

Welcome to your CDP Water Security Questionnaire 2020

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

PG&E Corporation is a holding company whose core business is Pacific Gas and Electric Company (PG&E). PG&E is one of the largest combined natural gas and electric utilities in the United States. Based in San Francisco, with approximately 23,000 employees, PG&E delivers some of the nation's cleanest energy to nearly 16 million people in Northern and Central California. PG&E Corporation had nearly \$85 billion in assets as of December 31, 2019, and generated revenues of more than \$17 billion in 2019.

Water is essential to the California economy, as well as the health and well-being of its communities. Water is also integral to the state's energy infrastructure, including PG&E's vast hydroelectric system, which is one of the largest in the country.

On March 12, 2019, the U.S. Drought Monitor declared the entire state of California to be drought-free for the first time in eight years. As indicated by this announcement, California experienced a "great water year in 2019" (October 2018-September 2019) due to significant rainfall and snowpack 175% of average, according to the Department of Water Resources. California depends upon snowpack for roughly one third of its water supply. Even in wetter years, however, rising temperatures due to climate change increase the strain on California's water supplies.

Though drought conditions have improved in California, the impacts on groundwater supplies and tree mortality are still evident. In fact, several climate-related factors have contributed to the increasing risk of wildfires in the state. For example, bark beetles and drought have contributed to record numbers of dead trees that fuel and amplify wildfires. Since 2010, approximately 147 million trees have died in California according to the U.S. Forest Service. Moreover, as air temperatures rise, forests and land are drying out, increasing fire risks and creating weather conditions that readily facilitate the rapid expansion of fires.

PG&E's Community Wildfire Safety Program includes immediate and comprehensive actions to upgrade our infrastructure, monitor fire threats in real time, and institute new wildfire safety measures. The program includes new grid technology, a critical hardening of the electric system, enhanced vegetation management and more, with short-, medium- and long-term plans to make our system safer.

In addition, in 2019, PG&E continued efforts to conserve water in our facilities, help customers reduce water usage through energy efficiency measures, and educate our employees. PG&E is promoting sustainable water use in several ways:

- Strategically managing our power generation facilities
- Reducing water consumption at PG&E offices and service yards
- Providing outreach and guidance to customers, particularly those in the agricultural community, on how to reduce water usage

In 2019, PG&E continued to implement sustainable practices at our offices and service centers; however, aggregated water use intensity increased slightly by two percent. To minimize water use, PG&E continued to integrate water best management practices into operating procedures at facilities and operations. PG&E relies on dry-cooling technologies for all but one of our thermal power plants; the other plant uses saltwater to supply its once-through cooling systems. Most of PG&E's freshwater use is for non-consumptive purposes, including, importantly, the generation of hydroelectric power.

PG&E also offers our customers a wide range of options to help them reduce their water use. Our water-saving solutions for residential customers include supporting markets for high-efficiency clothes washers and direct installation of low-flow shower heads and faucet aerators. We also offer incentives to agricultural customers who convert from sprinkler systems to water-efficient drip irrigation, as well as programs for energy-efficient pumping systems and more. Collectively, through PG&E's energy efficiency programs, participating customers reduced their water usage by about 166 million gallons in 2019.

W-EU0.1a

(W-EU0.1a) Which activities in the electric utilities sector does your organization engage in?

- Electricity generation
- Transmission
- Distribution

W-EU0.1b

(W-EU0.1b) For your electricity generation activities, provide details of your nameplate capacity and the generation for each technology.

| | Nameplate capacity (MW) | % of total nameplate capacity | Gross electricity generation (GWh) |
|---------------------|-------------------------|-------------------------------|------------------------------------|
| Coal – hard | 0 | 0 | 0 |
| Lignite | 0 | 0 | 0 |
| Oil | 0 | 0 | 0 |
| Gas | 1,403 | 18 | 6,321 |
| Biomass | 0 | 0 | 0 |
| Waste (non-biomass) | 0 | 0 | 0 |

| | | | |
|---|-------|-----|--------|
| Nuclear | 2,240 | 29 | 16,195 |
| Fossil-fuel plants fitted with carbon capture and storage | 0 | 0 | 0 |
| Geothermal | 0 | 0 | 0 |
| Hydropower | 3,891 | 51 | 11,051 |
| Wind | 0 | 0 | 0 |
| Solar | 152 | 2 | 283 |
| Marine | 0 | 0 | 0 |
| Other renewable | 0 | 0 | 0 |
| Other non-renewable | 0 | 0 | 0 |
| Total | 7,686 | 100 | 33,850 |

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

| | Start date | End date |
|----------------|-----------------|-------------------|
| Reporting year | January 1, 2019 | December 31, 2019 |

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

United States of America

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

USD

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which financial control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

Yes

W0.6a

(W0.6a) Please report the exclusions.

| Exclusion | Please explain |
|--|--|
| PG&E owns and operates service centers, office buildings, substations, and gas compressor stations throughout our service area. We are currently tracking water use (not sewage) for 147 service centers and office sites. | PG&E plans to continue our efforts to assess, prioritize, and expand our collection and tracking of municipal water at the service centers and substation facilities that consume significant volumes of water using the Entech Environmental Management System data management system. The water use for most of these facilities is significantly less than that used in our electric generation operations. |
| PG&E is not able to track some of the delivered electricity purchased from the wholesale market back to a specific generator. Therefore, we are unable to report the associated water withdrawal from these power generation facilities. | PG&E purchases a portion of the electricity our customers demand from the wholesale market; however, we are unable to track the source of this electricity back to a specific generator and are therefore unable to report the associated water withdrawal. |

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

| | Direct use importance rating | Indirect use importance rating | Please explain |
|---|------------------------------|--------------------------------|--|
| Sufficient amounts of good quality freshwater available for use | Important | Important | PG&E owns and operates three natural gas fired power plants: Humboldt Bay Generating Station, Colusa Generating Station, and Gateway Generating Station. These plants use dry-cooling technology, which allows the facility to use 97% less water than plants with conventional once-through water cooling systems. While some freshwater is used to generate steam, cool auxiliary equipment, support fire water systems, and supply drinking water at the plants, these operations are largely closed-loop systems that minimize the amount of water consumed. |
| Sufficient amounts of recycled, | Important | Important | PG&E owns and operates one of the nation's largest investor-owned hydroelectric systems and water quality is an important factor in the |

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| brackish and/or produced water available for use | | | <p>generation of this power. The system is built along 16 river basins stretching nearly 500 miles. Our hydroelectric power plants are largely non-consumptive, meaning that after water passes through turbines to produce electricity, it is returned to the river. PG&E's 65 powerhouses, as well as a pumped storage facility, have a total generating capacity of nearly 4,000 MW and rely on nearly 100 reservoirs. Approximately 5-15% of the power we deliver to our customers comes from hydroelectricity. PG&E has a long history of owning and managing thousands of acres surrounding our hydroelectric system. By managing these lands, PG&E is focused on protecting the water quality of the rivers that feed the hydroelectric system.</p> |
|--|--|--|--|

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

| | % of sites/facilities/operations | Please explain |
|---------------------------------------|----------------------------------|---|
| Water withdrawals – total volumes | 100% | <p>PG&E measures and monitors water withdrawal data for four power generation facilities owned and operated by PG&E. The facilities are Diablo Canyon Power Plant (Diablo Canyon), a 2,240 MW nuclear generation facility, and three state-of-the-art natural gas-fueled power plants that rely on dry cooling technology: Gateway Generating Station (580 MW), Humboldt Bay Generating Station (163 MW); and Colusa Generating Station (657 MW). PG&E also reports water withdrawal data for the three fuel cell units it owns and operates.</p> |
| Water withdrawals – volumes by source | 100% | <p>PG&E measures and monitors water withdrawal volume by sources. PG&E uses municipal water at our Gateway and Humboldt Bay Generating Stations, as well as our three fuel cell units.</p> |
| Water withdrawals quality | 100% | <p>PG&E measures and monitors water withdrawal data for four power generation facilities owned and operated by PG&E.</p> |
| Water discharges – total volumes | 100% | <p>PG&E measures and monitors water discharge volumes. Of our owned power generation</p> |

