Public Service Enterprise Group Inc. - Climate Change 2022

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Public Service Enterprise Group (PSEG) is a diversified energy company with one of the U.S. utility industry's most ambitious net zero climate change goals, and whose Powering Progress vision is a future in which people use less energy, and it's cleaner, safer and delivered more reliably than ever. Our operations are located primarily in the Northeast and Mid-Atlantic United States. PSEG is comprised of two principal direct operating subsidiaries: Public Service Electric and Gas (PSE&G) and PSEG Power. PSE&G is a franchised public utility in New Jersey and earns revenues from regulated rate tariffs, under which it provides electric transmission and electric and gas distribution to residential, commercial and industrial customers in its New Jersey service territory. PSE&G offers appliance repair services to customers throughout its service territory and has implemented regulated energy efficiency programs, reduced methane emissions through gas system modernization, and invested in electric vehicle infrastructure, solar generation, and offshore wind generation within New Jersey. PSEG Power operates merchant nuclear generating assets. PSEG Power earns revenue from the generation and marketing of power to hedge business risks and optimize the value of its portfolio of power plants and other contractual arrangements. This optimization is achieved primarily by selling power, natural gas, and other energy-related products on the spot market or using short- or long-term contracts for physical and financial products. In June 2021, we completed the sale of PSEG Power's solar portfolio. In August 2021, we announced the sale of the 6,750 MW fossil generation portfolio to newly formed subsidiaries of ArcLight Energy Partners Fund VII, L.P., a fund controlled by ArcLight Capital Partners, LLC; the transaction was completed in February 2022. With the sale of the fossil generation assets, PSEG's operating portfolio will be focused on zero-carbon emissions nuclear power plants and future off-shore wind generation. Our other direct wholly owned subsidiaries are: PSEG Long Island LLC (PSEG LI), which operates the Long Island Power Authority's (LIPA) electric transmission and distribution (T&D) system under a contractual agreement; PSEG Energy Holdings L.L.C. (Energy Holdings), which earns its revenues primarily from its portfolio of lease investments and holds our investments in the offshore wind ventures; and PSEG Services Corporation (Services), which provides us and our operating subsidiaries with certain management, administrative and general services at cost.

Forward Looking Statements: Certain of the matters discussed in this document about us and our subsidiaries' future performance, including, without limitation, future revenues, earnings, strategies, prospects, consequences and all other statements that are not purely historical constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward- looking statements are subject to risks and uncertainties, which could cause actual results to differ materially from those anticipated. Such statements are based on management's beliefs as well as assumptions made by and information currently available to management. When used herein, the words "anticipate," "intend," "estimate," "believe," "expect," "plan," "should," "hypothetical," "potential," "forecast," "project," variations of such words and similar expressions are intended to identify forward-looking statements. Factors that may cause actual results to differ are often presented with the forward-looking statements themselves. Other factors that could cause actual results to differ materially from those contemplated in any forward- looking statements made by us herein are discussed in filings we make with the United States Securities and Exchange Commission (SEC), including our 2020 Annual Report on Form 10-K and subsequent reports on Form 10-Q and Form 8-K . To read the whole document go to: https://investor.pseg.com/financial-information/forward-looking-statements/default.aspx.

All of the forward-looking statements made on our website are qualified by these cautionary statements and we cannot assure you that the results or developments anticipated by management will be realized or even if realized, will have the expected consequences to, or effects on, us or our business, prospects, financial condition, results of operations or cash flows. Readers are cautioned not to place undue reliance on these forward-looking statements in making any investment decision. Forward-looking statements made in our website apply only as of the date of this document. While we may elect to update forward-looking statements from time to time, we specifically disclaim any obligation to do so, even in light of new information or future events, unless otherwise required by applicable securities laws.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2021	December 31 2021	Yes	Please select

C0.3

(C0.3) Select the countries/areas in which you operate.

United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Equity share

C-EU0.7

(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.

Row 1

Electric utilities value chain

Electricity generation
Transmission
Distribution

Other divisions

Gas storage, transmission and distribution
Smart grids / demand response
Battery storage

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	US7445731067

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	Our board oversees how PSEG integrates sustainability, environmental, social and governance (ESG) matters and corporate citizenship commitments into our overall corporate strategy. Board members are responsible for oversight of key aspects of climate strategy. Our board understands the importance of this focus for PSEG's future growth as well as how we prepare our business to adapt to the effects of a climate challenged world. Representing a diverse skill set, our board members have considerable environmental and scientific expertise. This background and experience are particularly useful to the members who serve on the Corporate Governance Committee, which holds the primary responsibility, as outlined in its charter, of overseeing matters related to sustainability and our ESG practices, including climate change risk; this committee also has oversight of enterprise responsibility for risk policies and practices. The committee is specifically responsible for overseeing PSEG's transition to a net-zero future and discusses ESG and climate issues regularly at its meetings. Our board has overseen the evolution of PSEG into an industry leader in delivering low-carbon energy. Looking ahead, the board understands that climate change is of critical importance to our investors and other stakeholders.
Board Chair	Due to the carbon intensive nature of our industry, PSEG's Chairman is directly responsible for managing PSEG's response to climate change risk. As Chairman of the Board of Directors, he has direct oversight over corporate strategy, structure and management. He has been a catalyst for climate action since assuming this position in 2007. He is a respected voice among energy industry leaders on the need for comprehensive climate change policies, such as a nationwide price on carbon and other policies to support decarbonization of the electric sector. As chairman of the Nuclear Energy Institute, he has advocated for policies to preserve the nation's fleet of existing nuclear power plants, which provide more than half of the country's carbon-free electricity.
Chief Executive Officer (CEO)	PSEG's CEO has direct oversight over corporate strategy, structure and management. Our CEO also advocates for climate action through organizations such as the CEO Climate Dialogue and has been an important advocate within New Jersey for the importance of reliability and resilience as we transition to a clean energy economy.
Other C-Suite Officer	This role does not serve on the Board but is a part of the Senior Executive Team. In 2018, PSEG's senior vice president for Corporate Citizenship became a direct report to the CEO and has responsibility for the company's advocacy agenda at the local, state and federal levels, as well as our sustainability and ESG initiatives, philanthropy, volunteerism and the PSEG Foundation, and our climate change engagement strategy. Our Corporate Citizenship group places a leadership focus on the key role PSEG plays as a corporate citizen and elevates the priorities of the diverse communities we serve.
Chief Financial Officer (CFO)	This role does not serve on the Board but is a part of the Senior Executive Team. PSEG's executive vice president and CFO is responsible for treasury, enterprise risk management, corporate strategy and planning, investor and credit rating agency relations, internal audits, external financial reporting and enterprise scorecard measurement and verification.
Other C-Suite Officer	This role does not serve on the Board but is a part of the Senior Executive Team. PSEG's executive vice president and General Counsel (GC) is responsible for corporate governance, including our ethics and compliance program, procurement, as well as state and federal, energy and environmental regulatory policy.
Other C-Suite Officer	This role does not serve on the Board but is a part of the Senior Executive Team. PSEG's senior vice president and Chief Human Resources Officer (CHRO) and Chief Diversity Officer reports directly to the CEO and is responsible for human resources and talent acquisition, development, retention, and total rewards, external and internal communications, as well as ensuring executive compensation is aligned with climate leadership goals and our commitment to Diversity, Equity, and Inclusion.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures	<Not Applicable>	The board of directors provides strategic oversight of the Enterprise Risk Management (ERM) process, while the Corporate Risk Management Committee has oversight of the process at the executive level. PSEG's ERM team, led by the SVP Audit, Enterprise Risk, & Compliance, is responsible for coordinating the ERM process throughout the company. Risk assessment and risk-informed decision-making are integrated across all levels of our organization – from the board of directors through oversight of the risk management policy and program to executive leadership through the Risk Management Committee- and to business operations. We have mapped the key enterprise risks identified by management to the board and committees based on the committees' respective areas of oversight. This mapping of risks serves to clarify the oversight responsibilities of each committee and ensure proper oversight of each identified risk. Operational risks associated with climate impacts are mapped to the board and the Industrial Operations Committee; strategic risks associated with policies designed to address climate change are mapped to the board; and governance of climate change risk oversight is mapped to the Corporate Governance Committee.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	Industry and functional experience	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Financial Officer (CFO)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other C-Suite Officer, please specify (General Counsel)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other C-Suite Officer, please specify (Sr. VP Corporate Citizenship) *ESG and Sustainability Council*	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Sustainability committee *ESG and Sustainability Council*	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Environment/ Sustainability manager *Director ESG & Sustainability*	<Not Applicable>	Assessing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Environmental, Health, and Safety manager *Managing Counsel - Environmental Law, reporting to Deputy General Counsel.*	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Business unit manager *Vice President – Renewables & Energy*	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

(1) The Senior Executive Team (SET), comprised of our most senior executives, has direct responsibility for governance and oversight of PSEG's climate change strategy and associated Green House Gas (GHG) and climate change programs. These programs focus on GHG mitigation within our own operations, contributing to reducing overall emissions from the energy sector, and driving climate change adaptation and resiliency efforts. Responsibility for sustainability sits within the Corporate Citizenship organization to ensure that sustainability is considered in the decision-making at the highest levels within the organization.

(2) Sustainability and ESG Steering Committee and Council: Given the urgency of climate change, our commitment to climate action is a core pillar of how we operate. The Sustainability and ESG Steering Committee, consisting of our executive officers that meet regularly, assists both the board and executive management in developing strategies, overseeing internal and external stakeholder communications, and incorporating ESG-related initiatives into PSEG's long-term business strategy. To ensure climate and other ESG considerations are integrated into all facets of our organization, the steering committee works in tandem with, and is supported by, the Sustainability and ESG Council, which is composed of a wide representation of individuals appointed by executive officers to bring together cross-functional expertise. The council is tasked with coordinating and implementing ESG strategies and deliverables, including the company's multiple streams of ESG data requests, corporate commitments, external disclosures and external stakeholder engagement on sustainability and ESG. This group is co-chaired by the head of ESG and Sustainability and the VP of Investor Relations. This group presents sustainability strategy updates at least annually to the board of directors. These materials include performance on goals and Key Performance Indicators, including climate change related metrics and emission reduction targets.

(3) Stakeholder Engagement Council: The Stakeholder Engagement Council facilitates our understanding of the interests and concerns of our key stakeholder groups. Led by an executive of the Corporate Citizenship organization and representatives from across our company, the council facilitates constructive and open dialogue with our stakeholders, devising engagement strategies to find areas of commonality and advance mutually beneficial strategies. The council actively solicits feedback from our stakeholders, making sure voices in our community are heard and can better inform our understanding of our material issues. These stakeholder conversations are essential in shaping our understanding of the risks and opportunities of the business landscape and our approach to addressing climate change.

(4) The environmental policy function is decentralized - Within individual lines of business, environmental policy is monitored by subject matter experts.

(5) Additionally, we have formed a Climate Engagement Council chaired by the VP Federal & State Governmental Affairs, in order to ensure all of the corporate objectives and strategies are aligned with our climate priorities as well as with NJ's clean energy and climate goals.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Please select	It is important that we evaluate the progress and performance of our leadership by measuring their ability to execute our goals related to climate change management and disclosure, particularly attainment of emission reduction targets. The achievement of our ESG goals is a component of annual compensation for senior executives and director level employees and above throughout the organization. Performance is evaluated based on achieving annual goals and targets in areas such as developing low-carbon infrastructure, managing energy efficiency programs, and implementing and developing programs such as electric vehicles. The Organization and Compensation Committee of the board of directors is tasked with evaluating our leaders and providing oversight on the alignment of sustainability goals with compensation metrics.
Management group	Monetary reward	Please select	PSEG's compensation program is based on the fundamental premise of pay for performance. This compensation can come in several forms, including base pay and incentive pay. PSEG's business goals include achieving financial, strategic and operating goals. Achieving our financial goals is predicated upon successful execution of our business strategy, which includes deployment of emission abatement measures such as energy efficiency, timely replacement of aging natural gas infrastructure to reduce GHGs, implementation of our advanced metering and energy cloud analytics program, electric vehicle charging infrastructure, and our targeted generation output. Additionally, PSEG's vision includes commitments to culture and business transformation as well as emission reduction commitments.
Other C-Suite Officer	Monetary reward	Please select	Executives in throughout the organization may have specific performance goals related to climate change management and disclosure factored into their annual scorecard goals and/or performance plans. Attainment of these goals impacts annual compensation. As part of PSEG's performance-based compensation structure, employees whose positions are related to managing environmental and climate change impacts such as developing low-carbon infrastructure, managing energy efficiency programs, and implementing and developing programs such as electric vehicles, among others, are incentivized to achieve annual goals and targets related to these areas.
Chief Executive Officer (CEO)	Monetary reward	Please select	PSEG's compensation program is based on the fundamental premise of pay for performance. This compensation can come in several forms including, base pay and incentive pay. PSEG's business goals include achieving financial, strategic and operating goals. Achieving our financial goals is predicated upon successful execution of our business strategy, which includes deployment of emission abatement measures such as energy efficiency, achieving targeted generation output and renewable energy. Additionally, PSEG's vision includes commitments to culture and business transformation as well as its voluntary emission reduction commitments.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	Short term is within one year of assessment
Medium-term	1	5	This is the time period of the Business Plan
Long-term	5	40	This is beyond the Business Planning horizon

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

The Enterprise Risk Management program relies on impact scales to define and measure the potential financial, operational, and strategic impact of risks to the company. The scales have multiple dimensions: financial; customer bill; utility delivery service reliability; environmental, health and safety; legal, regulatory and compliance; and reputation. Risks are evaluated across these dimensions and assigned ratings ranging from incidental to severe. PSEG considers risk and opportunities to be substantive if they have the potential to be of concern to PSEG's shareholders or customers.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Long-term

Description of process

We have two assessments as part of the Enterprise Risk Management life cycle: we look at events that may impact the company from 1-5 years and we also look at emerging risks 5+ years.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Both state and federal policies play direct role in our strategy and operations: "PSE&G is a regulated public utility that operates and invests in an electric T&D system and a gas distribution system as well as certain regulated clean energy investments, including smart metering and energy efficiency within New Jersey. PSE&G invests in capital projects to maintain and improve its existing T&D system and to address various public policy goals and meet customer expectations. Transmission projects are subject to review in the FERC-approved PJM transmission expansion process while distribution and clean energy projects are subject to approval by the BPU. We cannot be certain that any proposed project will be approved as requested or at all. If the programs that PSE&G may file from time to time are only approved in part, or not at all, or if the approval fails to allow for the timely recovery of all of PSE&G's costs, including a return of, or on, its investment, PSE&G will have a lower than anticipated rate base, thus causing its future earnings to be lower than anticipated. If these programs are not approved, that could also adversely affect our service levels for customers. Further, the BPU could take positions to exclude or limit utility participation in certain areas, such as renewable generation, energy efficiency, EV infrastructure and energy storage, which would limit our relationship with customers and narrow our future growth prospects." (pg 31, PSEG 2021 10-K) In addition, our ability to further NJ's clean energy goals are impacted by policy support for our nuclear generation facilities: "In April 2021, PSEG Power's Salem 1, Salem 2 and Hope Creek nuclear plants were awarded ZECs for the three-year eligibility period starting June 2022 at the same approximate $10 per MWh received during the current ZEC period through May 2022 referenced above. As a result, each nuclear plant is expected to receive ZEC revenue for an additional three years starting June 2022. The terms and conditions of this April 2021 ZEC award are the same as the current ZEC period as discussed above. While the ZEC program has preserved these units to date, PSEG will simultaneously seek long-term legislative or other solutions for our New Jersey nuclear plants that sufficiently values them for their carbon-free, fuel diversity and resilience attributes. No assurances can be given regarding future ZEC awards or other long-term solutions." (pg 46, PSEG 2021 10-K)

	Relevance & inclusion	Please explain
Emerging regulation	Relevant, always included	PSEG's businesses are highly regulated by both state and federal agencies. In our 2021 Form 10-K, we discuss uncertainty around potential emerging regulation (state and federal) as a result of climate risk: "Climate change-related political pressure and policy goals, including but not limited to those related to energy efficient targets, solar targets, encouragement of electrification through EV adoption, home heating, and the associated legislative and regulatory responses, may create financial risk as our operations may be subject to additional regulation at either the state or federal level in the future. Increased regulation of GHG emissions could impose significant additional costs on our electric and natural gas operations, and our suppliers. Developing and implementing plans for compliance with GHG emissions reduction, clean/renewable energy requirements, or for achieving voluntary climate commitments can lead to additional capital, personnel, and Operation and Maintenance (O&M) expenditures and could significantly affect the economic position of existing operations and proposed projects. If our regulators do not allow us to recover all or a part of the cost of capital investment or the O&M costs incurred to comply increasingly rigorous regulatory mandates, it could have a material adverse effect on our results of operations, financial condition or cash flows. On the other hand, in the event that the political, policy, regulatory or legislative support for clean energy projects declines, the benefits or feasibility of certain investments we may have made in such projects, including those in the development stage, may be reduced." (pg 23, PSEG 2021 10-K)
Technology	Relevant, always included	PSEG is reliant on various technologies at both PSEG Power and PSE&G to conduct business. Technologies related to climate change are viewed as both a risk and an opportunity. A specific example pertains to federal and state incentives and how technologies are advancing and are reported in our 2021 Form 10-K: "Federal and state incentives for the development and production of renewable sources of power have facilitated the penetration of competing technologies, such as wind, solar, and commercial-sized power storage. Additionally, the development of DSM and energy efficiency programs can impact demand requirements for some of our markets at certain times during the year. The continued development of subsidized, competing power generation technologies and significant development of DSM and energy efficiency programs could alter the market and price structure for power generation and could result in a reduction in load requirements, negatively impacting our financial condition, results of operations and cash flows. Technological advances driven by federal laws mandating new levels of energy efficiency in end-use electric devices or other improvements in, or applications of, technology could also lead to declines in per capita energy consumption. Advances in distributed generation technologies, such as fuel cells, micro turbines, micro grids, windmills and net-metered solar installations, may reduce the cost of alternative methods of producing electricity to a level that is competitive with that of most central station electric production. Large customers, such as universities and hospitals, continue to explore potential micro grid installation. Certain states, such as Massachusetts and California, are also considering mandating the use of power storage resources to replace uneconomic or retiring generation facilities. Such developments could (i) affect the price of energy, (ii) reduce energy deliveries as customer-owned generation becomes more cost-effective, (iii) require further improvements to our distribution systems to address changing load demands, and (iv)make portions of our transmission and/or distribution facilities obsolete prior to the end of their useful lives. These technologies could also result in further declines in commodity prices or demand for delivered energy." (pg 29, PSEG 2021 10-K)
Legal	Relevant, always included	Legal implications of climate change are relevant and include the effects of climate regulation. A specific example included in the 2021 Form 10-K: "We may be subject to climate change lawsuits that may seek injunctive relief, monetary compensation, and punitive damages, including but not limited to, for liabilities for personal injuries and property damage caused by climate change. An adverse outcome could require substantial capital expenditures and possibly require payment of substantial penalties or damages. Defense costs associated with such litigation can also be significant and could affect results of operations, financial condition or cash flows if such costs are not recovered through regulated rates." (pg. 23, PSEG 2021 10-K)
Market	Relevant, always included	A transition to a resilient low-carbon economy has significant market risk implications at both the federal and state level for PSEG. We will continue to seek to influence public policy in an effort to mitigate flaws in the design of wholesale power markets that do not recognize the environmental and fuel diversity benefits of our Hope Creek, Salem and Peach Bottom, nuclear facilities. Our goal is to preserve nuclear energy as a critically important baseload generation resource, benefiting the state's environment, economy and energy reliability. We also understand that "to the extent financial markets view climate change and GHG emissions as a financial risk, our ability to access capital markets could be negatively affected or cause us to receive less than ideal terms and conditions. In addition, there are numerous factors that "may cause market price fluctuations including: • increases and decreases in generation capacity, including the addition of new supplies of power as a result of the development of new power plants, expansion of existing power plants or additional transmission capacity; • power transmission or fuel transportation capacity constraints or inefficiencies; • climate change and weather conditions, particularly unusually mild summers or warm winters in our market areas; • seasonal fluctuations; • economic and political conditions that could negatively impact the demand for power; • changes in the supply of, and demand for, energy commodities; • development of new fuels or new technologies for the production or storage of power; • federal and state regulations and actions of the ISOs; and • federal and state power, market and environmental regulation and legislation, including financial incentives for new renewable energy generation capacity that could lead to oversupply." (pg. 28-29, PSEG 2021 10-K)
Reputation	Relevant, always included	Climate change entails a number of potential reputation risks for PSEG, stemming from both climate transition and physical considerations. As noted in the 2021 Form 10-K: "These and other physical changes could result in changes in customer demand, increased costs associated with repairing and maintaining generation facilities and T&D systems, resulting in increased maintenance and capital costs (and potential increased financing needs), increased regulatory oversight, and lower customer satisfaction." We note these issues in PSEG's 2021 Sustainability and Climate Report. Among the reputations risks listed: - Climate strategies could be perceived as too expensive or disruptive and will invite criticism. - Extreme weather events could impact reliability and increase cost of service (pg. 41, PSEG 2021 Sustainability and Climate Report)
Acute physical	Relevant, always included	Acute physical risks are inherent in the power and utilities business. We consider catastrophic weather events in our business continuity plans and have storm plans for events that may occur within our service territory. Specific examples are referenced in PSEG's 2021 10-K: "Severe weather or acts of nature, including hurricanes, winter storms, earthquakes, floods and other natural disasters can stress systems, disrupt operation of our facilities and cause service outages, production delays and property damage that require incurring additional expenses. These and other physical changes could result in changes in customer demand, increased costs associated with repairing and maintaining generation facilities and T&D systems, resulting in increased maintenance and capital costs (and potential increased financing needs), increased regulatory oversight, and lower customer satisfaction. Where recovery of costs to restore service and repair damaged equipment and facilities is available, any determination by the regulator not to permit timely and full recovery of the costs incurred could have a material adverse effect on our businesses, financial condition, results of operations and prospects." (pg. 23, PSEG 2021 10-K) PSEG's 2021 Sustainability and Climate Report also details potential acute physical risks from climate change, such as extreme weather events (pgs. 40-44, PSEG 2021 Sustainability and Climate Report)
Chronic physical	Relevant, always included	Chronic physical risks are present in the PSEG Power and PSE&G businesses. As stated in our 2021 Sustainability and Climate Report: "In 2021, given the potential physical risks of climate change on the state and our utility operations, we conducted our own physical risk study to help us better plan and prepare for the changes ahead. The physical risk study was performed based on emerging best practices for climate impact assessments, following the recommendations of the TCFD. The analysis utilized the SSP3-7.0 ("business as usual scenario"– assuming 4.1°C of warming by the end of the century) and SSP1-2.6 (Paris aligned or "optimistic scenario" – assuming less than 2°C of warming by the end of the century) scenarios...The assessment focused on 13 of the most common science-based climate indicators, including extreme heat, water supply, extreme wind and sea level rise...For example, the annual number of "hot days" is projected to increase between 14 and 30 days across the state. Higher temperatures could increase the demand for cooling and decrease the demand for heating, altering the demands on both the electric and natural gas systems. Higher temperatures can also strain electrical equipment, like transformers, causing them to overheat and fail. Extreme temperatures can also put our workers at greater risk from threats like heat stroke. All of these changes will require planning and investment to avoid the potential adverse effects on our employees, our infrastructure and our operations. " (pg 40-44, 2021 Sustainability and Climate Report)

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Other, please specify (Coastal flooding and sea level rise)

Primary potential financial impact
Increased capital expenditures

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The region in which we operate faces serious physical risks from a changing climate. The Fourth National Climate Assessment, produced by the U.S. Global Change Research Program, explores the potential impacts of climate change on different regions of the United States, including the Northeast. Some of the physical risks highlighted in the report, which are particularly relevant for New Jersey and New York, include sea level rise and coastal flooding. The Northeast has experienced some of the highest rates of sea level rise in the United States, and this trend is expected to continue through the end of the century. These physical changes could have significant implications for our infrastructure, as well as the customers and communities that we serve.

Such issues experienced at our facilities, or by others in our industry, could adversely impact our revenues; increase costs to repair and maintain our systems; subject us to potential litigation and/or damage claims, fines/ penalties; and increase the level of oversight of our utility and generation operations and infrastructure through investigations or through the imposition of additional regulatory or legislative requirements. Such actions could adversely affect our costs, competitiveness and future investments, which could be material to our financial position, results of operations and cash flow. For our T&D business, the cost of storm restoration efforts may not be recoverable through the regulatory process. In addition, the inability to restore power to our customers on a timely basis could also materially damage our reputation. Higher sea levels will increase the baseline for flooding from coastal storms and therefore the impacts of coastal storms. In addition, climate change may change the characteristics and severity of storm systems.

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The impact has not been quantified financially.

Cost of response to risk

Description of response and explanation of cost calculation
Since 2010, PSE&G has experienced the four most disruptive storms in its operating history. In addition, because the 2016 and 2017 hurricane seasons were among the most active on record, investing in infrastructure is more critical than ever. Over the past few years, PSEG's investments have altered the business mix to reflect a higher percentage of earnings contribution by PSE&G. PSE&G's capital investment program is aligned with NJ clean energy goals and it expects to invest between $14 billion and $16 billion through 2025.

Under PSE&G's Energy Strong Program (ES I), approved in May 2014, we spent $1 billion to "harden" and improve the resiliency of PSE&G's electric and gas distribution systems. Hardening improves the durability and stability of energy infrastructure, making it better able to withstand the impacts of hurricanes and weather events without sustaining major damage. Resiliency measures do not prevent damage; but rather they enable energy systems to continue operating despite damage and/or promote a rapid return to normal operations when damages/outages do occur.

In August 2019, the New Jersey Board of Public Utilities approved PSE&G's Energy Strong II filing that provides for $842 million of investment ($741 million electric and $101 million gas) for projects beginning in the fourth quarter 2019 with completion by December 2023. This will allow for the continuation of the utility's work under the first phase of Energy Strong to harden gas and electric infrastructure and improve reliability.

In June 2022, the New Jersey Board of Public Utilities approved PSE&G's Infrastructure Advancement Program (IAP) for $511 million of grid modernization investments over four years. The investments will modernize PSE&G's distribution systems to provide customers with improved reliability, including during extreme weather. The IAP also includes "Last Mile" investments that will begin preparing the grid for the rapid transition to EVs and enable a greater blend of renewable energy resources by increasing the reliability of the state's electric grid down to the street and neighborhood level.

Comment
The cost of the Energy Strong programs through 2023 are expected to be $1.84 billion from ES I (completed) and ES II (in process).

Climate change will exacerbate the physical risks to our facilities and operations resulting from such climate hazards as more severe weather events (extreme wind, rainfall and flooding), such as experienced from Superstorm Sandy and Tropical Storms Isaias and Ida, sea level rise, and extreme heat. We also continue to assess physical risks of climate change and adapt our capital investment program to improve the reliability and resiliency of our system in an environment of increasing frequency and severity of weather events, notably through our investments in our Energy Strong program. These investments have proven effective in recent severe weather events, including Subtropical Storm Alberto in May 2018 and Tropical Storm Ida in August 2021, which brought significant flooding to our service territory but did not result in the loss of the raised equipment at our electric distribution substations.

Tropical Storm Ida and its remnants would cause more than $75 billion in damage nationwide – surpassing the damage caused by Superstorm Sandy in 2012. However, about 215,000 of PSE&G's customers lost power compared to more than 2 million who suffered lengthy outages during Sandy. By replacing and modernizing low-pressure cast iron gas mains in or near flood areas, we protected 90,000 customers from risk of losing gas service due to flooding.

The IAP continues PSE&G's work to update its distribution systems to make them more reliable and resilient to increasingly severe storms. PSE&G's initiatives to protect New Jersey communities and customers from extreme weather conditions were recognized the Edison Electric Institute, which awarded the utility the 2022 Edison Award, the electric utility industry's highest honor.

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Drought

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The electric generating nuclear power plants operated by PSEG Power are located mainly in New Jersey and none of these plants are sited in a “water-stressed area”. As a long-term corporate and industrial resident of the state of New Jersey, PSEG has a long history and deep culture as a steward of the water resources in the areas where we operate. We have consistently defined “water stress” using parameters that are more appropriate to the specific needs of our region: resource preservation and the protection of water quality.

Time horizon
Unknown

Likelihood
Exceptionally unlikely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The impact has not been quantified financially.

Cost of response to risk

Description of response and explanation of cost calculation
Geographic and demographic models project that the areas in which our plants are located are not expected to be water stressed by definition for years into the future. Nevertheless, PSEG will continue to evaluate evolving impacts of our operations, continue to reduce the dependence of our production on water, and continue to work with local authorities to address water resource issues in future operation and development plans.

Comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Reputation	Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact
Other, please specify (Decreased revenues due to lack of stakeholder support for costly climate-focused initiatives and zero-emissions generation credits)

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
PSEG believes that climate change is the preeminent challenge of our time and with it comes significant business opportunities and responsibilities. As a leader in low-carbon energy, PSEG has long advocated for policies that support investment in zero carbon emissions generation or in technology that lowers GHG emissions. PSEG has also made significant investments through Energy Strong I and II to harden its T&D infrastructure to better withstand the effects of climate change.

In 2018, PSEG introduced its “Powering Progress” vision for the future of our company – a future in which we help our customers use less energy, ensure that the energy

they use is cleaner and greener, and deliver that energy more reliably than ever before.

In 2019, PSEG introduced a significant extension of the “Powering Progress” vision: announcing that PSEG is on track to cut its power fleet carbon emissions by 80%, from 2005 levels, by 2046. This goal continued PSEG’s position among the energy sector’s most progressive power providers. Further, PSEG also believed that the necessary advances in such critical areas as public energy policy, carbon-capture technology and customer behavior would occur that our generation fleet could achieve net-zero carbon emissions by 2050.

In June 2021, PSEG announced it was accelerating its net-zero ambitions by 20 years, launching a three-pronged climate vision that extends across its business and will position the company to be net-zero by 2030. The PSEG climate vision is comprised of three pillars: (1) net-zero emissions for PSEG operations, including PSE&G’s utility operations (scopes 1 and 2); (2) 100% GHG-free power generation; and (3) significant contributions to regional economy-wide decarbonization.

In February 2022, PSEG completed the sale of the PSEG Power fossil generation assets, as part of PSEG's push to decarbonize its operations through greater reliance on nuclear and offshore wind power.

With these developments, the concern exists that climate strategies will be perceived as too expensive or disruptive and will invite criticism from stakeholders. Public education and effective communication to all our stakeholders is necessary in order to ensure policy support exists for the climate initiatives on which we are uniquely positioned to lead. Concerns about customer bills or system restoration after storms must be handled competently or we face the risk of losing public support for our portfolio of programs.

Time horizon
Unknown

Likelihood
Very unlikely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
In the last decade PSEG has been proactive about reducing GHG emissions, securing continued support for zero-carbon emissions generation, and supporting technologies which will lead to the more efficient use of energy.

With the recent 2030 Net-Zero Vision, we will continue enhancing our transmission and distribution network to accommodate the needs of a 21st century power grid, where cleaner energy is used more efficiently and in a smarter way. Over the next decade, we will also continue to undertake investments that reduce GHG emissions, such as our Gas System Modernization Program (GSMP) and off-shore wind. These investments will require capital expenditures that are recouped through our customers.

As we serve as change agents, we have to maintain the trust and confidence of our stakeholders. In a state as diverse as NJ, we must ensure that we purse these changes equitably, with an understanding of the needs of our customers. As our customers shoulder many of these costs, they must see the value in them. If we are not perceived as acting in the interests of all our stakeholders, then our ability as a regulated entity to get state approval for these initiatives will suffer.

Cost of response to risk

Description of response and explanation of cost calculation

Comment
The existing investments include: $1 billion (regulated solar), $500 million (energy efficiency invested), and $1 billion (additional energy efficiency approved under Clean Energy Future Initiative), $166 million (electric vehicle infrastructure under CEF,) $707 million (smart metering and analytics under CEF), $905 million (GSMP I), $1.9 billion (GSMP II), and $511 million (IAP).

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Chronic physical	Temperature variability

Primary potential financial impact
Other, please specify (Increased direct costs and capital expenditures)

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
In our climate scenario analysis, the “business as usual scenario" (i.e., assuming 4.1°C of warming by the end of the century) saw the annual number of “hot days” projected to increase between 14 and 30 days across the state while the number of "warm spells" potentially increase between 20 and 88 days across the state.

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
Unknown

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Higher temperatures could increase the demand for cooling and decrease the demand for heating, altering the demands on both the electric and natural gas systems. Higher temperatures can also strain electrical equipment, like transformers, causing them to overheat and fail. Extreme temperatures can also put our workers at greater risk from threats like heat stroke.

Cost of response to risk

Description of response and explanation of cost calculation

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient production and distribution processes

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
PSE&G has proposed a Clean Energy Future program to make critical investments in advanced technology designed to address the global problem of climate change, lower energy bills, and enhance economic opportunities across New Jersey, especially in urban communities. The centerpiece of the initiative, a three-year, $1 billion investment in energy efficiency, was approved by New Jersey regulators in September 2020. This program is designed to help the State of NJ achieve its energy savings goals through a suite of programs geared to reduce energy usage by business and residential customers, leading to meaningful improvements in air quality and public health and reductions in the state's carbon footprint.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
PSE&G's Clean Energy Future Energy Efficiency program (CEF-EE) is a leap forward in the effort to lower utility bills, improve New Jersey's environment and create green jobs that will help drive the economy. This initiative closely aligns with and supports state public policy, including the Clean Energy Act and the New Jersey Energy Master Plan, and builds on PSE&G's existing energy efficiency efforts. PSE&G will invest $1 billion over three years on 10 energy efficiency programs that are designed to reduce environmental impacts and help customers reduce their energy consumption by using energy efficient equipment, technologies and strategies.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
In May 2018, the New Jersey governor signed legislation that requires the state's electric and gas utilities to implement energy efficiency programs that are expected to achieve energy savings targets for electric and gas usage within five years of the utility's implementation of its BPU-approved energy efficiency programs. To meet these savings targets, energy usage reductions and peak demand reductions that result from utility and non-utility based programs and investments (including building code changes) will be counted. The specific energy savings target for each public electric and gas utility will be determined from an energy efficiency study to be completed within a year from enactment of the legislation.

In September 2020 BPU approved PSE&G to invest $1 billion in energy efficiency over the next three years, PSE&G is committed to delivering universal access to energy savings options by ensuring that all of our customers and the communities we serve get an equitable share of the benefits including lower bills and clean energy stimulus, including clean energy jobs training and economic development.

Comment
The cost reflects the EE component of the approved filings: $480 million (PSE&G investment in a range of targeted energy efficiency programs before the CEF-EE filing), plus $1 billion (additional energy efficiency programs approved under CEF-EE in September 2020).

Identifier
Opp2

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Primary potential financial impact
Returns on investment in low-emission technology

Company-specific description
We recognize the urgent need for rapid, reliable and affordable expansion of renewable resources and actively support New Jersey's efforts to become a national leader in renewable energy. Complementing our established record as a leading developer of solar resources in NJ, PSEG completed its acquisition of a 25% equity interest in Ørsted's Ocean Wind project in April 2021. Additionally, PSEG and Ørsted each own 50% of Garden State Offshore Energy LLC (GSOE) which holds rights to an off-shore wind lease area. PSEG and Ørsted are exploring other off-shore wind opportunities.

Time horizon
Short-term

Likelihood
Virtually certain

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
1170000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
In June 2019, the New Jersey Board of Public Utilities granted the state's first award for off-shore wind to the Ocean Wind 1,100 MW project. Along with JV partner Ørsted North America, PSEG owns a 25% equity stake in the Ocean Wind 1 project. According to a press release issued on the NJ.gov website on 6/17/22 after the U.S Bureau of Ocean Energy Management (BOEM) announced the release of the Draft Environmental Impact Statement (DEIS) for Ocean Wind 1, the 1,100 MW offshore wind farm is estimated to generate $1.17 billion in economic benefit for the state of NJ and create thousands of jobs over the life of the project. Source: https://www.nj.gov/governor/news/news/562022/20220617b.shtml#:~:text=Ocean%20Wind%201%2C%20which%20will,the%20life%20of%20the%20project.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
The NJBPU established the Off-shore Renewable Energy Certificate (OREC) program to support 7,500 MW by 2035. Our equity investment with the 1,100 MW Ocean Wind Project is an essential first step towards meeting NJ's off-shore wind goals.

Along with our new off-shore wind investment, PSE&G has been working to encourage solar for our customers in New Jersey through our Solar 4 All® and Solar Loan programs. These programs were developed by PSE&G and approved by state regulators:
- Through Solar 4 All®, we develop grid-connected solar farms to serve PSE&G electric customers. The projects are primarily sited at landfills and brownfields so we can increase renewable energy without sacrificing green space. Our Solar 4 All® program has developed 158 MW of solar within PSE&G's service territory. As part of these projects, we have also developed five solar/battery storage projects that total nearly 3 MW.
- PSE&G's Solar Loan program made solar ownership more affordable by financing a major portion of the solar system and providing a unique repayment option that locks in a guaranteed value of the Solar Renewable Energy Certificates the system is expected to generate.
PSE&G approved more than $335 million in loans and helped more than 1,600 PSE&G customers to finance over 145 MW of solar on homes and businesses.

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
The market for electric vehicles (EVs) has grown significantly and EV adoption will impact the future energy landscape and the evolving grid. PSEG has a unique opportunity to support customer demand for transport electrification through our EV business model that leverages our existing utility relationships to increase EV adoption. Increased use of electricity for transportation would increase demand for electricity, increasing the demand for power generation from our generating assets, as well as delivery services from our utilities and would decrease emissions from transportation, the largest source of emissions in the region.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
In January 2021, PSEG received approval for a $166 million program to build out NJ's electric vehicle charging infrastructure.

In June 2022, the New Jersey Board of Public Utilities approved PSE&G's Infrastructure Advancement Program (IAP) for $511 million of grid modernization investments over four years, including "Last Mile" investments that will begin preparing the grid for the rapid transition to EVs and enable a greater blend of renewable energy resources by increasing the reliability of the state's electric grid down to the street and neighborhood level.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
A key part of the Clean Energy Future filing, the EV infrastructure program will support the installation of about 40,000 EV chargers at single family homes, as well as Level 2 charging equipment at multifamily buildings, businesses, fleet facilities, municipal facilities, hotels/motels, and publicly accessible parking lots, and fast chargers along high traffic corridors such as the New Jersey Turnpike and the Garden State Parkway.

Comment
PSE&G already boasts a large network of workplace charging stations and has partnered with EVgo to install public EV charging stations at several rest stops along the New Jersey Turnpike and Garden State Parkway. PSE&G has spent over $800,000 to date on EV charging infrastructure.

Identifier
Opp4

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient production and distribution processes

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
PSE&G is a long-time participant in EPA’s Natural Gas STAR program, a voluntary initiative that encourages natural gas companies to adopt cost-effective technologies and practices that reduce methane emissions. Since 2014, PSE&G has reduced methane emissions 2.9% annually or a total of 65,000 million tons of CO2 equivalent (calculated using EPA Greenhouse Gas Reporting Program: Subpart W – Petroleum and Natural Gas Systems methodology (EPA Subpart W)). In 2016, PSE&G became a founding partner of EPA’s Natural Gas STAR Methane Challenge by committing to replace 1.5% of PSEG’s cast iron gas mains and associated service lines by 2021. Primarily, PSE&G has been reducing methane emissions through the replacement of old cast iron pipelines and services.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
$2.8 billion investment for the GSMP I and GSMP II programs.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
GSMP I was approved by the BPU in late 2015. By June 2019, through GSMP I, we invested approximately $905 million to replace approximately 450 miles of cast iron and unprotected steel gas mains and about 40,000 unprotected steel service lines to homes and businesses, including uprating of the mains to higher pressure. The mains and service lines were replaced with stronger, more durable plastic piping, reducing the potential for leaks and release of methane gas. The new elevated pressure system also includes the installation of excess flow valves on each gas service that automatically shut off gas flow if a service line is abruptly damaged, and better supports the use of high-efficiency appliances. In May 2018, PSE&G received approval for GSMP II, an expanded, five-year program to invest $1.9 billion over five years beginning in 2019 to replace approximately 875 miles of cast iron and unprotected steel mains in addition to other improvements to the gas system.

Comment
In May 2018, PSE&G received approval for our GSMP II, an expanded, five-year program to invest $1.9 billion beginning in 2019 to replace approximately 875 miles of cast iron and unprotected steel mains in addition to other improvements to the gas system.

Identifier
Opp5

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of new technologies

Primary potential financial impact
Increased access to capital

Company-specific description
All four of our solar storage projects serve a number of functions. Not only do they provide critical resiliency to important infrastructure around the state, but they also deliver clean solar energy to our electric customers while helping demonstrate just how useful solar storage technology can be in New Jersey. In each project, solar panels provide electricity directly to the grid for all customers to use, which helps ensure reliability of the entire system. In the event of a long-term outage, such as those that follow extreme weather like Hurricane Irene or Superstorm Sandy, the systems provide additional resiliency for critical public facilities like a hospital, a wastewater treatment plant and a warming station.

Projects like these demonstrate the flexibility of solar power when coupled with battery storage technology. They provide valuable learning and insight as to how best to pair solar with storage, which will only grow more popular as the technologies become more efficient and affordable.

As battery storage technology improves, and the price of both solar panels and storage systems continue to fall, solar storage could become an increasingly popular option for utilities, large and small commercial customers, public facilities, and even homeowners.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Please select

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
In October 2018, PSE&G filed its proposed Clean Energy Future programs with the BPU that includes an Energy Storage program. As of August 2022, the Energy Storage program had yet to be approved by the NJBPU, pending future policy guidance and the conclusion of stakeholder proceedings.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation
PSE&G is proposing to spend $109 million on a variety of projects that would spur the development of energy storage resources in New Jersey. The proposal calls for building 35 megawatts of storage capacity over six years, creating about 300 jobs per year and representing a significant step toward realizing the New Jersey Governor's target of 2,000 megawatts of energy storage by 2030. Our proposed energy storage program would aid solar development, boost capacity on select electric lines and potentially defer the need for distribution system upgrades. It also would help us better manage power outages, reduce peak demands at substations that are under construction and allow critical facilities to maintain a reliable supply of electricity during extended power outages. Finally, the PSE&G energy storage proposal could help public sector facilities manage costs by reducing electric use at peak times.

Comment
The amount refers to the $109 million proposed over a six year period for energy storage as part of the Clean Energy Filing programs. Final amount will reflect administrative costs of the program.

Identifier
Opp6

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Products and services

Primary climate-related opportunity driver
Development of climate adaptation, resilience and insurance risk solutions

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
In June 2022, the New Jersey Board of Public Utilities approved a settlement that will enable PSE&G to make investments that will enhance reliability while helping New Jersey achieve its clean energy goals. With the approval of the IAP, PSEG is expected to invest $511 million over four years on initiatives that will modernize PSE&G's distribution systems to provide customers with improved reliability, including during extreme weather. The IAP also includes "Last Mile" investments that will begin preparing the grid for the rapid transition to EVs and enable a greater blend of renewable energy resources by increasing the reliability of the state's electric grid down to the street and neighborhood level.

Time horizon
Medium-term

Likelihood
Virtually certain

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure

Cost to realize opportunity
511000000

Strategy to realize opportunity and explanation of cost calculation
The IAP program includes:
- modernizing electric circuits,
- upgrading five aging electric substations and four aging natural gas metering and regulating stations, and
- $234 million of last mile improvements to provide residential areas with greater reliability.

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a transition plan within two years

Publicly available transition plan

<Not Applicable>

Mechanism by which feedback is collected from shareholders on your transition plan

<Not Applicable>

Description of feedback mechanism

<Not Applicable>

Frequency of feedback collection

<Not Applicable>

Attach any relevant documents which detail your transition plan (optional)

<Not Applicable>

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

Our strategy has been influenced by environmental considerations for decades. As of 2021, PSEG has reduced its combined Scope 1and 2 emissions by 61%, relative to a 2005 emissions baseline. We are currently on trend to reach a 90% reduction within the next 10 years.

In June 2021, PSEG announced its 2030 Net-Zero Climate Vision. Our climate vision is comprised of three pillars: (1) Net-zero emissions for PSEG operations, including PSE&G's Scopes 1 and 2; (2) 100% greenhouse gas- (GHG), carbon-free power generation; and (3) Significant contributions to regional economy-wide decarbonization. Our current business strategy aligns with this climate vision: We are supporting the development of regional off-shore wind industry through our involvement with Ocean Wind I and the New Jersey Wind Port. The Clean Energy Futures (CEF) Initiative has several programs which will support the decarbonization of the regional economy. The CEF-Energy Efficiency (CEF-EE) program will help residential and commercial customers reduce their consumption and save money on their bills. Our Energy Cloud and Infrastructure Advancement Programs will enhance the efficiency of our electric transmission and distribution operations. We are also seeking an extension to the Gas System Modernization Program (GSMP) which will reduce fugitive methane leaks along our gas distribution system. Among our current corporate goals affecting our Scope 2 emissions, we are planning to convert all passenger vehicles, such as sedans and SUVs, 60% of medium-duty vehicles and 90% of heavy-duty vehicles by 2030 to battery electric vehicles, plug-in hybrids or anti-idle job site work systems.

In October 2021, we announced our commitment to the Business Ambition for 1.5°C. The Race to Zero and Business Ambition for 1.5°C campaigns are designed to help mobilize support from businesses, cities, regions and investors for a healthy and resilient zero-carbon economy in line with global efforts to limit warming to 1.5°C. Over the next two years, we will be developing science-based emission reduction targets. An essential part of developing these targets is an analysis and review of the strategic, operational and regulatory changes needed to achieve these targets.

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios: IEA 2DS	Country/area	<Not Applicable>	A New Jersey-focus climate scenario was modeled that was consistent with the IEA 2DS models - one with a future in which U.S. CO2 emissions are reduced 80% by 2050 and 90% by 2060. The project team utilized the following assumptions: • Electricity: Near total decarbonization of the electric power sector in the state (and PJM) by 2050 (requiring the preservation of the state's nuclear units) and significant energy efficiency savings. • Transportation: Substantial electrification of passenger vehicles (cars and light trucks). Nearly all passenger cars and more than half of light trucks are assumed electric by 2050; the scenario also assumes reductions in vehicle miles traveled. Significant conversion of medium- and heavy-duty trucks from diesel fuel to biofuels. • Buildings: Electrification of residential and commercial buildings with heat pump retrofits, energy efficiency improvements and renewable natural gas use (e.g., natural gas derived from landfills, wastewater treatment and other sources). • Industry and manufacturing: Further declines in industrial sector CO2 emissions from energy efficiency measures, lower-carbon fuels and feedstock, and other technology changes.
Physical climate scenarios: RCP 2.6	Country/area	<Not Applicable>	"In 2021, given the potential physical risks of climate change on the state and our utility operations, we conducted our own physical risk study to help us better plan and prepare for the changes ahead. The physical risk study was performed based on emerging best practices for climate impact assessments, following the recommendations of the TCFD. The analysis utilized the SSP3-7.0 ("business as usual scenario" – assuming 4.1°C of warming by the end of the century) and SSP1-2.6 (Paris aligned or "optimistic scenario" – assuming less than 2°C of warming by the end of the century) scenarios... The assessment focused on 13 of the most common science-based climate indicators, including extreme heat, water supply, extreme wind and sea level rise... The climate assessment mapped each of these potential climate hazards across the entire state, enabling PSEG to identify assets that fall in areas with elevated levels of future climate hazard exposure and to better understand asset vulnerabilities and risk of impact." (pg 42-43, 2021 Sustainability and Climate Report)

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

The goal of PSEG's ESG, sustainability and climate change strategies is to create long term sustainable value for our customers and all of our stakeholders. The adoption of 'clean' operational practices that complement our track record of safety and reliability is how we want the future of our company to be grounded in perpetuity. Conducting the scenario analysis provides increased insight into the climate related risks and opportunities that we will face in the coming years. These considerations are integrated into our decision-making, allocation of capital and risk management, giving form to the strategic framework we will use to navigate the climate challenges of this century while adhering to our core values.

Results of the climate-related scenario analysis with respect to the focal questions

"Analysis of the NJ2DS highlighted the critical role for policy to provide clear market structures, price signals and regulatory frameworks for the scale of change envisioned by the scenario. For regulated utilities like PSE&G, policy at the state and federal levels is necessary to provide the regulatory certainty and guidance necessary for long-term business planning." (pg 36, PSEG 2021 Sustainability and Climate Report)

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	In September 2020, the NJBPU approved the centerpiece of our Clean Energy Future Initiative which is focused on Energy Efficiency. Over the next 3 years, PSE&G will commit $1 billion towards energy efficiency investments through 10 programs aimed at residential, commercial, and industrial customers. These energy efficiency measures will save enough electricity to power more than 2 million homes for a year and avoid 8 million metric tons of CO2 through 2050. In January 2021, the second key approved program in our Clean Energy Future Initiative is the electric vehicle infrastructure program, which will entail spending $166 million over 6 years to build 40,000 EV chargers at single-family homes, Level 2 charging equipment at multifamily buildings, government facilities and at public accessible parking lots, and fast chargers along high-traffic corridors. The program is expected to avoid 14 million metric tons of carbon emissions through 2035. Due to our acknowledgement of climate related risks and opportunities, PSEG announced that it has joined the Business Ambition for 1.5°C and the Race to Zero campaigns and commits to developing science-based emissions reduction targets. We are evaluating pathways to realizing these targets and how the impacts on our operations.
Supply chain and/or value chain	Yes	A prime example of adapting our supply chain to respond to climate change is our work in reducing the usage of Sulfur Hexafluoride (SF6) in the electric T&D system. SF6 is a gas which has unique properties but is also a potent GHG. Over the last 5 years, as we retired and replaced equipment, we switched to hermetically sealed equipment to reduce leakages. As we move towards the Net Zero 2030 vision, we will continue to explore alternatives to SF6. As part of our strategy to reduce emissions from our own operations, the company is working to convert all of its passenger vehicles, such as sedans and SUVs, 60% of its medium duty vehicles and 90% of its heavy duty vehicles by 2030 to battery electric vehicles, plug-in hybrids or anti-idle job site work systems. We have strong partnerships with many local and national environmental organizations, reflecting our commitment to the responsible management of natural resources across the full spectrum of our activities. Our efforts to protect the environment can be found throughout our organization and include longstanding initiatives such as our Estuary Enhancement Program, which has restored thousands of acres of marshlands in southern New Jersey and neighboring areas along Delaware Bay.
Investment in R&D	Yes	PSEG announced in February 2022 that it has committed $35 million to funds managed by Energy Impact Partners (EIP). EIP, a global venture capital firm, and its funds target early-stage, innovative technologies aimed at combatting climate change. In addition to supporting financial returns, PSEG's investment aims to help accelerate the transition to net-zero greenhouse gas (GHG) emissions and a clean energy future while enhancing our own insights and strategies. PSEG provided a grant supporting a research study from Princeton University, published in March 2022, on pathways for New Jersey to achieve its climate goals and the impacts on consumers: "New Jersey's Pathway to a 100% Carbon-Free Electricity Supply: Policy and Technology Choices Through 2050." PSEG has a long history of working hard to develop new, innovative approaches to environmental challenges: - Partnered with Google on the use of technology that helps us prioritize repairs as we modernize our gas distribution system – and thus substantially reduce methane leaks while improving service. - Developed a solar battery storage project that will provide clean energy for a sewage treatment plant in West Caldwell, New Jersey, as well as backup power in the event of outages. - Participant in DOE HyBlend Initiative, which aims to address various technical barriers to blending hydrogen in natural gas pipelines. - PSE&G is a member of ChargEVC, a not-for-profit coalition of automotive retailers, utilities, technology companies, local governments, environmental, community and labor advocates formed to identify programs and policies to accelerate electric vehicle growth in New Jersey.
Operations	Yes	Through the Energy Strong I and II programs, PSE&G will invest $1.8 billion through 2023 to enhance the resiliency of its electric T&D infrastructure to withstand the effects of climate change. In conjunction with Energy Strong, PSE&G is upgrading its existing natural gas network through the Gas System Modernization Program. Now in Phase II, we are replacing 875 miles of aging pipelines, with the goal of improving system reliability and reducing fugitive methane emissions (a decrease of 28.5% since 2015). By the time GSMP Phase II is completed, a total of $2.9 billion will have been invested in upgrading our gas distribution system. The third key component of our Clean Energy Future Initiative, Energy Cloud, was approved by the NJBPU in January 2021. The core of the Energy Cloud program is the implementation of smart meters that will provide two-way communications between the customer and PSE&G, allowing for near real-time data gathering and analysis. PSE&G plans to convert all 2.3 million existing electric customers to smart meters by the end of 2024. The smart meter program will provide near real-time outage detection and dispatch restoration crews automatically – eliminating the need for customers to self-report power disruptions and allowing our crews to be dispatched more efficiently, reducing outage times, and lowering energy usage and emissions associated with field teams. The Energy Cloud program will also PSE&G to better analyze a customer's energy usage and recommend adjustments to thermostat settings or appliance use in order to help save energy and money. In April 2021, the NJBPU extended the Zero Emission Certificates for PSEG Power's Salem 1, Salem 2, and Hope Creek nuclear plants through May 2025. During this month, PSEG also completed acquisition of a 25% equity stake in Ørsted's Ocean Wind Project, an 1,100 MW off-shore wind farm. In June 2022, PSEG received approval for the Infrastructure Advancement Program which will spend $511 million over the next four years to modernize PSE&G's distribution systems to provide customers with improved reliability, including during extreme weather, will begin preparing the grid for the rapid transition to EVs, and will enable a greater blend of renewable energy resources by increasing the reliability of the state's electric grid down to the street and neighborhood level.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets Liabilities	PSEG believes that climate change is the preeminent challenge of our time and with it comes significant business opportunities and responsibilities. Inclusion of many aspects surrounding climate change in our business plans has been a part of the PSEG culture since 1990. The state published its first Energy Master Plan (EMP) in 1991. The development of the EMP included input from a diverse group of stakeholders, including PSEG. One of the initial state energy policy goals was "to protect our environment through wise and efficient energy use." In particular, the EMP encouraged the development of cost-effective solar energy and demand-side energy efficiency. PSEG embraced the goals of the EMP and actively sought actions to support these goals. In parallel, the United States embraced a leadership role in developing strategies to address climate change when it signed onto the United Nations Framework Convention on Climate Change (UNFCCC) in 1992. PSEG accepted the challenge and was the first electric utility in the United States to volunteer to participate in President Clinton's Climate Challenge Program in 1993. Our participation in the Climate Challenge Program was one mechanism to support New Jersey's goals under the EMP. We successfully met this goal and stabilized our carbon dioxide (CO2) emissions from our New Jersey plants to 1990 levels by 2000. PSEG sought additional opportunities to reduce our carbon footprint. PSE&G signed on to EPA's voluntary Natural Gas STAR Program in 1993. The Natural Gas STAR Program is designed to promote the implementation of cost-effective technologies and practices to reduce methane (CH4) emissions. In addition, PSEG joined EPA's Waste Wise Program in 1995. Under this program, partners demonstrate how they reduce waste and incorporate sustainable materials management into their waste-handling processes. The program provides a tool to calculate GHG emission reductions associated with recycling and waste minimization activities. PSEG's recycling rates have consistently exceeded 90 percent. PSEG continued to acknowledge the electric utility industry's need to play a leadership role in developing national strategies to address climate change. Building on the success of the Global Climate Challenge Program, PSEG joined EPA's Climate Leaders program in 2002 to reduce the six greenhouse gases covered under the Kyoto Protocol – carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and Sulphur hexafluoride (SF6). Under this program, PSEG committed to reduce its CO2 equivalent GHG emissions on a pound per megawatt-hour basis by 18% from 2000 levels by December 31, 2008. PSEG surpassed this goal by achieving a 31% reduction, due primarily to the fact that more than half our power comes from nuclear generation. New Jersey continued to be a leader in addressing climate change. In 2007, the Governor of New Jersey issued Executive Order No. 54, which established goals to reduce GHG emissions by 80% below 2006 levels by 2050. The passage of the Global Warming Response Act of 2007 (GWRA) supports the implementation of key elements of the Executive Order. As a leader in the energy industry and responsible corporate citizen, PSEG established a new goal of reducing economy-wide GHG emissions by 25% from 2005 levels by 2025. PSEG met this goal 14 years ahead of schedule. We achieved this goal through implementation of energy efficiency programs, deployment of renewable energy, increasing nuclear output and building clean, and efficient natural gas plants. This transformation of the energy business in a cost-effective manner requires heightened collaboration with the state. Utilities can deploy capital over the long term to ensure conservation and renewable energy gains are sustained. Funding mechanisms are necessary to ensure utilities realize a fair return on investments. Between 2008 and 2012 PSEG implemented the following: • Received approval from NJBPU for PSE&G's Solar Loan program which aids businesses and homeowners in financing solar panel installations; • Received approval from NJBPU for PSE&G's Solar4All® program to develop 158 megawatts of grid-connected solar capacity; • Invested in grid-connected solar capacity outside of PSE&G's territory; • Received approval from NJBPU for several targeted energy efficiency programs; • Replaced our auto fleet with hybrids and introduced the nation's first hybrid bucket trucks; • Implemented Employee Workplace Charging Programs for PSEG employees and other employers in the PSE&G territory; • Lowered our carbon footprint by making several of our facilities more energy efficient through utilization of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating; • In 2012, New Jersey was hit by Superstorm Sandy. The storm's ferocity revealed the vulnerability of our infrastructure to damage from severe storms. This event prompted PSEG to consider climate change adaptation into our business plans in addition to mitigation; • PSE&G received approval from NJBPU to invest in resilient electricity and natural gas infrastructure in the wake of Superstorm Sandy (Energy Strong Program). Between 2012 and 2018, PSE&G spent : • $1 billion on its Energy Strong I program • $905 million on the Gas System Modernization Program (GSMP I). In January 2019, PSE&G launched the $1.9 billion extension of the Gas System Modernization Program (GSMP II). In August 2021, we announced the sale of the PSEG Power fossil-fuel generation portfolio. This transaction was completed in February 2022. Moving forward from 2021 until 2024, PSE&G will continue making investments that align our company with our strategic vision for the future: • $1 billion for energy efficiency to help our customers use less energy; • $707 million for smart meters and real-time analytics that will make our operations more efficient and give our customers more insight about their usage; • $166 million for electric vehicle infrastructure (until 2026); • $511 million for "last mile" distribution upgrades that will enhance reliability and modernize the distribution system to support more EVs and renewable energy resources; • Evaluating additional investment in Offshore Wind beyond our 25% stake in Ocean Wind 1 .

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2021

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Location-based

Scope 3 category(ies)
<Not Applicable>

Base year
2005

Base year Scope 1 emissions covered by target (metric tons CO2e)
24898116

Base year Scope 2 emissions covered by target (metric tons CO2e)
1668214

Base year Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
26566330

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2030

Targeted reduction from base year (%)
100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
0

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
10122888

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
998205

Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
11121093

% of target achieved relative to base year [auto-calculated]
58.1383917161309

Target status in reporting year
Underway

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Target ambition
<Not Applicable>

Please explain target coverage and identify any exclusions
In 2009, PSEG set a goal of reducing its Scope 1 + 2 emissions by 25% by 2025. PSEG met its initial goal of a 25% reduction 14 years ahead of schedule in 2011. In 2019, PSEG introduced a significant extension of the “Powering Progress” vision, setting a goal of reducing its Scope 1 emissions by 80% by 2046. In June 2021, we revised our emissions reduction goal with the intent of reaching net zero with respect to Scope 1 and 2 emissions for our operations by 2030. In August 2021, PSEG announced that it had entered into an agreement to sell its fossil generation fleet, marking the first significant step towards our 2030 goal.

To handle the remainder of our emissions in less than 10 years, PSEG will leverage a suite of strategies – from modernizing its existing natural gas and electric T&D networks to investing in new technologies that support greater electrification and improve energy efficiency. PSE&G’s successful Gas System Modernization Program, which replaces old cast-iron and unprotected steel gas mains, is on track to achieve the methane goal of a 21.7% reduction of absolute methane emissions from a 2018 baseline by the end of 2023. Our expectation is that this program will be extended, allowing further reductions in methane emissions through 2030. PSEG’s strategy to address emissions also includes evaluating lower-carbon fuels, such as certified natural gas, renewable natural gas, and hydrogen.

For PSEG's buildings and facilities, the company will look to achieve savings through energy efficiency solutions. For its vehicles, PSEG has committed to electrify a large portion of its fleet over a ten-year period. PSEG also continues to explore strategies to reduce emissions from its electric T&D system. For any residual emissions, PSEG will explore neutralizing unabated emissions using high-quality permanent carbon removals.

Plan for achieving target, and progress made to the end of the reporting year

In October 2021, PSEG announced its commitment to join the Business Ambition for 1.5C Campaign. The organization is currently developing an emissions inventory baseline, near-term targets, and a long-term strategy for reducing GHG emissions for Scope 1, 2, and 3 emissions. We expect to have further details within the next two years.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to reduce methane emissions
Net-zero target(s)
Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number
Oth 1

Year target was set
2019

Target coverage
Business division

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target	Other, please specify (Total methane in mt)

Target denominator (intensity targets only)
<Not Applicable>

Base year
2018

Figure or percentage in base year
25350.256

Target year
2023

Figure or percentage in target year
19849.259

Figure or percentage in reporting year
21019.782

% of target achieved relative to base year [auto-calculated]
78.7216208261884

Target status in reporting year
Underway

Is this target part of an emissions target?
Methane Emissions are included in our total GHG emission target but are represented publicly as a separate target as well.

Is this target part of an overarching initiative?
Other, please specify (PSEG 2030 Net-Zero Climate Vision)

Please explain target coverage and identify any exclusions
As one of the nation's first and oldest natural gas utilities, PSE&G also has the oldest, largest cast-iron main natural gas distribution system. Approximately 75% of our customers rely on natural gas for home use, including heat. Modernizing our natural gas distribution system is essential for supporting New Jersey's GHG goals. While cast-iron and unprotected steel gas pipes are less than 30% of the utility's natural gas infrastructure, they account for over 70% of distribution system leaks each year, excluding third-party damages. Gas leaks release methane, a powerful greenhouse gas, into the air. The Gas System Modernization Program ("GSMP") was designed to accelerate the replacement of these aging pipes. Phase I was completed in 2018, and Phase II is currently underway. Upon completion of Phase II, we will have invested $2.8 billion to convert more than 1,450 miles of aging cast-iron and unprotected steel pipes to more durable materials. To hold ourselves accountable, we aim to reduce our methane emissions by 21.7%, from 2018 levels, by 2023, upon completion of the second phase of our Gas System Modernization Program. This is in addition to the 158,639-metric ton reduction (CO_2e) PSE&G has achieved since 2011.

Plan for achieving target, and progress made to the end of the reporting year
PSE&G will be filing for an extension of the program ("GSMP III") in the fall of 2022, to begin once the current program ("GSMP II") ends in 2023.

List the actions which contributed most to achieving this target
<Not Applicable>

Target reference number

Oth 2

Year target was set
2019

Target coverage
Business division

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency	MWh

Target denominator (intensity targets only)
<Not Applicable>

Base year
2019

Figure or percentage in base year

Target year
2023

Figure or percentage in target year

Figure or percentage in reporting year

% of target achieved relative to base year [auto-calculated]
<Calculated field>

Target status in reporting year
Please select

Is this target part of an emissions target?

Is this target part of an overarching initiative?
Please select

Please explain target coverage and identify any exclusions
Aligned with State's framework for Energy Efficiency and Peak Demand Reduction programs, setting five-year savings targets of 2.15% for electric distribution companies and 1.10% for gas distribution companies.

The centerpiece of PSE&G's landmark Clean Energy Future proposal was approved in September 2020 by the NJBPU. This program, which commits $1 billion in energy efficiency investments over the next three years is the largest energy efficiency commitment ever in New Jersey. The initiative is expected to create 3,200 direct jobs and 1,100 indirect jobs and boost the state's economy, while also lowering customers' energy bills and reducing carbon dioxide emissions by 8 million metric tons through 2050. PSE&G's program offers residential, commercial and industrial customers rebates and other financial incentives to purchase energy efficient lighting, HVAC equipment and smart thermostats. Customers also are eligible for free or affordable energy audits and energy efficiency kits. The program was designed with special emphasis on meeting the needs of low-income, multi-family and small business customers.

Plan for achieving target, and progress made to the end of the reporting year
<Not Applicable>

List the actions which contributed most to achieving this target
<Not Applicable>

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs1

Target year for achieving net zero
2030

Is this a science-based target?
No, but we are reporting another target that is science-based

Please explain target coverage and identify any exclusions
PSEG's 2030 Net Zero Climate Vision covers Scope 1 and 2 GHG emissions for corporate operations. We recognize that there are technology limitations that will likely impede our progress in reducing emissions to zero. To complement our efforts to reduce our operational emissions, we expect to address any residual emissions starting in 2030 through the use of high-quality carbon offsets that originate from projects validated/verified and registered on a recognized platform (such as American Climate Registry, Climate Action Reserve, Verra, Gold Standard, etc.).

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Yes

Planned milestones and/or near-term investments for neutralization at target year

Planned actions to mitigate emissions beyond your value chain (optional)

Target reference number
NZ2

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs1

Target year for achieving net zero
2031

Is this a science-based target?
Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next 2 years

Please explain target coverage and identify any exclusions
As part of our commitment to Business Ambition for 1.5C, we have committed to developing a science-based emissions reduction target within the next two years. This target will cover 95% of combined Scope 1, 2, and 3 GHG emissions.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Yes

Planned milestones and/or near-term investments for neutralization at target year

Planned actions to mitigate emissions beyond your value chain (optional)

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*		
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type
Please select

Estimated annual CO2e savings (metric tonnes CO2e)

Scope(s) or Scope 3 category(ies) where emissions savings occur
Please select

Voluntary/Mandatory
Please select

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period
Please select

Estimated lifetime of the initiative
Please select

Comment

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	PSE&G, as a regulated electric T&D and gas distribution utility with rates set by the NJBPU and the FERC, can only pass along costs to customers for activities that are deemed economically prudent or mandated by law. For PSEG Power, the regulations governing emissions from existing electric generators, and the value of alternative or low carbon sources of energy, could drive significant investment in the future.
Dedicated budget for energy efficiency	The NJBPU on June 2020, approved a framework for Energy Efficiency and Peak Demand Reduction programs, setting five-year savings targets of 2.15% for electric distribution companies and 1.10% for gas distribution companies. Over the past dozen years, PSE&G has invested over $480 million in energy efficiency initiatives targeting hospitals, multi-family housing, government buildings and non-profits, which avoid emissions while creating jobs and saving customers money. These efforts have saved enough electricity to power 40,000 homes and enough natural gas to supply 10,000 homes. Participants also benefit from $275 million a year in energy cost savings. With the approval by the NJBPU of the centerpiece of PSE&G's landmark Clean Energy Future Program in September 2020, we are investing $1 billion in energy efficiency over the next three years, the largest commitment ever in New Jersey.
Dedicated budget for low-carbon product R&D	Examples are: • $166 million: "Smart" electric vehicle infrastructure: residential, workplace, multi-family, travel corridors • Battery Storage: utility-scale systems to defer traditional distribution investment, enable additional solar, and enhance critical infrastructure resiliency
Dedicated budget for other emissions reduction activities	Funds are allocated specifically for emissions reduction initiatives, including building energy efficiency, fugitive emissions reductions, pipeline upgrades, and the purchase of alternative-fuel fleet vehicles.
Employee engagement	Different programs available such as "Workplace Charging", share rides, employee giving and volunteer opportunities with our environmental partners.
Financial optimization calculations	All investments are optimized using a carbon price and other assumptions related to regulatory risk, including those presented by carbon.
Internal price on carbon	PSEG uses an internal price of carbon in all generation planning decisions, which influences and encourages investment in low-carbon generation and divestment of high-carbon generation.
Other (Advocacy)	In April 2021, ZECs were renewed for PSEG Power's Salem 1, Salem 2 and Hope Creek nuclear plants by the NJBPU. These nuclear plants are expected to receive ZEC revenue for approximately three years, through May 2025, and will be obligated to maintain operations, subject to exceptions specified in the ZEC legislation. PSEG Power anticipates it will recognize revenue monthly as the nuclear plants generate electricity and satisfy their performance obligations. The ZEC legislation requires nuclear plants to reapply for any subsequent three-year period.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation
Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon
No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Power	Large-scale light-water nuclear reactor

Description of product(s) or service(s)

PSEG currently operates 3 nuclear reactors in New Jersey and has an equity stake in two reactors based in Pennsylvania that are operated by Constellation Energy.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
Yes

Methodology used to calculate avoided emissions
Please select

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Other, please specify

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario
Please select

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
14000000

Explain your calculation of avoided emissions, including any assumptions
Our nuclear power plants help avoid approximately 14 MM mt CO2 per year.

Source - https://poweringprogress.pseg.com/carbon-free-tomorrow/

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

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Level of aggregation
Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon
No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Power	Seabed fixed offshore wind turbine

Description of product(s) or service(s)
PSEG is jointly developing an 1,100 MW off-shore wind farm off the coast of New Jersey with Ørsted North America and currently has a 25% equity stake in the project.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
Yes

Methodology used to calculate avoided emissions
Please select

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Please select

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario
Please select

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
110000000

Explain your calculation of avoided emissions, including any assumptions
As noted by Ørsted North America in its factsheet, Ocean Wind 1 will displace 110,000,000 metric tons of CO2 during the 25+ year lifespan on the project. The off-shore wind farm is expected to be fully operational by 2025.

Source - https://orstedcdn.azureedge.net/-/media/www/docs/corp/us/oceanwind/resources/ocwfactsheet0721.ashx?la=en&rev=9936c290358f4d6490fe48446e0d75f8&hash=BAD99B6F71B29E65E2DE62B777416AE7

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

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Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Road	Other, please specify (Electric Vehicle Charging Infrastructure)

Description of product(s) or service(s)
As part of its Clean Energy Future Initiatives, PSE&G is investing $166 million over the next 5 years to develop the infrastructure for about 40,000 EV chargers at single-family homes, as well as Level 2 charging equipment at multifamily buildings, government facilities and at public accessible parking lots, and fast chargers along high-traffic corridors such as the New Jersey Turnpike and Garden State Parkway.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
Yes

Methodology used to calculate avoided emissions
Please select

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Please select

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario
Please select

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
14000000

Explain your calculation of avoided emissions, including any assumptions
The program is expected to avoid 14 million metric tons of carbon dioxide emissions through 2035, helping the state achieve its emission reduction goals while creating approximately 270 direct jobs.

Source - https://poweringprogress.pseg.com/electric-vehicles/

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

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Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Heating and cooling	Other, please specify (Heating and Cooling appliances upgrade efficiency)

Description of product(s) or service(s)
PSE&G's Hospital Efficiency Program helps hospitals and healthcare facilities upgrade outdated and unreliable heating, cooling, motors, lighting and other systems by providing expert advice, incentives and interest free on-bill financing. Upgrades substantially reduce energy consumption and operating costs.

The Residential Multifamily Housing Program helps increase comfort and reduces energy costs by providing expert advice, incentives and interest free on-bill financing to install efficient heating and hot water systems and controls, lighting, insulation, refrigerators and more in apartment buildings.

The Direct Install Program helps government agencies and non-profits, as well as small businesses located in Urban Enterprise Zones, reduce their energy consumption and bills by paying for 70 percent of project costs for lighting, heating and cooling systems upgrades, and by providing interest free on-bill financing for the balance of the cost.

The Smart Thermostat Program is a new program that offers discounts for qualified smart thermostats that will be available from a PSE&G online marketplace.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
Yes

Methodology used to calculate avoided emissions
Please select

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Please select

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario
Please select

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
8000000

Explain your calculation of avoided emissions, including any assumptions
The CEF-Energy Efficiency Program Reduce carbon dioxide emissions by 8 million metric tons through 2050.

Source - https://poweringprogress.pseg.com/energy-efficiency/

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

C-EU4.6

(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your activities.

As one of the nation's first and oldest natural gas utilities, PSE&G also has the oldest, largest cast-iron main natural gas distribution system. Approximately 75% of our customers rely on natural gas for home use, including heat. Modernizing our natural gas distribution system is essential for supporting New Jersey's GHG goals. While cast-iron and unprotected steel gas pipes are less than 30% of the utility's natural gas mains, they account for over70% of distribution system leaks each year, excluding third-party damages. Gas leaks release methane, a powerful greenhouse gas, into the air. The Gas System Modernization Program was designed to accelerate the replacement of these aging pipes. Phase I was completed in 2018, and Phase II is currently underway. Upon completion of Phase II, we will have invested $2.8 billion to convert more than 1,450 miles of aging cast-iron and unprotected steel pipes to more durable materials. Our current target is to reduce methane emissions by 21.7% from our 2018 baseline by 2023.

PSE&G is a long-time participant in EPA's Natural Gas STAR program, a voluntary initiative that encourages natural gas companies to adopt cost-effective technologies and practices that reduce methane emissions. Continued pipeline replacements will help us achieve our commitment to annually replace 1.5% of our cast-iron gas mains and associated service lines as part of EPA's STAR Methane Challenge, of which we are a founding member. We rely on partnerships to better understand the opportunities to target methane reduction in our natural gas system and explore innovative solutions. Through our collaboration with the Environmental Defense Fund, we used data gathered by Google Earth and Colorado State University to map methane emissions throughout our service territory using Google Street View vehicles. PSE&G became the first utility in the country to use this data in planning its replacement work, and we continue to use methane mapping results to prioritize replacements in our system.

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

Yes, a divestment

Name of organization(s) acquired, divested from, or merged with

PSEG Power - Fossil: fossil-fuel generation portfolio

Details of structural change(s), including completion dates

In August 2021, PSEG entered into two agreements to sell PSEG Power's 6,750 MW fossil generating portfolio to newly formed subsidiaries of ArcLight EnergyPartners Fund VII, L.P., a fund controlled by ArcLight Capital Partners, LLC. In February 2022, PSEG completed the sale of this fossil generating portfolio.

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology	Additional minor sources of emissions were included in this year's methodology. The overall calculation methodology is also being reviewed as part of our commitment to develop science-based emissions reduction targets in the near future.

C5.1c

(C5.1c) Have your organization's base year emissions been recalculated as result of the changes or errors reported in C5.1a and C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	No, because we have not evaluated whether the changes should trigger a base year recalculation	Given the length of time between the reporting year (2021) and our current baseline (2005), we do not have all the data required to recalculate the baseline. However, since we are establishing a new baseline within the next two years as part of our commitment to setting a science-based emissions reduction target, the new baseline will based on more recent data (within the last five years).

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
January 1 2005

Base year end
December 31 2005

Base year emissions (metric tons CO2e)
24898116

Comment
none

Scope 2 (location-based)

Base year start
January 1 2005

Base year end
December 31 2005

Base year emissions (metric tons CO2e)
1668214

Comment
none

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
n/a

Scope 3 category 1: Purchased goods and services

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment
A Scope 3 baseline using 2005 data is not available. However, we are in the process of developing a new baseline using more recent data as part of our commitment to develop science-based emissions reduction targets.

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Climate Registry: Electric Power Sector (EPS) Protocol
US EPA Mandatory Greenhouse Gas Reporting Rule

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
10122888

Start date
January 1 2021

End date
December 31 2021

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment
None

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
998205

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
January 1 2021

End date
December 31 2021

Comment

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source
Small sources of emissions, for example such as distribution blow-downs and certain refrigerants, have not been included. In addition, estimates were used from some facilities, such as M&R stations, given some measurement limitations.

Relevance of Scope 1 emissions from this source
Please select

Relevance of location-based Scope 2 emissions from this source
Please select

Relevance of market-based Scope 2 emissions from this source (if applicable)
Please select

Explain why this source is excluded
As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we are revisiting our current approaches to calculating GHG emissions and reevaluating our baseline inventories.

Estimated percentage of total Scope 1+2 emissions this excluded source represents
<Not Applicable>

Explain how you estimated the percentage of emissions this excluded source represents
<Not Applicable>

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Not calculated for the reporting year.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our estimates as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Capital goods

Evaluation status
Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Not calculated for the reporting year.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our estimates as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
20856558

Emissions calculation methodology
Hybrid method
Fuel-based method
Other, please specify (PJM system average)

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain
The fuel and energy related activities evaluated include: upstream emissions from the fuel PSEG uses during its operations, upstream emissions from the electricity PSEG purchases and uses in its operations, and emissions from the generation of electricity PSEG purchases and sells to end customers.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, this estimate may change as we are revisiting our current approaches to calculating GHG emissions and reevaluating our baseline inventories.

Upstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Estimates using a 2019 baseline showed this category to not be below the 1% threshold of total Scope 3 emissions.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Waste generated in operations

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Estimates using a 2019 baseline showed this category to not be below the 1% threshold of total Scope 3 emissions.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Business travel

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Estimates using a 2019 baseline showed this category to not be below the 1% threshold of total Scope 3 emissions.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Employee commuting

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Estimates using a 2019 baseline showed this category to not be below the 1% threshold of total Scope 3 emissions.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Upstream leased assets

Evaluation status
Not evaluated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
No available data.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
PSEG accounts for all transportation and distribution emissions in Category 4.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
As a utility supplying electricity and natural gas, PSEG has no processing of sold products.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Use of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
10146576

Emissions calculation methodology
Hybrid method
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain
This value reflects the GHG emissions from owned natural gas sold to customers.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, this estimate may change as we are revisiting our current approaches to calculating GHG emissions and reevaluating our baseline inventories.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
As a utility supplying electricity and natural gas, PSEG has no end of life treatment of sold products.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Downstream leased assets

Evaluation status
Not evaluated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
PSEG has no franchises.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Investments

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
PSEG's investment emissions are calculated in Scopes 1, 2, and Scope 3 Category 2.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Other (upstream)

Evaluation status
Not evaluated

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, we may update our assessment regarding the materiality and associated emissions of this category as we revisit our current approaches to calculating GHG emissions and reevaluate our baseline inventories.

Other (downstream)

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
6599150

Emissions calculation methodology
Hybrid method
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain
Natural gas owned by third-party suppliers and transported along PSE&G's gas distribution network.

As part of our commitment to develop science-based GHG emissions reduction targets within the next two years, this estimate may change as we are revisiting our current approaches to calculating GHG emissions and reevaluating our baseline inventories.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.0011439

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
11121093

Metric denominator
unit total revenue

Metric denominator: Unit total
9722000000

Scope 2 figure used
Location-based

% change from previous year
5.86

Direction of change
Increased

Reason for change
The sources included in the Scope 1 and 2 calculations for 2021 were expanded slightly to include minor sources that had not been included in the past because their reporting was not for compliance.

Intensity figure
0.202261

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
11121095

Metric denominator
megawatt hour generated (MWh)

Metric denominator: Unit total
54983885

Scope 2 figure used
Location-based

% change from previous year
6.11

Direction of change
Increased

Reason for change
The sources included in the Scope 1 and 2 calculations for 2021 were expanded slightly to include minor sources that had not been included in the past because their reporting was not for compliance.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	9506058.3	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	591242.5	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	7247.1	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	18243.1	IPCC Fourth Assessment Report (AR4 - 100 year)
Other, please specify (Refrigerants)	97.3	IPCC Fourth Assessment Report (AR4 - 100 year)

C-EU7.1b

(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Total gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	3065.55	23439.15	0.8	607386	Total represents the sum of methane fugitives from the gas distribution, SF6 fugitives from the electric distribution system, emissions from refrigerants, and fugitive methane from the remaining coal at Bridgeport Harbor 3, which was was retired on May 31, 2021.
Combustion (Electric utilities)	9436778.5	208.5	0	9449138.4	Total represents the sum of Power Generation.
Combustion (Gas utilities)	20104.1	0.4	0	20124.9	M&R and Diesel Usage
Combustion (Other)	46110.1	39.8		46239.1	Mobile Fuel Combustion (not distinguished between EU and GU)
Emissions not elsewhere classified	0	0	0	0	

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	10122888

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
PSEG Power	9450599
PSE&G	672289

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	10122888	<Not Applicable>	
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		
Other emissions reduction activities		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	744294	Increased		Several factors contributed to the increase in GHG emissions year-over-year, including changes to generation output, increased line losses on the electric T&D system, an increase in the PJM emissions factor used to calculate emissions, and the inclusion of additional sources of emissions.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 35% but less than or equal to 40%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	49915580	49915580
Consumption of purchased or acquired electricity	<Not Applicable>	3704	50764	54468
Consumption of purchased or acquired heat	<Not Applicable>	0	0	0
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	3704	49966344	49970048

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

Please select

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Other biomass

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Coal

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
768698

MWh fuel consumed for self-generation of electricity
768698

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Does not reflect the share of coal in the electricity consumed from the PJM system under Scope 2 corporate power consumption.

Oil

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
1549794

MWh fuel consumed for self-generation of electricity
1549794

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Does not reflect the share of oil in the electricity consumed from the PJM system under Scope 2 corporate power consumption.

Gas

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
47597089

MWh fuel consumed for self-generation of electricity
47548763

MWh fuel consumed for self-generation of heat
48326

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Does not reflect the share of natural gas in the electricity consumed from the PJM system.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Total fuel

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
49915580

MWh fuel consumed for self-generation of electricity
49867254

MWh fuel consumed for self-generation of heat
48326

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

C-EU8.2d

(C-EU8.2d) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

Coal – hard

Nameplate capacity (MW)
383

Gross electricity generation (GWh)

Net electricity generation (GWh)
243.05

Absolute scope 1 emissions (metric tons CO2e)
251330.7

Scope 1 emissions intensity (metric tons CO2e per GWh)
1034.06

Comment
PSEG Power's last remaining coal-fired power plant, Bridgeport Harbor 3, was retired on May 31, 2021.

Lignite

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Oil

Nameplate capacity (MW)
552

Gross electricity generation (GWh)

Net electricity generation (GWh)
590.95

Absolute scope 1 emissions (metric tons CO2e)
422104

Scope 1 emissions intensity (metric tons CO2e per GWh)
714.28

Comment
The main source of oil-fueled generation for PSEG Power is the Kalaeloa Generation Station, located in Hawaii. With the exception of the Kalaeloa Generation Station, PSEG Power's fossil-fueled generation fleet was sold in February 2022.

Gas

Nameplate capacity (MW)
6315

Gross electricity generation (GWh)

Net electricity generation (GWh)
22645.7

Absolute scope 1 emissions (metric tons CO2e)
8775704

Scope 1 emissions intensity (metric tons CO2e per GWh)
387.52

Comment
With the exception of the Kalaeloa Generation Station, PSEG Power's fossil-fueled generation fleet was sold in February 2022.

Sustainable biomass

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other biomass

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Waste (non-biomass)

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Nuclear

Nameplate capacity (MW)
3771

Gross electricity generation (GWh)

Net electricity generation (GWh)
31158

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
PSEG Power's nuclear generation portfolio consists of Hopecreek, Salem 1 and 2, and Peach Bottom 2 and 3. The values listed above reflects PSEG Power's equity share of each asset.

Fossil-fuel plants fitted with CCS

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Geothermal

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Hydropower

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Wind

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Solar

Nameplate capacity (MW)
467

Gross electricity generation (GWh)

Net electricity generation (GWh)
346

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment
The PSEG Power Solar Source portfolio, which was a total of 467 MW-dc, was sold in June 2021. The net electricity generation reported above reflects generation output through the transfer date of June 28, 2021.

Marine

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other renewable

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other non-renewable

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Total

Nameplate capacity (MW)
11021

Gross electricity generation (GWh)

Net electricity generation (GWh)
54983.9

Absolute scope 1 emissions (metric tons CO2e)
9449138.4

Scope 1 emissions intensity (metric tons CO2e per GWh)
171.85

Comment
The values reported above reflect our equity shares in the operational power plants as of December 31, 2021. Some items to note:
- The total nameplate capacity and net electricity generation reported above includes the capacity and net electricity generation from Bridgeport Harbor 3, which was retired on May 31, 2021.
- The nameplate capacity of solar (467 MW-dc) has not been added into the total nameplate capacity listed above. If we add the PSEG Solar Source capacity directly, then the total nameplate capacity would be 11,488 MW.
- The net electricity generation from solar is included in the above total and reflects generation output through the PSEG Power Solar Source transfer date of June 28, 2021.

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area
United States of America

Consumption of electricity (MWh)
54468

Consumption of heat, steam, and cooling (MWh)
48326

Total non-fuel energy consumption (MWh) [Auto-calculated]
102794

Is this consumption excluded from your RE100 commitment?
<Not Applicable>

C-EU8.4

(C-EU8.4) Does your electric utility organization have a transmission and distribution business?
Yes

C-EU8.4a

(C-EU8.4a) Disclose the following information about your transmission and distribution business.

Country/Region
United States of America

Voltage level
Distribution (low voltage)

Annual load (GWh)
42384

Annual energy losses (% of annual load)
5.24

Scope where emissions from energy losses are accounted for
Scope 2 (location-based)

Emissions from energy losses (metric tons CO2e)
964492

Length of network (km)
36463

Number of connections

Area covered (km2)

Comment
The length of the network represents the distribution network converted into kilometers.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Waste

Metric value
582883

Metric numerator
Waste Generated. Metric Tons

Metric denominator (intensity metric only)

% change from previous year
11.7

Direction of change
Increased

Please explain
Revised calculation to include more categories.

Description
Waste

Metric value
499070

Metric numerator
Recycled Material (metric tons)

Metric denominator (intensity metric only)

% change from previous year
26

Direction of change
Increased

Please explain
Revised calculation to include more categories.

C-EU9.5a

(C-EU9.5a) Break down, by source, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

Coal – hard

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
PSEG Power retired its Bridgeport Harbor Station Unit 3 power plant, effective May 31, 2021 marking the completion of the company's long-term coal exit strategy as the company pursues a path to net-zero carbon emissions. In February 2022, PSEG Power completed the sale of it 6,750 MW fossil generation portfolio and has no plans to invest in any new fossil-fuel power plants.

Lignite

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
In February 2022, PSEG Power completed the sale of it 6,750 MW fossil generation portfolio and has no plans to invest in any new fossil-fuel power plants.

Oil

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
In February 2022, PSEG Power completed the sale of it 6,750 MW fossil generation portfolio and has no plans to invest in any new fossil-fuel power plants. The last remaining oil plant is the Kalaeloa Generation Station in Hawaii.

Gas

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
0

Explain your CAPEX calculations, including any assumptions
In February 2022, PSEG Power completed the sale of it 6,750 MW fossil generation portfolio and has no plans to invest in any new fossil-fuel power plants.

Sustainable biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Other biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Waste (non-biomass)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Nuclear

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)
85000000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years
100

Explain your CAPEX calculations, including any assumptions
As noted in the 2021 PSEG 10-K: "In 2021, PSEG's other capital expenditures were $115 million, excluding $157 million for nuclear fuel, primarily related to various nuclear projects at PSEG Power." (pg 58). Of the $115MM in capital expenditures, approximately $85MM was directed towards nuclear projects.

Geothermal

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Hydropower

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Wind

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

As noted in the 2021 Form 10-K: "We have planned funding of approximately $250 million to support continued project development to its final investment decision." (pg 58)

Solar

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Marine

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Fossil-fuel plants fitted with CCS

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0

Explain your CAPEX calculations, including any assumptions

In February 2022, PSEG Power completed the sale of it 6,750 MW fossil generation portfolio and has no plans to invest in any new fossil-fuel power plants.

Other renewable (e.g. renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Other non-renewable (e.g. non-renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Other, please specify (Energy efficiency)	EE programs for residential and C&I customers including low-income, multi-family, small business and local government.	1000000000		2023
Other, please specify (Smart metering and analytics)	"Smart meters", new software and product solutions to improve PSE&G processes and better manage the electric grid.	707000000		2024
Charging networks	Residential EV smart charging, level 2 mixed-use charging infrastructure, public DC fast charging.	166000000		2026
Other, please specify (Infrastructure Advancement Program (IAP))	The IAP will modernize PSE&G's distribution systems to provide customers with improved reliability, including during extreme weather, and includes "Last Mile" investments that will begin preparing the grid for the rapid transition to EVs and enable a greater blend of renewable energy resources by increasing the reliability of the state's electric grid down to the street and neighborhood level.	511000000		2026

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-CO9.6a/C-EU9.6a/C-OG9.6a

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Unable to disaggregate by technology area	<Not Applicable>	Please select	35000000	In February 2022, PSEG announced it committed $35 million to funds managed by Energy Impact Partners (EIP). EIP, a global venture capital firm, and its funds target early-stage, innovative technologies aimed at combatting climate change. In addition to supporting financial returns, PSEG's investment aims to help accelerate the transition to net-zero greenhouse gas (GHG) emissions and a clean energy future while enhancing our own insights and strategies.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

RGGI - ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

RGGI - ETS

% of Scope 1 emissions covered by the ETS

% of Scope 2 emissions covered by the ETS

Period start date

Period end date

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

Verified Scope 2 emissions in metric tons CO2e

Details of ownership

Comment

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

PSEG supports and advocates for a more meaningful reflection of the cost of carbon emissions. For our own emitting facilities, we operate in compliance with regulations where they exist and apply to our facilities. Our strategy is first to cost-effectively minimize emissions through investments in operational efficiency and clean energy and then to procure and surrender emissions allowances as required under the programs. In addition, PSEG is committed to working to advance reductions to Net Zero in 2030 while preserving safety, reliability, improving resiliency and return on investment for our shareholders with reasonable costs to customers.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Navigate GHG regulations
Drive low-carbon investment
Stress test investments
Identify and seize low-carbon opportunities

GHG Scope

Scope 1
Scope 2

Application

Business units: both PSEG Power and PSE&G

Actual price(s) used (Currency /metric ton)

Variance of price(s) used

Proprietary information

Type of internal carbon price

Shadow price
Internal fee

Impact & implication

PSEG uses a cost on carbon in its market fundamentals analysis to guide our investments in new and existing electric generation projects and help to guide the implementation of our strategic plan. PSEG typically models several wholesale power price scenarios based on a combination of factors including commodity prices, economic growth, and the effects of state and federal policies. To inform management of the long-term potential impacts and opportunities of carbon policy, PSEG continually conducts near- and long-term modeling to best determine and inform our daily market positions, near-term portfolio management, and investment and development decisions. We identify and regularly review key market drivers, including potential regulatory or policy influences such as a price on carbon, and use them in our ongoing analysis to capture a range of plausible future outcomes and develop our overall strategy. Regulation of carbon is one of many considerations in our planning models, and results are weighed with other issues that may affect market conditions.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers/clients
Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Innovation & collaboration (changing markets)

Details of engagement
Run a campaign to encourage innovation to reduce climate impacts on products and services
Collaborate with suppliers on innovative business models to source renewable energy

% of suppliers by number
1

% total procurement spend (direct and indirect)
10

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement
Supplier selection had three criteria:
1. 12 month historic spend.
2. Open commitments.
3. Estimated historic emissions based on accepted methodologies.

Impact of engagement, including measures of success
Initial supplier Scope 3 survey is being sent to the market in September 2022. Engagement is to be determined. Future emissions reductions will be measured relative to our SBTi 2019 baseline.*

*The SBTi baseline is currently being developed and is expected to be completed within the next two years.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing	Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number
100

% of customer - related Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement
New Jersey's Energy Master Plan has ambitious goals emissions reduction goals. An essential part of the state's plan is focused on increasing energy efficiency within the state, which ranked 34th in Energy-Efficient Economy's 2019 national energy efficiency scorecard. PSEG's Clean Energy Future-Energy Efficiency program is a substantial step forward in helping the state meet its climate goals. A total of $1 billion has been approved for 10 energy efficiency programs targeted to residential and commercial customers. Residential customers can take advantage of discounts on energy-efficient equipment, products and services such as free home energy audits. For businesses, PSE&G provides solutions that include audits and whole-building energy efficiency retrofits.

Impact of engagement, including measures of success
In 2021, participating customers saved approximately $78 million on their annual bills, reflecting incremental savings of over 350,000 MWhs and 11,000,000 therms.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

In response to the New Jersey Clean Energy Act, PSE&G has partnered with the state Department of Labor & Workforce Development to create the Clean Energy Jobs Program. PSE&G's jobs program aims to provide low- to moderate-income New Jersey residents with the skills needed for careers in the fast-growing energy efficiency sector. The program has already put about 700 people to work supporting the utility's $1 billion energy efficiency initiative. Eventually, the company expects the program will place 2,000 workers in jobs that help customers save money, reduce their energy use and shrink their carbon footprint. In June 2022, PSEG was awarded a national Energy Equity Award from the Smart Energy Consumer Collaborative.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, and we do not plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers
Yes, we engage indirectly through trade associations
Yes, we engage indirectly by funding other organizations whose activities may influence policy, law, or regulation that may significantly impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, and we do not plan to have one in the next two years

Attach commitment or position statement(s)

<Not Applicable>

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or regulation that may impact the climate
Low-carbon, non-renewable energy generation

Specify the policy, law, or regulation on which your organization is engaging with policy makers
Nuclear Production Tax Credit

Policy, law, or regulation geographic coverage
National

Country/region the policy, law, or regulation applies to
United States of America

Your organization's position on the policy, law, or regulation
Support with no exceptions

Description of engagement with policy makers
We have engaged directly with the White House, Executive branch, US Senators and Members of the House of Representatives for the passage of both policies and their inclusion in a comprehensive climate package.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Focus of policy, law, or regulation that may impact the climate
Renewable energy generation

Specify the policy, law, or regulation on which your organization is engaging with policy makers
Wind Production/Investment Tax Credit

Policy, law, or regulation geographic coverage
National

Country/region the policy, law, or regulation applies to
United States of America

Your organization's position on the policy, law, or regulation
Support with minor exceptions

Description of engagement with policy makers
We have engaged directly with the White House, Executive branch, US Senators and Members of the House of Representatives for the passage of both policies and their inclusion in a comprehensive climate package.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
The exception that we had with the bill was the lack of inclusion of optionality for direct pay in the tax credits for wind.

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Edison Electric Institute (EII)

Is your organization's position on climate change consistent with theirs?
Mixed

Has your organization influenced, or is your organization attempting to influence their position?
We have already influenced them to change their position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)
EEI's member companies are leading a clean energy transformation. We are united in our commitment to get the energy we provide as clean as we can as fast as we can, without compromising on the reliability or affordability that are essential to the customers and communities we serve. EEI's member companies are committed to continuing to reduce carbon emissions in our sector and to helping other sectors—particularly the transportation and industrial sectors—transition to clean, efficient electric energy.

We differ from EEI in that we have argued for more aggressive regulation of power plant emissions by the Environmental Protection Agency, and we have supported a national Clean Energy Standard and federal legislation imposing a price on carbon, which the trade association does not support.

We influence their position through CEO participation on their Executive Committee and various other committees including legislative, tax, chief financial officer, and HR.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)
1430273

Describe the aim of your organization's funding
Operational and advocacy support

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
No, we have not evaluated

Trade association
Other, please specify (American Gas Association (AGA))

Is your organization's position on climate change consistent with theirs?
Mixed

Has your organization influenced, or is your organization attempting to influence their position?
We are attempting to influence them to change their position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)
The American Gas Association is committed to reducing greenhouse gas emissions through smart innovation, new and modernized infrastructure, and advanced technologies that maintain reliable, resilient, and affordable energy service choices for consumers.

PSEG has supported a national price on carbon, which is not supported by the AGA. We have also committed to setting science based targets across all three emission scopes, which will include advocacy for policies that encourage reductions in customer use of natural gas, which is also not supported by the AGA.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)
733972

Describe the aim of your organization's funding
Operational and advocacy support

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
No, we have not evaluated

Trade association
Other, please specify (Nuclear Energy Institute (NEI))

Is your organization's position on climate change consistent with theirs?
Mixed

Has your organization influenced, or is your organization attempting to influence their position?
We have already influenced them to change their position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)
NEI has publicly stated the following: We need deep decarbonization to hit our climate goals. Nuclear power can get us there. As our largest source of carbon-free energy, nuclear power is critical to reducing greenhouse gas emissions. Wind, solar and geothermal are on the rise, but the smartest policies will ensure these technologies complement, not replace, nuclear's clean energy production. Protecting and growing our use of nuclear technologies are important ways to dramatically reduce greenhouse gases and help us make meaningful progress to address climate change.

NEI champions the role of nuclear and policies that support existing nuclear such as the production tax credit, as well as policies to develop advanced nuclear reactors. The trade association has not endorsed an economy-wide price on carbon which has been a key position for PSEG for many years.

We influence their position though CEO level participation on their executive committee, and on various other communities including legislative, Chief Nuclear Officer, legal, and other operational committees.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)
3313110

Describe the aim of your organization's funding
Operational and advocacy support. The amount listed above includes due for 2021 and 2022.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization
Non-Governmental Organization (NGO) or charitable organization

State the organization to which you provided funding
C2ES

Funding figure your organization provided to this organization in the reporting year (currency as selected in C0.4)
25000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate
This organization engages in advocacy or education of policymakers and other stakeholders on policies addressing climate change and promoting energy efficiency and clean energy investment, including preservation of existing nuclear, and support for resiliency investments.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Type of organization
Non-Governmental Organization (NGO) or charitable organization

State the organization to which you provided funding
CERES

Funding figure your organization provided to this organization in the reporting year (currency as selected in C0.4)
35000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate
This organization engages in advocacy or education of policymakers and other stakeholders on policies addressing climate change and promoting energy efficiency and clean energy investment, including preservation of existing nuclear, and support for resiliency investments.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Type of organization
Other, please specify (Advocacy Group)

State the organization to which you provided funding
CEO Climate Dialogue

Funding figure your organization provided to this organization in the reporting year (currency as selected in C0.4)
20000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate
This organization engages in advocacy or education of policymakers and other stakeholders on policies addressing climate change and promoting energy efficiency and clean energy investment, including preservation of existing nuclear, and support for resiliency investments.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Type of organization
Other, please specify (Advocacy Group)

State the organization to which you provided funding
Third Way

Funding figure your organization provided to this organization in the reporting year (currency as selected in C0.4)
25000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate
This organization engages in advocacy or education of policymakers and other stakeholders on policies addressing climate change and promoting energy efficiency and clean energy investment, including preservation of existing nuclear, and support for resiliency investments.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In voluntary sustainability report

Status
Complete

Attach the document
PSEG_Sustainability_Report_2021.pdf

Page/Section reference
pg 30-62, 102

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	No, but we plan to have both within the next two years	<Not Applicable>	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments only	Other, please specify (Addressing present and future considerations and competing demands as part of strategic planning, avoiding and preventing occurrences of negative impacts on biodiversity and, when impacts cannot be avoided, reducing damage and mitigating the effects.)	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?	Portfolio
Row 1	Yes, we assess impacts on biodiversity in our downstream value chain only	<Not Applicable>

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	State and benefit indicators Pressure indicators Response indicators

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Impacts on biodiversity Influence on public policy and lobbying Risks and opportunities	pg 70-73 PSEG_Sustainability_Report_2021.pdf

C16. Signoff

C-FI

(C-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.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Director ESG & Sustainability	Other, please specify

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	9722000000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Other, please specify (Attribute tracking)	Complete attribute tracking is not available for the electric sector, especially when power may be traded and/or imported or exported from various grid regions. Currently PJM factors are considered to be most representative for location-based reporting.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms