽²⁾ Due to market fluctuations of both Sempra Energy stock and the comparative indices used to determine the vesting percentage of our total shareholder return performance-based RSUs, which we discuss in Note 8, dilutive RSUs may vary widely from period-to-period.

⁽³⁾ Our board of directors has the discretion to determine the payment and amount of future dividends.

The potentially dilutive impact from stock options, RSAs and RSUs is calculated under the treasury stock method. Under this method, proceeds based on the exercise price and unearned compensation are assumed to be used to repurchase shares on the open market at the average market price for the period, reducing the number of potential new shares to be issued and sometimes causing an antidilutive effect. The computation of diluted EPS excludes 237,741, zero and 722 potentially dilutive shares for the years ended December 31, 2017, 2016 and 2015, respectively, because to include them would be antidilutive for the period. However, these shares could potentially dilute basic EPS in the future.

We are authorized to issue 750 million shares of no par value common stock. The following table provides common stock activity for the years ended December 31, 2017, 2016 and 2015.

COMMON STOCK ACTIVITY

	Years ended December 31,		
	2017	2016	2015
Common shares outstanding, January 1	250,152,514	248,298,080	246,330,884
RSUs vesting ⁽¹⁾	362,022	1,363,555	1,499,062
Stock options exercised	164,454	167,742	227,815
Savings plan issuance	567,428	653,607	652,631
Common stock investment plan ⁽²⁾	254,047	266,056	249,665
Issuance of RSUs held in our Deferred Compensation Plan	7,811	—	—
Shares repurchased ⁽³⁾	(149,299)	(596,526)	(661,977)
Common shares outstanding, December 31	251,358,977	250,152,514	248,298,080

⁽¹⁾ Includes dividend equivalents.

⁽²⁾ Participants in the Direct Stock Purchase Plan may reinvest dividends to purchase newly issued shares.

⁽³⁾ From time to time, we purchase shares of our common stock or units from long-term incentive plan participants who elect to sell to us a sufficient number of vested RSAs or RSUs to meet minimum statutory tax withholding requirements.

On January 9, 2018, we completed the offering of 23,364,486 shares of our common stock in a registered public offering, pursuant to forward sale agreements. In connection with the overallotment option granted to the underwriters, on January 9, 2018, we issued 3,504,672 shares of our common stock and received net proceeds of \$368 million (net of underwriting discounts, but before deducting other related expenses) for such shares, which we discuss in Note 18.

NOTE 13. SAN ONOFRE NUCLEAR GENERATING STATION

SDG&E has a 20-percent ownership interest in SONGS, a nuclear generating facility near San Clemente, California, which ceased operations in June 2013. On June 6, 2013, after an extended outage beginning in 2012, Edison, the majority owner and operator of SONGS, notified SDG&E that it had reached a decision to permanently retire SONGS and seek approval from the NRC to start the decommissioning activities for the entire facility. SONGS is subject to the jurisdiction of the NRC and the CPUC.

SDG&E, and each of the other owners, holds its undivided interest as a tenant in common in the property. Each owner is responsible for financing its share of costs. SDG&E's share of operating expenses is included in Sempra Energy's and SDG&E's Consolidated Statements of Operations.

SONGS STEAM GENERATOR REPLACEMENT PROJECT

As part of the SGRP, the steam generators were replaced in SONGS Units 2 and 3, and the Units returned to service in 2010 and 2011, respectively. Both Units were shut down in early 2012 after a water leak occurred in the Unit 3 steam generator. Edison concluded that the leak was due to unexpected wear from tube-to-tube contact. At the time the leak was identified, Edison also inspected and tested Unit 2 and subsequently found unexpected tube wear in Unit 2's steam generator. These issues with the steam generators ultimately resulted in Edison's decision to permanently retire SONGS.

The replacement steam generators were designed and provided by MHI. In July 2013, SDG&E filed a lawsuit against MHI seeking to recover damages SDG&E has incurred and will incur related to the design defects in the steam generators. In October 2013, Edison instituted arbitration proceedings against MHI seeking recovery of damages. The other SONGS co-owners, SDG&E and the City of Riverside, participated as claimants and respondents.

On March 13, 2017, the Tribunal overseeing the arbitration found MHI liable for breach of contract, subject to a contractual limitation of liability, and rejected claimants' other claims. The Tribunal awarded \$118 million in damages to the SONGS co-owners, but determined that MHI was the prevailing party and awarded it 95 percent of its arbitration costs. The damage award is offset by these costs, resulting in a net award of approximately \$60 million in favor of the SONGS co-owners. SDG&E's specific allocation of the damage award is \$24 million reduced by costs awarded to MHI of approximately \$12 million, resulting in a net damage award of \$12 million, which was paid by MHI to SDG&E in March 2017. These amounts include certain adjustments to calculations supporting the Tribunal's findings. In accordance with the Amended Settlement Agreement discussed below, SDG&E recorded the proceeds from the MHI arbitration by reducing Operation and Maintenance for previously incurred legal costs of \$11 million, and shared the remaining \$1 million equally between ratepayers and shareholders.

SETTLEMENT AGREEMENT TO RESOLVE THE CPUC'S ORDER INSTITUTING INVESTIGATION INTO THE SONGS OUTAGE

In November 2012, in response to the outage, the CPUC issued the SONGS OII, which was intended to determine the ultimate recovery of the investment in SONGS and the costs incurred since the commencement of this outage.

In November 2014, the CPUC issued a final decision approving an Amended and Restated Settlement Agreement (Amended Settlement Agreement) in the SONGS OII proceeding executed by SDG&E along with Edison, TURN, ORA and two other intervenors. The Amended Settlement Agreement does not affect ongoing or future proceedings before the NRC, or any litigation or arbitration related to potential future recoveries from third parties (except for the allocation to ratepayers of any recoveries addressed in the final decision) or any proceedings addressing decommissioning activities and costs.

The Amended Settlement Agreement provides for various disallowances, refunds and rate recoveries, including authorizing SDG&E to recover in rates its remaining investment in SONGS, including base plant and construction work in progress, but excluding its investment in the SGRP, generally over a ten-year period commencing February 1, 2012, together with a return on investment at a reduced rate equal to:

- SDG&E's weighted-average return on debt, plus
- 50 percent of SDG&E's weighted-average return on preferred stock, as authorized in the CPUC's cost of capital (discussed in Note 14) proceeding then in effect (collectively, SONGS return on rate base)

In May 2016, following the filing of petitions for modification by various parties, the CPUC issued a procedural ruling reopening the record of the OII to address the issue of whether the Amended Settlement Agreement is reasonable and in the public interest.

In December 2016, the CPUC issued another procedural ruling directing parties to the SONGS OII to determine whether an agreement could be reached to modify the Amended Settlement Agreement previously approved by the CPUC, to resolve allegations that unreported *ex parte* communications between Edison and the CPUC resulted in an unfair advantage at the time the settlement agreement was negotiated. Pursuant to the December ruling and a subsequent procedural ruling, the parties met to confer, engaged a mediator and held confidential mediation discussions in June, July and August of 2017.

In August 2017, the parties filed status reports providing their recommendations for resolving the OII given their unsuccessful efforts at reaching a settlement through mediation. SDG&E and Edison recommended that the Amended Settlement Agreement, as adopted by the CPUC, should be affirmed and the pending intervenor petitions dismissed. Intervening parties recommended various alternative courses of action, including modifying the Amended Settlement Agreement or rejecting it in favor of litigation. In October 2017, the CPUC issued a ruling establishing a process to bring the proceeding to a conclusion. This ruling establishes a status conference and includes a preliminary schedule for additional testimony, hearings and briefings.

On January 30, 2018, SDG&E, Edison, ORA, TURN and other intervenors entered into a settlement agreement (Revised Settlement Agreement). On the same date, a Joint Motion for Adoption of the Settlement Agreement was filed with the CPUC. If approved by the CPUC, the Revised Settlement Agreement will resolve all issues under consideration in the SONGS OII and will modify the Amended Settlement Agreement approved by the CPUC in November 2014. The Revised Settlement Agreement was the result of multiple mediation sessions in 2017 and January 2018 and was signed following a settlement conference in the SONGS OII, as required under CPUC rules. On February 1, 2018, the parties filed a motion to stay the proceedings in the OII pending the CPUC's consideration of the Revised Settlement Agreement. On February 6, 2018, the CPUC granted the parties' motion to stay the proceedings and established a tentative procedural schedule with public participation hearings in April and July, evidentiary hearings in April and May, and briefing in June of 2018.

The Revised Settlement Agreement is subject to CPUC approval. The parties to the Revised Settlement Agreement have agreed to exercise their best efforts to obtain CPUC approval. In the event that the CPUC fails to approve the Revised Settlement Agreement, the proceeding will remain open and subject to previous rulings in the SONGS OII, and the Amended Settlement Agreement will remain in effect, unless it is modified or set aside by the CPUC as a result of the OII proceeding.

In connection with the Revised Settlement Agreement, and in exchange for the release of certain SONGS-related claims, SDG&E and Edison entered into the Utility Shareholder Agreement, described below, in which Edison has agreed to pay for the amounts that SDG&E would have received in rates under the Amended Settlement Agreement but will not receive upon implementation of the Revised Settlement Agreement. The Utility Shareholder Agreement is not subject to the approval of the CPUC. However, it is not effective unless and until the CPUC approves the Revised Settlement Agreement.

The timing of a ruling by the CPUC on the Joint Motion for Adoption of the Settlement Agreement is unclear. There is no assurance that the Revised Settlement Agreement will be adopted or that the Amended Settlement Agreement will not be modified or set aside as a result of the OII proceeding, which could result in a substantial reduction in our expected recovery or in payments to customers. These outcomes could have a material adverse effect on Sempra Energy's and SDG&E's results of operations, financial condition and cash flows.

Disallowances, Refunds and Recoveries

If the Revised Settlement Agreement is approved by the CPUC, SDG&E and Edison will cease rate recovery of SONGS costs as authorized under the Amended Settlement Agreement as of the date their combined remaining SONGS regulatory assets equal \$775 million (the Cessation Date). Currently, the estimated Cessation Date is December 19, 2017. The Cessation Date is partly dependent on the outcome of Edison's pending request to the CPUC, in a separate proceeding, for approval to apply certain proceeds received from the DOE to reduce Edison's SONGS regulatory asset. If this request is rejected by the CPUC, then the estimated Cessation Date will be April 21, 2018. In either case, under the Utility Shareholder Agreement, Edison is obligated to pay SDG&E the full amount of SDG&E's revenue requirement not recovered from ratepayers, as described below. SDG&E and Edison will refund to customers SONGS-related amounts recovered in rates after the Cessation Date.

In the event that the CPUC takes an action that has the effect of invalidating the Utility Shareholder Agreement, SDG&E may, in its discretion, withdraw from the Revised Settlement Agreement, in which case Edison shall remain a party to the Revised Settlement Agreement, but the Revised Settlement Agreement shall be terminated as to SDG&E. In such a scenario, SDG&E would return to its litigation position before the CPUC in the SONGS OII that existed prior to the Revised Settlement Agreement.

Pursuant to the CPUC's rules, no settlement becomes binding unless the CPUC approves the settlement based on a finding that it is reasonable in light of the whole record, consistent with law, and in the public interest. The CPUC has discretion to approve or disapprove a settlement, or to condition its approval on changes to the settlement, which the parties may accept or reject,

negotiating in good faith to seek a resolution acceptable to all parties. CPUC rules do not provide for any fixed time period for the CPUC to act on proposed settlements.

Utility Shareholder Agreement

On January 10, 2018, SDG&E and Edison entered into the Utility Shareholder Agreement. Under the terms of the Utility Shareholder Agreement, Edison has an obligation to compensate SDG&E for the revenue requirement amounts that SDG&E will no longer recover because of the Revised Settlement Agreement. In exchange for Edison's reimbursement, the parties will mutually release each other from the "SONGS Issues," a defined term that consists of 18 broad categories. The effect of the agreement is that SDG&E will release Edison from any and all claims that SDG&E had or could have asserted related to the steam generator replacement failure and its aftermath. The Utility Shareholder Agreement becomes effective only upon CPUC approval of the Revised Settlement Agreement. Edison's payment obligation commences 30 days after the first fiscal quarter in which the CPUC approves the Revised Settlement Agreement, and amounts are due to SDG&E quarterly thereafter until April 2022, which approximates the amounts and timing of amounts of what would have been SDG&E's recoveries from ratepayers contemplated under the Amended Settlement Agreement.

Accounting and Financial Impacts

As a result of the Revised Settlement Agreement by the settling parties and the Utility Shareholder Agreement, SDG&E recorded a receivable from Edison totaling \$152 million, \$32 million classified as current and \$120 million classified as noncurrent, as of December 31, 2017. This receivable reflects amounts Edison is obligated to pay to SDG&E in lieu of amounts SDG&E would have collected from ratepayers associated with the SONGS regulatory asset, which SDG&E believes is now no longer probable of recovery.

Assuming the Revised Settlement Agreement is approved, SDG&E and Sempra Energy do not expect that implementation of the Revised Settlement Agreement in combination with the Utility Shareholder Agreement will have a material adverse impact on either company. However, until the CPUC approves the Revised Settlement Agreement as proposed, there can be no assurance that the SONGS OII proceeding will conclude as contemplated by SDG&E in accordance with the Revised Settlement Agreement and the Utility Shareholder Agreement, or that the CPUC will not order refunds to customers above those contemplated by the Amended Settlement Agreement, or take other action that may be adverse to SDG&E and Sempra Energy. Such alternative outcomes could have a material adverse effect on SDG&E's and Sempra Energy's results of operations, financial condition and cash flows.

SETTLEMENT WITH NEIL

As we discuss below, NEIL insures domestic and international nuclear utilities for the costs associated with interruptions, damages, decontaminations and related nuclear risks. In October 2015, the SONGS co-owners (Edison, SDG&E and the City of Riverside) reached an agreement with NEIL to resolve all of SONGS' insurance claims arising out of the failures of the replacement steam generators for a total payment by NEIL of \$400 million, SDG&E's share of which was \$80 million. Pursuant to the terms of the Amended Settlement Agreement, after reimbursement of legal fees and a 5-percent allocation to shareholders, the net proceeds of \$75 million were allocated to ratepayers through the ERRAs.

NUCLEAR DECOMMISSIONING AND FUNDING

As a result of Edison's decision to permanently retire SONGS Units 2 and 3, Edison began the decommissioning phase of the plant. Decommissioning of Unit 1, removed from service in 1992, is largely complete. The remaining work for Unit 1 will be done once Units 2 and 3 are dismantled. In December 2016, Edison announced that, following a 10-month competitive bid process, it had contracted with a joint venture of AECOM and EnergySolutions (known as SONGS Decommissioning Solutions) as the general contractor to complete the dismantlement of SONGS. The majority of the dismantlement work is expected to take 10 years. SDG&E is responsible for approximately 20 percent of the total contract price.

In accordance with state and federal requirements and regulations, SDG&E has assets held in the NDT to fund its share of decommissioning costs for SONGS Units 1, 2 and 3. The amounts collected in rates for SONGS' decommissioning are invested in the NDT, which is comprised of externally managed trust funds. Amounts held by the NDT are invested in accordance with CPUC regulations. The NDT assets are presented on the Sempra Energy and SDG&E Consolidated Balance Sheets at fair value with the offsetting credits recorded in noncurrent Regulatory Liabilities.

In April 2016, the CPUC adopted a decision approving a total decommissioning cost estimate for SONGS Units 2 and 3 of \$4.4 billion (in 2014 dollars), of which SDG&E's share is \$899 million. Except for the use of funds for the planning of decommissioning activities or NDT administrative costs, CPUC approval is required for SDG&E to access the NDT assets to fund SONGS decommissioning costs for Units 2 and 3. SDG&E has received authorization from the CPUC to access NDT funds of up to \$362 million for 2013 through 2018 (2018 forecasted) SONGS decommissioning costs. This includes up to \$60 million authorized by the CPUC in January 2018 to be withdrawn from the NDT for forecasted 2018 SONGS Units 2 and 3 costs as decommissioning costs are incurred.

In December 2016, the IRS and the U.S. Department of the Treasury issued proposed regulations that clarify the definition of "nuclear decommissioning costs," which are costs that may be paid for or reimbursed from a qualified trust fund. The proposed regulations state that costs related to the construction and maintenance of independent spent fuel management installations are included in the definition of "nuclear decommissioning costs." The proposed regulations will be effective prospectively once they are finalized; however, the IRS has stated that it will not challenge taxpayer positions consistent with the proposed regulations for taxable years ending on or after the date the proposed regulations were issued. SDG&E is awaiting the adoption of, or additional refinement to, the proposed regulations before determining whether the proposed regulations will allow SDG&E to access the NDT funds for reimbursement or payment of the spent fuel management costs that were or will be incurred in 2016 and subsequent years. Further clarification of the proposed regulations could enable SDG&E to access the NDT to recover spent fuel management costs before Edison reaches final settlement with the DOE regarding the DOE's reimbursement of these costs. Historically, the DOE's reimbursements of spent fuel storage costs have not resulted in timely or complete recovery of these costs. We discuss the DOE's responsibility for spent nuclear fuel below. The IRS held public hearings on the proposed regulations in October 2017. It is unclear when clarification of the proposed regulations might be provided or when the proposed regulations will be finalized.

Nuclear Decommissioning Trusts

The amounts collected in rates for SONGS' decommissioning are invested in the NDT, which is comprised of externally managed trust funds. Amounts held by the trusts are invested in accordance with CPUC regulations. These trusts are shown on the Sempra Energy and SDG&E Consolidated Balance Sheets at fair value with the offsetting credits recorded in noncurrent Regulatory Liabilities.

The following table shows the fair values and gross unrealized gains and losses for the securities held in the NDT. We provide additional fair value disclosures for the NDT in Note 10.

NUCLEAR DECOMMISSIONING TRUSTS

(Dollars in millions)

	Cost	Gross unrealized gains	Gross unrealized losses	Estimated fair value
At December 31, 2017:				
Debt securities:				
Debt securities issued by the U.S. Treasury and other U.S. government corporations and agencies ⁽¹⁾	\$ 54	\$ —	\$ —	\$ 54
Municipal bonds ⁽¹⁾	245	7	(2)	250
Other securities ⁽²⁾	215	3	(1)	217
Total debt securities	514	10	(3)	521
Equity securities	171	326	(1)	496
Cash and cash equivalents	16	—	—	16
Total	\$ 701	\$ 336	\$ (4)	\$ 1,033
At December 31, 2016:				
Debt securities:				
Debt securities issued by the U.S. Treasury and other U.S. government corporations and agencies	\$ 52	\$ —	\$ —	\$ 52
Municipal bonds	203	4	(1)	206
Other securities	141	2	(2)	141
Total debt securities	396	6	(3)	399
Equity securities	143	366	(1)	508
Cash and cash equivalents	119	—	—	119
Total	\$ 658	\$ 372	\$ (4)	\$ 1,026

⁽¹⁾ Maturity dates are 2018-2048.

⁽²⁾ Maturity dates are 2018-2064.

The following table shows the proceeds from sales of securities in the NDT and gross realized gains and losses on those sales.

SALES OF SECURITIES

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Proceeds from sales ⁽¹⁾	\$ 1,314	\$ 1,134	\$ 577
Gross realized gains	157	111	29
Gross realized losses	(14)	(29)	(15)

⁽¹⁾ Excludes securities that are held to maturity.