| | | |
|---|------|---|
| | | <p>facilities, only one uses once-through cooling: Diablo Canyon Nuclear Power Plant. However, this power plant relies on saltwater (the Pacific Ocean) for once-through cooling. The chemical characteristics of the intake water at this plant are essentially the same as the discharged water. The plant operates in compliance with its respective water quality permit issued by the California State Water Resources Control Board. Diablo Canyon has a maximum discharge of 2.5 billion gallons per day. PG&E closely monitors the marine environment at the plant by conducting regular studies and sampling. The plant’s Clean Water Act permit sets its maximum discharge levels and requires the monitoring and sampling initiatives in which PG&E routinely engages.</p> |
| Water discharges – volumes by destination | 100% | PG&E measures and monitors water discharge volumes by destination – saltwater (the Pacific Ocean) and local sanitation district for treatment. |
| Water discharges – volumes by treatment method | 100% | PG&E measures and monitors water discharge volumes. However, Humboldt Bay and Gateway Generating Stations operate solely on municipal water for domestic and non-domestic purposes. After use at the plant, the water is discharged to the local sanitation district for treatment. |
| Water discharge quality – by standard effluent parameters | 100% | PG&E measures and monitors water discharge quality in compliance with state and federal regulations. |
| Water discharge quality – temperature | 100% | PG&E measures and monitors water discharge temperature in compliance with state and federal regulations. |
| Water consumption – total volume | 100% | PG&E measures and monitors water consumption volumes. PG&E’s three natural-gas fired power plants use dry-cooling technology. Some freshwater is used to generate steam, cool auxiliary equipment, support fire water systems, and supply drinking water at the plants, but these operations are largely closed-loop systems that minimize the amount of water consumed. |

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| Water recycled/reused | 51-75 | In 2019, nearly three-fourths of the water used in hydrostatic testing was recycled or reused for irrigation, dust control or project restoration. |
| The provision of fully-functioning, safely managed WASH services to all workers | Not relevant | This question is not relevant to PG&E. |

W-EU1.2a

(W-EU1.2a) For your hydropower operations, what proportion of the following water aspects are regularly measured and monitored?

| | % of sites/facilities/operations measured and monitored | Please explain |
|--|---|---|
| Fulfilment of downstream environmental flows | 100% | <p>We have made it a priority to work collaboratively with diverse stakeholders regarding our ongoing management of the company's 25 federally licensed hydroelectric projects that require regular renewal of operating licenses. Stakeholder interest primarily pertains to the levels and timing of stream flows as our hydroelectric facilities do not consume water.</p> <p>For example, numerous times in recent years due to low water supply in Lake Pillsbury (a storage reservoir for PG&E's Potter Valley Hydroelectric Project), PG&E brought together key stakeholders, including state and local water resource agencies, federal and state fish and wildlife departments, and local Native American tribes and community groups to form the Lake Pillsbury Drought Working Group. Under our FERC license, PG&E is required to have a minimum amount of water flow downstream from Lake Pillsbury; however, in dry years, inflows do not always support required releases. The Working Group collaborated to make water management decisions that conserve enough water to ensure the health and protection of salmon and steelhead populations in the Eel River, as well as provide for agricultural and domestic water uses in the Russian River watershed.</p> |

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| Sediment loading | 100% | As part of PG&E's 25 federally licensed hydroelectric facilities, the utility is required to have Sediment Management Program Plans. |
| Other, please specify | Not relevant | |

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

| | Volume (megaliters/year) | Comparison with previous reporting year | Please explain |
|-------------------|--------------------------|---|---|
| Total withdrawals | 2,863,224 | Lower | The "Brackish surface water/seawater" figure represents the volume of saltwater used for once-through cooling at Diablo Canyon power plant, as well as the saltwater used to produce (via reverse osmosis) the majority of the plant's freshwater. |
| Total discharges | 2,862,077 | Lower | These figures incorporate once-through cooling discharge (equivalent to withdrawal) plus estimated reverse osmosis system brine/backwash discharge. These figures also incorporate permitted freshwater discharge. |
| Total consumption | 629 | Higher | Data represents the difference between municipal water withdrawals and discharges, including domestic and process water for power plants, offices and service yards, public water systems owned and operated by PG&E, and water for hydrostatic testing of PG&E's natural gas system. (Note: In 2018 we reported total consumption as 1,080 megaliters, which just accounted for withdrawals and did not include discharges. The actual water consumption for 2018 was 521 megaliters and for 2019 is 629 megaliters) |

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

| | |
|--|----------------|
| Withdrawals are from areas with water stress | Please explain |
|--|----------------|

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|-------|--|--|
| Row 1 | | |
|-------|--|--|

W1.2h

(W1.2h) Provide total water withdrawal data by source.

| | Relevance | Volume (megaliters/year) | Comparison with previous reporting year | Please explain |
|--|--------------|--------------------------|---|--|
| Fresh surface water, including rainwater, water from wetlands, rivers, and lakes | Not relevant | | | PG&E does not withdraw fresh surface water for use at our power plants or facilities. In some cases, PG&E collects rainwater for use in landscape irrigation but does not measure quantities. |
| Brackish surface water/Seawater | Relevant | 2,861,976 | Lower | PG&E uses saltwater at Diablo Canyon for once-through cooling in the electricity generation process. Diablo Canyon is PG&E's only once-through cooled plant. PG&E also uses saltwater at Diablo Canyon to generate the majority of the facility's freshwater through a seawater reverse osmosis process. This water is used for system operation, domestic/drinking water, and the fire water system and associated maintenance. |
| Groundwater – renewable | Relevant | 65 | Higher | Diablo Canyon freshwater sources are well water for backup and emergency purposes. |
| Groundwater – non-renewable | Not relevant | | | PG&E does not withdraw non-renewable groundwater. |
| Produced/Entrained water | Not relevant | | | PG&E does not withdraw produced/process water; however, PG&E uses an on-site desalination plant to |

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|---------------------|--------------|--|--|--|
| | | | | generate the majority of freshwater that supports the internal operations of the Diablo Canyon facility. |
| Third party sources | Not relevant | | | PG&E does not receive wastewater from another organization. |

W1.2i

(W1.2i) Provide total water discharge data by destination.

| | Relevance | Volume (megaliters/year) | Comparison with previous reporting year | Please explain |
|---------------------------------|--------------|--------------------------|---|--|
| Fresh surface water | Not relevant | | | PG&E does not discharge to fresh surface water. |
| Brackish surface water/seawater | Relevant | 2,861,523 | Lower | These figures incorporate once-through cooling discharge (equivalent to withdrawal) plus estimated reverse osmosis system brine/backwash discharge for PG&E's Diablo Canyon Power Plant. |
| Groundwater | Not relevant | | | PG&E does not discharge groundwater. |
| Third-party destinations | Not relevant | | | PG&E does not discharge wastewater for another organization. |

W-EU1.3

(W-EU1.3) Do you calculate water intensity for your electricity generation activities?

Yes

W-EU1.3a

(W-EU1.3a) Provide the following intensity information associated with your electricity generation activities.

| Water intensity value (m3) | Numerator: water aspect | Denominator | Comparison with previous reporting year | Please explain |
|----------------------------|-------------------------|-------------|---|---|
| 0.02 | Freshwater withdrawals | MWh | About the same | This includes PG&E's three natural gas-fueled power plants that rely on dry cooling technology: Gateway |

| | | | | |
|------|------------------------|-----|----------------|--|
| | | | | Generating Station, Humboldt Bay Generating Station; and Colusa Generating Station. |
| 0.01 | Freshwater withdrawals | MWh | About the same | This includes all of PG&E's owned generation facilities, including nuclear and hydroelectric facilities. |

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

1-25

% of total procurement spend

76-100

Rationale for this coverage

We prioritize suppliers who represent approximately 80% of the company's spend (this represents our critical, most strategic suppliers) as well as our direct manufacturers, for focused attention on environmental sustainability. The spend data used is from the previous full calendar year. (Suppliers we are no longer doing business with are excluded from the spend data and assessment.)

We evaluate suppliers against PG&E's Supplier Environmental Performance Standards (which incorporate water use elements) and use the resulting environmental performance scores to prioritize support. We offer training for our suppliers, including a workshop on the basics of GHG calculations and reporting. The workshop included an exercise in which attendees had the opportunity to practice how to prepare a GHG report by setting the required boundaries, selecting the key performance indicators, and using the GHG calculators to determine the Scope 1+2 CO₂e emissions in a given case study.

Impact of the engagement and measures of success

Scoring methodology for PG&E's Supplier Environmental Performance Standards:

(1) Environmental Management System (EMS) & Tracking (2 points): Organization has an EMS in place to measure and track five performance areas: GHG emissions (Scope 1+2); energy; water; waste; and compliance with environmental requirements;

(2) Voluntary Reduction Goals (2 points): Organization has set voluntary reduction goals; and

(3) Public Disclosure (1 point): Organization publicly reports annual progress against goals.

PG&E's goal in 2019 was for 75% of top-tier suppliers to receive a score of 3 out of 5 or higher. In 2019, 62% of PG&E's top-tier suppliers met this target. Suppliers not providing specific information on targets were the primary driver of not meeting the goal. PG&E is increasing efforts to educate suppliers on setting and sharing environmental reduction targets. PG&E also tracks the supplier response rate to the Annual Alliance Sustainability Assessment, which was 73% in 2019.

Comment

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement

No other supplier engagements

Details of engagement

% of suppliers by number

% of total procurement spend

Rationale for the coverage of your engagement

Impact of the engagement and measures of success

Comment

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

No

W3. Procedures

W-EU3.1

(W-EU3.1) How does your organization identify and classify potential water pollutants associated with your business activities in the electric utilities sector that could have a detrimental impact on water ecosystems or human health?

The Utility's operations are subject to extensive laws and requirements relating to the protection of the environment and the safety and health of the Utility's personnel and the public. These laws and requirements relate to a broad range of activities, including the discharge of pollutants into the air, water, and soil.

PG&E has developed rigorous water quality compliance programs that address both federal and state water quality objectives. Under these programs, PG&E conducts National Pollutant Discharge Elimination System (NPDES)-required water quality sampling prior to any potential permit-approved discharge of water resulting from electric, gas or other business operations. If sampling results establish that federal and/or state water quality objectives are not met, water is disposed of at an approved third-party facility for processing.

W-EU3.1a

(W-EU3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants associated with your activities in the electric utilities sector on water ecosystems or human health.

| Potential water pollutant | Description of water pollutant and potential impacts | Management procedures | Please explain |
|---------------------------|--|--|--|
| Other, please specify | Stormwater management | Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Emergency preparedness | PG&E's operations are subject to extensive federal, state and local environmental laws and regulations. These requirements relate to a broad range of activities, including preventing the discharge of pollutants. To meet these requirements, PG&E employs an Environmental Management System (EMS) modeled after the ISO 14001 environmental management standard and consistent with the |

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|--|--|--|--|
| | | | <p>ISO standard's "Plan, Do, Check, Act" model for continuous improvement. The EMS uses a series of compliance work processes that help PG&E to manage regulatory compliance and our environmental impacts by each line of business.</p> <p>The Vice President, Shared Services of Pacific Gas and Electric Company, oversees our commitment to meeting environmental requirements. PG&E's integrated planning process provides a mechanism for managing environmental risk and compliance while driving continuous improvement, as do enterprise-wide initiatives such as our Corrective Action Program and numerous other forums.</p> <p>Compliance performance updates are reviewed monthly by PG&E's officers, and an annual environmental compliance summary is presented to the Compliance and Public Policy Committee of the PG&E Corporation Board of Directors.</p> |
|--|--|--|--|

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Databases

Other

Tools and methods used

National-specific tools or standards

Other, please specify

NIDIS

Comment

PG&E uses information and maps from the National Integrated Drought Information System (NIDIS) U.S. Drought Portal to assess water risk and drought conditions at facilities located in water stressed areas. Additionally, since most of PG&E's facilities rely on municipal water supplies, these localities also maintain regular engagement with PG&E regarding drought conditions and voluntary or mandatory water conservation measures.

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Databases

Tools and methods used

Other, please specify

To assess suppliers, PG&E leverages many external and internal data points - contained in databases, produced by subject matter experts, and self-reported by suppliers - to better understand and rank inherent risks and mitigation practices.

Comment

PG&E tracks the supplier response rate to the Annual Alliance Sustainability Assessment, which was 73% in 2019. The supplier's response allows us to gauge the maturity of their environmental management systems and request quantitative data around their GHG, energy, water, and waste impacts.

Other stages of the value chain

Coverage

Comment

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization’s water-related risk assessments?

| | Relevance & inclusion | Please explain |
|---|---------------------------|--|
| Water availability at a basin/catchment level | Relevant, always included | Water availability is vital to PG&E’s hydroelectric operations. PG&E used the National Integrated Drought Information System (NIDIS) U.S. Drought Portal to assess facilities located in water stressed areas, as defined by level of drought. Additionally, PG&E employs a team of hydrographers who regularly measure snowpack to determine the spring runoff that ultimately will forecast how much hydroelectricity PG&E will generate for the coming year. |
| Water quality at a basin/catchment level | Relevant, always included | Water quality is vital to PG&E’s operations. We are working to protect water quality in our operations through our program to comply with state permitting requirements for storm water management at our power plants and associated with construction projects. |
| Stakeholder conflicts concerning water resources at a basin/catchment level | Relevant, always included | Throughout the FERC license renewal process for our hydroelectric facilities, PG&E works with stakeholders to assess the impacts of these projects and try to find agreement on appropriate resource management measures - such as fish and wildlife habitat protection, riverbed conservation, and recreational opportunities - to include as conditions of the new licenses. We have made it a priority to work collaboratively with diverse stakeholders regarding our ongoing management of the company’s 25 federally licensed hydroelectric projects that require regular renewal of operating licenses. Stakeholder interest primarily pertains to the levels and timing of stream flows as our hydroelectric facilities do not consume water. For example, during the recent drought, in response to perilously dry conditions in Lake Pillsbury (a storage reservoir for PG&E’s Potter Valley Hydroelectric Project), PG&E brought together key stakeholders, including state and local water resource agencies, federal and state fish and wildlife departments, and local Native American tribes and community groups to form the Lake Pillsbury Drought Working Group. Under our FERC license, PG&E is required to have a minimum amount of water flow downstream from Lake Pillsbury; however, in dry years inflows do not always support |

| | | |
|---|---------------------------|---|
| | | required releases. The Working Group collaborated to make water management decisions that conserve enough water to ensure the health and protection of salmon and steelhead populations in the Eel River, as well as for agricultural and domestic water uses in the Russian River watershed. |
| Implications of water on your key commodities/raw materials | Relevant, always included | PG&E's extensive hydroelectric system is an important source of clean energy for our customers. The actions we have taken to manage drought conditions are examples of our strategies to manage the risk associated with water scarcity. |
| Water-related regulatory frameworks | Relevant, always included | Existing and proposed federal and state water related laws and regulations are included in PG&E's water-related risk assessment activities. |
| Status of ecosystems and habitats | Relevant, always included | <p>As part of PG&E's Land Conservation Commitment, we are permanently protecting more than 140,000 acres of California's watershed lands—located in the Sierra Nevada, Cascades, and North Coast Range Mountains—through the donations of fee title and conservation easements on watershed lands to public agencies and qualified conservation organizations.</p> <p>These land donations will enhance or preserve natural habitat for fish, wildlife, and plants; preserve open space and outdoor recreation for the general public; and protect sustainable forestry, agricultural uses, and historic and cultural values in perpetuity. An independent nonprofit organization, the Pacific Forest and Watershed Lands Stewardship Council, identifies the organizations that receive these donations. As an example of our efforts, PG&E permanently protected 7,241 acres of land in 2019 by completing 11 Land Conservation Commitment transactions – a commitment that will ultimately protect more than 140,000 acres of watershed lands.</p> |
| Access to fully-functioning, safely managed WASH services for all employees | Not considered | Not applicable. |
| Other contextual issues, please specify | Not considered | |

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization’s water-related risk assessments?

| | Relevance & inclusion | Please explain |
|--|---------------------------|---|
| Customers | Relevant, always included | PG&E provides some of the nation’s cleanest energy to nearly 16 million people. The strong link between energy and water usage means that there is much PG&E can do. PG&E offers customers a wide range of options to help them reduce their water use through energy efficiency programs. |
| Employees | Relevant, always included | The actions by PG&E’s approximately 23,000 employees at work and at home are important elements of the company’s efforts to reduce water risk. PG&E has led employee water conservation campaigns to encourage employees to make a pledge to reduce their water usage at work and at home. |
| Investors | Relevant, always included | PG&E discloses water risk and actions we have taken to address drought conditions in California in our annual Corporate Responsibility and Sustainability Report and through the CDP information request. |
| Local communities | Relevant, always included | PG&E partners with local communities on water stewardship and natural resource management. During the recent drought, we worked together to manage risks associated with the drought, including collaborative efforts to build longer-term climate resilience. |
| NGOs | Relevant, always included | PG&E coordinates with a diverse range of NGOs on water risks and actions to address drought conditions through our stakeholder engagement efforts. |
| Other water users at a basin/catchment level | Relevant, always included | <p>During the recent drought, we strengthened our reservoir management to minimize spills or rapid changes in stream flows by coordinating across internal departments and frequently communicating and coordinating with government agencies and other organizations that may be affected by PG&E’s water operations.</p> <p>Working with state agencies and other stakeholders, we found ways to manage water in our reservoirs so we could generate power during the summer peak demand periods. Conserving water early in the season also helps ensure adequate water supplies for communities, supports recreation, and benefits the many species that depend on water. To manage reservoir storage, controlled spills (controlled releases greater than the</p> |

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|--|---------------------------|--|
| | | required flow) were initiated at many locations to drawdown reservoirs in preparation for snowmelt. |
| Regulators | Relevant, always included | <p>PG&E works with numerous regulatory agencies to manage our water-related operations. In 2019, PG&E worked with stakeholders to refine tools that allow PG&E and the other IOUs to better quantify the benefits of water-saving programs and embedded energy.</p> <p>For example, PG&E is exploring the potential of smart meters to deliver water savings data, and support behavior-based messaging to encourage energy and water savings in homes.</p> <p>PG&E continued work on a pilot project, the Advanced Metering Infrastructure (AMI) and Water Savings Study, to explore the use of AMI to deliver water savings data. The project aims to identify opportunities for electric utilities and water agencies to collaborate and involves the East Bay Municipal Utility District water utility. In 2019, PG&E began the twelve-month observation period for new AMI installations and anticipates monitoring installations through 2020.</p> <p>Many synergies exist between energy efficiency and water savings. PG&E's Business Plan outlines ways to better use tools and technology to capture savings from embedded energy and improve and prioritize energy efficiency offerings relevant to water conservation.</p> |
| River basin management authorities | Relevant, always included | PG&E actively participates as a stakeholder in the development and implementation of various water management plans. |
| Statutory special interest groups at a local level | Relevant, always included | <p>PG&E works with tribal governments in several ways to address tribal water needs and emergency preparedness. In response to the 2019 Public Safety Power Shutoff (PSPS) events, PG&E held four group tribal listening sessions with 30 tribes in four counties and five individual listening sessions with tribal governments and two tribal health facilities to listen to concerns, gather feedback, and improve coordination going forward.</p> <p>PG&E has coordinated with the Indian Health Service (IHS) to conduct a needs assessment for tribal drinking water and wastewater systems, including identifying smaller, private drinking water systems on tribal lands that are not a part of the larger municipal tribal drinking water and wastewater systems. We also participate in a California Governor's Office of Emergency Services-established working group, which includes the EPA, IHS, U.S. Department of Agriculture, and other electric</p> |

| | | |
|-----------------------------------|---------------------------|--|
| | | <p>investor-owned utilities, with a goal to identify funding for backup power for tribal drinking water and wastewater facilities.</p> <p>Additionally, through the Better Together Resilient Communities grant program, PG&E and The PG&E Corporation Foundation support local climate resilience initiatives. In 2019, the Hopland Band of Pomo Indians Inter-Tribal Wildfire Resiliency Project earned a grant to build capacity among tribes with respect to fire resiliency.</p> |
| Suppliers | Relevant, always included | PG&E maintains supplier environmental performance standards that set our expectation that all top tier suppliers: (1) implement an environmental management system that tracks: GHG emissions (Scope 1 and 2), energy, water, waste, and compliance with environmental requirements; (2) set voluntary reduction goals; and (3) publicly report their annual performance against goals. |
| Water utilities at a local level | Relevant, always included | PG&E remains focused on identifying, reporting, and repairing leaks; managing our irrigation systems; installing low-flow plumbing fixtures, and replacing landscaping with drought-resistant approaches. |
| Other stakeholder, please specify | Relevant, always included | The 2019 water year (October 2018-September 2019) saw precipitation totals at near to well above normal and well above normal snowpack for much of the state, including PG&E's service area. In March 2019, California was declared drought-free for the first time since December 2011. During the preceding drought, however, PG&E actively collaborated with regulatory agencies and other stakeholders to assess the required water releases from our reservoirs to lessen drought impact on the environment as well as prolong availability of water for downstream users' needs. This collaboration continues despite an above average water year so that PG&E and our stakeholders maintain collaboration in preparation for drier water years. |

W3.3d

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

At PG&E, risk management processes - including those related to water risk - are facilitated by a central group, implemented by each line of business (LOB), and overseen by senior management and the Boards of Directors.

Governance: The Chief Risk Officer (CRO) is responsible for overseeing the enterprise and operational risk management program, internal audit and insurance functions, market and credit risk management, third-party risk management, and Sarbanes-Oxley Act compliance.

Under PG&E's Chapter 11 Plan of Reorganization, PG&E committed to establishing a newly expanded role of Chief Risk Officer who will have oversight of risks associated with PG&E's operations, emphasizing the role of risk management in operational decisions.

LOB Implementation: With guidance from a central program office, PG&E maintains a risk register of event-based risks and line-of-business risks. To manage risks, we follow a consistent enterprise-wide approach to model, measure, and reduce risk. With our methodology, PG&E is able to calculate a baseline risk score and evaluate different mitigation strategies for their ability to reduce that baseline score. The methodology places an emphasis on identifying and prioritizing the highest safety risks. Risk mitigations are tracked throughout the year and risk assessments are refreshed at least annually to capture the impact of mitigation strategies and to reflect changes in the operating environment. The risk management program provides transparency and accountability for risk reduction progress.

The senior-most executive of each LOB maintains a Risk and Compliance Committee, which has oversight responsibility for all associated activities for risk and compliance programs within their organization, including those related to water risk.

The Boards of Directors and their respective committees have oversight responsibility for risk management in their respective areas, including compliance and public policy, public and employee safety, operational excellence, and investments to enable a low-carbon future.

Asset-level: On an ongoing basis, PG&E assesses the potential physical risks of climate change to our system and has identified a number of potential risks, including rising sea levels, major storm events, increasing temperatures and heatwaves, wildfires, drought, wind events, and land subsidence. PG&E established an internal Climate Resilience Officer Committee to coordinate work across enterprise risk management; internal culture, integration and planning; and external engagement. To address near-term risks, PG&E has robust emergency response plans and procedures. For longer-term risks, PG&E's risk management program identifies potential impacts to the company and enables business units to evaluate risks to facilities and develop necessary adaptation strategies.

Assessment: We proactively track and evaluate climate- and water-related risks. In 2016, PG&E published a Climate Change Vulnerability Assessment that details these processes and shares our vulnerability to, and strategies to address, a range of climate risks. As a recent step, PG&E has initiated a multi-year Climate Vulnerability Assessment to better understand electric and gas system vulnerabilities to expected climate change impacts and how those impacts will affect PG&E's infrastructure, operations, services, employees, customers, and surrounding communities.

The results of the analysis will help PG&E target investments to infrastructure that is most vulnerable to climate impacts and that could significantly impact customers in the event of

service disruption. This effort aligns with the CPUC's expectation that utilities conduct a refreshed vulnerability assessment, with a specific focus on identifying utility-related impacts to disadvantaged vulnerable communities.

As part of a broader effort to build climate resilience, we are conducting foundational work to enable PG&E to assess infrastructure investments in light of climate change-related risk.

Looking ahead, to advance our understanding of effective ways to build climate resilience at PG&E, we are using a series of targeted "deep dives" to research particular natural hazards and aspects of PG&E's business. In 2020, PG&E is conducting a deep dive focused on inland and coastal flooding, which will also consider impacts of sea level rise, rising water tables, and impacts of extreme storms. This may include storms characterized by strong coastal waves and storm surge, extreme precipitation, rain on snow events, or a combination of these storm hazards. The research will derive lessons learned, barriers to building resilience, and other information to inform PG&E's future resilience efforts.

Risks are reported to shareholders, the public, and other stakeholders through PG&E's Annual Form 10-K and Corporate Responsibility and Sustainability Report, and to regulators via reporting requirements.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

Water risks for PG&E are defined as those that have a strategic impact on PG&E's business of providing safe, reliable, affordable, and clean energy for our customers and impact the long-term sustainability of PG&E as a company. Our water-related risk management efforts focus primarily on drought mitigation, climate change, once-through cooling, land subsidence, groundwater management, storm water, drinking water, water use and recycling, and discharge limitations.

As a provider of critical infrastructure services, PG&E faces a variety of risks from a changing climate, including more frequent and extreme storms, drought, and rising sea levels. Building greater climate resilience involves understanding the impacts of climate change on our business and being prepared to withstand and rapidly recover from major disruptions to service caused by changing climate conditions and weather events.

Severe weather events and other natural disasters 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 PG&E. Any such event could have a material effect on PG&E’s financial condition, results of operations, liquidity, and cash flows. Any of such events also could lead to significant claims against PG&E. Further, these events could result in regulatory penalties and disallowances, particularly if PG&E encounters difficulties in restoring power to its customers on a timely basis or if the related losses are found to be the result of PG&E’s practices and/or the failure of PG&E’s electric and other equipment.

Under a court-developed materiality standard, information is material if there is a substantial likelihood that a reasonable investor would consider it important in deciding how to vote or make an investment decision (i.e., if the information would alter the total mix of available information). We do not view climate change as a single risk on its own, but rather a stress multiplier to existing risk and opportunity considerations that we manage in our planning. We also recognize that climate change may affect different parts of our business in different ways.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

| | Total number of facilities exposed to water risk | % company-wide facilities this represents | Comment |
|-------|--|---|--|
| Row 1 | 51 | 51-75 | PG&E operates 105 hydroelectric generating units at 65 powerhouses. PG&E also operates two units at Diablo Canyon Nuclear Power Plant. |

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

United States of America

Other, please specify

Northern and Central California

Number of facilities exposed to water risk

50

% company-wide facilities this represents

51-75

% company's annual electricity generation that could be affected by these facilities

26-50

% company's total global revenue that could be affected

Unknown

Comment

PG&E's hydroelectric generation facilities are located within the Pit, Cow-Battle Creek, Feather, DeSabra, Eel, Yuba, South Fork American, Mokelumne, Stanislaus, Merced, San Joaquin, Kings, Tule, and Kern River System Watersheds.

PG&E operates 105 generating units at 65 powerhouses. This proportion is based on the generation capacity of PG&E's hydroelectric generation system (3,891 MW) divided by the total generation capacity of the power plants PG&E owns and operates (7,686 MW). Climate scientists predict that climate change will result in significant reductions in snowpack in parts of the Sierra Nevada Mountains. This impact could, in turn, affect PG&E's hydroelectric generation.

Country/Area & River basin

United States of America

Other, please specify

Central Coast Region of California

Number of facilities exposed to water risk

1

% company-wide facilities this represents

26-50

% company's annual electricity generation that could be affected by these facilities

51-75

% company's total global revenue that could be affected

Unknown

Comment

PG&E operates two units at Diablo Canyon Power Plant. This proportion is calculated by dividing the generation capacity of the facility (2,240 MW) by the total generation capacity of the power plants PG&E owns and operates (7,686 MW). It is important to note that while located in a water-stressed area, Diablo Canyon relies on salt water from the Pacific Ocean, not freshwater, for once-through cooling. In addition, Diablo Canyon primarily uses freshwater produced through seawater reverse osmosis. This freshwater is used in the plant's steam generation cycle, in closed cooling systems for auxiliary equipment, emergency fire water systems, and supply for the site's domestic drinking water system. Freshwater from well water is also used in limited circumstances,

primarily as a back-up water supply for the plant's reverse osmosis system. The well water resource is confined to a topographically isolated aquifer at the Diablo Canyon Power Plant site.

Reflecting California's changing energy landscape, the California Public Utilities Commission approved in 2018 several key elements of a joint proposal with labor and environmental organizations to retire Diablo Canyon at the end of its current Nuclear Regulatory Commission licenses, in 2024 and 2025, while still meeting California's greenhouse gas reduction goals. PG&E will participate in the CPUC's Integrated Resource Planning process to shape our future energy portfolio to meet California's clean energy goals in a reliable and cost-effective manner.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

United States of America

Other, please specify

Multiple river basins in California: PG&E's hydroelectric facilities located in the Pit, Cow-Battle Creek, Feather, DeSabra, Eel, Yuba, South Fork American, Mokelumne, Stanislaus, Merced, San Joaquin, Kings, Tule, and Kern River System Watersheds

Type of risk & Primary risk driver

Physical

Dependency on water intensive energy sources

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

PG&E owns and operates one of the nation's largest investor-owned hydroelectric systems, which relies on nearly 100 reservoirs located primarily in the higher elevations of California's Sierra Nevada and Southern Cascade mountain ranges. Climate scientists predict that climate change will result in varying levels of precipitation in PG&E's service area. As a result, PG&E faces the risk of reduced hydroelectric output; there is also increased risk to infrastructure from land subsidence that occurs as a result of increased groundwater extraction during extreme drought conditions. Extreme precipitation can also cause a sharp increase in water levels, placing stress on hydro infrastructure and reinforcing the importance of dam safety measures.

In 2019, we made significant progress in building out a programmatic series of enhancements to our Dam Safety Program that will establish a risk-informed approach

and new tools that improve the way in which our engineering teams conduct their inspections, surveillance, and monitoring of dams. With continuous improvement as a driving principle, the Dam Safety Program receives external feedback from a panel of established industry experts through the Dam Safety Advisory Board. We also expect to receive feedback in 2020 from the California Public Utilities Commission and other stakeholders through the Risk Assessment Mitigation Phase of our General Rate Case.

The 2019 water year was wet due to a snowpack that was 175% of average and statewide reservoir storage that was 128% of average, which heavily impacts our hydroelectric infrastructure.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-high

Likelihood

Very likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

The annual cost of impacts of climate change on hydroelectric production would vary greatly by year. In 2017, the Pacific Institute released an assessment of the costs to California of lost hydroelectricity during the five years of drought from 2012 to 2016. The report found that the five years of drought led to an increase in electricity costs of more than \$2.45 billion and the additional combustion of fossil fuels for electric generation also led to a 10% increase in the release of carbon dioxide from California power plants.

Primary response to risk

Improve monitoring

Description of response

During California's recent drought with near historically low levels of precipitation, PG&E conserved water in our reservoirs in the spring so more would be available during the hot summer months, when customer demand increased. PG&E also worked to reduce the required water releases from our reservoirs to lessen the drought's impact on the environment and prolong water availability for downstream users' needs.

Longer-term, development and calibration of new distributed runoff forecasting models are enabling PG&E to improve planning and better manage increased variability and extremes. Possible storage projects that would help mitigate the expected snowpack decline could include the development of pump storage projects, new reservoir capacity, and additional capacity from other energy sources.

PG&E is engaging with state and local stakeholders and has adopted strategies such as maintaining higher winter carryover reservoir storage levels, reducing discretionary reservoir water releases, and collaborating on research and new modeling tools.

More broadly, PG&E has established an internal Climate Resilience Officer Committee to coordinate work across departments.

Cost of response

151,167,530

Explanation of cost of response

Cost of management is difficult to determine as each year is dependent on the amount of precipitation received and the temperature (if the precipitation falls as rain or snow). There is an opportunity cost of winter and spring peak generation that is foregone for summer generation, but that is a calculated/optimized decision based on our water supply forecast and schedule optimization results - not a cost of management but a cost associated with the lack of precipitation.

The \$151 million figure above represents the average annual operations and maintenance costs for PG&E's hydroelectric operations during 2011 to 2014, the primary years of California's recent drought.

There are some opportunities to address the expected increase in the coefficient of variation for annual precipitation in the Sierra Nevada Region. PG&E's Power Generation Water Management organization may incur additional climate change costs from some or all the following: development/enhancement of distributed modeling tools such as the PRMS Model, enhancement of existing statistical runoff forecast tools to include additional snow courses and snow sensors outside of the targeted watershed/sub-basin, and installation of additional soil moisture probes at selected snow sensors in the mid-elevation snow zone.

Country/Area & River basin

United States of America

Other, please specify

Multiple river basins in California

Type of risk & Primary risk driver

Physical

Flooding

Primary potential impact

Impact on company assets

Company-specific description

Storm events in PG&E's service area can significantly impact PG&E's operations. This creates the need for emergency response from PG&E crews and require investments in infrastructure to make the system more resilient. There is an additional risk of infrastructure damage, customer outages and operational costs due to weather factors such as flooding, high winds, and heavy snow.

PG&E participated in the Bay Area Council Economic Institute's 2015 Surviving the Storm report, which looked at the economic impact of a Superstorm and associated flooding on the Bay Area economy. The report concluded that a Superstorm and the associated flooding would be detrimental to PG&E both physically and economically, identifying several Bay Area substations that are at risk. The report identifies the potential for a \$10.4 billion impact on the greater San Francisco Bay Area economy with PG&E's estimate of a \$125 million impact based on six of PG&E's Bay Area substations. This estimate represents the associated outage cost—or loss of value—to PG&E customers, not the cost of replacing or repairing equipment. In the Bay Area, 355,000 residents (6% of the total exposed) live within a 100-year floodplain while over a million (17%) live in a 500-year floodplain.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

0

Potential financial impact figure - maximum (currency)

125,000,000

Explanation of financial impact

In April 2015, the Bay Area Council Economic Institute published "Surviving the Storm," a report that finds that a Superstorm and the associated flooding could have a \$10.4 billion impact on the Bay Area economy. Included in the report is PG&E's estimate that disruption to our Bay Area substations could result in an economic impact of up to \$125

million. This estimate represents the associated outage cost—or loss of value—to PG&E customers, not the cost of replacing or repairing equipment.

Primary response to risk

Improve monitoring

Description of response

PG&E meteorologists have implemented a storm model that provides the utility advance forecasts of wind, rain, lightning, and heavy snow event intensities in terms of outage estimates for each local PG&E Division and storm timing. PG&E maintains emergency response plans and procedures to address a range of near-term risks, including extreme storms, and uses our risk-assessment process to assess infrastructure investments for longer-term risks associated with climate change.

For example, we are integrating climate data into our strategic risk planning process and in June 2020 filed our second Risk Assessment Mitigation Phase report with the CPUC. In 2016, PG&E voluntarily published a Climate Vulnerability Assessment to identify our top climate-driven risks and we have initiated a second Assessment to understand the impacts of those risks to PG&E's infrastructure with guidance from the CPUC. PG&E also engages with leaders from business, government, academia, and non-profit organizations to share information and plan for the future.

More broadly, PG&E has established an internal Climate Resilience Officer Committee to coordinate work across enterprise risk management, integration and planning, and engagement.

Looking ahead, to advance our understanding of effective ways to build climate resilience at PG&E, we are using a series of targeted "deep dives" to research particular natural hazards and aspects of PG&E's business. In 2020, PG&E is conducting a deep dive focused on inland and coastal flooding, which will also consider impacts of sea level rise, rising water tables, and impacts of extreme storms. This may include storms characterized by strong coastal waves and storm surge, extreme precipitation, rain on snow events, or a combination of these storm hazards. The research will derive lessons learned, barriers to building resilience, and other information to inform PG&E's future resilience efforts.

Additionally, through the Resilient Communities grant program, PG&E is requesting grant proposals of \$100,000 to fund four projects in 2020 that build community capacity to reduce flood risk and support healthy and resilient coastlines and wetlands. Priority will be given to projects located in demonstrated past or projected flood risk areas and to those that address the needs of environmental and social justice communities. One core element is the extent to which the proposal demonstrates a high threat of flooding in the proposed project area.

Cost of response

205,000,000

Explanation of cost of response

The CPUC allows utilities, including PG&E, to recover the reasonable, incremental costs of responding to catastrophic events through a Catastrophic Event Memorandum Account (CEMA). The CEMA authorizes PG&E to recover costs incurred in connection with a catastrophic event that has been declared a disaster or state of emergency by competent federal or state authorities. The recorded costs associated with the repair of facilities and restoration of service associated with the 2019 Winter Storms in the CEMA totaled \$205 million as the 2019 Winter Storms were estimated to have damaged approximately 4,900 of PG&E's Electric Distribution facilities, eight Electric Generation facilities, 300 Gas Distribution facilities, and disrupted service to approximately 2.3 million electric customers and approximately 300 gas customers across PG&E's service area.

Note: the \$205 million does not equate to PG&E's revenue requirement request in the 2019 CEMA filing.

Country/Area & River basin

United States of America

Other, please specify

Multiple river basins in California

Type of risk & Primary risk driver

Physical

Other, please specify

Sea level rise

Primary potential impact

Impact on company assets

Company-specific description

PG&E faces the risk of higher inundation and flooding potential at coastal and low elevation facilities due to sea level rise when combined with high tides, storm runoff, and storm surges. There is the risk of levee erosion or failure, putting assets at risk. PG&E also faces the risk of damage to substations and other gas and electric infrastructure. PG&E is assessing the risk of sea level rise and associated flooding risk as part of our ongoing Climate Vulnerability Assessment.

Timeframe

More than 6 years

Magnitude of potential impact

Medium-high

Likelihood

Likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

PG&E partnered with researchers at the UC Berkeley Center for Catastrophic Risk Management on a study to better understand how our gas transmission infrastructure may be impacted under the future risk of sea level rise coupled with a storm surge event. Based on a preliminary review of a worst-case scenario of 1.4 meters of sea level rise coupled with a 100 year storm event, PG&E estimated the cost of mitigation efforts would be between \$4 and \$7 million annually.

Primary response to risk

Other, please specify
Improved planning and engineering

Description of response

PG&E is evaluating low elevation electric and gas facilities to determine site specific sea-level rise risks. Where risks are identified, temporary mitigation measures can be initiated while permanent engineered adaptations are planned.

More broadly, PG&E has established an internal Climate Resilience Officer Committee to coordinate work across enterprise risk management, integration and planning, and engagement. PG&E piloted a Climate Resilience Visualization Tool on a significant transmission tower replacement initiative that is exposed to sea level rise. The results validated asset experts' desire to raise the transmission towers more than immediately necessary in light of future climate impacts. As a result, the transmission towers are being engineered to account for sea level rise projections.

On top of these efforts, PG&E has initiated a multi-year Climate Vulnerability Assessment to better understand electric and gas system vulnerabilities to expected climate change impacts and how those impacts will affect PG&E infrastructure, employees, customers, and surrounding communities. The results of the analysis will help PG&E target investments to infrastructure that is most vulnerable to climate impacts and that could significantly impact customers in the event of service disruption. This effort aligns with the CPUC's expectation that utilities conduct a refreshed vulnerability assessment, with a specific focus on identifying utility-related impacts to disadvantaged vulnerable communities. The analysis will consider broad categories of climate drivers that may result in risks to utility infrastructure, including changing precipitation levels and sea-level rise.

Cost of response

50,000

Explanation of cost of response

The cost of management figure refers to a “deep dive” research project PG&E is undertaking in 2020 to better understand potential impacts of inland and coastal flooding, which will also consider impacts of sea level rise, rising water tables, and impacts of extreme storms. The effort is part of a series of targeted “deep dives” to research particular natural hazards and aspects of PG&E’s business.

The costs of preparing for sea level rise will depend on site specific information, including the existing elevation of assets and surrounding land characteristics.

Replacement of equipment can run in the thousands to millions of dollars, depending on the asset. Levee design, permitting, and construction for individual sites can run into the tens of millions of dollars. Completely moving and rebuilding a substation is estimated to cost at least \$100 million.

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Products and services

Primary water-related opportunity

Sales of new products/services

Company-specific description & strategy to realize opportunity

PG&E offers customers a wide range of options to help them reduce their water use. Altogether, customers who participated in PG&E’s programs reduced water usage by about 166 million gallons in 2019, based on an analysis of our most common energy-efficiency measures that deliver water savings.

A 2009 study by the Pacific Institute found that a combination of agricultural technology – such as shifts from flood irrigation to sprinkler- and drip-irrigation systems – and management scenarios together could reduce agricultural water use in the state by 17%. To maximize these savings, we offer water-saving solutions for agricultural customers who convert from sprinkler systems to water-efficient drip irrigation, as well as programs for energy efficient pumping systems and more.

In particular, PG&E's SEM platform can help farmers improve their energy and water operations and management practices and develop long-term plans to reduce the water and energy intensity of their crops. We also offer incentives to residential customers, which include energy efficiency rebates for high-efficiency appliances, such as clothes washers, and shower heads. Working with Wexus Technologies, PG&E offered a new cloud-based tool that remotely connects pumps, buildings, SmartMeter devices, and water flow meters, giving agricultural customers another option to track, interpret, and manage their water and energy use effectively.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

15,000,000

Potential financial impact figure – maximum (currency)

21,000,000

Explanation of financial impact

PG&E can earn a financial incentive for achieving the CPUC-approved customer energy efficiency targets. The forecasted payment for 2019 is between \$15 and \$21 million, based on the historical relationship between the incentive and program expenditures. Altogether, customers who participated in PG&E's programs reduced water usage by about 166 million gallons in 2019.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

We strive to achieve water reductions in our offices and service yards by finding and repairing leaks and replacing facility landscapes with drought-resistant designs, plants, and materials. During the recent drought, browning lawns outside 60 of our facilities displayed signs supporting the state's Save Our Water drought message.

In 2019, PG&E continued to implement sustainable practices at our offices and service centers; however, aggregated water use intensity increased slightly by two percent. To minimize water use, PG&E continued to integrate water best management practices into operating procedures at facilities and operations.

PG&E also repurposed more than 11 million gallons of water used in hydrostatic testing for beneficial reuse, including toward irrigation, dust suppression, backfill compaction, and project restoration—reseeding and watering all disturbed areas to return them to their pre-project state.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Type of opportunity

Other

Primary water-related opportunity

Other, please specify
Collective Action

Company-specific description & strategy to realize opportunity

For the sixteenth consecutive year, PG&E held a Water Conservation Showcase at our Pacific Energy Center in San Francisco, bringing together hundreds of industry

professionals to hear from experts and engage with new technologies. For PG&E, the event is an extension of our focus on energy efficiency and sustainability, highlighting the direct connection between water and energy use. A variety of topics were discussed, including the water efficient home of the future, the water-energy nexus, rainwater harvesting, and the essentials of community-wide fire protection, from a range of institutions including the San Francisco Public Utilities Commission, Contra Costa Water District, and the California Native Plant Society.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

Hosted at the Pacific Energy Center in San Francisco, this free event is organized through collaboration with local chapters of the U.S. Green Building Council and American Institute of Architects as well as the San Francisco Public Utilities Commission and East Bay Municipal Utility District.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number

Facility 2

Facility name (optional)

Diablo Canyon Power Plant

Country/Area & River basin

United States of America

Other, please specify
Central Coast Region of California

Latitude

35.2117

Longitude

120.855

Located in area with water stress

Primary power generation source for your electricity generation at this facility

Nuclear

Total water withdrawals at this facility (megaliters/year)

2,862,041

Comparison of total withdrawals with previous reporting year

Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

2,861,976

Withdrawals from groundwater - renewable

65

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

2,862,000

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

2,861,523

Discharges to groundwater

0

Discharges to third party destinations

477

Total water consumption at this facility (megaliters/year)

40

Comparison of total consumption with previous reporting year

About the same

Please explain

Diablo Canyon relies on salt water from the Pacific Ocean, not freshwater, for once-through cooling. In addition, Diablo Canyon primarily uses freshwater produced through seawater reverse osmosis. This freshwater is used in the plant's steam generation cycle, in closed cooling systems for auxiliary equipment, emergency fire water systems, and supply for the site's domestic drinking water system. Freshwater from well water is used in limited circumstances, primarily as a back-up water supply. (Note: For total water consumption at Diablo Canyon, we mistakenly put total water consumption as 521 megaliters in 2018. The actual water consumption at Diablo Canyon for 2018 was 29 megaliters and for 2019 is 40 megaliters.)

Facility reference number

Facility 1

Facility name (optional)

PG&E's hydroelectric generation facilities

Country/Area & River basin

United States of America

Other, please specify

Northern and Central CA: PG&E's hydroelectric generation facilities located within the Pit, Cow-Battle Creek, Feather, DeSabra, Eel, Yuba, South Fork American, Mokelumne, Stanislaus, Merced, San Joaquin, Kings, Tule, and Kern River System Watersheds

Latitude

Longitude

Located in area with water stress

Primary power generation source for your electricity generation at this facility

Total water withdrawals at this facility (megaliters/year)

Comparison of total withdrawals with previous reporting year

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

Total water discharges at this facility (megaliters/year)

Comparison of total discharges with previous reporting year

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

Comparison of total consumption with previous reporting year

Please explain

PG&E operates 105 generating units at 65 powerhouses. This proportion is based on the generation capacity of PG&E's hydroelectric generation system (3,891 MW) divided by the total generation capacity of the power plants PG&E owns and operates (7,686 MW).

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

Water withdrawals – total volumes

% verified

Not verified

Water withdrawals – volume by source

% verified

Not verified

Water withdrawals – quality

% verified

Not verified

Water discharges – total volumes

% verified

Not verified

Water discharges – volume by destination

% verified

Not verified

Water discharges – volume by treatment method

% verified

Not verified

Water discharge quality – quality by standard effluent parameters

% verified

Not verified

Water discharge quality – temperature

% verified

Not verified

Water consumption – total volume

% verified

Not verified

Water recycled/reused

% verified

Not verified

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

| | Scope | Content | Please explain |
|-------|--------------|---|---|
| Row 1 | Company-wide | Description of business dependency on water Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Recognition of environmental linkages, for example, due to climate change | PG&E's corporate environmental policy states the company's commitment to "find ways to produce, deliver, and use energy as safely and sustainably as possible." The policy also states the company's commitment to "comply fully with the letter and spirit of all applicable environmental laws and regulations" and "lead by example and reduce our impact on the environment by delivering clean energy, building more sustainable and climate-resilient operations, and serving as responsible stewards of land, wildlife and cultural resources," which includes continuing to pursue efforts to reduce water consumption. PG&E is promoting sustainable water use in a number of ways: (1) Strategically managing our power generation facilities, (2) Reducing water consumption at PG&E offices and service yards, and (3) Providing outreach and guidance to customers, particularly those in the agricultural community, on reducing water use. |

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

| Position of individual | Please explain |
|---|--|
| Other, please specify Committee of the Board | Led by the Committee Chair, the Compliance and Public Policy Committee (CPP Committee) of PG&E Corporation's Board of Directors is comprised of individuals with primary oversight over PG&E's public policy, climate change, and corporate responsibility policies and practices. This includes the review of environmental policies and programs, PG&E's disclosure on sustainability practices and performance, as well as an annual review of PG&E's sustainability practices and performance. The Committee is composed entirely of independent directors, as defined in the applicable company's guidelines and the committee's charter. |

W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

| | Frequency that water-related issues are a scheduled agenda item | Governance mechanisms into which water-related issues are integrated | Please explain |
|-------|---|--|--|
| Row 1 | Scheduled - some meetings | Monitoring implementation and performance Overseeing major capital expenditures Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy | The Compliance and Public Policy Committee (CPP Committee) of PG&E Corporation's Board of Directors has primary oversight over PG&E's public policy, climate change, and corporate responsibility policies and practices. This includes the review of environmental policies and programs, PG&E's disclosure on sustainability practices and performance, as well as an annual review of PG&E's sustainability practices and performance. For example, the CPP Committee oversees climate change- and water-related policy positions that could affect customers, shareholders, or employees. Water-related risks are integrated into "monitoring implementation and performance" through regular updates and discussions with the CPP Committee on topics including goals and targets for addressing water-related issues and PG&E's projects that work towards California's climate and clean energy goals. In addition, on an annual basis, management reviews PG&E's climate risk progress, |

| | | | |
|--|--|--|--|
| | | | developments and mitigations jointly with the CPP Committee and the Safety and Nuclear Oversight Committee of PG&E Corporation's Board of Directors. |
|--|--|--|--|

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Sustainability Officer (CSO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Annually

Please explain

At an individual level, PG&E's Chief Sustainability Officer has the overall responsibility for strategy and policy issues related to water, working with the Vice President, Shared Services, among other officers.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

| | Provide incentives for management of water-related issues | Comment |
|-------|--|---------|
| Row 1 | No, and we do not plan to introduce them in the next two years | |

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, direct engagement with policy makers

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

PG&E routinely analyzes how potential and emerging regulations, particularly energy and environmental regulations at the state or federal levels, might impact our business. This includes assessing factors such as the extent to which they represent timely, durable,

environmentally effective and affordable policy and energy solutions. PG&E’s approach to policy is managed by a cross-functional team comprised of representatives from across the company. The team meets regularly and actively coordinates with PG&E’s leadership to share developments at the state and national levels and seek approval on policy positions. The Compliance and Public Policy Committee of PG&E Corporation’s Board of Directors has primary oversight over PG&E’s public policy, climate change, and corporate responsibility policies and practices. This includes the review of policies and programs such as environmental remediation projects with water-related impacts, PG&E’s disclosure on sustainability practices and performance, as well as an annual review of PG&E’s sustainability practices and performance.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

 2019 Annual Report.pdf

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

| | Are water-related issues integrated? | Long-term time horizon (years) | Please explain |
|-------------------------------|--|--------------------------------|---|
| Long-term business objectives | Yes, water-related issues are integrated | 5-10 | <p>PG&E evaluates the potential impacts of climate change on our hydroelectric generation system. The drastic change from a record-breaking drought to significant, above average precipitation and snowpack in the 2019 water year demonstrates the variability. The 2019 water year was wet due to a snowpack that was 175% of average and statewide reservoir storage that was 128% of average.</p> <p>Looking ahead, to advance our understanding of effective ways to build climate resilience at PG&E, we are using a series of targeted “deep dives” to research particular natural hazards and aspects of PG&E’s business. In 2020, PG&E is conducting a deep dive focused on inland and coastal flooding, which will also consider impacts of sea level rise, rising water tables,</p> |

| | | | |
|---|--|------|---|
| | | | and impacts of extreme storms. This may include storms characterized by strong coastal waves and storm surge, extreme precipitation, rain on snow events, or a combination of these storm hazards. The research will derive lessons learned, barriers to building resilience, and other information to inform PG&E's future resilience efforts. |
| Strategy for achieving long-term objectives | Yes, water-related issues are integrated | 5-10 | <p>PG&E uses rainfall/snowmelt runoff forecasting tools to help provide guidance to operate hydro facilities safely. Streamflow forecasting consists of both long-term and short-term modeling tools. Longer-term seasonal runoff models forecast the total amount of water expected at specific forecast points on rivers through July. This information is useful in reservoir planning and positioning reservoirs prior to snowmelt season. Short-term weather-dependent inflow forecasting is used to determine daily natural inflows and assists reservoir operators in short-term decision making.</p> <p>Reservoir management to minimize spills or rapid changes in stream flows requires effective communication with various departments. PG&E regularly reviews weather outlook, flow forecasts, scheduled maintenance outages, risk of spill, and operational plans. Additionally, there is frequent communication and coordination with government agencies and other organizations that may be affected by PG&E's water operations.</p> |
| Financial planning | | | |

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

206,814,000

Anticipated forward trend for CAPEX (+/- % change)

Water-related OPEX (+/- % change)

177,476,117

Anticipated forward trend for OPEX (+/- % change)

Please explain

Water-related CAPEX includes capital expenditures to purchase equipment and infrastructure required to maintain the safety and reliability of hydroelectric generation operations, costs for complying with the conditions required by FERC licenses, and other compliance work. Water-related OPEX includes operations and maintenance costs for PG&E's hydroelectric operations.

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

| | Use of climate-related scenario analysis | Comment |
|-------|--|---|
| Row 1 | Yes | <p>PG&E has conducted – and is in the process of conducting new – climate-related scenario analysis to assess future risks and opportunities for PG&E's business strategy.</p> <p>California's climate policies, which set an overall emissions trajectory in line with below 2°C goals, are a key component of the scenarios. A state Executive Order directs all sectors of the CA economy to achieve carbon neutrality by 2045 and to be net GHG negative thereafter. PG&E is conducting a study that will produce a set of scenarios that achieve CA's policy goal of economy-wide carbon neutrality by 2045. Our intent is to use the study results to inform our business and public policy strategy. PG&E has also published a Climate Change Vulnerability Assessment and has initiated a multi-year Climate Vulnerability Assessment to better understand electric and gas system vulnerabilities and consequences from expected climate change impacts.</p> |

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

Yes

W7.3b

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization’s response?

| | Climate-related scenarios and models applied | Description of possible water-related outcomes | Company response to possible water-related outcomes |
|-------|---|--|--|
| Row 1 | Other, please specify Propriety modeling | <p>Storm events in PG&E’s service area can significantly impact PG&E’s operations. This creates the need for emergency response from PG&E crews and require investments in infrastructure to make the system more resilient. There is an additional risk of infrastructure damage, customer outages and operational costs due to weather factors such as flooding, high winds and heavy snow.</p> <p>PG&E faces the risk of reduced hydroelectric output. (PG&E owns and operates one of the nation’s largest investor-owned hydroelectric system, which relies on nearly 100 reservoirs located primarily in the higher elevations of California’s Sierra Nevada and Southern Cascade mountain ranges.) There is also increased risk to infrastructure from land subsidence that occurs as a result of increased groundwater extraction during extreme drought conditions.</p> <p>PG&E faces the risk of higher inundation and flooding potential at coastal and low elevation facilities due to sea level rise when combined with high tides, storm runoff, and storm surges. There is the risk of levee erosion or failure, putting assets at risk. PG&E also faces the risk of damage to substations and other gas</p> | <p>During drought conditions, PG&E actively collaborates with regulatory agencies and other stakeholders to assess the required water releases from our reservoirs to lessen drought impact on the environment as well as prolong availability of water for downstream users’ needs. The reduced flows allow retention of water for later in the year while still preserving environmental values in the affected streams. In 2017, PG&E filed our Risk Assessment Mitigation Phase submittal with the CPUC, which includes quantifying top safety risks across PG&E and examines safety risks that may be exacerbated by climate change. The model indicated potential safety consequences due to climate change, including in the near term.</p> <p>In our 2020 RAMP filing, PG&E evaluated our twelve top safety risks for vulnerability to climate impacts. PG&E integrated available climate data into the risk bowties for Wildfire and Failure of Electric Distribution Overhead Asset risks. Integrating the projected, quantitative impact of climate change into the other RAMP risk models was not possible at this time due to the need for more data about the relationship between climate-driven natural hazards and risk events and the need for more or more specific</p> |

| | | |
|--|--|--|
| | and electric infrastructure. PG&E faces the risk of increased wildfire frequency and intensity in our service area. Wildfires pose a threat to customers as well as PG&E assets such as electric transmission and distribution lines, gas infrastructure and hydroelectric assets - also creating the need for emergency response from our crews. | PG&E data. PG&E considers that most RAMP risks are impacted by the climate change cross-cutting factor and intends to further integrate forward-looking climate data into risk analysis in future reports. |
|--|--|--|

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

No, and we do not anticipate doing so within the next two years

Please explain

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

| | Levels for targets and/or goals | Monitoring at corporate level | Approach to setting and monitoring targets and/or goals |
|-------|---------------------------------|--|---|
| Row 1 | Company-wide targets and goals | Goals are monitored at the corporate level | Achieve top-decile performance in facility water reduction among industry peers |

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal

Engaging with customers to help them minimize product impacts

Level

Company-wide

Motivation

Sales of new products/services

Description of goal

PG&E offers customers a wide range of options to help them reduce their water use. Water-saving solutions for residential customers include supporting markets for high-efficiency clothes washers and direct installation of low-flow shower heads and faucet aerators. We also offer incentives to agricultural customers who convert from sprinkler systems to water-efficient drip irrigation, as well as programs for energy efficient pumping systems and more.

Baseline year

Start year

End year

Progress

Customers who participated in PG&E's programs reduced water usage by about 166 million gallons in 2019.

Goal

Promotion of sustainable agriculture practices

Level

Company-wide

Motivation

Cost savings

Description of goal

Expanded agricultural energy efficiency programs and incentives.

Baseline year

Start year

End year

Progress

We continue to pursue rebates and incentives on water and energy-saving appliances and equipment for our agricultural customers, including pump efficiency, variable frequency drives and energy efficiency financing. We are developing approaches for managing irrigation and using audits to recommend energy and water conservation for food processing facilities. We are also helping customers replace sprinklers for field crops with more water efficient drip systems.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

No, we do not currently verify any other water information reported in our CDP disclosure

W10. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

| | Job title | Corresponding job category |
|-------|--|------------------------------------|
| Row 1 | Vice President, Federal Affairs and Chief Sustainability Officer | Chief Sustainability Officer (CSO) |

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes