



Task Force on Climate-related Financial Disclosures

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Sempra Energy is committed to providing our stakeholders with information on our approach to - and performance on - climate-related issues. A summary of our response to the TCFD-recommended disclosures is below. Additional information, including greater detail on climate-related risks and opportunities and their impacts can be found throughout this report, in our [10-K](#) and also in our response to [CDP's annual climate change survey](#).

Governance

[Describe the board's oversight of climate-related risks and opportunities](#)

Sempra Energy's board of directors is engaged in the full range of environmental, social and governance issues, including climate and the energy transition. The board sets the direction for our company's long-term strategy and growth.

The board of directors' safety, sustainability and technology (SS&T) committee is the highest-level committee responsible for overseeing the corporation's risk management, compliance and oversight programs and performance related to environment, health, safety, security, technology, climate change, sustainability and other ESG matters affecting the corporation. Five non-employee board members serve on the committee, which is briefed by the company's compliance, technology, environmental, health, safety, security and sustainability officers and senior personnel.

The board through the SS&T committee, reviews business strategies to mitigate the impact of company operations on the environment, including GHG emissions and improving resilience of the company to physical and transition risks related to climate change, in addition to other sustainability matters.

During 2020, the committee held five meetings, in addition to a specific briefing focused on the company's corporate sustainability report and data contained therein, including ESG-related goals, environmental performance, GHG emissions, the company's approach to climate change and related risks and opportunities, as well as sustainability reporting trends and investor interest in environmental, social and governance issues.

[Sustainability and governance
2021 Proxy statement
CDP climate response](#)

Describe management's role in assessing and managing climate-related risks and opportunities.

Climate and related implications are woven into the fabric of corporate strategic planning. With significant environmental regulation and exposure to both climate related risks and opportunities, we believe it is critical that these issues are monitored at the highest levels of management within the company.

One way we help to ensure this oversight is through a sustainability steering committee composed of executives from all of our operating companies. The committee provides guidance on our approach to corporate sustainability, including strategy and goal setting, including those closely linked to climate. The committee is chaired by the company's vice president of sustainability. In addition, the company's senior vice president of corporate affairs and chief sustainability officer; vice president of sustainability; and corporate sustainability department all work with leaders across the organization to manage sustainability at the company, including climate-related topics.

[Sustainability and governance](#)

Strategy

Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

Opportunities

Products and services

Over the next 30 years, energy systems will need to change dramatically to meet local, regional and global climate goals. This includes a universal focus on decarbonizing the industrial, transportation and power generation sectors. In combination, these sectors account for more than 32 gigatons of energy-related emissions. Decarbonizing these sectors means that grids will need to expand, along with zero-carbon electrons and molecules working in tandem.

Over the same period, global energy demand is expected to increase exponentially, with 90% of the world's incremental electricity growth projected to be driven by emerging economies.

Innovation and new technologies will be central to society's net-zero goal by 2050, and we expect that investments in three key capabilities are needed: decarbonization, diversification, and digitalization. As we develop and promote these capabilities, we believe it will create long-term, sustainable value for all of our stakeholders.

Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

Our efforts to reduce emissions over the short, medium and long-term are expected to include:



Decarbonization

- Blending blue and green hydrogen into the natural gas distribution system
- Developing upstream “preferred source” programs for the procurement of natural gas produced at a lower carbon intensity
- Expanding the use of renewable natural gas (RNG) through a pilot program, which allows customers to opt in to purchase lower emissions natural gas
- Increasing the production and use of alternative lower-carbon fuels in existing infrastructure
- Circular economy
- Carbon capture



Diversification

- Converting organic wastes in landfills, wastewater, farms and dead trees and vegetation removed for wildfire mitigation to RNG
- Expanding the use of hydrogen from natural gas (blue hydrogen) for transportation uses
- Developing utility-scale microgrids for improved reliability and more efficient use of lower-carbon sources of energy, including energy storage
- Vehicle-to-grid energy storage projects
- Virtual power plants that use grid balancing to optimize EVs, home solar and other energy resources



Digitalization

- Monitoring natural gas operations with drones, fiber optic cable and point sensors
- Integrating new energy technologies using PXiSE’s patented software to decarbonize the grid while maintaining reliability
- Energy efficiency, time-of-use pricing and demand-side management programs, including partnering with “smart home” technology providers
- Blockchain or digital ledger tracking of energy intensity. For example, in upstream natural gas production and transport
- Telematics for fleet
- Grid-aligned charging
- Energy efficiency, time-of-use pricing and demand-side management programs, including partnering with “smart home” technology providers
- Blockchain tracking of lower-carbon intensity natural gas upstream

Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

Risks

Transition (policy & legal, reputational, technology and market)

Our businesses are subject to rules and regulations aimed at limiting GHG emissions. Failure to comply with these requirements could subject us to substantial penalties and fines. We limit our exposure to regulatory risk by maintaining a lower-carbon portfolio of businesses and advocating for consistent energy policies.

Climate change policy and public sentiment has encouraged the development of low- and zero-carbon energy resources and related new technologies such as the push toward electrification and energy storage. Emerging technologies may not be directly compatible with some existing infrastructure; may require us to make expenditures; and/or could possibly result in the obsolescence of certain facilities or assets. Our future success will depend, in part, on our ability to anticipate and successfully adapt to political and technological change; to offer services that meet customer needs and industry standards; and be in a position to recover all, or a portion of our investments. For SDG&E and SoCalGas, political headwinds and new technologies that could change the utilization of our natural gas and electric infrastructure include energy storage and distributed generation. Some 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. With utilities that deliver natural gas to customers, 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. At Sempra LNG, technological advances in alternative fuels and other alternative energy sources could someday reduce worldwide demand for natural gas, impacting results for this business.

Credit rating agencies routinely evaluate Sempra Energy and its California utilities on a number of factors, including the increased risk of wildfires in California, perceived sportiveness of the regulatory environment affecting utility operations, including delays and difficulties in obtaining recovery, or the denial of recovery, for wildfire-related costs, ability to generate cash flows, level of indebtedness, overall financial strength, including credit metrics, diversification beyond the regulated utility business and the status of certain capital projects, as well as other factors beyond our control, such as the state of the economy and our industry. Downgrades and factors causing downgrades of one or both of our California utilities can have a material impact on Sempra Energy's credit ratings.

Physical (acute and chronic)

Our operations are impacted by changes to the climate, which may include more frequent and more intense storms, winds, temperature extremes, droughts and floods as well as sea-level rise. We manage these risks by including climate projections in our planning process and evaluating different scenarios and their impacts. We also strengthen our infrastructure and update our operational protocols based on our assessment of these risks.

[Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.](#)

In 2020, California experienced some of the largest wildfires (measured by acres burned) in its history. Frequent and more severe drought conditions, inconsistent and extreme swings in precipitation, changes in vegetation caused by these precipitation swings or other factors, unseasonably warm temperatures, very low humidity and stronger winds have increased the duration of the wildfire season and the intensity and prevalence of wildfires in California, including in SDG&Es and SoCalGas' service territories, and have made these wildfires increasingly difficult to predict and contain.

We have experienced increased costs and difficulties in obtaining insurance coverage for wildfires that could arise. The insurance that has been obtained for wildfire liabilities may not be sufficient to cover all losses that we may incur or may not be available in sufficient amounts to meet the primary insurance required by the Wildfire Legislation. Uninsured losses may not be recoverable in customer rates. Increases in the cost of insurance may be challenged when we seek cost recovery. As a result of the strict liability standard applied to wildfires, recent losses recorded by insurance companies, and the risk of an increase in the number and size of wildfires, 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.

[CDP climate response 2.2a, 2.3a, 2.4a](#)
[2020 10-K, pgs. 34-64](#)



Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

Climate-related risks and opportunities play a significant role in the company's overall strategy and planning for the future.

Strategy

At Sempra Energy, we are focused on investing in, developing and operating transmission and distribution (T&D) infrastructure in the most attractive markets in North America. Our mission is to be North America's premier energy infrastructure company, which, in our view, requires full integration of sustainable development and climate considerations into our business strategy, operations and long-term investments. Being a leader in the energy transition to support net-zero GHG emissions by mid-century is a natural extension of our North America-focused transmission and distribution platform.

We are helping to advance the global energy transition by enabling the delivery of lower-carbon energy solutions in each market we serve, including California, Texas, Mexico and the LNG export market.

For decades, our company has reduced carbon emissions, diversified to develop and operate energy infrastructure in new markets, and innovated across every aspect of our business to better serve our customers.

Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

Our business strategy is focused on supporting the energy transition by investing in infrastructure that serves and decarbonizes the three most critical sectors of the economy - industrial, transportation and power generation. This involves extending our transmission and distribution strategy over the next five years to:

- Achieve target milestones for 2025 related to decarbonization, diversification and digitalization;
- Shape the trajectory of our business activities to align with a bold vision for 2030, with a goal to reduce our California utility and Mexico (non-LNG) GHG emissions by 50 percent compared to a 2019 baseline; and
- Create a credible path toward reaching net-zero GHG emissions by 2050.

Financial planning

Capital expenditures have been significantly impacted by climate-related risks and opportunities. Sempra Energy has been focused on a low-carbon approach, developing low-carbon infrastructure and reducing emissions across our portfolio for more than a decade. This has involved capital expenditures in infrastructure that enables the clean energy transition.

[CDP climate response \(Section 3\)](#)



NET- ZERO GOAL

Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

In order to achieve net-zero by the middle of the century, it will be critical to plan and build a new global energy system; one that accounts for global population growth and rising living standards. Sempra Energy believes it is well positioned to be a leader in that transition as a result of our North America-focused T&D platform, where we:

- Maintain top-tier positions in the most attractive markets in North America;
- Invest in critical T&D infrastructure;
- Advance global energy diversity; and
- Leverage core competencies in innovation, operational excellence, and stakeholder engagement.

Sempra Energy believes that reaching net-zero by mid-century is not only achievable, but that the U.S. will lead by demonstrating a commitment to electrification and renewable gases and electricity at home, while fostering innovation and supporting energy diversification in developing economies.

Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.



\$2 Billion

SDG&E has invested more than \$2.0 billion since 2007 in wildfire mitigation efforts

Additionally, Sempra Energy has announced a goal to reach net-zero for scope 1, 2 and 3 GHG emissions by 2050 and expects to advance this effort through investment in the infrastructure and research and development needed in three key areas to evolve our energy systems to achieve our climate objectives:

- **Decarbonization:** Reducing the carbon content of energy is central to interdicting and decarbonizing the industrial, transportation and power generation sectors. Over time, the electrons and molecules we deliver to customers will become less carbon intensive.
- **Diversification:** Bringing new lower- to zero-carbon fuel choices to every market is a central part of the global solution, coupled with expansion of distributed networks and storage to improve resiliency.
- **Digitalization:** Improving operational efficiency, safety and service will turn on the integration of real-time information and cutting-edge analytics, benefiting network operators.

Representative examples in each of these areas can be found on [page 23](#) of this report.

We are also preparing for climate-related impacts based on other climate outcomes throughout our operations and working to improve the resilience of our operations. With operations that can be impacted by the physical risks of climate change, our utilities have worked to update infrastructure and operations to mitigate these risks. Climate-related scenario analysis studies provide a pathway and framework to address areas of operations particularly at risk. As one example, SDG&E has invested more than \$2.0 billion since 2007 in wildfire mitigation efforts. SDG&E has been highly impacted in terms of the risk related to increasing drought conditions and the potential for wildfires. This risk has influenced the way that SDG&E operates, to mitigate this risk to the extent possible. This includes advanced situational awareness tools; aggressive infrastructure hardening and vegetation management; the most extensive utility-owned weather network in the nation; dedicated firefighting resources; and strong practices in construction, maintenance and operations, including proactive de-energization for safety.

Please see [pages 65](#) and [66](#) of this report for more information on our efforts related to a resilient energy system.

[Business overview and strategy](#)
[CDP climate response \(Section 3\)](#)
[Advancing the energy transition](#)

Risk management

[Describe the organization's processes for identifying and assessing climate-related risks.](#)

Sempra Energy works to manage a broad and complex set of risks commonly associated with the energy industry, as well as risks specific to our company. We evaluate risks for frequency and impact across a range of factors, including:

- Health, safety and environmental;
- Operational and reliability (including security and cyber security);
- Regulatory, legal and compliance (including reputation); and
- Financial.

A changing climate has regulatory, operational and reputational impacts on our business. Management of climate-related risks is integrated into the company's overall approach to risk, is assessed throughout the year and covers our own operations, in addition to downstream and upstream impacts. Each operating company is responsible for managing its risks with support from the Sempra Energy compliance and enterprise risk committee. These teams lead an established enterprise risk management program to assess risks using risk maps and other tools that help identify and monitor business risk exposure. To evaluate these risks, we look at different scenarios including the impact of regulatory frameworks and the introduction of technologies that could lead to market changes. We also consider different scenarios related to changes in the physical environment, including models of sea-level rise and extreme weather events.

Issues are identified by their ability to impact each of our company's core business through impacts on operational costs, costs to customers or reputation. For example, to identify issues related to regulatory schemes, we conduct sensitivity analyses allowing us to estimate the level of risk associated with different scenarios. We also monitor climate-related risks, increasingly volatile weather, impacts on insurance markets, corporate and emergency preparedness, increasing legal and regulatory pressures for reform, as well as public and investor concerns. This serves to identify issues to be monitored on an ongoing basis. Internally developed scoring matrices are consistently used across the enterprise. The substantive impact of each identified risk is assessed and evaluated at various levels within the organization, including by line managers, officers and senior management teams in each business.

[Enterprise risk management](#)
[CDP climate response 2.1; 2.1a,b; 2.2, 2.2a](#)

[Describe the organization's processes for managing climate-related risks.](#)

Some climate-related risks are shorter term, such as preparing for a wildfire season exacerbated by extreme drought. Others are medium term, such as meeting a regulatory target to promote safety, increase operational efficiencies or avoid penalties or fines. Others, such as the potential impact of sea-level rise, are longer term. We consider these and other risks as we plan capital expenditures. At SDG&E, we employ full-time meteorologists, prepare for adverse weather and related impacts, and conduct and review studies to assess the degree to which climate change poses a threat to infrastructure, employees and customers. We routinely plan for impacts to a variety of stakeholders; and review, monitor and adjust insurance coverage as necessary and to the extent the market permits, sharing and transferring risk when and where possible, in addition to other risk mitigation activities.

As an example, as a result of lessons learned from recent storms, Sempra LNG is implementing an improved communication platform for employees, launching a new disaster preparedness and crisis management IT solution, and conducting drills to enhance response preparedness. Cameron LNG is also working with the electricity supplier in the area to enhance the resilience of the electric grid.

[Building a resilient energy transition](#)
[CDP climate response 2.1; 2.1a,b; 2.2, 2.2a](#)



Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.

Management of climate-related risks is integrated into the company's overall approach to risk, is assessed throughout the year and covers our own operations, in addition to downstream and upstream impacts. At the parent company level, the Sempra Energy board and the compliance and enterprise risk committee provide oversight on all identified risk areas. Risk management teams at each operating company and the parent company lead an established enterprise risk management program to assess risks using risk maps and other tools that help identify and monitor business risk exposure. To evaluate these risks, we look at different scenarios including the impact of regulatory frameworks and the introduction of technologies that could lead to market changes. We also consider different scenarios related to changes in the physical environment, including models of sea-level rise and extreme weather events.

[Enterprise risk management](#)
[CDP climate response 2.2, 2.2a](#)

Metrics and targets

Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

Sempra Energy's annual corporate sustainability report includes year-over-year performance in many areas related to climate change, such as GHG emissions, environmental compliance and water use. In our 2020 sustainability report, we establish new climate goals for the company related to our role in the energy transition.

[Advancing the energy transition](#)
[Greenhouse gas emissions](#)

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks.

2020 GHG emissions*
Scope 1: 6.7 million metric tons CO₂e
Scope 2: .151 million metric tons CO₂e
Scope 3: 66.1 million metric tons CO₂e

[Greenhouse gas emissions](#)

* 2020 GHG emissions data subject to verification.

NET-ZERO GOAL



Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

By 2050, we aim for:

Net-zero GHG emissions across scopes 1, 2 and 3

By 2045, we aim to:

Deliver 100% renewable or zero-carbon energy to electric utility customers (SDG&E)

By 2030, we aim to:

- Reduce our California utility and Mexico (non-LNG) operational GHG emissions 50% compared to a 2019 baseline.
- Deliver 20% renewable natural gas (SoCalGas)
- Reduce fugitive emissions from our natural gas transmission and distribution systems 40% from our 2015 baseline (SDG&E, SoCalGas and IEnova efforts contribute to this goal)
- Eliminate 100% of natural gas during planned transmission pipeline work (SDG&E and SoCalGas, excludes emergency repairs)

Each year, we aim to:

- Operate our existing LNG infrastructure at a GHG emissions intensity 20% less than our 2020 baseline*
- Actively partner with companies and institutions across the LNG supply chain to reduce scope 2 and 3 emissions
- Enroll 90% of eligible customers in alternative rates for energy programs (SDG&E and SoCalGas)
- Fulfill 100% of new renewable energy requests for interconnection (Oncor)

[Advancing the energy transition](#)

[Greenhouse gas emissions](#)

** This goal is through 2025. Cameron LNG, the primary LNG operating asset, will achieve its first full year of operations in 2021. As the LNG business gains operational history and continues to grow, we will establish new goals.*

This document contains statements that constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based on assumptions with respect to the future, involve risks and uncertainties, and are not guarantees. Future results may differ materially from those expressed in any forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of this document. 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 document, forward-looking statements can be identified by words such as "believes," "expects," "anticipates," "plans," "estimates," "projects," "forecasts," "should," "could," "would," "will," "confident," "may," "can," "potential," "possible," "proposed," "in process," "under construction," "in development," "target," "outlook," "maintain," "continue," or similar expressions, or when we discuss our guidance, priorities, strategy, goals, vision, mission, opportunities, projections, intentions or expectations.

Factors, among others, that could cause actual results and events to differ materially from those described in any forward-looking statements include risks and uncertainties relating to: California wildfires, including the risks that we may be found liable for damages regardless of fault and that we may not be able to recover costs from insurance, the wildfire fund established by California Assembly Bill 1054 or in rates from customers; decisions, investigations, regulations, issuances or revocations of permits and other authorizations, renewals of franchises, and other actions by (i) the Comisión Federal de Electricidad, California Public Utilities Commission (CPUC), U.S. Department of Energy, Public Utility Commission of Texas, and other regulatory and governmental bodies and (ii) states, counties, cities and other jurisdictions in the U.S., Mexico and other countries in which we do business; the success of business development efforts, construction projects and major acquisitions and divestitures, including risks in (i) the ability to make a final investment decision, (ii) completing construction projects or other transactions on schedule and budget, (iii) the ability to realize anticipated benefits from any of these efforts if completed, and (iv) obtaining the consent of partners or other third parties; the resolution of civil and criminal litigation, regulatory inquiries, investigations and proceedings, and arbitrations, including, among others, those related to the natural gas leak at Southern California Gas Company's (SoCalGas) Aliso Canyon natural gas storage facility; the impact of the COVID-19 pandemic on our capital projects, regulatory approval processes, supply chain, liquidity and execution of operations; actions by credit rating agencies to downgrade our credit ratings or to place those ratings on negative outlook and our ability to borrow on favorable terms and meet our substantial debt service obligations; actions to reduce or eliminate reliance on natural gas, including any deterioration of or increased uncertainty in the political or regulatory environment for local natural gas distribution companies operating in California, and the impact of volatility of oil prices on our businesses and development projects; weather, natural disasters, pandemics, accidents, equipment failures, explosions, acts of terrorism, computer system outages and other events that disrupt our operations, damage our facilities and systems, cause the release of harmful materials, cause fires and subject us to liability for property damage or personal injuries, fines and penalties, some of which may not be covered by insurance, may be disputed by insurers or may otherwise not be recoverable through regulatory mechanisms or may impact our ability to obtain satisfactory levels of affordable insurance; the availability of electric power and natural gas and natural gas storage capacity, including disruptions caused by failures in the transmission grid, limitations on the withdrawal of natural gas from storage facilities, and equipment failures; cybersecurity threats to the energy grid, the 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; expropriation of assets, failure of foreign governments and state-owned entities to honor their contracts, and property disputes; the impact at San Diego Gas & Electric Company (SDG&E) on competitive customer rates and reliability due to the growth in distributed and local power generation, including from departing retail load resulting from customers transferring to Direct Access and Community Choice Aggregation, and the risk of nonrecovery for stranded assets and contractual obligations; Oncor Electric Delivery Company LLC's (Oncor) ability to eliminate or reduce its quarterly dividends due to regulatory and governance requirements and commitments, including by actions of Oncor's independent directors or a minority member director; volatility in foreign currency exchange, inflation and interest rates and commodity prices and our ability to effectively hedge these risks; changes in tax and trade policies, laws and regulations, including tariffs and revisions to international trade agreements that may increase our costs, reduce our competitiveness, or impair our ability to resolve trade disputes; and other uncertainties, some of which may be difficult to predict and are beyond our control.

These risks and uncertainties are further discussed in the reports that Sempra Energy has filed with the U.S. Securities and Exchange Commission (SEC). These reports are available through the EDGAR system free-of-charge on the SEC's website, www.sec.gov, and on Sempra Energy's website, www.sempra.com. Investors should not rely unduly on any forward-looking statements.

Sempra North American Infrastructure, Sempra LNG, Sempra Mexico, Sempra Texas Utilities, Oncor and Infraestructura Energética Nova, S.A.B. de C.V. (IEnova) are not the same companies as the California utilities, SDG&E or SoCalGas, and Sempra North American Infrastructure, Sempra LNG, Sempra Mexico, Sempra Texas Utilities, Oncor and IEnova are not regulated by the CPUC.