Net unrealized gains and losses, as well as realized gains and losses that are reinvested in the NDT, are included in noncurrent Regulatory Liabilities on Sempra Energy's and SDG&E's Consolidated Balance Sheets. We determine the cost of securities in the trusts on the basis of specific identification. In 2017 and 2016, sale and purchase activities in our NDT increased significantly compared to 2015 as a result of continuing changes to our asset allocations initiated in the fourth quarter of 2016 to reduce our equity volatility, lower our duration risk, and increase exposure to municipal bonds and intermediate credit. This shift in our asset mix is intended to reduce the overall risk profile of the NDT in anticipation of significant cash withdrawals over the next 10 years to fund the SONGS decommissioning.

ASSET RETIREMENT OBLIGATION AND SPENT NUCLEAR FUEL

SDG&E's asset retirement obligation related to decommissioning costs for the SONGS units was \$607 million at December 31, 2017. That amount includes the cost to decommission Units 2 and 3, and the remaining cost to complete the decommissioning of Unit 1, which is substantially complete. The asset retirement obligation at December 31, 2017 for Unit 1 is based on a cost study prepared in 2016 that is pending CPUC approval. The asset retirement obligation at December 31, 2017 for Units 2 and 3 is based

on a CPUC-approved cost study prepared in 2014 that reflects the acceleration of the start of decommissioning of these units as a result of the early closure of the plant. SDG&E's share of total decommissioning costs in 2017 dollars is approximately \$1 billion.

U.S. Department of Energy Nuclear Fuel Disposal

Spent nuclear fuel from SONGS is currently stored on-site in an ISFSI licensed by the NRC or temporarily in spent fuel pools. In October 2015, the CCC approved Edison's application for the proposed expansion of the ISFSI at SONGS. The ISFSI expansion began construction in 2016 and is expected to be fully loaded with spent fuel by 2019 and to operate until 2049, when it is assumed that the DOE will have taken custody of all the SONGS spent fuel. The ISFSI would then be decommissioned, and the site restored to its original environmental state. Until then, SONGS owners are responsible for interim storage of spent nuclear fuel at SONGS.

The Nuclear Waste Policy Act of 1982 made the DOE responsible for accepting, transporting, and disposing of spent nuclear fuel. However, it is uncertain when the DOE will begin accepting spent nuclear fuel from SONGS. This delay will lead to increased costs for spent fuel storage. SDG&E will continue to support Edison in its pursuit of claims on behalf of the SONGS co-owners against the DOE for its failure to timely accept the spent nuclear fuel. In April 2016, Edison executed a spent fuel settlement agreement with the DOE for \$162 million covering damages incurred from 2006 through 2013. In May 2016, Edison refunded SDG&E \$32 million for its respective share of the damage award paid. In applying this refund, SDG&E recorded a \$23 million reduction to the SONGS regulatory asset, an \$8 million reduction of its nuclear decommissioning balancing account and a \$1 million reduction in its SONGS O&M cost balancing account.

In September 2016, Edison filed claims with the DOE for \$56 million in spent fuel management costs incurred in 2014 and 2015 on behalf of the SONGS co-owners under the terms of the 2016 spent fuel settlement agreement. In February 2017, the DOE reduced the request to approximately \$43 million primarily due to reductions to the claimed fuel canister costs. SDG&E received its \$9 million respective share of the claim from Edison in May 2017 and recorded the proceeds in balancing accounts or as reductions to regulatory assets for the benefit of ratepayers.

In October 2017, Edison filed claims with the DOE for \$58 million in spent fuel management costs incurred in 2016 on behalf of the SONGS co-owners under the terms of the 2016 spent fuel settlement agreement. SDG&E's respective share of the claim is \$12 million. It is unclear whether the claim will be resolved through settlement or arbitration, when resolution is expected, and whether Edison will receive an award for the full claim amount.

The 2016 spent fuel settlement agreement governs the submission of claims for costs incurred through December 31, 2016. It is unclear whether Edison will enter into a new settlement with the DOE or pursue litigation claims for spent fuel management costs incurred on or after January 1, 2017.

NUCLEAR INSURANCE

Edison requested and was granted approval in January 2018 by the NRC to reduce the nuclear liability and property damage insurance requirement, as described below. However, these changes in SONGS nuclear insurance levels require approval from all SONGS owners, which has not yet been obtained. We expect a decision in the first quarter of 2018.

SDG&E and the other owners of SONGS have insurance to cover claims from nuclear liability incidents arising at SONGS. Currently, this insurance provides \$450 million in coverage limits, the maximum amount available, including coverage for acts of terrorism. In addition, the Price-Anderson Act provides for up to \$13 billion of SFP. If a nuclear liability loss occurring at any U.S. licensed/commercial reactor exceeds the \$450 million insurance limit, all nuclear reactor owners could be required to contribute to the SFP. In such case, SDG&E's contribution would be up to \$50.9 million. This amount is subject to an annual maximum of \$7.6 million, unless a default occurs by any other SONGS owner. If the SFP is insufficient to cover the liability loss, SDG&E could be subject to an additional assessment. Effective January 5, 2018, the NRC approved Edison's request to reduce the nuclear liability insurance requirement from \$450 million to \$100 million and withdraw from participation in the SFP for SONGS.

The SONGS owners, including SDG&E, also maintain nuclear property damage insurance that exceeds the minimum federal requirements of \$1.06 billion. This insurance coverage is provided through NEIL. The NEIL policies have specific exclusions and limitations that can result in reduced or eliminated coverage. Insured members as a group are subject to retrospective premium assessments to cover losses sustained by NEIL under all issued policies. SDG&E could be assessed up to \$10.4 million of retrospective premiums based on overall member claims. All of SONGS' insurance claims arising out of the failures of the MHI replacement steam generators have been settled with NEIL, as we discuss above. Effective January 10, 2018, the NRC approved Edison's request to reduce its property damage insurance requirement for SONGS from \$1.06 billion to \$50 million.

The nuclear property insurance program includes an industry aggregate loss limit for non-certified acts of terrorism (as defined by the Terrorism Risk Insurance Act). The industry aggregate loss limit for property claims arising from non-certified acts of terrorism is \$3.24 billion. This is the maximum amount that will be paid to insured members who suffer losses or damages from these non-certified terrorist acts.

NOTE 14. REGULATORY MATTERS

REGULATORY ASSETS AND LIABILITIES

We show the details of regulatory assets and liabilities in the following table, and discuss each of them separately below.

REGULATORY ASSETS (LIABILITIES) (Dollars in millions)	December 31,	
	2017	2016
SDG&E:		
Fixed-price contracts and other derivatives	\$ 96	\$ 141
Costs related to SONGS plant closure ⁽¹⁾	—	183
Costs related to wildfire litigation	—	353
Deferred income taxes (refundable) recoverable in rates	(281)	1,014
Pension and other postretirement benefit plan obligations	153	210
Removal obligations	(1,846)	(1,725)
Unamortized loss on reacquired debt	9	12
Environmental costs	29	48
Legacy meters ⁽¹⁾	—	16
Sunrise Powerlink fire mitigation	119	118
Regulatory balancing accounts ⁽²⁾		
Commodity – electric	82	35
Gas transportation	22	61
Safety and reliability	48	20
Public purpose programs	(70)	(106)
Other balancing accounts	233	249
Other regulatory liabilities	(70)	(2)
Total SDG&E	<u>(1,476)</u>	<u>627</u>
SoCalGas:		
Pension and other postretirement benefit plan obligations	513	563
Employee benefit costs	45	45
Removal obligations	(924)	(972)
Deferred income taxes (refundable) recoverable in rates	(437)	417
Unamortized loss on reacquired debt	8	10
Environmental costs	22	22
Workers' compensation	12	10
Regulatory balancing accounts ⁽²⁾		
Commodity – gas, including transportation	151	207
Safety and reliability	266	230
Public purpose programs	(274)	(270)
Other balancing accounts	(114)	(204)
Other regulatory (liabilities) assets	(64)	8
Total SoCalGas	<u>(796)</u>	<u>66</u>
Sempra Mexico:		
Deferred income taxes recoverable in rates	83	71
Total Sempra Energy Consolidated	<u>\$ (2,189)</u>	<u>\$ 764</u>

⁽¹⁾ Regulatory assets earning a rate of return.

⁽²⁾ At December 31, 2017, the noncurrent portion of regulatory balancing accounts – net undercollected for SDG&E was \$63 million. At December 31, 2017 and 2016, the noncurrent portion of regulatory balancing accounts – net undercollected for SoCalGas was \$118 million and \$85 million, respectively.

In the table above:

- Regulatory assets arising from fixed-price contracts and other derivatives are offset by corresponding liabilities arising from purchased power and natural gas commodity and transportation contracts. The regulatory asset is increased/decreased based on changes in the fair market value of the contracts. It is also reduced as payments are made for commodities and services under these contracts. We discuss these fixed-price contracts and other derivatives further in Note 9.
- Regulatory assets arising from the SONGS plant closure are associated with SDG&E's investment in SONGS as of the plant closure date and the cost of operations since Units 2 and 3 were taken offline. Pursuant to the Revised Settlement Agreement, rate recovery of SONGS costs remaining as a regulatory asset as of the Cessation Date will cease. Under the Utility Shareholder Agreement, SDG&E recorded a receivable from Edison in lieu of amounts SDG&E would have collected from ratepayers. We discuss these matters further in Note 13.
- Regulatory assets for CPUC-related costs for wildfire litigation are costs in excess of liability insurance coverage and amounts recovered from third parties. In December 2017, the CPUC issued a final decision, denying SDG&E's request to recover these costs. In 2017, SDG&E wrote off the wildfire regulatory asset resulting in a charge of \$351 million, as we discuss in Note 15 in "SDG&E – 2007 Wildfire Litigation and Net Cost Recovery Status."
- Deferred income taxes refundable/recoverable in rates are based on current regulatory ratemaking and income tax laws. SDG&E, SoCalGas and Sempra Mexico expect to refund/recover net regulatory liabilities/assets related to deferred income taxes over the lives of the assets that give rise to the related accumulated deferred income tax balances. Regulatory assets include certain income tax benefits associated with flow-through repair allowance deductions, which we discuss further below. In 2017, as a result of the TCJA, lowering the U.S. statutory corporate federal income tax from 35 percent to 21 percent resulted in excess deferred income tax balances that we expect to refund to ratepayers in accordance with the IRS normalization rules and as determined by the CPUC and the FERC. We discuss the TCJA and the impacts on Sempra Energy, SDG&E and SoCalGas in more detail in Note 6.
- Regulatory assets/liabilities related to pension and other postretirement benefit plan obligations are offset by corresponding liabilities/assets and are being recovered in rates as the plans are funded.
- The regulatory asset related to employee benefit costs represents our liability associated with long-term disability insurance that will be recovered from customers in future rates as expenditures are made.
- Regulatory liabilities from removal obligations represent cumulative amounts collected in rates for future asset removal costs.
- Regulatory assets related to unamortized losses on reacquired debt are recovered over the remaining amortization periods of the losses on reacquired debt. These periods range from 1 year to 10 years for SDG&E and from 3 years to 8 years for SoCalGas.
- Regulatory assets related to environmental costs represent the portion of our environmental liability recognized at the end of the period in excess of the amount that has been recovered through rates charged to customers. We expect this amount to be recovered in future rates as expenditures are made. We discuss environmental issues further in Note 15.
- The regulatory asset related to the legacy meters removed from service and replaced under the Smart Meter Program is their undepreciated value. SDG&E has fully recovered this asset in rate base.
- The regulatory asset related to Sunrise Powerlink fire mitigation is offset by a corresponding liability for the funding of a trust to cover the mitigation costs. SDG&E expects to recover the regulatory asset in rates as the trust is funded over a remaining 52-year period. We discuss the trust further in Note 15.
- The regulatory asset related to workers' compensation represents accrued costs for future claims that will be recovered from customers in future rates as expenditures are made.
- Over- and undercollected regulatory balancing accounts reflect the difference between customer billings and recorded or CPUC-authorized costs, including commodity costs. Depreciation and return on rate base may also be included in certain accounts. Amounts in the balancing accounts are recoverable (receivable) or refundable (payable) in future rates, subject to CPUC approval. Absent balancing account treatment, variations in covered costs, such as the cost of fuel supply and certain O&M costs, from amounts approved by the CPUC would increase volatility in utility earnings. Balancing account treatment eliminates the volatility in earnings that would otherwise result from variances in the covered costs compared to the authorized amounts.

Amortization expense on regulatory assets for the years ended December 31, 2017, 2016 and 2015 was \$50 million, \$65 million and \$62 million, respectively, at Sempra Energy Consolidated, \$49 million, \$63 million and \$60 million, respectively, at SDG&E, and \$1 million, \$2 million and \$2 million, respectively at SoCalGas.

CALIFORNIA UTILITIES MATTERS

CPUC General Rate Case

The CPUC uses a GRC proceeding to set sufficient rates to allow the California Utilities to recover their reasonable cost of O&M and to provide the opportunity to realize their authorized rates of return on their investment.

2019 General Rate Case

On October 6, 2017, SDG&E and SoCalGas filed their 2019 GRC applications requesting CPUC approval of test year revenue requirements for 2019 and attrition year adjustments for 2020 through 2022. SDG&E and SoCalGas requested revenue requirements for 2019 of \$2.199 billion and \$2.989 billion, respectively, which is an increase of \$217 million and \$533 million over their respective 2018 revenue requirements (the 2018 revenue requirements reflect the impact of updated testimony filed in January 2018). The California Utilities are proposing post-test year revenue requirement changes using various adjustment factors which are estimated to result in annual increases of approximately 5 percent to 7 percent at SDG&E and approximately 6 percent to 8 percent at SoCalGas. Our 2019 GRC applications do not reflect the impact of the TCJA, which we discuss in Note 6. In April 2018, SDG&E and SoCalGas will be updating their applications to reflect the impact of the TCJA. We are assessing the impact of the new tax law on our 2018 operations and have a tax tracking mechanism for net tax benefits that will flow to ratepayers. We intend to work with the CPUC to determine the mechanism for passing on the savings to ratepayers.

As part of the 2019 GRC, the CPUC will review the California Utilities' interim accountability reports, which compare the authorized and actual spending for certain safety-related activities for 2014 through 2016. In June 2017, SDG&E and SoCalGas filed their first interim accountability reports comparing authorized and actual spending in 2014 and 2015 for certain safety-related activities. Similar data for 2016 was provided with the 2019 GRC filings in a second interim accountability report. The stated purpose of the interim accountability reports is to provide data and metrics for key safety and risk mitigation areas that will be considered in the 2019 GRC.

The results of the rate case may materially and adversely differ from what is contained in the GRC applications.

Risk Assessment Mitigation Phase Reporting and Impact on the 2019 GRC Filings

In December 2014, the CPUC issued a decision incorporating a risk-based decision-making framework into all future GRC application filings for major natural gas and electric utilities in California. The framework is intended to assist in assessing safety risks and the utilities' plans to help ensure that such risks are adequately addressed. In advance of filing the California Utilities' 2019 GRC applications discussed above, two proceedings occurred: the Safety Model Assessment Proceeding and the RAMP. In the Safety Model Assessment Proceeding, the California Utilities demonstrated the models used to prioritize and mitigate risks in order for the CPUC to establish guidelines and standards for these models.

In November 2016, as part of the new framework, SDG&E and SoCalGas filed their first RAMP report presenting a comprehensive assessment of their key safety risks and proposed activities for mitigating such risks. The report details these key safety risks, which include critical operational issues such as natural gas pipeline safety and wildfire safety, and addresses their classification, scoring, mitigation, alternatives, safety culture, quantitative analysis, data collection and lessons learned.

In March 2017, the CPUC's Safety and Enforcement Division issued its evaluation report providing generally favorable feedback on the California Utilities' RAMP report, but recommending more detailed analysis of the risks the California Utilities presented in the report. The new GRC framework does not require the CPUC to adopt the RAMP report. However, SDG&E and SoCalGas included funding requests in their respective 2019 GRC filings for proposed projects or activities outlined in their RAMP reports.

Senate Bill 549. In September 2017, SB 549 was signed into law, requiring that SDG&E and SoCalGas (as electric and gas corporations) annually notify the CPUC when revenue authorized by the CPUC for maintenance, safety or reliability is redirected to other purposes. This requirement is effective beginning January 1, 2018. The form of this reporting is not yet defined by the CPUC, though it could be incorporated into an ongoing proceeding or report otherwise required to be submitted to the CPUC.

2016 General Rate Case

In June 2016, the CPUC issued a final decision in the 2016 GRC. The 2016 GRC FD adopted a 2016 revenue requirement of \$2.204 billion for SoCalGas and \$1.791 billion for SDG&E. The 2016 GRC FD was effective retroactive to January 1, 2016, and the California Utilities recorded the retroactive impacts in the second quarter of 2016. The 2016 GRC FD also required certain refunds to be paid to customers and establishes a two-way income tax expense memorandum account, each discussed below.

The 2016 GRC FD also adopted subsequent annual escalation of the adopted revenue requirements by 3.5 percent for years 2017 and 2018 and continuation of the Z-Factor mechanism for qualifying cost recovery. The Z-Factor mechanism allows the

California Utilities to seek cost recovery of significant cost increases, under certain unforeseen circumstances, incurred between GRC filings, subject to a \$5 million deductible per event. Also, the 2016 GRC FD denied a separate request for a four-year GRC period and instead adopted a three-year GRC period (through 2018).

The 2016 GRC FD results in certain accounting impacts associated with flow-through income tax repairs deductions. In general, the 2016 GRC FD considers that the income tax benefits obtained from income tax repairs deductions exceeded amounts forecasted by the California Utilities from 2011 to 2015, and that they were attributed to shareholders during that time. The 2016 GRC FD reallocated the economic benefit of this tax deduction forecasting difference to ratepayers. Accordingly, revenues corresponding to income tax repair deductions that exceeded forecasted amounts relating to 2015, which were tracked in memorandum accounts, were ordered to be refunded to customers. The 2015 estimated amounts in the memorandum accounts totaled \$72 million for SoCalGas and \$37 million for SDG&E. Pursuant to this refund requirement, SoCalGas and SDG&E recorded regulatory liabilities for these amounts, resulting in after-tax charges to earnings of \$43 million and \$22 million, respectively, in the second quarter of 2016 (summarized below). In addition, the 2016 GRC FD reduced rate base by \$38 million at SoCalGas and \$55 million at SDG&E. The corresponding reductions in the 2016 revenue requirement were \$5 million at SoCalGas and \$7 million at SDG&E (which reductions are included in the adopted 2016 revenue requirement amounts described above). The rate base reductions reallocate to ratepayers the economic benefits associated with tax repair deductions that were previously provided to the shareholders for the period of 2012-2014 for SoCalGas and 2011-2014 for SDG&E. The rate base reductions did not result in an impairment of any of our reported assets, but have impacted our revenues and earnings prospectively.

The 2016 GRC FD also requires us to notify the CPUC if the 2012-2015 repairs deductions estimated in this GRC are different from the actual repairs deductions for SoCalGas and SDG&E. SoCalGas and SDG&E recorded regulatory liabilities of \$11 million and \$15 million, respectively, related to 2012-2014, resulting in after-tax charges to earnings for these differences of \$6 million and \$9 million in the second quarter of 2016 for SoCalGas and SDG&E, respectively (summarized below). In the third quarter of 2016, SoCalGas and SDG&E completed their 2015 calendar year tax returns, and final tax deductions associated with tax repair benefits to be refunded to ratepayers associated with the 2015 memo account were lower than the amounts estimated in 2015. Accordingly, the amounts to be refunded decreased by \$19 million for SoCalGas and \$5 million for SDG&E. In October 2016, SoCalGas and SDG&E filed a regulatory account update with the CPUC to reflect their final total 2015 repair allowance deductions of \$53 million and \$32 million, respectively. After recording the related income tax effect and corresponding regulatory revenue adjustments for income tax purposes, there was no net impact to earnings from the adjustments to the 2015 tax repairs deductions recorded in the third quarter of 2016. Accordingly, the earnings impacts in the table below are also the earnings impacts for the year ended December 31, 2016.

Following is a summary of the 2016 earnings impacts from the 2016 GRC FD:

EARNINGS IMPACTS IN 2016 FROM THE 2016 GRC FD

(Dollars in millions)

	SoCalGas		SDG&E	
	Pretax earnings (charge)	After-tax earnings (charge)	Pretax earnings (charge)	After-tax earnings (charge)
Adjustments to revenue related to tax repairs deductions:				
2015 memorandum account balance	\$ (72)	\$ (43)	\$ (37)	\$ (22)
True-up of 2012-2014 estimates to actuals	(11)	(6)	(15)	(9)
Total	\$ (83)	\$ (49)	\$ (52)	\$ (31)

As discussed above, the 2016 GRC FD required the establishment of two-way income tax expense memorandum accounts to track any revenue variances resulting from certain differences between the income tax expense forecasted in the GRC and the income tax expense incurred by SoCalGas and SDG&E from 2016 through 2018. The variances to be tracked include tax expense differences relating to:

- net revenue changes;
- mandatory tax law, tax accounting, tax procedural, or tax policy changes; and
- elective tax law, tax accounting, tax procedural, or tax policy changes.

Starting in the second quarter of 2016, SoCalGas and SDG&E began tracking the differences in the income tax expense forecasted in the GRC proceedings and the income tax expense incurred. At December 31, 2017, the recorded regulatory liability associated with these tracked amounts totaled \$69 million and \$65 million for SoCalGas and SDG&E, respectively. The recorded

liability is primarily related to lower income tax expense incurred than was forecasted in the GRC relating to tax repairs deductions, self-developed software deductions and certain book-over-tax depreciation. We are currently assessing the impact of federal tax reform on 2018 operations and will track such impacts in the tracking accounts. The tracking accounts will remain open, and we expect they will be reviewed in the 2019 GRC proceedings. Federal tax reform, which we discuss in Note 6, could result in significant amounts recorded in these tracking accounts beginning in 2018.

CPUC Cost of Capital

In July 2017, the CPUC issued a final decision adopting, with certain modifications, the joint petition filed in February 2017 by SDG&E, SoCalGas, PG&E and Edison, along with ORA and TURN. The final decision provides a two-year extension for each of the utilities to file its next respective cost of capital application, extending the filing date to April 2019 for a 2020 test year. The final decision also reduces the ROE for SDG&E from 10.30 percent to 10.20 percent and for SoCalGas from 10.10 percent to 10.05 percent, effective from January 1, 2018 through December 31, 2019. SDG&E's and SoCalGas' ratemaking capital structures will remain at current levels until modified, if at all, by a future cost of capital decision by the CPUC. In September 2017, SDG&E and SoCalGas filed advice letters to update their cost of capital for the actual cost of long-term debt through August 2017 and forecasted cost through 2018. SDG&E and SoCalGas did not file for changes to preferred stock costs, because no issuances of preferred stock through 2018 are anticipated.

In October 2017, the CPUC approved the embedded cost of debt presented in the filed advice letters, resulting in a revised return on rate base for SDG&E from 7.79 percent to 7.55 percent and for SoCalGas from 8.02 percent to 7.34 percent, effective January 1, 2018, as depicted in the table below:

AUTHORIZED COST OF CAPITAL AND RATE STRUCTURE – CPUC						
SDG&E				SoCalGas		
Authorized weighting	Return on rate base	Weighted return on rate base		Authorized weighting	Return on rate base	Weighted return on rate base
45.25 %	4.59 %	2.08 %	Long-Term Debt	45.60 %	4.33 %	1.97 %
2.75	6.22	0.17	Preferred Stock	2.40	6.00	0.14
52.00	10.20	5.30	Common Equity	52.00	10.05	5.23
100.00 %		7.55 %		100.00 %		7.34 %

As a result of the updates included in the filed advice letters, the impact of the changes to the embedded cost of debt and return on rate base is summarized below:

	SDG&E		SoCalGas	
	Cost of debt	Return on rate base	Cost of debt	Return on rate base
Current	5.00 %	7.79 %	5.77 %	8.02 %
Authorized, effective January 1, 2018	4.59 %	7.55 %	4.33 %	7.34 %
Differences	(41) bps	(24) bps	(144) bps	(68) bps

The automatic CCM will be in effect to adjust 2019 cost of capital, if necessary. Unless changed by the operation of the CCM, the updated costs of long-term debt and the new ROEs will remain in effect through December 31, 2019. The cost of capital changes will also apply to capital expenditures in 2018 and 2019 for incremental projects not funded through the GRC revenue requirement.

SDG&E MATTERS

FERC Rate Matters and Cost of Capital

SDG&E files separately with the FERC for its authorized ROE on FERC-regulated electric transmission operations and assets.

SDG&E's current estimated FERC return on rate base under the TO4 formula rate request filing is 7.51 percent based on its capital structure as follows:

SDG&E COST OF CAPITAL AND RATE STRUCTURE – FERC			
	Weighting	Return on rate base	Weighted return on rate base
Long-Term Debt	43.44 %	4.21 %	1.83 %
Common Equity	56.56	10.05	5.68
	100.00 %		7.51 %

SDG&E expects to file its TO5 formula rate request with the FERC by June 2018, to be effective January 1, 2019.

NOTE 15. COMMITMENTS AND CONTINGENCIES

LEGAL PROCEEDINGS

We accrue losses for a legal proceeding when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. However, the uncertainties inherent in legal proceedings make it difficult to estimate with reasonable certainty the costs and effects of resolving these matters. Accordingly, actual costs incurred may differ materially from amounts accrued, may exceed applicable insurance coverage and could materially adversely affect our business, cash flows, results of operations, financial condition and prospects. Unless otherwise indicated, we are unable to estimate reasonably possible losses in excess of any amounts accrued.

At December 31, 2017, loss contingency accruals for legal matters, including associated legal fees, that are probable and estimable were \$92 million for Sempra Energy Consolidated, including \$3 million for SDG&E and \$88 million for SoCalGas. Amounts for Sempra Energy and SoCalGas include \$83 million for matters related to the Aliso Canyon natural gas storage facility gas leak, which we discuss below. We discuss our policy regarding accrual of legal fees in Note 1.

SDG&E

2007 Wildfire Litigation and Net Cost Recovery Status

SDG&E has resolved all litigation associated with three wildfires that occurred in October 2007, except one appeal that remains pending after judgment in the trial court. SDG&E does not expect additional plaintiffs to file lawsuits given the applicable statutes of limitation, but could receive additional settlement demands and damage estimates from the remaining plaintiff until the case is resolved. SDG&E maintains reserves for the wildfire litigation and adjusts these reserves as information becomes available and amounts are estimable.

SDG&E recorded regulatory assets for CPUC-related costs incurred to resolve wildfire claims in excess of its liability insurance coverage and the amounts recovered from third parties. In September 2015, SDG&E filed an application with the CPUC seeking authority to recover these CPUC-related costs in rates over a six- to ten-year period. The requested amount was the net estimated CPUC-related cost incurred by SDG&E after deductions for insurance reimbursement and third-party settlement recoveries, and reflected a voluntary 10-percent shareholder contribution applied to the net regulatory asset for wildfire costs. In August 2017, the CPUC issued a proposed decision denying SDG&E's request to recover the 2007 wildfire costs submitted in our application. In consideration of the proposed decision (including the actions not taken through the October 26, 2017 CPUC meeting), we concluded that the wildfire regulatory asset no longer met the probability threshold for recovery required by U.S. GAAP. Accordingly, SDG&E wrote off the wildfire regulatory asset, resulting in a charge of \$351 million (\$208 million after-tax) in the third quarter of 2017, in Write-off of Wildfire Regulatory Asset on the Consolidated Statements of Operations for Sempra Energy and SDG&E. In December 2017, the CPUC issued a final decision upholding the proposed decision. SDG&E will continue to vigorously pursue recovery of these costs, which were incurred through settling claims brought under the doctrine of inverse condemnation. SDG&E applied to the CPUC for rehearing of its decision on January 2, 2018. The CPUC may grant a rehearing,

modify its decision, or deny the request and affirm its original decision. We will appeal the decision with the California Courts of Appeal seeking to reverse the CPUC's decision, if necessary.

Concluded Matter

SDG&E participated as a claimant and respondent in an arbitration proceeding initiated by Edison in October 2013 against MHI seeking damages stemming from the failure of the MHI replacement steam generators at the SONGS nuclear power plant. In March 2017, the Tribunal found MHI liable for breach of contract, subject to a contractual limitation of liability, but determined that MHI was the prevailing party and awarded it 95 percent of its arbitration costs. We discuss this arbitration and decision further in Note 13.

SoCalGas

Aliso Canyon Natural Gas Storage Facility Gas Leak

On October 23, 2015, SoCalGas discovered a leak at one of its injection-and-withdrawal wells, SS25, at its Aliso Canyon natural gas storage facility (the Leak), located in the northern part of the San Fernando Valley in Los Angeles County. The Aliso Canyon natural gas storage facility has been operated by SoCalGas since 1972. SS25 is one of more than 100 injection-and-withdrawal wells at the storage facility. SoCalGas worked closely with several of the world's leading experts to stop the Leak, and on February 18, 2016, DOGGR confirmed that the well was permanently sealed. SoCalGas calculated that approximately 4.62 Bcf of natural gas was released from the Aliso Canyon natural gas storage facility as a result of the Leak.

Local Community Mitigation Efforts. Pursuant to a stipulation and order by the LA Superior Court, SoCalGas provided temporary relocation support to residents in the nearby community who requested it before the well was permanently sealed. Following the permanent sealing of the well, the DPH conducted testing in certain homes in the Porter Ranch community, and concluded that indoor conditions did not present a long-term health risk and that it was safe for residents to return home. In May 2016, the LA Superior Court ordered SoCalGas to offer to clean residents' homes at SoCalGas' expense as a condition to ending the relocation program. SoCalGas completed the residential cleaning program and the relocation program ended in July 2016.

In May 2016, the DPH also issued a directive that SoCalGas additionally professionally clean (in accordance with the proposed protocol prepared by the DPH) the homes of all residents located within the Porter Ranch Neighborhood Council boundary, or who participated in the relocation program, or who are located within a five-mile radius of the Aliso Canyon natural gas storage facility and experienced symptoms from the Leak (the Directive). SoCalGas disputes the Directive, contending that it is invalid and unenforceable, and has filed a petition for writ of mandate to set aside the Directive.

The costs incurred to remediate and stop the Leak and to mitigate local community impacts have been significant and may increase, and we may be subject to potentially significant damages, restitution, and civil, administrative and criminal fines, penalties and other costs. To the extent any of these costs are not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Cost Estimates and Accounting Impact. At December 31, 2017, SoCalGas estimates that its costs related to the Leak are \$913 million, which includes \$887 million of costs recovered or probable of recovery from insurance. Of the \$913 million of costs, approximately 60 percent is for the temporary relocation program (including cleaning costs and certain labor costs). Other estimated costs include amounts for efforts to control the well, stop the Leak, stop or reduce the emissions, and the estimated cost of the root cause analysis being conducted by an independent third party to investigate the cause of the Leak. The remaining portion of the \$913 million includes legal costs incurred to defend litigation, the value of lost gas, the costs to mitigate the actual natural gas released, the estimated costs to settle certain actions and other costs. The value of lost gas reflects the replacement cost of volumes purchased through December 2017 and estimates for purchases in 2018. As of mid-January 2018, SoCalGas has replaced all lost gas. SoCalGas adjusts its estimated total liability associated with the Leak as additional information becomes available. The \$913 million represents management's best estimate of these costs related to the Leak. Of these costs, a substantial portion has been paid and \$84 million is accrued as Reserve for Aliso Canyon Costs as of December 31, 2017 on SoCalGas' and Sempra Energy's Consolidated Balance Sheets for amounts expected to be paid after December 31, 2017.

As of December 31, 2017, we recorded the expected recovery of the costs described in the immediately preceding paragraph related to the Leak of \$418 million as Insurance Receivable for Aliso Canyon Costs on SoCalGas' and Sempra Energy's Consolidated Balance Sheets. This amount is net of insurance retentions and \$469 million of insurance proceeds we received through December 31, 2017 related to control-of-well expenses, lost gas and temporary relocation costs. If we were to conclude that this receivable or a portion of it was no longer probable of recovery from insurers, some or all of this receivable would be

charged against earnings, which could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

As described in "Governmental Investigations and Civil and Criminal Litigation" below, the actions against us seek compensatory and punitive damages, restitution, and civil, administrative and criminal fines, penalties and other costs, which except for the amounts paid or estimated to settle certain actions, are not included in the above amounts as it is not possible at this time to predict the outcome of these actions or reasonably estimate the amount of damages, restitution or civil, administrative or criminal fines, penalties or other costs that may be imposed. The recorded amounts above also do not include the costs to clean additional homes pursuant to the Directive, future legal costs necessary to defend litigation, and other potential costs that we currently do not anticipate incurring or that we cannot reasonably estimate. Furthermore, the cost estimate of \$913 million does not include certain other costs expensed by Sempra Energy through December 31, 2017 associated with defending shareholder derivative lawsuits.

In March 2016, the CPUC ordered SoCalGas to establish a memorandum account to prospectively track its authorized revenue requirement and all revenues that it receives for its normal, business-as-usual costs to own and operate the Aliso Canyon natural gas storage facility and, in September 2016, approved SoCalGas' request to begin tracking these revenues as of March 17, 2016. The CPUC will determine at a later time whether, and to what extent, the authorized revenues tracked in the memorandum account may be refunded to ratepayers.

Insurance. Excluding directors' and officers' liability insurance, we have four kinds of insurance policies that together provide between \$1.2 billion to \$1.4 billion in insurance coverage, depending on the nature of the claims. We cannot predict all of the potential categories of costs or the total amount of costs that we may incur as a result of the Leak. Subject to various policy limits, exclusions and conditions, based on what we know as of the filing date of this report, we believe that our insurance policies collectively should cover the following categories of costs: costs incurred for temporary relocation (including cleaning costs and certain labor costs), costs to address the Leak and stop or reduce emissions, the root cause analysis being conducted to investigate the cause of the Leak, the value of lost natural gas, costs incurred to mitigate the actual natural gas released, costs associated with litigation and claims by nearby residents and businesses, any costs to clean additional homes pursuant to the Directive, and, in some circumstances depending on their nature and manner of assessment, fines and penalties. We have been communicating with our insurance carriers and, as discussed above, we have received insurance payments for portions of control-of-well expenses, lost gas and temporary relocation costs. We intend to pursue the full extent of our insurance coverage for the costs we have incurred or may incur. There can be no assurance that we will be successful in obtaining additional insurance recovery for these costs under the applicable policies, and to the extent we are not successful in obtaining coverage or these costs exceed the amount of our coverage, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

At December 31, 2017, SoCalGas' estimated costs related to the Leak of \$913 million include \$887 million of costs recovered or probable of recovery from insurance. This estimate may rise significantly as more information becomes available. Any costs not included in the \$913 million cost estimate could be material. To the extent not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Governmental Investigations and Civil and Criminal Litigation. Various governmental agencies, including DOGGR, DPH, SCAQMD, CARB, Los Angeles Regional Water Quality Control Board, California Division of Occupational Safety and Health, CPUC, PHMSA, EPA, Los Angeles County District Attorney's Office and California Attorney General's Office, have investigated or are investigating this incident. Other federal agencies (e.g., the DOE and the U.S. Department of the Interior) investigated the incident as part of a joint interagency task force. In January 2016, DOGGR and the CPUC selected Blade Energy Partners to conduct, under their supervision, an independent analysis of the technical root cause of the Leak, to be funded by SoCalGas. The timing of the root cause analysis is under the control of Blade Energy Partners, DOGGR and the CPUC.

As of February 22, 2018, 373 lawsuits, including over 45,000 plaintiffs, are pending against SoCalGas, some of which have also named Sempra Energy. All of these cases, other than a matter brought by the Los Angeles County District Attorney and the federal securities class action discussed below, are coordinated before a single court in the LA Superior Court for pretrial management (the Coordination Proceeding).

Pursuant to the Coordination Proceeding, in March 2017, the individuals and business entities asserting tort and Proposition 65 claims filed a Second Amended Consolidated Master Case Complaint for Individual Actions, through which their separate lawsuits will be managed for pretrial purposes. The consolidated complaint asserts causes of action for negligence, negligence per se, private and public nuisance (continuing and permanent), trespass, inverse condemnation, strict liability, negligent and intentional infliction of emotional distress, fraudulent concealment, loss of consortium and violations of Proposition 65 against SoCalGas, with certain causes also naming Sempra Energy. The consolidated complaint seeks compensatory and punitive damages for personal injuries, lost wages and/or lost profits, property damage and diminution in property value, injunctive relief,

costs of future medical monitoring, civil penalties (including penalties associated with Proposition 65 claims alleging violation of requirements for warning about certain chemical exposures), and attorneys' fees.

In January 2017, pursuant to the Coordination Proceeding, two consolidated class action complaints were filed against SoCalGas and Sempra Energy, one on behalf of a putative class of persons and businesses who own or lease real property within a five-mile radius of the well (the Property Class Action), and a second on behalf of a putative class of all persons and entities conducting business within five miles of the facility (the Business Class Action). Both complaints assert claims for strict liability for ultra-hazardous activities, negligence and violation of California Unfair Competition Law. The Property Class Action also asserts claims for negligence per se, trespass, permanent and continuing public and private nuisance, and inverse condemnation. The Business Class Action also asserts a claim for negligent interference with prospective economic advantage. Both complaints seek compensatory, statutory and punitive damages, injunctive relief and attorneys' fees. In December 2017, the California Court of Appeal, Second Appellate District ruled that the purely economic damages alleged in the Business Class Action are not recoverable under the law.

In addition to the lawsuits described above, a federal securities class action alleging violation of the federal securities laws has been filed against Sempra Energy and certain of its officers and certain of its directors in the SDCA. Five shareholder derivative actions are also pending in the Coordination Proceeding alleging breach of fiduciary duties against certain officers and certain directors of Sempra Energy and/or SoCalGas, four of which were joined in a Consolidated Shareholder Derivative Complaint in August 2017.

Three actions filed by public entities are pending in the Coordination Proceeding. First, in July 2016, the County of Los Angeles, on behalf of itself and the people of the State of California, filed a complaint against SoCalGas in the LA Superior Court for public nuisance, unfair competition, breach of franchise agreement, breach of lease, and damages. This suit alleges that the four natural gas storage fields operated by SoCalGas in Los Angeles County require safety upgrades, including the installation of a sub-surface safety shut-off valve on every well. It additionally alleges that SoCalGas failed to comply with the DPH Directive. It seeks preliminary and permanent injunctive relief, civil penalties, and damages for the County's costs to respond to the Leak, as well as punitive damages and attorneys' fees.

Second, in August 2016, the California Attorney General, acting in an independent capacity and on behalf of the people of the State of California and the CARB, together with the Los Angeles City Attorney, filed a third amended complaint on behalf of the people of the State of California against SoCalGas alleging public nuisance, violation of the California Unfair Competition Law, violations of California Health and Safety Code sections 41700 (prohibiting discharge of air contaminants that cause annoyance to the public) and 25510 (requiring reporting of the release of hazardous material), as well as California Government Code section 12607 for equitable relief for the protection of natural resources. The complaint seeks an order for injunctive relief, to abate the public nuisance, and to impose civil penalties.

Third, a petition for writ of mandate filed by the County of Los Angeles is pending against DOGGR and its State Oil and Gas Supervisor and the CPUC and its Executive Director, as to which SoCalGas is the real party in interest. The petition alleges that in issuing its July 2017 determination that the requirements for the resumption of injection operations were met (discussed under "Natural Gas Storage Operations and Reliability" below), DOGGR failed to comply with the provisions of SB 380, which requires a comprehensive safety review of the Aliso Canyon natural gas storage facility before injection of natural gas may resume. The County alleges, among other things, that DOGGR failed to comply with the provisions of SB 380 in declaring the safety review complete and authorizing the resumption of injection of natural gas into the facility before the root cause analysis was complete, failing to make its safety-review documents available to the public and failing to address seismic risks to the field as part of its safety review. The County further alleges that CEQA required DOGGR to prepare an EIR before the resumption of injection of natural gas at the facility may be approved. The petition seeks a writ of mandate requiring DOGGR and the State Oil and Gas Supervisor to comply with SB 380 and CEQA, and to produce records in response to the County's Public Records Act request as well as declaratory and injunctive relief against any authorization to inject natural gas and attorneys' fees.

A complaint filed by the SCAQMD against SoCalGas seeking civil penalties for alleged violations of several nuisance related statutory provisions arising from the Leak and delays in stopping the Leak was settled in February 2017, pursuant to which SoCalGas paid \$8.5 million, of which \$1 million is to be used to pay for a health study. The SCAQMD's complaint was dismissed in February 2017.

Separately, in February 2016, the Los Angeles County District Attorney's Office filed a misdemeanor criminal complaint against SoCalGas seeking penalties and other remedies for alleged failure to provide timely notice of the Leak pursuant to California Health and Safety Code section 25510(a), Los Angeles County Code section 12.56.030, and Title 19 California Code of Regulations section 2703(a), and for allegedly violating California Health and Safety Code section 41700 prohibiting discharge of air contaminants that cause annoyance to the public. Pursuant to a settlement agreement with the Los Angeles County District Attorney's Office, SoCalGas agreed to plead no contest to the notice charge under Health and Safety Code section 25510(a) and

agreed to pay the maximum fine of \$75,000, penalty assessments of approximately \$233,500, and operational commitments estimated to cost approximately \$5 million, reimbursement and assessments in exchange for the Los Angeles County District Attorney's Office moving to dismiss the remaining counts at sentencing and settling the complaint (the District Attorney Settlement). In November 2016, SoCalGas completed the commitments and obligations under the District Attorney Settlement, and on November 29, 2016, the LA Superior Court approved the settlement and entered judgment on the notice charge. Certain individuals residing near the Aliso Canyon natural gas storage facility who objected to the settlement have filed a notice of appeal of the judgment, contending they should be granted restitution.

The costs of defending against these civil and criminal lawsuits, cooperating with these investigations, and any damages, restitution, and civil, administrative and criminal fines, penalties and other costs, if awarded or imposed, as well as the costs of mitigating the actual natural gas released, could be significant and to the extent not covered by insurance (including any costs in excess of applicable policy limits), or if there were to be significant delays in receiving insurance recoveries, such costs could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Regulatory Proceedings. In February 2017, the CPUC opened a proceeding pursuant to SB 380 to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon natural gas storage facility while still maintaining energy and electric reliability for the region. The CPUC indicated it intends to conduct the proceeding in two phases, with Phase 1 undertaking a comprehensive effort to develop the appropriate analyses and scenarios to evaluate the impact of reducing or eliminating the use of the Aliso Canyon natural gas storage facility and Phase 2 using those analyses and scenarios to evaluate the impacts of reducing or eliminating the use of the Aliso Canyon natural gas storage facility. The order establishing the scope of the proceeding expressly excludes issues with respect to air quality, public health, causation, culpability or cost responsibility regarding the Leak. The CPUC adopted a high-level Phase 1 schedule contemplating public participation hearings and workshops beginning in April 2017, but no hearings until Phase 2.

Section 455.5 of the California Public Utilities Code, among other things, directs regulated utilities to notify the CPUC if all or any portion of a major facility has been out of service for nine consecutive months. Although SoCalGas does not believe the Aliso Canyon natural gas storage facility or any portion of the facility was out of service (as that term is meant in Section 455.5) for nine consecutive months, SoCalGas provided notification out of an abundance of caution to demonstrate its commitment to regulatory compliance and transparency, and because obtaining authorization to resume injection operations at the facility required more time than initially contemplated. In response, and as required by section 455.5, the CPUC issued an OII to address whether the Aliso Canyon natural gas storage facility or any portion of the facility was out of service for nine consecutive months under section 455.5, and if so, whether the CPUC should disallow costs for such period from SoCalGas' rates. Under section 455.5, hearings on the investigation are to be held, if necessary, in conjunction with SoCalGas' 2019 GRC proceeding. If the CPUC determines that all or any portion of the facility was out of service for nine consecutive months, the amount of any refund to ratepayers and the inability to earn a return on those assets could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Governmental Orders and Additional Regulation. In January 2016, the Governor of the State of California issued an order (the Governor's Order) proclaiming a state of emergency in Los Angeles County due to the Leak. The Governor's Order imposes various orders with respect to: stopping the Leak; protecting public health and safety; ensuring accountability; and strengthening oversight. Most of the directives in the Governor's Order have been fulfilled, with the following remaining open items: (1) applicable agencies must convene an independent panel of scientific and medical experts to review public health concerns stemming from the natural gas leak and evaluate whether additional measures are needed to protect public health; (2) the CPUC must ensure that SoCalGas covers costs related to the natural gas leak and its response while protecting ratepayers, and CARB must develop a program to fully mitigate the leak's emissions of methane by March 31, 2016, with such program to be funded by SoCalGas; and (3) DOGGR, CPUC, CARB and the CEC must submit to the Governor's Office a report that assesses the long-term viability of natural gas storage facilities in California.

In December 2015, SoCalGas made a commitment to mitigate the actual natural gas released from the Leak and has been working on a plan to accomplish the mitigation. In March 2016, pursuant to the Governor's Order, the CARB issued its *Aliso Canyon Methane Leak Climate Impacts Mitigation Program*, which set forth its recommended approach to achieve full mitigation of the emissions from the Leak. The CARB program requires that reductions in short-lived climate pollutants and other greenhouse gases be at least equivalent to the amount of the emissions from the Leak, and that the amount of reductions required be derived using the global warming potential based on a 20-year term (rather than the 100-year term the CARB and other state and federal agencies use in regulating emissions), resulting in a target of approximately 9,000,000 metric tons of carbon dioxide equivalent. CARB's program also calls for all of the mitigation to occur in California over the next five to ten years without the use of allowances or offsets. In October 2016, CARB issued its final report concluding that the incident resulted in total emissions from 90,350 to 108,950 metric tons of methane, and asserting that SoCalGas should mitigate 109,000 metric tons of methane to fully

mitigate the greenhouse gas impacts of the Leak. We have not agreed with CARB's estimate of methane released and continue to work with CARB on developing a mitigation plan.

Natural Gas Storage Operations and Reliability. Natural gas withdrawn from storage is important for service reliability during peak demand periods, including peak electric generation needs in the summer and heating needs in the winter. The Aliso Canyon natural gas storage facility, with a storage capacity of 86 Bcf (which represents 63 percent of SoCalGas' natural gas storage inventory capacity), is the largest SoCalGas storage facility and an important element of SoCalGas' delivery system. Beginning October 25, 2015, pursuant to orders by DOGGR and the Governor of the State of California, and in accordance with SB 380, SoCalGas suspended injection of natural gas into the Aliso Canyon natural gas storage facility. In April and June of 2017, SoCalGas advised the CAISO, CEC, CPUC and PHMSA of its concerns that the inability to inject natural gas into the Aliso Canyon natural gas storage facility posed a risk to energy reliability in Southern California. Limited withdrawals of natural gas from the Aliso Canyon natural gas storage facility were made in 2017 to augment natural gas supplies during critical demand periods.

On July 19, 2017, DOGGR issued its determination that SoCalGas had met the requirements of SB 380 for the resumption of injection operations, including all safety requirements. On the same date, the CPUC's Executive Director issued his concurrence with that determination, and DOGGR issued its *Order to: Test and Take Temporary Actions Upon Resuming Injection: Aliso Canyon Gas Storage Facility* lifting the prohibition on injection at the Aliso Canyon natural gas storage facility, subject to certain requirements after injection resumed, including limitations on the rate at which SoCalGas may withdraw natural gas from the field. The CPUC additionally issued a directive to SoCalGas to maintain a range of working gas in the Aliso Canyon natural gas storage facility at a target of 23.6 Bcf (approximately 28 percent of its maximum capacity), and at all times above 14.8 Bcf, later amended to require the range be maintained from zero Bcf to 24.6 Bcf of working gas. The County of Los Angeles filed a petition for writ of mandate seeking declaratory and injunctive relief and a stay of DOGGR's order lifting the prohibition against injecting natural gas at the facility. We provide further detail regarding the County of Los Angeles' suit above in "Governmental Investigations and Civil and Criminal Litigation." Having completed the steps outlined by state agencies to safely begin injections at the Aliso Canyon natural gas storage facility, as of July 31, 2017, SoCalGas resumed limited injections.

If the Aliso Canyon natural gas storage facility were determined to have been out of service for any meaningful period of time or permanently closed, or if future cash flows were otherwise insufficient to recover its carrying value, it could result in an impairment of the facility and significantly higher than expected operating costs and/or additional capital expenditures, and natural gas reliability and electric generation could be jeopardized. At December 31, 2017, the Aliso Canyon natural gas storage facility has a net book value of \$644 million, including \$252 million of construction work in progress for the project to construct a new compressor station. Any significant impairment of this asset could have a material adverse effect on SoCalGas' and Sempra Energy's results of operations for the period in which it is recorded. Higher operating costs and additional capital expenditures incurred by SoCalGas may not be recoverable in customer rates, and could have a material adverse effect on SoCalGas' and Sempra Energy's cash flows, financial condition and results of operations.

Sempra Mexico

Property Disputes and Permit Challenges

Energía Costa Azul. Sempra Mexico has been engaged in a long-running land dispute relating to property adjacent to its ECA LNG terminal near Ensenada, Mexico. A claimant to the adjacent property filed complaints in the federal Agrarian Court challenging the refusal of the SEDATU in 2006 to issue a title to him for the disputed property. In November 2013, the federal Agrarian Court ordered that SEDATU issue the requested title and cause it to be registered. Both SEDATU and Sempra Mexico challenged the ruling, due to lack of notification of the underlying process. Both challenges are pending to be resolved by a Federal Court in Mexico. Sempra Mexico expects additional proceedings regarding the claims.

Several administrative challenges are pending in Mexico before the Mexican environmental protection agency and the Federal Tax and Administrative Courts seeking revocation of the environmental impact authorization issued to ECA in 2003. These cases generally allege that the conditions and mitigation measures in the environmental impact authorization are inadequate and challenge findings that the activities of the terminal are consistent with regional development guidelines.

Two real property cases have been filed against ECA. In one case, filed in the federal Agrarian Court in 2006, the plaintiffs seek to annul the recorded property title for a parcel on which the ECA LNG terminal is situated and to obtain possession of a different parcel that allegedly sits in the same place. A second complaint was served in April 2012 seeking to invalidate the contract by which ECA purchased another of the terminal parcels, on the grounds the purchase price was unfair; the plaintiff filed a second complaint in 2013 in the federal Agrarian Court seeking an order that SEDATU issue title to her. In January 2016, the federal

Agrarian Court ruled against the plaintiff, and the plaintiff appealed the ruling. Sempra Mexico expects further proceedings on these two matters.

Guaymas-El Oro Segment of the Sonora Pipeline. IEnova's Sonora natural gas pipeline consists of two segments, the Sasabe-Puerto Libertad-Guaymas segment, and the Guaymas-El Oro segment. Each segment has its own service agreement with the CFE. In 2015, the Yaqui tribe, with the exception of some members living in the BÁCUM community, granted its consent and a right-of-way easement agreement for the construction of the Guaymas-El Oro segment of the Sonora natural gas pipeline that crosses its territory. Representatives of the BÁCUM community filed a legal challenge in Mexican Federal Court demanding the right to withhold consent for the project, the stoppage of work in the Yaqui territory and damages. The judge granted a suspension order that prohibited the construction of such segment through the BÁCUM community territory. Because the pipeline does not pass through the BÁCUM community, IEnova did not believe the order prohibited construction in the remainder of the Yaqui territory. As a result of the dispute, however, IEnova was delayed in the construction of the approximately 14 kilometers of pipeline that pass through territory of the Yaqui tribe. The CFE agreed to extend the deadline for commercial operations until the second quarter of 2017. Construction of the Guaymas-El Oro segment was completed, and commercial operations began in May 2017. Following the start of commercial operations, an appellate court ruled that the scope of the suspension encompassed the wider Yaqui territory. The legal challenge remains pending. IEnova has subsequently reported damage and declared a force majeure event for the Guaymas-El Oro segment of the Sonora pipeline in the Yaqui territory that has interrupted its operations since August 23, 2017. There is no material economic impact as of December 31, 2017. The Sasabe-Puerto Libertad-Guaymas segment remains in full operation.

Concluded Matters

Energía Costa Azul. A property claimant filed a lawsuit in July 2010 against Sempra Energy in Federal District Court in San Diego seeking compensatory and punitive damages as well as the earnings from the ECA LNG terminal based on his allegations that he was wrongfully evicted from the adjacent property and that he has been harmed by other allegedly improper actions. In September 2015, the Court granted Sempra Energy's motion for summary judgment and closed the case. The claimant appealed the summary judgment and an earlier order dismissing certain of his causes of action. In July 2017, the Ninth Circuit Court of Appeal issued a ruling affirming the summary judgment and dismissal of his other causes of action, except one alleging theft of personal property in connection with the alleged eviction. In September 2017, the District Court dismissed the remaining claim.

Energía Sierra Juárez. In December 2012, Backcountry Against Dumps, Donna Tisdale and the Protect Our Communities Foundation filed a complaint in the SDCA seeking to invalidate the presidential permit issued by the DOE for Energía Sierra Juárez's cross-border generation tie line connecting the Energía Sierra Juárez wind project in Mexico to the electric grid in the U.S. The suit alleged violations of the NEPA, the Endangered Species Act, the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Plaintiffs filed a motion for summary judgment, which the court largely denied in September 2015. One NEPA claim, however, was not resolved – whether the Environmental Impact Statement's assessment of alleged extraterritorial impacts of the generation tie line in the U.S. on the environment in Mexico was inadequate (the "extraterritorial impact issue") – and was the subject of additional briefing in 2016. On January 30, 2017, the Court issued a ruling on the extraterritorial impact issue and, contrary to its prior ruling, ruled that the Environmental Impact Statement was deficient for not considering the effects in Mexico of both the U.S. and Mexican portion of the generation tie line and the wind farm itself. On August 29, 2017, the Court denied the plaintiffs request to vacate the presidential permit or enjoin operation of the generation tie line and remanded the case to the DOE for preparation of a supplemental Environmental Impact Statement that addresses the deficiencies identified by the Court, and entered judgment ending the case.

Other Litigation

Sempra Energy holds a noncontrolling interest in RBS Sempra Commodities, a limited liability partnership in the process of being liquidated. RBS, our partner in the joint venture, paid an £86 million assessment in October 2014 to HMRC for denied VAT refund claims filed in connection with the purchase of carbon credit allowances by RBS SEE, a subsidiary of RBS Sempra Commodities. RBS SEE has since been sold to JP Morgan and later to Mercuria Energy Group, Ltd. HMRC asserted that RBS was not entitled to reduce its VAT liability by VAT paid on certain carbon credit purchases during 2009 because RBS knew or should have known that certain vendors in the trading chain did not remit their own VAT to HMRC. After paying the assessment, RBS filed a Notice of Appeal of the assessment with the First-Tier Tribunal. The First-Tier Tribunal held a preliminary hearing in September 2016 to determine whether HMRC's assessment was time-barred. In January 2017, the First-Tier Tribunal issued a decision in favor of HMRC concluding that the assessment was not time-barred. RBS has decided not to appeal the First-Tier Tribunal's decision to the Upper Tribunal. There will be a hearing on the substantive matter regarding whether RBS knew or should have known that certain vendors in the trading chain did not remit their VAT to HMRC.

During 2015, liquidators, acting on behalf of ten companies (the Companies) that engaged in carbon credit trading via chains that included a company that RBS SEE traded with directly, filed a claim in the High Court of Justice asserting damages of £160 million against RBS and Mercuria Energy Europe Trading Limited (the Defendants). The claim alleges that the Defendants' participation in the purchase and sale of carbon credits resulted in the Companies' carbon credit trading transactions creating a VAT liability they were unable to pay. The £160 million is comprised of a claim by the Companies for £80 million for equitable compensation due to dishonest assistance, and a claim by the liquidators for compensation in the same amount under the Insolvency Act of 1986. The parties have agreed that to the extent the Companies' claims are successful, the liquidators cannot collect under the Insolvency Act of 1986; however, the award amount is ultimately determined by the Court. Trial of the matter has been set for the summer of 2018. JP Morgan has notified us that Mercuria Energy Group, Ltd. has sought indemnity for the claim, and JP Morgan has in turn sought indemnity from us and RBS.

Our remaining investment in RBS Sempra Commodities of \$67 million at December 31, 2017 is accounted for under the equity method and reflects remaining distributions expected to be received from the partnership as it is liquidated. The timing and amount of distributions may be impacted by these matters. We discuss RBS Sempra Commodities further in Note 4.

We are also defendants in ordinary routine litigation incidental to our businesses, including personal injury, employment litigation, product liability, property damage and other claims. Juries have demonstrated an increasing willingness to grant large awards, including punitive damages, in these types of cases.

CONTRACTUAL COMMITMENTS

Natural Gas Contracts

SoCalGas has the responsibility for procuring natural gas for both SDG&E's and SoCalGas' core customers in a combined portfolio. SoCalGas buys natural gas under short-term and long-term contracts for this portfolio. Purchases are from various producing regions in the southwestern U.S., U.S. Rockies, and Canada and are primarily based on published monthly bid-week indices.

SoCalGas transports natural gas primarily under long-term firm interstate pipeline capacity agreements that provide for annual reservation charges, which are recovered in rates. SoCalGas has commitments with interstate pipeline companies for firm pipeline capacity under contracts that expire at various dates through 2031.

Sempra LNG & Midstream's and Sempra Mexico's businesses have various capacity agreements for natural gas storage and transportation. In addition, Sempra Mexico has a natural gas purchase agreement to fuel a natural gas-fired power plant.

In May 2016, Sempra LNG & Midstream permanently released certain pipeline capacity that it held with Rockies Express and others. The effect of the permanent capacity releases resulted in a pretax charge of \$206 million (\$123 million after-tax), which is included in Other Cost of Sales on the Sempra Energy Consolidated Statement of Operations. The charge represented an acceleration of costs that would otherwise have been recognized over the duration of the contracts. Sempra LNG & Midstream has recorded a liability for these costs, less expected proceeds generated from the permanent capacity releases. Sempra LNG & Midstream's related obligation to make future capacity payments through November 2019 is included in the table below.

In May 2017, Sempra LNG & Midstream received settlement proceeds of \$57 million from a breach of contract claim against a counterparty in bankruptcy court. Of the total proceeds, \$47 million related to the \$206 million charge we recorded in 2016 resulting from the permanent release of certain pipeline capacity. Sempra LNG & Midstream recorded the settlement proceeds as a reduction to Other Cost of Sales on Sempra Energy's Consolidated Statement of Operations in 2017.

At December 31, 2017, the future estimated payments under existing natural gas contracts and natural gas storage and transportation contracts are as follows:

FUTURE ESTIMATED PAYMENTS – SEMPRA ENERGY CONSOLIDATED

(Dollars in millions)

	Storage and transportation	Natural gas ⁽¹⁾	Total ⁽¹⁾
2018	\$ 231	\$ 61	\$ 292
2019	146	—	146
2020	48	—	48
2021	46	1	47
2022	44	1	45
Thereafter	127	—	127
Total estimated payments	\$ 642	\$ 63	\$ 705

⁽¹⁾ Excludes amounts related to the LNG purchase agreement discussed below.

FUTURE ESTIMATED PAYMENTS – SOCALGAS

(Dollars in millions)

	Transportation	Natural gas	Total
2018	\$ 108	\$ —	\$ 108
2019	59	—	59
2020	29	—	29
2021	27	1	28
2022	27	1	28
Thereafter	81	—	81
Total estimated payments	\$ 331	\$ 2	\$ 333

Total payments under natural gas contracts and natural gas storage and transportation contracts as well as payments to meet additional portfolio needs at Sempra Energy Consolidated and SoCalGas were as follows:

PAYMENTS UNDER NATURAL GAS CONTRACTS

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Sempra Energy Consolidated	\$ 1,429	\$ 1,169	\$ 1,200
SoCalGas	1,213	966	975

LNG Purchase Agreement

Sempra LNG & Midstream has a purchase agreement for the supply of LNG to the ECA terminal. The commitment amount is calculated using a predetermined formula based on estimated forward prices of the index applicable from 2018 to 2029. Although this agreement specifies a number of cargoes to be delivered, under its terms, the customer may divert certain cargoes, which would reduce amounts paid under the agreement by Sempra LNG & Midstream.

At December 31, 2017, the following LNG commitment amounts are based on the assumption that all cargoes, less those already confirmed to be diverted, under the agreement are delivered:

LNG COMMITMENT AMOUNTS		
<i>(Dollars in millions)</i>		
2018	\$	302
2019		383
2020		391
2021		403
2022		411
Thereafter		2,935
Total	\$	<u>4,825</u>

Actual LNG purchases in 2017, 2016 and 2015 have been significantly lower than the maximum amount provided under the agreement due to the customer electing to divert most cargoes as allowed by the agreement.

Purchased-Power Contracts

For 2018, SDG&E expects to meet its customer power requirements from the following resource types:

- Long-term contracts: 43 percent (of which 37 percent is provided by renewable energy contracts expiring on various dates through 2041)
- Other SDG&E-owned generation and tolling contracts (including OMEC): 56 percent
- Spot market purchases: 1 percent

Chilquinta Energía and Luz del Sur also have purchased-power contracts, expiring on various dates extending through 2031, which cover most of the consumption needs of the companies' customers. These commitments are included under Sempra Energy Consolidated in the table below.

At December 31, 2017, the future estimated payments under long-term purchased-power contracts are as follows:

FUTURE ESTIMATED PAYMENTS – PURCHASED-POWER CONTRACTS		
<i>(Dollars in millions)</i>		
	Sempra Energy Consolidated	SDG&E
2018	\$ 702	\$ 577
2019	690	571
2020	631	510
2021	633	510
2022	598	496
Thereafter	5,726	5,457
Total estimated payments ⁽¹⁾⁽²⁾	<u>\$ 8,980</u>	<u>\$ 8,121</u>

⁽¹⁾ Excludes purchase agreements accounted for as capital leases and amounts related to Otay Mesa VIE, as it is consolidated by Sempra Energy and SDG&E.

⁽²⁾ Includes \$5.4 billion of expected payments under purchase agreements accounted for as operating leases at SDG&E, comprising renewable energy PPAs for which there are no future minimum operating lease payments.

Payments on these contracts represent capacity charges and minimum energy and transmission purchases that exceed the minimum commitment. SDG&E and Luz del Sur are required to pay additional amounts for actual purchases of energy that exceed the minimum energy commitments. Total payments under purchased-power contracts were as follows:

	Years ended December 31,		
	2017	2016	2015
Sempra Energy Consolidated	\$ 1,694	\$ 1,667	\$ 1,573
SDG&E	781	752	715

Operating Leases

Sempra Energy Consolidated, SDG&E and SoCalGas have operating leases on real and personal property expiring at various dates from 2018 through 2054. Certain leases on office facilities contain escalation clauses requiring annual increases in rent ranging from two percent to five percent at Sempra Energy Consolidated, SDG&E and SoCalGas. The rentals payable under these leases may increase by a fixed amount each year or by a percentage of a base year, and most leases contain extension options that we could exercise.

The California Utilities have operating lease agreements for future acquisitions of fleet vehicles with an aggregate maximum lease limit of \$250 million, \$133 million of which has been utilized as of December 31, 2017.

Rent expense for operating leases was as follows:

	RENT EXPENSE – OPERATING LEASES		
	<i>(Dollars in millions)</i>		
	Years ended December 31,		
	2017	2016	2015
Sempra Energy Consolidated	\$ 109	\$ 77	\$ 78
SDG&E	28	28	27
SoCalGas	43	38	39

At December 31, 2017, the rental commitments payable in future years under all noncancelable operating leases, including estimated payments, are as follows:

	FUTURE RENTAL PAYMENTS – OPERATING LEASES						
	<i>(Dollars in millions)</i>						
	2018	2019	2020	2021	2022	Thereafter	Total
Sempra Energy Consolidated:							
Future minimum lease payments	\$ 85	\$ 57	\$ 51	\$ 48	\$ 42	\$ 300	\$ 583
Future estimated rental payments	13	12	12	12	13	46	108
Total future rental commitments	\$ 98	\$ 69	\$ 63	\$ 60	\$ 55	\$ 346	\$ 691
SDG&E:							
Future minimum lease payments	\$ 22	\$ 21	\$ 20	\$ 19	\$ 18	\$ 54	\$ 154
Future estimated rental payments	2	2	2	2	2	3	13
Total future rental commitments	\$ 24	\$ 23	\$ 22	\$ 21	\$ 20	\$ 57	\$ 167
SoCalGas:							
Future minimum lease payments	\$ 29	\$ 25	\$ 20	\$ 19	\$ 13	\$ 36	\$ 142
Future estimated rental payments	11	10	10	10	11	43	95
Total future rental commitments	\$ 40	\$ 35	\$ 30	\$ 29	\$ 24	\$ 79	\$ 237

Capital Leases

Power Purchase Agreements

SDG&E has five PPAs with peaker plant facilities, one of which went into commercial operation in June 2017. All five are accounted for as capital leases, four with a 25-year term and one with a 9-year term. At December 31, 2017, the aggregate carrying value of these capital lease obligations is \$731 million.

In 2017, SDG&E satisfied all of the conditions precedent for a CPUC-approved 20-year PPA with a 500-MW power plant facility that is under construction. Beginning with the initial delivery of the contracted power, scheduled in June 2018, the PPA will be accounted for as a capital lease.

The entities that own the peaker plant facilities are VIEs of which SDG&E is not the primary beneficiary. SDG&E does not have any additional implicit or explicit financial responsibility related to these VIEs.

At December 31, 2017, the future minimum lease payments and present value of the net minimum lease payments under these capital leases for both Sempra Energy Consolidated and SDG&E are as follows:

FUTURE MINIMUM PAYMENTS – POWER PURCHASE AGREEMENTS	
<i>(Dollars in millions)</i>	
2018	\$ 192
2019	210
2020	210
2021	210
2022	210
Thereafter	<u>3,299</u>
Total minimum lease payments ⁽¹⁾	4,331
Less: estimated executory costs	(502)
Less: interest ⁽²⁾	<u>(2,548)</u>
Present value of net minimum lease payments ⁽³⁾	<u>\$ 1,281</u>

⁽¹⁾ This amount will be recorded over the lives of the leases as Cost of Electric Fuel and Purchased Power on Sempra Energy's and SDG&E's Consolidated Statements of Operations. This expense will receive ratemaking treatment consistent with purchased-power costs, which are recovered in rates.

⁽²⁾ Amount necessary to reduce net minimum lease payments to present value at the inception of the leases.

⁽³⁾ Includes \$13 million in Current Portion of Long-Term Debt and \$718 million in Long-Term Debt on Sempra Energy's and SDG&E's Consolidated Balance Sheets at December 31, 2017. The remaining present value of net minimum lease payments of \$550 million will be recorded as a capital lease obligation when construction of the power plant facility is completed and delivery of contracted power commences, which is scheduled to occur in June 2018.

The annual amortization charge for the PPAs was \$8 million in 2017 and \$4 million in each of 2016 and 2015.

Headquarters Build-to-Suit Lease

Sempra Energy has a 25-year, build-to-suit lease for its San Diego, California, headquarters completed in 2015. We began occupying the building in the second half of 2015, concurrent with the termination of the prior headquarters lease. As a result of our involvement during and after the construction period, we have recorded the related assets and financing liability for construction costs incurred under this build-to-suit leasing arrangement.

The building is being depreciated on a straight-line basis over its estimated useful life and the associated lease payments are allocated between interest expense and amortization of the financing obligation over the lease period. Further, a portion of the lease payments pertain to the lease of the underlying land and are recorded as rental expense. The balance of the financing obligation, representing the net present value of the future minimum lease payments on the building, is \$138 million at December 31, 2017.

At December 31, 2017, the future minimum lease payments on the lease are as follows:

FUTURE MINIMUM PAYMENTS – BUILD-TO-SUIT LEASE	
<i>(Dollars in millions)</i>	
2018	\$ 10
2019	10
2020	11
2021	11
2022	11
Thereafter	<u>234</u>
Total minimum lease payments	<u>\$ 287</u>

Other Capital Leases

At December 31, 2017, the future minimum lease payments under capital leases for fleet vehicles and other assets for Sempra Energy Consolidated are \$4 million in 2018, \$2 million in 2019, \$1 million in 2020, negligible in 2021 and 2022 and \$8 million thereafter. The net present value of the minimum lease payments is \$8 million at December 31, 2017.

The California Utilities entered into new capital leases in 2017 for additional fleet vehicles. At December 31, 2017, the related capital lease obligations were \$1 million each at SDG&E and SoCalGas, payable in 2018.

The annual depreciation charge for fleet vehicles and other assets in 2017, 2016 and 2015 was \$3 million, \$2 million and \$4 million, respectively, at Sempra Energy Consolidated, including \$1 million, \$1 million and \$2 million, respectively, at SDG&E and \$2 million, \$1 million and \$2 million, respectively, at SoCalGas.

Construction and Development Projects

Sempra Energy Consolidated has various capital projects in progress in the U.S., Mexico and South America. Sempra Energy's total commitments under these projects are approximately \$527 million, requiring future payments of \$257 million in 2018, \$62 million in 2019, \$44 million in 2020, \$24 million in 2021, \$16 million in 2022 and \$124 million thereafter. The following is a summary by segment of contractual commitments and contingencies related to such projects.

SDG&E

At December 31, 2017, SDG&E has commitments to make future payments of \$117 million for construction projects that include

- \$72 million for infrastructure improvements for natural gas and electric transmission and distribution operations;
- \$35 million for the engineering, material procurement and construction costs primarily associated with the Sycamore-Peñasquitos Transmission Project; and
- \$10 million related to spent fuel management at SONGS.

SDG&E expects future payments under these contractual commitments to be \$78 million in 2018, \$9 million in 2019, \$19 million in 2020, \$5 million in 2021, \$1 million in 2022 and \$5 million thereafter.

California Utilities

At December 31, 2017, SDG&E and SoCalGas have commitments to make future payments of \$10 million for contracts related to the procurement of gas rotary meters. SDG&E expects the future payments under these contractual commitments to approximate \$1 million each year in 2018 through 2020. SoCalGas expects the future payments under these contractual commitments to approximate \$3 million in 2018 and \$2 million each year in 2019 and 2020.

Sempra South American Utilities

At December 31, 2017, Sempra South American Utilities has commitments to make future payments of \$16 million for the construction of substations and related transmission lines. The future payments under these contractual commitments are all expected to be made in 2018.

Sempra Mexico

At December 31, 2017, Sempra Mexico has commitments to make future payments of \$289 million for contracts related to the construction of various natural gas pipelines and ongoing maintenance services. Sempra Mexico expects future payments under these contractual commitments to be \$73 million in 2018, \$46 million in 2019, \$19 million in 2020, \$17 million in 2021, \$15 million in 2022 and \$119 million thereafter.

Sempra Renewables

At December 31, 2017, Sempra Renewables has commitments to make future payments of \$89 million for contracts related to the construction of renewable energy projects. Sempra Renewables expects future payments under these contractual commitments to be \$80 million in 2018, \$4 million in 2019, \$3 million in 2020 and \$2 million in 2021.

Sempra LNG & Midstream

At December 31, 2017, Sempra LNG & Midstream has commitments to make future payments of \$6 million primarily for natural gas transportation projects. The future payments under these contractual commitments are all expected to be made in 2018.

OTHER COMMITMENTS

SDG&E

We discuss nuclear insurance and nuclear fuel disposal related to SONGS in Note 13.

In connection with the completion of the Sunrise Powerlink project in 2012, the CPUC required that SDG&E establish a fire mitigation fund to minimize the risk of fire as well as reduce the potential wildfire impact on residences and structures near the

Sunrise Powerlink. The future payments for these contractual commitments are expected to be \$3 million per year in 2018 through 2022 and \$104 million thereafter, subject to escalation of 2 percent per year, for a remaining 52-year period. At December 31, 2017, the present value of these future payments of \$119 million has been recorded as a regulatory asset as the amounts represent a cost that is expected to be recovered from customers in the future, and the related liability was \$119 million.

Sempra LNG & Midstream

Additional consideration for a 2006 comprehensive legal settlement with the State of California to resolve the Continental Forge litigation included an agreement that, for a period of 18 years beginning in 2011, Sempra LNG & Midstream would sell to the California Utilities, subject to annual CPUC approval, up to 500 million cubic feet per day of regasified LNG from Sempra Mexico’s ECA facility that is not delivered or sold in Mexico at the price indexed to the California border minus \$0.02 per MMBtu. There are no specified minimums required, and to date, Sempra LNG & Midstream has not been required to deliver any natural gas pursuant to this agreement.

ENVIRONMENTAL ISSUES

Our operations are subject to federal, state and local environmental laws. We also are subject to regulations related to hazardous wastes, air and water quality, land use, solid waste disposal and the protection of wildlife. These laws and regulations require that we investigate and correct the effects of the release or disposal of materials at sites associated with our past and our present operations. These sites include those at which we have been identified as a PRP under the federal Superfund laws and similar state laws.

In addition, we are required to obtain numerous governmental permits, licenses and other approvals to construct facilities and operate our businesses. The related costs of environmental monitoring, pollution control equipment, cleanup costs, and emissions fees are significant. Increasing national and international concerns regarding global warming and mercury, carbon dioxide, nitrogen oxide and sulfur dioxide emissions could result in requirements for additional pollution control equipment or significant emissions fees or taxes that could adversely affect Sempra LNG & Midstream and Sempra Mexico. The California Utilities’ costs to operate their facilities in compliance with these laws and regulations generally have been recovered in customer rates.

We discuss environmental matters related to the natural gas leak at SoCalGas’ Aliso Canyon natural gas storage facility above in “Legal Proceedings – SoCalGas – Aliso Canyon Natural Gas Storage Facility Gas Leak.”

Other Environmental Issues

We generally capitalize the significant costs we incur to mitigate or prevent future environmental contamination or extend the life, increase the capacity, or improve the safety or efficiency of property used in current operations. The following table shows our capital expenditures (including construction work in progress) in order to comply with environmental laws and regulations:

CAPITAL EXPENDITURES FOR ENVIRONMENTAL ISSUES

(Dollars in millions)

	Years ended December 31,		
	2017	2016	2015
Sempra Energy Consolidated ⁽¹⁾	\$ 92	\$ 53	\$ 64
SDG&E	46	17	24
SoCalGas	45	35	39

⁽¹⁾ *In cases of non-wholly owned affiliates, includes only our share.*

We have not identified any significant environmental issues outside the U.S.

At the California Utilities, costs that relate to current operations or an existing condition caused by past operations are generally recorded as a regulatory asset due to the probability that these costs will be recovered in rates.

The environmental issues currently facing us, except for those related to the Aliso Canyon natural gas storage facility leak as we discuss above or resolved during the last three years, include (1) investigation and remediation of the California Utilities’ manufactured-gas sites, (2) cleanup of third-party waste-disposal sites used by the California Utilities at sites for which we have been identified as a PRP and (3) mitigation of damage to the marine environment caused by the cooling-water discharge from SONGS.

The table below shows the status at December 31, 2017 of the California Utilities' manufactured-gas sites and the third-party waste-disposal sites for which we have been identified as a PRP:

STATUS OF ENVIRONMENTAL SITES		
	# Sites complete ⁽¹⁾	# Sites in process
SDG&E:		
Manufactured-gas sites	3	—
Third-party waste-disposal sites	2	1
SoCalGas:		
Manufactured-gas sites	39	3
Third-party waste-disposal sites	5	2

⁽¹⁾ There may be ongoing compliance obligations for completed sites, such as regular inspections, adherence to land use covenants and water quality monitoring.

We record environmental liabilities at undiscounted amounts when our liability is probable and the costs can be reasonably estimated. In many cases, however, investigations are not yet at a stage where we can determine whether we are liable or, if the liability is probable, to reasonably estimate the amount or range of amounts of the costs. Estimates of our liability are further subject to uncertainties such as the nature and extent of site contamination, evolving cleanup standards and imprecise engineering evaluations. We review our accruals periodically and, as investigations and cleanups proceed, we make adjustments as necessary.

The following table shows our accrued liabilities for environmental matters at December 31, 2017:

ACCRUED LIABILITIES FOR ENVIRONMENTAL MATTERS				
<i>(Dollars in millions)</i>				
	Manufactured-gas sites	Waste disposal sites (PRP) ⁽¹⁾	Other hazardous waste sites	Total ⁽²⁾
SDG&E ⁽³⁾	\$ —	\$ 2	\$ 2	\$ 4
SoCalGas ⁽⁴⁾	22	1	1	24
Other	—	1	—	1
Total Sempra Energy	\$ 22	\$ 4	\$ 3	\$ 29

⁽¹⁾ Sites for which we have been identified as a PRP.

⁽²⁾ Includes \$9 million, \$1 million and \$8 million classified as current liabilities, and \$20 million, \$3 million and \$16 million classified as noncurrent liabilities on Sempra Energy's, SDG&E's and SoCalGas' Consolidated Balance Sheets, respectively.

⁽³⁾ Does not include SDG&E's liability for SONGS marine environment mitigation.

⁽⁴⁾ Does not include SoCalGas' liability for environmental matters for the natural gas leak at the Aliso Canyon natural gas storage facility. We discuss matters related to the leak above in "Legal Proceedings – SoCalGas – Aliso Canyon Natural Gas Storage Facility Gas Leak."

We expect to pay the majority of these accruals over the next three years.

In connection with the issuance of operating permits, SDG&E and the other owners of SONGS previously reached an agreement with the CCC to mitigate the damage to the marine environment caused by the cooling-water discharge from SONGS during its operation. SONGS' early retirement, described in Note 13, does not reduce SDG&E's mitigation obligation. SDG&E's share of the estimated mitigation costs is \$68 million, of which \$44 million has been incurred through December 31, 2017 and \$24 million is accrued for remaining costs through 2050, which is recoverable in rates and included in noncurrent Regulatory Assets on Sempra Energy's and SDG&E's Consolidated Balance Sheets. The requirements for enhanced fish protection and restoration of coastal wetlands for the SONGS mitigation are in process. Work on the artificial reef that was dedicated in 2008 continues. The CCC has stated that it now requires an expansion of the reef because the existing reef may be too small to consistently meet the performance standards. In December 2016, SDG&E and Edison filed a joint application with the CPUC seeking rate recovery of the costs of the reef expansion. In October 2017, SDG&E, Edison, TURN and ORA filed a joint motion requesting approval of a settlement agreement that amends the rate recovery application and allows costs to be recorded to a memorandum account until rate recovery is approved in the second half of 2018. Rates, if approved, would be effective January 2019. SDG&E's share of the reef expansion costs currently forecasted through 2020 is \$4 million. We expect a decision on the settlement agreement in the first half of 2018.

CONCENTRATION OF CREDIT RISK

We maintain credit policies and systems designed to manage our overall credit risk. These policies include an evaluation of potential counterparties' financial condition and an assignment of credit limits. These credit limits are established based on risk and return considerations under terms customarily available in the industry. We grant credit to utility customers and counterparties, substantially all of whom are located in our service territory, which covers most of Southern California and a portion of central California for SoCalGas, and all of San Diego County and an adjacent portion of Orange County for SDG&E. We also grant credit to utility customers and counterparties of our other companies providing natural gas or electric services in Mexico, Chile and Peru.

As they become operational, projects owned or partially owned by Sempra LNG & Midstream, Sempra Renewables, Sempra South American Utilities and Sempra Mexico place significant reliance on the ability of their suppliers, customers and partners to perform under long-term agreements and on our ability to enforce contract terms in the event of nonperformance. We consider many factors, including the negotiation of supplier and customer agreements, when we evaluate and approve development projects.

NOTE 16. SEGMENT INFORMATION

We have six separately managed reportable segments, as follows:

- *SDG&E* provides electric service to San Diego and southern Orange counties and natural gas service to San Diego County.
- *SoCalGas* is a natural gas distribution utility, serving customers throughout most of Southern California and part of central California.
- *Sempra South American Utilities* develops, owns and operates, or holds interests in, electric transmission, distribution and generation infrastructure in Chile and Peru.
- *Sempra Mexico* develops, owns and operates, or holds interests in, natural gas, electric, LNG, LPG, ethane and liquid fuels infrastructure, and has marketing operations for the purchase of LNG and the purchase and sale of natural gas in Mexico. In February 2016, management approved a plan to market and sell the TdM natural gas-fired power plant located in Mexicali, Baja California, as we discuss in Note 3.
- *Sempra Renewables* develops, owns and operates, or holds interests in, wind and solar energy generation facilities serving wholesale electricity markets in the U.S.
- *Sempra LNG & Midstream* develops, owns and operates, or holds interests in, a terminal for the import and export of LNG and sale of natural gas, and natural gas pipelines, storage facilities and marketing operations, all within the U.S. In September 2016, Sempra LNG & Midstream sold EnergySouth, the parent company of Mobile Gas and Willmut Gas, and in May 2016, sold its 25-percent interest in Rockies Express. Sempra LNG & Midstream also owned and operated the Mesquite Power plant, a natural gas-fired electric generation asset, the remaining 625-MW block of which was sold in April 2015. We discuss these divestitures in Note 3.

We evaluate each segment's performance based on its contribution to Sempra Energy's reported earnings. The California Utilities operate in essentially separate service territories, under separate regulatory frameworks and rate structures set by the CPUC. The California Utilities' operations are based on rates set by the CPUC and the FERC. We describe the accounting policies of all of our segments in Note 1.

Common services shared by the business segments are assigned directly or allocated based on various cost factors, depending on the nature of the service provided. Interest income and expense is recorded on intercompany loans. The loan balances and related interest are eliminated in consolidation.

The following tables show selected information by segment from our Consolidated Statements of Operations and Consolidated Balance Sheets. We provide information about our equity method investments by segment in Note 4. Amounts labeled as "All other" in the following tables consist primarily of parent organizations.

SEGMENT INFORMATION*(Dollars in millions)*

	Years ended December 31,		
	2017	2016	2015
REVENUES			
SDG&E	\$ 4,476	\$ 4,253	\$ 4,219
SoCalGas	3,785	3,471	3,489
Sempra South American Utilities	1,567	1,556	1,544
Sempra Mexico	1,196	725	669
Sempra Renewables	94	34	36
Sempra LNG & Midstream	540	508	653
Adjustments and eliminations	(1)	—	(2)
Intersegment revenues ⁽¹⁾	(450)	(364)	(377)
Total	\$ 11,207	\$ 10,183	\$ 10,231
INTEREST EXPENSE			
SDG&E	\$ 203	\$ 195	\$ 204
SoCalGas	102	97	84
Sempra South American Utilities	38	38	32
Sempra Mexico	97	13	23
Sempra Renewables	15	4	3
Sempra LNG & Midstream	39	43	72
All other	284	282	263
Intercompany eliminations	(119)	(119)	(120)
Total	\$ 659	\$ 553	\$ 561
INTEREST INCOME			
SoCalGas	\$ 1	\$ 1	\$ 4
Sempra South American Utilities	28	21	19
Sempra Mexico	23	6	7
Sempra Renewables	7	5	4
Sempra LNG & Midstream	56	71	75
Intercompany eliminations	(69)	(78)	(80)
Total	\$ 46	\$ 26	\$ 29
DEPRECIATION AND AMORTIZATION			
SDG&E	\$ 670	\$ 646	\$ 604
SoCalGas	515	476	461
Sempra South American Utilities	54	49	50
Sempra Mexico	156	77	70
Sempra Renewables	38	6	6
Sempra LNG & Midstream	42	47	49
All other	15	11	10
Total	\$ 1,490	\$ 1,312	\$ 1,250
INCOME TAX EXPENSE (BENEFIT)			
SDG&E	\$ 155	\$ 280	\$ 284
SoCalGas	160	143	138
Sempra South American Utilities	80	80	67
Sempra Mexico	227	188	11
Sempra Renewables	(226)	(38)	(49)
Sempra LNG & Midstream	(119)	(80)	28
All other	999	(184)	(138)
Total	\$ 1,276	\$ 389	\$ 341

SEGMENT INFORMATION (CONTINUED)*(Dollars in millions)*

Years ended December 31 or at December 31,

	2017	2016	2015
EARNINGS (LOSSES)			
SDG&E	\$ 407	\$ 570	\$ 587
SoCalGas ⁽²⁾	396	349	419
Sempra South American Utilities	186	156	175
Sempra Mexico	169	463	213
Sempra Renewables	252	55	63
Sempra LNG & Midstream	150	(107)	44
All other	(1,304)	(116)	(152)
Total	\$ 256	\$ 1,370	\$ 1,349
ASSETS			
SDG&E	\$ 17,844	\$ 17,719	\$ 16,515
SoCalGas	14,159	13,424	12,104
Sempra South American Utilities	4,060	3,591	3,235
Sempra Mexico	8,554	7,542	3,783
Sempra Renewables	2,898	3,644	1,441
Sempra LNG & Midstream	4,872	5,564	5,566
All other	915	475	734
Intersegment receivables	(2,848)	(4,173)	(2,228)
Total	\$ 50,454	\$ 47,786	\$ 41,150
EXPENDITURES FOR PROPERTY, PLANT & EQUIPMENT			
SDG&E	\$ 1,555	\$ 1,399	\$ 1,133
SoCalGas	1,367	1,319	1,352
Sempra South American Utilities	244	194	154
Sempra Mexico	248	330	302
Sempra Renewables	497	835	81
Sempra LNG & Midstream	20	117	87
All other	18	20	47
Total	\$ 3,949	\$ 4,214	\$ 3,156
GEOGRAPHIC INFORMATION			
Long-lived assets ⁽³⁾ :			
United States	\$ 31,487	\$ 28,351	\$ 26,132
Mexico	5,363	4,814	3,160
South America	2,180	1,863	1,652
Total	\$ 39,030	\$ 35,028	\$ 30,944
Revenues ⁽⁴⁾ :			
United States	\$ 8,547	\$ 8,004	\$ 8,119
South America	1,567	1,556	1,544
Mexico	1,093	623	568
Total	\$ 11,207	\$ 10,183	\$ 10,231

⁽¹⁾ Revenues for reportable segments include intersegment revenues of \$7 million, \$74 million, \$103 million and \$266 million for 2017, \$6 million, \$76 million, \$102 million and \$180 million for 2016, and \$9 million, \$75 million, \$101 million and \$192 million for 2015 for SDG&E, SoCalGas, Sempra Mexico and Sempra LNG & Midstream, respectively.

⁽²⁾ After preferred dividends.

⁽³⁾ Includes net PP&E and investments.

⁽⁴⁾ Amounts are based on where the revenue originated, after intercompany eliminations.

NOTE 17. QUARTERLY FINANCIAL DATA (UNAUDITED)

We provide quarterly financial information for Sempra Energy Consolidated, SDG&E and SoCalGas below:

SEMPRA ENERGY

(In millions, except per share amounts)

	Quarters ended			
	March 31	June 30	September 30	December 31
2017:				
Revenues	\$ 3,031	\$ 2,533	\$ 2,679	\$ 2,964
Expenses and other income	\$ 2,276	\$ 2,118	\$ 2,664	\$ 2,564
Net income (loss)	\$ 452	\$ 248	\$ 102	\$ (451)
Earnings (losses) attributable to Sempra Energy	\$ 441	\$ 259	\$ 57	\$ (501)
Basic per-share amounts ⁽¹⁾ :				
Net income (loss)	\$ 1.80	\$ 0.99	\$ 0.41	\$ (1.80)
Earnings (losses) attributable to Sempra Energy	\$ 1.76	\$ 1.03	\$ 0.23	\$ (1.99)
Weighted-average common shares outstanding	251.1	251.4	251.7	251.9
Diluted per-share amounts ⁽¹⁾⁽²⁾ :				
Net income (loss)	\$ 1.79	\$ 0.98	\$ 0.41	\$ (1.80)
Earnings (losses) attributable to Sempra Energy	\$ 1.75	\$ 1.03	\$ 0.22	\$ (1.99)
Weighted-average common shares outstanding	252.2	252.8	253.4	251.9
2016:				
Revenues	\$ 2,622	\$ 2,156	\$ 2,535	\$ 2,870
Expenses and other income	\$ 2,167	\$ 2,268	\$ 1,553	\$ 2,365
Net income	\$ 364	\$ 27	\$ 719	\$ 409
Earnings attributable to Sempra Energy	\$ 353	\$ 16	\$ 622	\$ 379
Basic per-share amounts ⁽¹⁾ :				
Net income	\$ 1.46	\$ 0.11	\$ 2.87	\$ 1.63
Earnings attributable to Sempra Energy	\$ 1.41	\$ 0.06	\$ 2.48	\$ 1.51
Weighted-average common shares outstanding	249.7	250.1	250.4	250.6
Diluted per-share amounts ⁽¹⁾ :				
Net income	\$ 1.45	\$ 0.11	\$ 2.85	\$ 1.62
Earnings attributable to Sempra Energy	\$ 1.40	\$ 0.06	\$ 2.46	\$ 1.51
Weighted-average common shares outstanding	251.5	252.0	252.4	251.6

⁽¹⁾ Earnings per share are computed independently for each of the quarters and therefore may not sum to the total for the year.

⁽²⁾ In the quarter ended December 31, 2017, the total weighted-average number of potentially dilutive securities was 0.8 million. However, these securities were not included in the computation of U.S. GAAP losses per common share since to do so would have decreased the loss per share.

In 2017, Sempra Energy's income tax expense included \$870 million related to the impact of the TCJA, as we discuss in Note 6.

In September 2017, SDG&E recognized a charge of \$351 million (\$208 million after-tax) for the write-off of its wildfire regulatory asset, which we discuss in Note 15.

In June 2017 and September 2016, Sempra Mexico recognized impairment charges of \$71 million (\$47 million after noncontrolling interests) and \$131 million (\$111 million after-tax; \$90 million after-tax and after noncontrolling interests), respectively, related to assets held for sale at TdM. We discuss the impairments in Notes 3 and 10.

In September 2016, Sempra Mexico recorded a \$617 million noncash gain (\$432 million after-tax; \$350 million after-tax and after noncontrolling interests) associated with the remeasurement of its equity interest in IEnova Pipelines, which we discuss in Note 3.

In May 2016, Sempra LNG & Midstream recorded a pretax charge of \$206 million (\$123 million after-tax) related to permanently released pipeline capacity with Rockies Express and others, which we discuss in Note 15. In May 2017, Sempra LNG & Midstream recorded \$47 million (\$28 million after-tax) for settlement proceeds received from a breach of contract claim against a counterparty related to the charge.

In March 2016, Sempra LNG & Midstream recognized an impairment charge of \$44 million (\$27 million after-tax) on its investment in Rockies Express, which we discuss in Notes 3 and 10.

SDG&E				
<i>(Dollars in millions)</i>				
	Quarters ended			
	March 31	June 30	September 30	December 31
2017:				
Operating revenues	\$ 1,057	\$ 1,058	\$ 1,236	\$ 1,125
Operating expenses	779	817	1,290	877
Operating income (loss)	<u>\$ 278</u>	<u>\$ 241</u>	<u>\$ (54)</u>	<u>\$ 248</u>
Net income (loss)	\$ 157	\$ 153	\$ (19)	\$ 130
(Earnings) losses attributable to noncontrolling interest	(2)	(4)	(9)	1
Earnings (losses) attributable to common shares	<u>\$ 155</u>	<u>\$ 149</u>	<u>\$ (28)</u>	<u>\$ 131</u>
2016:				
Operating revenues	\$ 991	\$ 992	\$ 1,209	\$ 1,061
Operating expenses	755	822	886	800
Operating income	<u>\$ 236</u>	<u>\$ 170</u>	<u>\$ 323</u>	<u>\$ 261</u>
Net income	\$ 137	\$ 87	\$ 194	\$ 147
(Earnings) losses attributable to noncontrolling interest	(1)	13	(11)	4
Earnings attributable to common shares	<u>\$ 136</u>	<u>\$ 100</u>	<u>\$ 183</u>	<u>\$ 151</u>

SOCALGAS				
<i>(Dollars in millions)</i>				
	Quarters ended			
	March 31	June 30	September 30	December 31
2017:				
Operating revenues	\$ 1,241	\$ 770	\$ 684	\$ 1,090
Operating expenses	926	675	674	888
Operating income	<u>\$ 315</u>	<u>\$ 95</u>	<u>\$ 10</u>	<u>\$ 202</u>
Net income	\$ 203	\$ 59	\$ 7	\$ 128
Dividends on preferred stock	—	(1)	—	—
Earnings attributable to common shares	<u>\$ 203</u>	<u>\$ 58</u>	<u>\$ 7</u>	<u>\$ 128</u>
2016:				
Operating revenues	\$ 1,033	\$ 617	\$ 686	\$ 1,135
Operating expenses	739	628	648	899
Operating income (loss)	<u>\$ 294</u>	<u>\$ (11)</u>	<u>\$ 38</u>	<u>\$ 236</u>
Net income	\$ 199	\$ —	\$ —	\$ 151
Dividends on preferred stock	—	(1)	—	—
Earnings (losses) attributable to common shares	<u>\$ 199</u>	<u>\$ (1)</u>	<u>\$ —</u>	<u>\$ 151</u>

SoCalGas recognizes annual authorized revenue for core natural gas customers using seasonal factors established in the Triennial Cost Allocation Proceeding. Accordingly, a significant portion of SoCalGas' annual earnings are recognized in the first and fourth quarters each year.

NOTE 18. SUBSEQUENT EVENTS

SEMPRA ENERGY

As part of our plans to finance the proposed Merger that we discuss in Note 3, we completed the following transactions in January 2018.

Common Stock Offering

On January 9, 2018, we completed the offering of 23,364,486 shares of our common stock, no par value, in a registered public offering at \$107.00 per share (\$105.074 per share after deducting the underwriting discount), pursuant to forward sale agreements with each of Morgan Stanley & Co. LLC, an affiliate of RBC Capital Markets, LLC and an affiliate of Barclays Capital Inc. (the forward purchasers). The shares offered pursuant to the forward sale agreements were borrowed by the underwriters and therefore are not newly issued shares. The underwriters of the offering fully exercised the option we granted them to purchase an additional 3,504,672 shares of common stock directly from us solely to cover overallocments. After the offering, including the issuance of shares pursuant to the exercise of the overallocment option, the aggregate shares of common stock sold in the offering totaled 26,869,158. We received net proceeds of \$368 million (net of underwriting discounts, but before deducting other related expenses) from the sale of shares to cover overallocments.

The initial forward sale price under the forward sale agreements is \$105.074 per share, which is the public offering price in the common stock offering less the underwriting discount. However, the forward sale price is subject to adjustment pursuant to the forward sale agreements. We did not initially receive any proceeds from the sale of our common stock sold by the forward sellers to the underwriters. We expect to settle a portion of the forward sale agreements and receive proceeds, subject to certain adjustments, from the sale of those shares of common stock concurrently with, or prior to, the closing of our proposed Merger. We expect to settle the remaining portion of the forward sale agreements after the Merger, if completed, in multiple settlements on or prior to December 15, 2019, which is the final settlement date under the forward sale agreements. At the initial forward sale price of \$105.074 per share, we expect that the net proceeds from full physical settlement of the forward sale agreements would be approximately \$2.46 billion (after deducting the underwriting discount, but before deducting expenses, and subject to forward price adjustments under the forward sale agreements).

In the case of any forward sales that settle after the closing of the Merger, we intend to use the net proceeds to repay indebtedness incurred to finance a portion of the cost of the Merger Consideration and associated transaction costs. If for any reason the Merger has not closed on or prior to December 1, 2018, or the Merger Agreement is terminated at any time prior to such date, then we expect to use the net proceeds from this offering for general corporate purposes, which may include, in our sole discretion, voluntary redemption of the mandatory convertible preferred stock discussed below, debt repayment (including repayment of commercial paper), capital expenditures, investments and possibly repurchases of our common stock at the discretion of our board of directors.

Although we expect to settle the forward sale agreements entirely by the physical delivery of shares of our common stock in exchange for cash proceeds, we may elect cash settlement or net share settlement for all or a portion of our obligations under the forward sale agreements. The forward sale agreements are also subject to acceleration by the forward purchasers upon the occurrence of certain events.

Before the issuance of shares of our common stock, if any, upon settlement of the forward sale agreements, we expect that the shares issuable upon settlement of the forward sale agreements will be reflected in our diluted EPS calculation using the treasury stock method. Under this method, the number of shares of our common stock used in calculating diluted EPS is deemed to be increased by the excess, if any, of the number of shares of common stock that would be issued upon full physical settlement of the forward sale agreements over the number of shares of common stock that could be purchased by us in the market (based on the average market price of our common stock during the applicable reporting period) using the proceeds receivable upon full physical settlement (based on the adjusted forward sale price at the end of the reporting period). Consequently, we anticipate there will be no dilutive effect on our EPS except during periods when the average market price of shares of our common stock is above the applicable adjusted forward sale price, which is initially \$105.074 per share, subject to increase or decrease based on the overnight bank funding rate, less a spread, and subject to decrease by amounts related to expected dividends on shares of our common stock during the term of the forward sale agreements. However, if we decide to physically settle or net share settle the forward sale agreements, delivery of our shares to the forward purchasers on any such physical settlement or net share settlement of the forward sale agreements would result in dilution to our EPS.

Mandatory Convertible Preferred Stock Offering

On January 9, 2018, in a separate registered public offering, we sold 17,250,000 shares of our 6% mandatory convertible preferred stock, series A (mandatory convertible preferred stock) at \$100.00 per share (or \$98.20 per share after deducting the underwriting discount), including 2,250,000 shares purchased by the underwriters as a result of fully exercising their option to purchase such shares from us solely to cover overallocments. Each share of mandatory convertible preferred stock has a liquidation value of \$100.

We intend to use the net proceeds of approximately \$1.69 billion (net of underwriting discounts, but before related expenses) from this offering to finance a portion of the Merger Consideration and associated transaction costs. If the proposed Merger is not consummated on or prior to December 1, 2018, or the Merger Agreement is terminated at any time prior to such date, then we expect to use the net proceeds for general corporate purposes, which may include, in our sole discretion, the redemption of the mandatory convertible preferred stock, debt repayment (including repayment of commercial paper), capital expenditures, investments and possibly repurchases of our common stock at the discretion of our board of directors.

Mandatory Conversion

Unless earlier converted or redeemed, each share of the mandatory convertible preferred stock will automatically convert on the mandatory conversion date, which is expected to be January 15, 2021, into not less than 0.7629 and not more than 0.9345 shares of our common stock, subject to anti-dilution adjustments. The number of shares of our common stock issuable on conversion of the mandatory convertible preferred stock will be determined based on the volume-weighted average market value per share of our common stock over the 20 consecutive trading day period beginning on and including the 21st scheduled trading day immediately preceding January 15, 2021, which we refer to as the “settlement period.” The following table illustrates the conversion rate per share of the mandatory convertible preferred stock, subject to certain anti-dilution adjustments:

CONVERSION RATES	
Applicable market value per share of our common stock	Conversion rate (number of shares of our common stock to be received upon conversion of each share of mandatory convertible preferred stock)
Greater than \$131.075 (which is the threshold appreciation price)	0.7629 shares (approximately equal to \$100.00 divided by the threshold appreciation price)
Equal to or less than \$131.075 but greater than or equal to \$107.00	Between 0.7629 and 0.9345 shares, determined by dividing \$100.00 by the applicable market value of our common stock
Less than \$107.00 (which is the initial price)	0.9345 shares (approximately equal to \$100.00 divided by the initial price)

Dividends

Dividends on the mandatory convertible preferred stock will be payable quarterly, beginning on April 15, 2018, on a cumulative basis when, as and if declared by our board of directors. We may pay quarterly declared dividends in cash, or subject to certain limitations, in shares of our common stock, no par value, or in any combination of cash and shares of our common stock. Shares of common stock used to pay dividends will be valued at 97 percent of the volume-weighted average price per share over the five consecutive trading day period beginning on, and including the sixth trading day prior to, the applicable dividend payment date. The holders of mandatory convertible preferred stock will have no voting rights. However, under certain circumstances regarding nonpayment for six or more dividend periods, whether or not consecutive, the authorized number of directors on our board of directors will automatically be increased by two and the holders of the mandatory convertible preferred stock, voting together as a single class with holders of any and all other outstanding preferred stock of equal rank having similar voting rights, will be entitled to elect two directors to fill such newly created directorships. This right shall terminate when all accumulated dividends have been paid in full and the authorized number of directors shall automatically decrease by two, subject to re-vesting of that right in the event of each subsequent nonpayment.

Acquisition Termination Redemption

If the proposed Merger has not closed on or before December 1, 2018, the Merger Agreement is terminated or if we determine in our reasonable judgment that the proposed Merger will not occur, we may, at our option, redeem the mandatory convertible preferred stock, in whole but not in part, at a redemption amount per share, in cash, equal to an acquisition termination make-whole amount. However, if the acquisition termination share price exceeds the initial price, then, subject to certain limitations, we may pay part or all of the redemption price in shares of our common stock.

The redemption of the mandatory convertible preferred stock gives us the option to redeem, in whole but not in part, the mandatory convertible preferred stock at a make-whole redemption price per share that includes a make-whole adjustment which could provide a redemption price that exceeds the initial public offering price of \$100.00 per share, plus accrued and unpaid dividends. We may satisfy the redemption price by delivering cash, common stock or a combination thereof.

Conversion at the Option of the Holder

At any time prior to January 15, 2021, holders may elect to convert each share of the mandatory convertible preferred stock into shares of our common stock at the minimum conversion rate of 0.7629 shares of our common stock per share of the mandatory convertible preferred stock, subject to anti-dilution adjustments. However, if holders elect to convert any shares of the mandatory convertible preferred stock during a specified period beginning on the effective date of a fundamental change, as defined, such shares of the mandatory convertible preferred stock will be converted into shares of our common stock at a fundamental change conversion rate, and the holders will also be entitled to receive a fundamental change dividend make-whole amount and accumulated dividend amount.

Ranking

The mandatory convertible preferred stock will rank with respect to dividend rights and distribution rights upon our liquidation, winding-up or dissolution:

- senior to our common stock, including our capital stock established in the future, unless the terms of such capital stock expressly provide otherwise;
- junior to our existing and future indebtedness and other liabilities; and
- structurally subordinated to any existing and future indebtedness and other liabilities of our subsidiaries and capital stock of our subsidiaries held by third parties.

The conversion of the mandatory convertible preferred stock would have resulted in the issuance of approximately 16.1 million shares of our common stock, subject to possible adjustment pursuant to the terms of the mandatory convertible preferred stock, based on the last reported sale price of our common stock on the New York Stock Exchange on December 29, 2017, which was \$106.92 per share. However, if the mandatory convertible preferred stock had been issued January 1, 2017 and dividends paid for the full year 2017, an adjustment for the shares issuable on conversion would not have been reflected in our computation of diluted EPS for 2017 because the issuance of those shares would be anti-dilutive.

Long-Term Debt Offering

On January 12, 2018, we issued the following debt securities and received net proceeds of \$4.9 billion (after deducting the underwriting discount, but before deducting expenses):

NOTES ISSUED IN LONG-TERM DEBT OFFERING

(Dollars in millions)

Title of each class of securities	Aggregate principal amount	Maturity	Interest payments
Floating Rate ⁽¹⁾ Notes due 2019	\$ 500	July 15, 2019	Quarterly
Floating Rate ⁽²⁾ Notes due 2021	700	January 15, 2021	Quarterly
2.400% Senior Notes due 2020	500	February 1, 2020	Semi-annually
2.900% Senior Notes due 2023	500	February 1, 2023	Semi-annually
3.400% Senior Notes due 2028	1,000	February 1, 2028	Semi-annually
3.800% Senior Notes due 2038	1,000	February 1, 2038	Semi-annually
4.000% Senior Notes due 2048	800	February 1, 2048	Semi-annually

⁽¹⁾ Bears interest at a rate per annum equal to the 3-month LIBOR rate, plus 25 basis points.

⁽²⁾ Bears interest at a rate per annum equal to the 3-month LIBOR rate, plus 50 basis points.

The 2019 floating rate notes are not subject to redemption at our option. At our option, we may redeem some or all of the 2021 floating rate notes at any time on or after January 14, 2019 at the applicable redemption price per the terms of the notes. At our option, we may redeem some or all of the fixed rate notes of each series at any time at the applicable redemption price for such series of fixed rate notes.

We intend to use the net proceeds from this offering to finance a portion of the Merger Consideration and associated transaction costs. If we do not consummate the Merger on or prior to December 1, 2018, or if, on or prior to such date, the Merger agreement is terminated, we will be required to redeem all of the outstanding notes (other than the 2028 notes) at a redemption price equal to 101 percent of the principal amount of the notes we are required to redeem, plus accrued and unpaid interest, if any. The 2028 notes are not subject to this special mandatory redemption. If we are required to redeem the notes, we may use all or a portion of the net proceeds we received from the issuance of these notes to pay all or a portion of the redemption price of the notes we are required to redeem, and we intend to use any remaining net proceeds for general corporate purposes, which may include, in our sole discretion, voluntary redemption of our mandatory convertible preferred stock, repayment of other debt (including repayment of commercial paper), capital expenditures, investments and possibly, repurchases of our common stock at the discretion of our board of directors.

Ranking

The notes are unsecured and unsubordinated obligations, ranking on a parity in right of payment with all of our other unsecured and unsubordinated indebtedness and guarantees. If the proposed Merger is consummated, the notes will also be effectively subordinated to all existing and future indebtedness and other liabilities of Oncor Holdings, Oncor and their respective subsidiaries.

SCHEDULE I – SEMPRA ENERGY

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SEMPRA ENERGY
CONDENSED STATEMENTS OF OPERATIONS

(Dollars in millions, except per share amounts)

	Years ended December 31,		
	2017	2016	2015
Interest expense	\$ (293)	\$ (277)	\$ (261)
Operation and maintenance	(87)	(81)	(66)
Other income (expense), net	107	(2)	7
Income tax benefit	33	181	150
Loss before equity in earnings of subsidiaries	(240)	(179)	(170)
Equity in earnings of subsidiaries, net of income taxes	496	1,549	1,519
Net income/earnings	\$ 256	\$ 1,370	\$ 1,349
Basic earnings per common share	\$ 1.02	\$ 5.48	\$ 5.43
Weighted-average number of shares outstanding (thousands)	251,545	250,217	248,249
Diluted earnings per common share	\$ 1.01	\$ 5.46	\$ 5.37
Weighted-average number of shares outstanding (thousands)	252,300	251,155	250,923

See Notes to Condensed Financial Information of Parent.

SEMPRA ENERGY
CONDENSED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(Dollars in millions)

	Years ended December 31,		
	Pretax amount	Income tax benefit (expense)	Net-of-tax amount
2017:			
Net income	\$ 223	\$ 33	\$ 256
Other comprehensive income (loss):			
Foreign currency translation adjustments	107	—	107
Financial instruments	2	1	3
Pension and other postretirement benefits	20	(8)	12
Total other comprehensive income	129	(7)	122
Comprehensive income	\$ 352	\$ 26	\$ 378
2016:			
Net income	\$ 1,189	\$ 181	\$ 1,370
Other comprehensive income (loss):			
Foreign currency translation adjustments	42	—	42
Financial instruments	(6)	11	5
Pension and other postretirement benefits	(13)	4	(9)
Total other comprehensive income	23	15	38
Comprehensive income	\$ 1,212	\$ 196	\$ 1,408
2015:			
Net income	\$ 1,199	\$ 150	\$ 1,349
Other comprehensive income (loss):			
Foreign currency translation adjustments	(260)	—	(260)
Financial instruments	(80)	33	(47)
Pension and other postretirement benefits	(3)	1	(2)
Total other comprehensive loss	(343)	34	(309)
Comprehensive income	\$ 856	\$ 184	\$ 1,040

See Notes to Condensed Financial Information of Parent.

SEMPRA ENERGY
CONDENSED BALANCE SHEETS

(Dollars in millions)

	December 31, 2017	December 31, 2016
Assets:		
Cash and cash equivalents	\$ 104	\$ 12
Due from affiliates	83	73
Income taxes receivable	272	—
Other current assets	6	2
Total current assets	<u>465</u>	<u>87</u>
Investments in subsidiaries	17,924	17,329
Due from affiliates	2	—
Deferred income taxes	1,802	2,570
Other assets	656	592
Total assets	<u>\$ 20,849</u>	<u>\$ 20,578</u>
Liabilities and shareholders' equity:		
Current portion of long-term debt	\$ 500	\$ 600
Due to affiliates	280	359
Income taxes payable	—	153
Other current liabilities	396	374
Total current liabilities	<u>1,176</u>	<u>1,486</u>
Long-term debt	6,198	5,100
Due to affiliates	300	517
Other long-term liabilities	505	524
Commitments and contingencies (Note 4)		
Shareholders' equity	12,670	12,951
Total liabilities and shareholders' equity	<u>\$ 20,849</u>	<u>\$ 20,578</u>

See Notes to Condensed Financial Information of Parent.

SEMPRA ENERGY
CONDENSED STATEMENTS OF CASH FLOWS

(Dollars in millions)

	Years ended December 31,		
	2017	2016 ⁽¹⁾	2015 ⁽¹⁾
Net cash provided by (used in) operating activities	\$ 89	\$ (3)	\$ 95
Expenditures for property, plant and equipment	(11)	(5)	(43)
Purchase of trust assets	—	—	(5)
Decrease (increase) in loans to affiliates, net	—	457	(457)
Expenditures for Merger-related transaction costs	(12)	—	—
Net cash (used in) provided by investing activities	(23)	452	(505)
Common stock dividends paid	(755)	(686)	(628)
Issuances of common stock	47	51	52
Repurchases of common stock	(15)	(56)	(74)
Issuances of long-term debt	1,595	499	1,248
Payments on long-term debt	(600)	(750)	—
(Decrease) increase in loans from affiliates, net	(239)	504	(230)
Tax benefit related to share-based compensation	—	—	52
Other	(7)	(3)	(9)
Net cash provided by (used in) financing activities	26	(441)	411
Increase in cash and cash equivalents	92	8	1
Cash and cash equivalents, January 1	12	4	3
Cash and cash equivalents, December 31	\$ 104	\$ 12	\$ 4

SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES

Accrued Merger-related transaction costs	\$ 31	\$ —	\$ —
Financing of build-to-suit property	—	—	61
Common dividends issued in stock	53	53	55
Dividends declared but not paid	207	189	174

⁽¹⁾ As adjusted for the retrospective adoption of ASU 2016-15, which we discuss in Note 2.

See Notes to Condensed Financial Information of Parent.

NOTE 1. BASIS OF PRESENTATION

Sempra Energy accounts for the earnings of its subsidiaries under the equity method in this unconsolidated financial information.

Other Income, Net, on the Condensed Statements of Operations includes

- \$56 million, \$23 million and \$3 million of gains on dedicated assets in support of our executive retirement and deferred compensation plans in 2017, 2016 and 2015, respectively; and
- \$50 million and \$(28) million net gains (losses) primarily from the settlement of foreign currency derivatives to hedge Sempra Mexico parent's exposure to movements in the Mexican peso from its controlling interest in IEnova in 2017 and 2016, respectively.

Additional information on Sempra Energy's foreign currency derivatives is provided in Note 9 of the Notes to Consolidated Financial Statements.

NOTE 2. NEW ACCOUNTING STANDARDS

We describe below recent pronouncements that have had or may have a significant effect on Sempra Energy Parent's financial condition, results of operations, cash flows or disclosures.

ASU 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities": In addition to the presentation and disclosure requirements for financial instruments, ASU 2016-01 requires entities to measure equity investments, other than those accounted for under the equity method, at fair value and recognize changes in fair value in net income. Entities will no longer be able to use the cost method of accounting for equity securities. However, for equity investments without readily determinable fair values that do not qualify for the practical expedient to estimate fair value using net asset value per share, entities may elect a measurement alternative that will allow those investments to be recorded at cost, less impairment, and adjusted for subsequent observable price changes. Entities must record a cumulative-effect adjustment to the balance sheet as of the beginning of the first reporting period in which the standard is adopted, except for equity investments without readily determinable fair values, for which the guidance will be applied prospectively. There is an outstanding FASB exposure draft which clarifies that the prospective transition approach for equity investments without readily determinable fair values is meant only for instances in which the measurement alternative is elected.

For public entities, ASU 2016-01 is effective for fiscal years beginning after December 15, 2017. We adopted ASU 2016-01 on January 1, 2018 and it will not materially affect our financial condition, results of operations or cash flows.

ASU 2016-02, "Leases" and ASU 2018-01, "Land Easement Practical Expedient for Transition to Topic 842": ASU 2016-02 requires entities to include substantially all leases on the balance sheet by requiring the recognition of right-of-use assets and lease liabilities for all leases. Entities may elect to exclude from the balance sheet those leases with a maximum possible term of less than 12 months. For lessees, a lease is classified as finance or operating, and the asset and liability are initially measured at the present value of the lease payments. For lessors, accounting for leases is largely unchanged from previous provisions of U.S. GAAP, other than certain changes to align lessor accounting to specific changes made to lessee accounting. ASU 2016-02 also requires new qualitative and quantitative disclosures for both lessees and lessors. ASU 2018-01 allows entities to elect a transition practical expedient that would exclude application of ASU 2016-02 to land easements that existed prior to its adoption, if they were not accounted for as leases under previous U.S. GAAP.

For public entities, these ASUs are effective for fiscal years beginning after December 15, 2018, with early adoption permitted, and are effective for interim periods in the year of adoption. ASU 2016-02 requires lessees and lessors to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The modified retrospective approach includes practical expedients that may be elected, which would allow entities to continue to account for leases that commence before the effective date of the standard in accordance with previous U.S. GAAP unless the lease is modified, except for the lessee requirement to begin recognizing right-of-use assets and lease liabilities for all operating leases on the balance sheet at the reporting date. We are currently evaluating the effect of the standards on our ongoing financial reporting and plan to adopt the standards on January 1, 2019. As part of our evaluation, we formed a steering committee comprised of members from relevant Sempra Energy business units, are compiling our population of contracts and are preparing our lease accounting assessments.

Based on our assessment to date, we have determined that we will elect the practical expedients available under the transition guidance described above. We continue to monitor outstanding issues currently being addressed by the FASB, including guidance under a FASB exposure draft that would allow entities an optional transition method to apply ASU 2016-02 in the period of adoption rather than in the earliest period presented. Conclusions that the FASB reaches on outstanding issues may impact our application of these ASUs.

ASU 2016-13, “Measurement of Credit Losses on Financial Instruments”: ASU 2016-13 changes how entities will measure credit losses for most financial assets and certain other instruments. The standard introduces an “expected credit loss” impairment model that requires immediate recognition of estimated credit losses expected to occur over the remaining life of most financial assets measured at amortized cost, including trade and other receivables, loan commitments and financial guarantees. ASU 2016-13 also requires use of an allowance to record estimated credit losses on available-for-sale debt securities and expands disclosure requirements regarding an entity’s assumptions, models and methods for estimating the credit losses.

For public entities, ASU 2016-13 is effective for fiscal years beginning after December 15, 2019, with early adoption permitted for fiscal years beginning after December 15, 2018. We are currently evaluating the effect of the standard on our ongoing financial reporting and have not yet selected the year in which we will adopt the standard.

ASU 2016-15, “Classification of Certain Cash Receipts and Cash Payments”: ASU 2016-15 provides guidance on how certain cash receipts and cash payments are to be presented and classified in the statement of cash flows to reduce diversity in practice. Of the eight issues addressed in ASU 2016-15, we were impacted by the following issues:

- Issue 1 – debt prepayment or debt extinguishment costs (a negligible amount in each year presented below)
- Issue 6 – distributions received from equity method investments

The standard must be adopted retrospectively. We early adopted ASU 2016-15 in the fourth quarter of 2017. Upon adoption of ASU 2016-15, our Condensed Statements of Cash Flows for the years ended December 31, 2016 and 2015 were impacted as follows:

IMPACT FROM ADOPTION OF ASU 2016-15

(Dollars in millions)

	Years ended December 31,					
	2016			2015		
	As previously reported	Effect of adoption	As adjusted	As previously reported	Effect of adoption	As adjusted
Sempra Energy Condensed Statements of Cash Flows:						
Cash flows from operating activities:						
Net cash (used in) provided by operating activities	\$ (178)	\$ 175	\$ (3)	\$ (255)	\$ 350	\$ 95
Cash flows from investing activities:						
Dividends received from subsidiaries ⁽¹⁾	175	(175)	—	350	(350)	—
Net cash provided by (used in) investing activities	627	(175)	452	(155)	(350)	(505)

⁽¹⁾ Prior to adoption of ASU 2016-15, because of its nature as a holding company, Sempra Energy Parent classified dividends received from subsidiaries as an investing cash flow.

ASU 2017-07, “Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost”: ASU 2017-07 requires the service cost component of net periodic benefit costs to be presented in the same income statement line item as other employee compensation costs arising from services rendered during the period and the other components of net periodic benefit costs to be presented separately outside of operating income. The guidance also allows only the service cost component to be eligible for capitalization. For public entities, ASU 2017-07 is effective for annual reporting periods beginning after December 15, 2017, with early adoption permitted as of the beginning of an annual period for which financial statements have not been issued or made available for issuance. Amendments are to be applied retrospectively for presentation of costs and prospectively for capitalization of service costs. The guidance allows a practical expedient that permits use of previously disclosed service costs and other costs from the pension and other postretirement benefit plan note in the comparative periods as appropriate estimates when retrospectively changing the presentation of these costs in the statements of operations. We adopted the standard on January 1, 2018 and elected the practical expedient available under the transition guidance.

In 2018, we expect the adoption of ASU 2017-07 to have the following impact on our Condensed Statements of Operations for the years ended December 31, 2017 and 2016:

EXPECTED IMPACT FROM ADOPTION OF ASU 2017-07

(Dollars in millions)

	Years ended December 31,			
	2017		2016	
	As reported	Recast	As reported	Recast
Sempra Energy Condensed Statements of Operations:				
Operation and maintenance	\$ (87)	\$ (80)	\$ (81)	\$ (76)
Other income (expense), net	107	100	(2)	(7)

ASU 2018-02, “Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income”: ASU 2018-02 contains amendments that allow a reclassification from AOCI to retained earnings for stranded tax effects resulting from the TCJA. Under ASU 2018-02, an entity will be required to provide certain disclosures regarding stranded tax effects, including its accounting policy related to releasing the income tax effects from AOCI. The amendments in this update can be applied either as of the beginning of the period of adoption or retrospectively as of the date of enactment of the TCJA and to each period in which the effect of the TCJA is recognized. For public entities, ASU 2018-02 is effective for annual reporting periods beginning after December 15, 2018, including interim periods therein, with early adoption permitted. We are currently evaluating the effect of the standard on our financial reporting and have not yet selected the adoption method or the year in which we will adopt the standard.

NOTE 3. LONG-TERM DEBT

The following table shows the detail and maturities of long-term debt outstanding:

LONG-TERM DEBT

(Dollars in millions)

	December 31,	
	2017	2016
2.3% Notes April 1, 2017	\$ —	\$ 600
6.15% Notes June 15, 2018	500	500
9.8% Notes February 15, 2019	500	500
1.625% Notes October 7, 2019	500	500
2.4% Notes March 15, 2020	500	500
2.85% Notes November 15, 2020	400	400
Notes at variable rates (2.038% at December 31, 2017) March 15, 2021	850	—
2.875% Notes October 1, 2022	500	500
4.05% Notes December 1, 2023	500	500
3.55% Notes June 15, 2024	500	500
3.75% Notes November 15, 2025	350	350
3.25% Notes June 15, 2027	750	—
6% Notes October 15, 2039	750	750
Fair value adjustments for interest rate swaps, net	(1)	(3)
Build-to-suit lease	138	137
	<u>6,737</u>	<u>5,734</u>
Current portion of long-term debt	(500)	(600)
Unamortized discount on long-term debt	(13)	(10)
Unamortized debt issuance costs	(26)	(24)
Total long-term debt	<u>\$ 6,198</u>	<u>\$ 5,100</u>

Excluding the build-to-suit lease and market value adjustments for interest rate swaps, maturities of long-term debt are \$500 million in 2018, \$1 billion in 2019, \$900 million in 2020, \$850 million in 2021, \$500 million in 2022 and \$2.85 billion thereafter.

Additional information on Sempra Energy's long-term debt is provided in Note 5 of the Notes to Consolidated Financial Statements.

NOTE 4. COMMITMENTS AND CONTINGENCIES

For contingencies and guarantees related to Sempra Energy, refer to Notes 4, 5 and 15 of the Notes to Consolidated Financial Statements.

NOTE 5. SUBSEQUENT EVENTS

For subsequent events related to Sempra Energy, refer to Note 18 of the Notes to Consolidated Financial Statements.

BOARD OF DIRECTORS

Debra L. Reed

Chairman, President and Chief Executive Officer, Sempra Energy, San Diego, California

Alan L. Boeckmann

Former Chairman of the Board and Chief Executive Officer, Fluor Corporation, Reno, Nevada

Kathleen L. Brown

Partner, Manatt, Phelps & Phillips, LLP, Former California State Treasurer, Los Angeles, California

Andrés Conesa, Ph.D.

Chief Executive Officer, Grupo Aeromexico, S.A.B. de CV., Mexico City, Mexico

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Managing Partner, Contreras-Sweet Enterprises and Rockway Equity Partners, Former Administrator of the U.S. Small Business Administration, Los Angeles, California

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Former Chief Executive Officer, Transportadora de Gas del Sur S.A., Buenos Aires, Argentina

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Bethany J. Mayer

Executive Partner, Siris Capital Group LLC, Saratoga, California

William G. Ouchi, Ph.D.

Sanford and Betty Sigoloff Distinguished Professor, Emeritus, UCLA, Los Angeles, California

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Lynn Schenk

Attorney in private practice and Former Member, U.S. House of Representatives, San Diego, California

Jack T. Taylor

Former Chief Operating Officer-Americas and Executive Vice Chair of U.S. Operations, KPMG LLP, Shreveport, Louisiana

James C. Yardley

Former President and Chief Executive Officer, El Paso Pipeline GP Company LLC, Houston, Texas

SENIOR MANAGEMENT TEAM

SEMPRA ENERGY

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Joseph A. Householder

Corporate Group
President—Infrastructure Businesses

Dennis V. Arriola

Executive Vice President—Corporate Strategy and External Affairs

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Executive Vice President and Chief Financial Officer

Martha B. Wyrsh*

Executive Vice President and General Counsel

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Vice President—Federal Government Affairs

P. Kevin Chase

Chief Information Officer

Kathryn J. Collier

Vice President and Treasurer

Maria Angelica Espinosa

Vice President—Compliance and Governance and Corporate Secretary

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Chief Regulatory Officer and Special Counsel

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Senior Vice President, Chief Human Resources and Chief Administrative Officer

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Paul H. Yong

Vice President—Corporate Tax and Chief Tax Counsel

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President

Caroline A. Winn

Chief Operating Officer

J. Chris Baker**

Chief Information Officer

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Vice President—Customer Services

Diana L. Day**

Vice President—Enterprise Risk Management and Compliance and Acting General Counsel

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John D. Jenkins

Vice President—Electric Engineering and Construction

Eugene W. Mitchell**

Vice President—State Government Affairs and External Affairs

Lee Schavrien**

Chief Regulatory Officer

Michael M. Schneider**

Vice President—Operations Support and Sustainability and Chief Environmental Officer

Emily C. Shults

Vice President—Energy Supply

Daniel F. Skopec**

Vice President—Regulatory Affairs

Katherine M. Speirs

Vice President—Electric System Operations

SOUTHERN CALIFORNIA GAS COMPANY

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Chief Executive Officer

J. Bret Lane*

President and Chief Operating Officer

Lisa M. Larroque Alexander

Vice President—Customer Solutions and Communications

David L. Buczkowski**

Vice President—Gas Engineering & System Integrity

Jimmie I. Cho**

Senior Vice President—Gas Engineering and Distribution Operations

Paul M. Goldstein

Vice President—Gas Acquisition

Jawaad A. Malik

Vice President—Accounting and Finance

Neil P. Navin**

Vice President—Gas Transmission and Storage

Guillermina Orozco-Mejia**

Vice President—Gas Distribution

Rodger R. Schwecke**

Senior Vice President—Gas Transmission, Storage and System Operations

Hal D. Snyder

Chief Human Resources and Chief Administrative Officer

Sharon L. Tomkins

Vice President and General Counsel

Denita A. Willoughby**

Vice President—Supply Management

Gillian A. Wright

Vice President—Customer Services

SEMPRA SOUTH AMERICAN UTILITIES

Mile Cacic

Chief Executive Officer, Luz del Sur, S.A.

Francisco Mualim

Chief Executive Officer, Chilquinta Energía, S.A.

SEMPRA INFRASTRUCTURE

Kevin C. Sagara

President,
Sempra Renewables

Octávio M. Simões

President,
Sempra LNG & Midstream

Farid S. Bogani

Vice President—Engineering and Construction

Robert J. Borthwick

Vice President and General Counsel

Glen A. Donovan

Vice President—Business Development & Structuring

Amy H. Chiu

Vice President—Asset Management

E. Scott Chrisman

Vice President—Commercial Development

Patrick T. Lee

Vice President—Infrastructure & Technology

Ryan D. O'Neal

Vice President—Midstream

Luis E. Pawluszek

Vice President—Asset Development

John A. Pirraglia

Vice President—Operations

Michael A. Sliowski

Vice President—Business Origination

Peter R. Wall

Vice President and Chief Financial Officer

SEMPRA MEXICO

Carlos Ruiz

Chairman and Chief Executive Officer,
Infraestructura Energética Nova, S.A.B. de C.V.

* These individuals are directors of Southern California Gas Company.

** These individuals are officers of San Diego Gas & Electric and Southern California Gas Company.

CORPORATE INFORMATION

Transfer Agent

American Stock Transfer & Trust Company
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Brooklyn, NY 11219
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Hearing Impaired (TTY):
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Shareholder Services

Investors with general questions regarding Sempra Energy or Southern California Gas Company securities should contact the company at:

Sempra Energy
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Fax: 619-696-1868
Email: investor@sempra.com
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News and Information

Sempra Energy's Annual Report on Form 10-K filed with the Securities and Exchange Commission is available to shareholders at no charge by writing to Shareholder Services. This information, as well as our corporate governance guidelines, code of ethics and standing board committee charters, are also available on the company's website at Sempra.com.

Investor Relations

Security analysts, portfolio managers and other members of the financial community should contact:

Patrick S. Billings
Director - Investor Relations
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Stock Exchange Listings

Sempra Energy Common Stock:
Ticker Symbol: SRE
New York Stock Exchange

Sempra Energy Preferred Stock:
Ticker Symbol: SREPA
New York Stock Exchange

Direct Common Stock Investment Plan

Sempra Energy offers a Direct Common Stock Investment Plan as a simple, convenient and affordable way to invest in the company. Cash dividends from a participant's account can be reinvested automatically in full or in part (but not less than 10 percent of each dividend) to purchase additional shares, or participants may choose to receive all or a portion of their cash dividends electronically or by check. Participation in the plan requires an initial investment of as little as \$500. The plan allows additional cash investments of a minimum of \$25 up to a maximum of \$150,000 per calendar year. Brokerage commissions incurred in the purchase of shares will be paid by Sempra Energy. The plan is offered only by the means of a prospectus, which can be obtained by calling the plan administrator, American Stock Transfer & Trust Company, LLC, at 877-773-6772, or through the Internet at www.astfinancial.com.

Sempra Energy's Annual Report on Form 10-K filed with the Securities and Exchange Commission, which includes as exhibits the certifications filed by Sempra Energy's chief executive officer and chief financial officer under the Sarbanes-Oxley Act of 2002, is available to shareholders at no charge by writing to the company's Shareholder Services Department.

Information Regarding Forward-Looking Statements

We make statements in this report that are not historical fact and constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are necessarily based upon assumptions with respect to the future, involve risks and uncertainties, and are not guarantees of performance. These forward-looking statements represent our estimates and assumptions only as of the filing date of our 2017 Annual Report on Form 10-K. We assume no obligation to update or revise any forward-looking statement as a result of new information, future events or other factors.

In this report, when we use words such as "believes," "expects," "anticipates," "plans," "estimates," "projects," "forecasts," "contemplates," "assumes," "depends," "should," "could," "would," "will," "confident," "may," "can," "potential," "possible," "proposed," "target," "pursue," "outlook," "maintain," or similar expressions or discussions of guidance, strategies, plans, goals, opportunities, projections, initiatives, objectives or intentions, we are making forward-looking statements.

Factors, among others, that could cause our actual results and future actions to differ materially from those described in any forward-looking statements include risks and uncertainties relating to: actions and the timing of actions, including decisions, new regulations, and issuances of permits and other authorizations by the California Public Utilities Commission (CPUC), U.S. Department of Energy, California Division of Oil, Gas, and Geothermal Resources, Federal Energy Regulatory Commission, U.S. Environmental Protection Agency, Pipeline and Hazardous Materials Safety Administration, Los Angeles County Department of Public Health, states, cities and counties, and other regulatory and governmental bodies in the United States and other countries in which we operate; the timing and success of business development efforts and construction projects, including risks in obtaining or maintaining permits and other authorizations on a timely basis, risks in completing construction projects on schedule and on budget, and risks in obtaining the consent and participation of partners; the resolution of civil and criminal litigation and regulatory investigations; deviations from regulatory precedent or practice that result in a reallocation of benefits or burdens among shareholders and ratepayers; approvals of proposed settlements or modifications of settlements; delays in, or disallowance or denial of, regulatory agency authorizations to recover costs in rates from customers (including with respect to amounts associated with the San Onofre Nuclear Generating Station facility and 2007 wildfires) or regulatory agency approval for projects required to enhance safety and reliability; the greater degree and prevalence of wildfires in California in recent years and risk that we may be found liable for damages regardless of fault, such as in cases where the doctrine of inverse condemnation applies, and risk that we may not be able to recover any such costs in rates from customers in California; the risk that rulings by the CPUC such as denying recovery for wildfire damages may raise our cost of capital and materially impair our ability to finance our operations; the availability of electric power, natural gas and liquefied natural gas, and natural gas pipeline and storage capacity, including disruptions caused by failures in the transmission grid, moratoriums or limitations on the withdrawal or injection of natural gas from or into storage facilities, and equipment failures; changes in energy markets; volatility in commodity prices; moves to reduce or eliminate reliance on natural gas; the impact on the value of our investments in natural gas storage and related assets from low natural gas prices, low volatility of natural gas prices and the inability to procure favorable long-term contracts for storage services; risks posed by actions of third parties who control the operations of our investments, and risks that our partners or counterparties will be unable or unwilling to fulfill their contractual commitments; weather conditions, natural disasters, accidents, equipment failures, computer system outages, explosions, terrorist attacks and other events that disrupt our operations, damage our facilities and systems, cause the release of greenhouse gases, radioactive materials and harmful emissions, cause wildfires and subject us to third-party liability for property damage or personal injuries, fines and penalties, some of which may not be covered by insurance (including costs in excess of applicable policy limits), may be disputed by insurers or may otherwise not be recoverable through regulatory mechanisms or may impact our ability to obtain satisfactory levels of insurance, to the extent that such insurance is available or not prohibitively expensive; cybersecurity threats to the energy grid, storage and pipeline infrastructure, the information and systems used to operate our businesses and the confidentiality of our proprietary information and the personal information of our customers and employees; capital markets and economic conditions, including the availability of credit and the liquidity of our investments; fluctuations in inflation, interest and currency exchange rates and our ability to effectively hedge the risk of such fluctuations; the impact of recent federal tax reform and uncertainty as to how it may be applied, and our ability to mitigate any adverse impacts; actions by credit rating agencies to downgrade our credit ratings or those of our subsidiaries or to place those ratings on negative outlook; changes in foreign and domestic trade policies and laws, including border tariffs, and revisions to international trade agreements, such as the North American Free Trade Agreement, that make us less competitive or impair our ability to resolve trade disputes; the ability to win competitively bid infrastructure projects against a number of strong and aggressive competitors; expropriation of assets by foreign governments and title and other property disputes; the impact on reliability of San Diego Gas & Electric Company's (SDG&E) electric transmission and distribution system due to increased amount and variability of power supply from renewable energy sources; the impact on competitive customer rates due to the growth in distributed and local power generation and the corresponding decrease in demand for power delivered through SDG&E's electric transmission and distribution system and from possible departing retail load resulting from customers transferring to Direct Access and Community Choice Aggregation or other forms of distributed and local power generation, and the potential risk of nonrecovery for stranded assets and contractual obligations; risks associated with the acquisition of our interest in Oncor Electric Delivery Company LLC (Oncor), including, but not limited to, any adverse impact of the acquisition on the credit ratings of Sempra Energy or Oncor, plans regarding future capital investments by Sempra Energy or Oncor, future return on equity or capital structure of Sempra Energy or Oncor, the risk that the anticipated benefits from the acquisition may not be fully realized or may take longer to realize than expected, the risk that we may be unable to obtain additional permanent equity financing for the acquisition on favorable terms, the risk that indebtedness Sempra Energy has incurred in connection with the acquisition may make it more difficult for Sempra Energy to repay or refinance our debt or take other actions that may decrease business flexibility and increase borrowing costs, and the risk that Oncor will eliminate or reduce its quarterly dividends due to its requirement to meet and maintain its regulatory capital structure, or because any of the three major credit rating agencies rates Oncor's senior secured debt securities below BBB (or the equivalent) or Oncor's independent directors or a minority member director determine it is in the best interest of Oncor to retain such amounts to meet future capital expenditures; and other uncertainties, some of which may be difficult to predict and are beyond our control.

We caution you not to rely unduly on any forward-looking statements. You should review and consider carefully the risks, uncertainties and other factors that affect our business as described in this report and other reports that we file with the Securities and Exchange Commission.



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