

## **Module: Introduction**

### **Page: Introduction**

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#### **CC0.1**

##### **Introduction**

Please give a general description and introduction to your organization.

Public Service Enterprise Group, Inc. (PSEG) is an energy company with a diversified business mix whose vision and formula for sustainability is to be a leading company of people providing safe, reliable, economic, and green energy. Our operations are located primarily in the Northeastern and Mid Atlantic United States. We are comprised of two principle operating subsidiaries: PSEG Power LLC and Public Service Electric & Gas Company (PSE&G). PSEG Power is a Delaware Limited Liability Company formed in 1999 as a result of the deregulation and restructuring of the electric power industry in New Jersey. It integrates the operations of its merchant nuclear and fossil generating assets with its wholesale power marketing businesses through competitive energy sales in well-developed energy markets and fuel supply functions. Power earns revenues from the generation and marketing of power and natural gas to hedge business risks, and optimize the value of its portfolio of power plants, other contractual arrangements and oil and gas storage facilities. This is achieved primarily by selling power and transacting in natural gas and other energy-related products, on the spot market or using short-term or long-term contracts for physical and financial products. Also earns revenues from solar generation under long-term sales contracts for power and environmental products. PSEG Power's major power producing subsidiaries include PSEG Fossil LLC, which owns and operates fossil-fueled electric generation facilities, and PSEG Nuclear LLC, which owns and operates nuclear power plants. PSE&G is a New Jersey corporation, incorporated in 1924, which is a franchised public utility in New Jersey and earns revenues from its regulated rate tariffs under which it provides electric transmission and electric and gas distribution to residential, commercial and industrial customers in its service territory. It also offers appliance services and repairs to customers throughout its service territory.

PSE&G has also implemented regulated demand response and energy efficiency programs and invested in solar generation within New Jersey. PSEG's other direct wholly owned subsidiaries are: PSEG Energy Holdings L.L.C. (Energy Holdings), which earns its revenues primarily from its portfolio of lease investments; PSEG Long Island LLC (PSEG LI), which operates the Long Island Power Authority's (LIPA) transmission and distribution (T&D) system under a contractual agreement; and PSEG Services Corporation (Services), which provides PSEG and its operating subsidiaries with certain management, administrative and general services at cost

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#### **CC0.2**

**Reporting Year**

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

**Enter Periods that will be disclosed**

Fri 01 Jan 2016 - Sat 31 Dec 2016

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**CC0.3****Country list configuration**

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

**Select country**

United States of America

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**CC0.4****Currency selection**

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

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## CC0.6

### Modules

As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.

If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email [respond@cdp.net](mailto:respond@cdp.net).

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

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### Further Information

Certain of the matters discussed in this presentation about our 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 Annual Report on Form 10-K and subsequent reports on Form 10-Q and Form 8-K. These factors include, but are not limited to:

- fluctuations in wholesale power and natural gas markets, including the potential impacts on the economic viability of our generation units;
- our ability to obtain adequate fuel supply;
- any inability to manage our energy obligations with available supply;
- increases in competition in wholesale energy and capacity markets;
- changes in technology related to energy generation, distribution and consumption and customer usage patterns;
- economic downturns;
- third party credit risk relating to our sale of generation output and purchase of fuel;
- adverse performance of our decommissioning and defined benefit plan trust fund investments and changes in funding requirements;
- changes in state and federal legislation and regulations;
- the impact of pending rate case proceedings;
- regulatory, financial, environmental, health and safety risks associated with our ownership and operation of nuclear facilities;
- adverse changes in energy industry laws, policies and regulations, including market structures and transmission planning;
- changes in federal and state environmental regulations and enforcement;
- delays in receipt of, or an inability to receive, necessary licenses and permits;
- adverse outcomes of any legal, regulatory or other proceeding, settlement, investigation or claim applicable to us and/or the energy industry;
- changes in tax laws and regulations;
- the impact of our holding company structure on our ability to meet our corporate funding needs, service debt and pay dividends;
- lack of growth or slower growth in the number of customers or changes in customer demand;
- any inability of Power to meet its commitments under forward sale obligations;
- reliance on transmission facilities that we do not own or control and the impact on our ability to maintain adequate transmission capacity;
- any inability to successfully develop or construct generation, transmission and distribution projects;
- any equipment failures, accidents, severe weather events or other incidents that impact our ability to provide safe and reliable service to our customers;
- our inability to exercise control over the operations of generation facilities in which we do not maintain a controlling interest;
- any inability to

maintain sufficient liquidity; • any inability to realize anticipated tax benefits or retain tax credits; • challenges associated with recruitment and/or retention of key executives and a qualified workforce; • the impact of our covenants in our debt instruments on our operations; and • the impact of acts of terrorism, cybersecurity attacks or intrusions. All of the forward-looking statements made in this presentation 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 this presentation apply only as of the date of this presentation. 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. The forward-looking statements contained in this presentation are intended to qualify for the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended.

## **Module: Management**

### **Page: CC1. Governance**

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#### **CC1.1**

##### **Where is the highest level of direct responsibility for climate change within your organization?**

Board or individual/sub-set of the Board or other committee appointed by the Board

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#### **CC1.1a**

##### **Please identify the position of the individual or name of the committee with this responsibility**

Due to the nature of our business, PSEG's Chairman, President and CEO, Ralph Izzo, is directly responsible for managing PSEG's response to climate change risk. As Chair of the Board, he has direct oversight over corporate strategy, and management. The PSEG's Board of Directors does not have a committee specifically designated for sole oversight of climate change. These issues are regularly discussed in the context of risk management and corporate strategy.

The Fossil Generation Operations Oversight Committee and the Nuclear Generation Operations Oversight Committee monitor and evaluate risks associated with our electric station operations, including risks associated with environmental, safety and other compliance and personnel and performance matters. Additionally Audit Committee provides oversight to our internal audit and environmental, health and safety audit functions based on The PSEG Environmental Health and Safety Policy and PSEG Environmental Health and Safety Program Guide.

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#### **CC1.2**

**Do you provide incentives for the management of climate change issues, including the attainment of targets?**

Yes

**CC1.2a**

**Please provide further details on the incentives provided for the management of climate change issues**

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Board chairman	Monetary reward	Emissions reduction project Efficiency project Efficiency target	
Corporate executive team	Monetary reward	Emissions reduction project Energy reduction project Efficiency project	
Chief Operating Officer (COO)	Monetary reward	Energy reduction project Efficiency project	PSEG developed a three-pronged strategy to reduce carbon emissions in the energy sector through (1) energy efficiency; (2) renewable energy; and (3) clean central station power (including emissions-free nuclear power and environmentally responsible coal facilities). At a group and line of business level we do have in our scorecard metrics (linked to performance compensation) a diverse range of metrics related to the strategy including Energy Efficiency, Solar Capacity, Miles per Gallon etc. All initiatives are geared to support our emission reduction commitment and strategy.
Business unit managers	Monetary reward	Emissions reduction project Efficiency project	
Management group	Monetary reward	Emissions reduction project Energy reduction project	Individual performance reviews for employees are conducted semi-annually. For those who have responsibilities linked to environmental performance (including Air emissions), emission reduction initiatives, renewable energy etc., their annual performance rating takes into account their performance results and their compensation is linked to those results.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		Efficiency project Behavior change related indicator	

**Further Information**

**Page: CC2. Strategy**

**CC2.1**

**Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities**

Integrated into multi-disciplinary company wide risk management processes

**CC2.1a**

**Please provide further details on your risk management procedures with regard to climate change risks and opportunities**

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more	Board or individual/sub-set of the Board or	PSEG's operations are exclusively within the U.S,	> 6 years	Concerns over global climate change could result in laws and regulations to limit CO2 emissions or other GHG emissions produced

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
frequently	committee appointed by the Board	therefore consideration is given mainly to local risks and opportunities.		by our fossil generation facilities—Federal and state legislation and regulation designed to address global climate change through the reduction of GHG emissions could materially impact our fossil generation facilities. In addition to legislative and regulatory initiatives, the outcome of certain legal proceedings regarding alleged impacts of global climate change not involving us could be material to the future liability of energy companies. If relevant federal or state common law were to develop that imposed liability upon those that emit GHGs for alleged impacts of GHGs emissions, such potential liability to our fossil generation operations could be material.

**CC2.1b**

**Please describe how your risk and opportunity identification processes are applied at both company and asset level**

PSEG identifies and evaluates climate-related risks and opportunities in a manner that is consistent with how we identify and evaluate other significant business, market, regulatory, and operational risks and opportunities.

The company's management and the Board of Directors have agreed on mapping of the key enterprise risks identified by management to the Board and Committees based on the committees' respective area of oversight. Based on this mapping, detailed reviews of specific key enterprise risks are conducted with the Board and the Committees throughout the year. For each key enterprise risk, the framework of potential causes and consequences is described, along with a summary of the mitigation activities the company undertakes to avert these causes and the planned response activities in place to minimize the impact of the risk consequences.

In addition, annually, the company presents a status of enterprise risk management activities to the Audit Committee and the Corporate Governance Committee, and an overview of the top enterprise risks to the full Board of Directors. The Chief Risk Officer maintains responsibility for the Risk Management Policy which includes a framework for identifying and mitigating risks associated with market, credit, operations, political/regulatory, legal, compliance, strategic, reputation, business interruption management, environmental and staffing. Owners for risks managed under this policy fall within the respective owning department.

**CC2.1c**

**How do you prioritize the risks and opportunities identified?**

PSEG identifies and evaluates climate-related risks and opportunities in a manner that is consistent with how we identify and evaluate other significant business, market, regulatory, and operational risks and opportunities. For business risks, we analyze interdependencies and present these interdependencies to executive management and to the Board of Directors. This analysis looks at the sign of the relationship between major business drivers and focuses on the strongest correlations.

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**CC2.1d**

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment
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**CC2.2**

**Is climate change integrated into your business strategy?**

Yes

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**CC2.2a**

**Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process**

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 federal legislation to limit and reduce GHG emissions. Absent a comprehensive legislative solution, we have supported the steps taken by states to reduce GHGs. PSEG developed a three-pronged strategy to reduce carbon emissions in the energy sector through (1) energy efficiency; (2) renewable energy; and (3) clean central station power (including emissions-free nuclear power and environmentally responsible coal facilities). PSEG has made a combined investment in these areas in excess of \$3 billion since 2007. PSEG has been factoring climate change into its business decisions and investments since the early 1990s. In 2004, through EPA's Climate Leaders Program,



PSEG voluntarily pledged to reduce its GHG emissions intensity by 18% from 2000 levels by 2008. PSEG surpassed this goal by achieving a 31% reduction. PSEG continues to reduce its GHG emissions intensity to this day. In 2016, PSEG's GHG intensity was 460 lbs/MWh, approximately 54% below the 2000 level. PSEG's low intensity rate is due primarily to the fact that approximately half of our power comes from nuclear generation. In fact, from 2000-2011, PSEG reduced its CO2 emissions rate 24 percent while its electricity generation increased 37 percent.

Subsequently, PSEG established a new goal of reducing GHG emissions by 25% from 2005 levels by 2025. In 2011, PSEG met that goal 14 years ahead of schedule. PSEG achieved these goals through implementation of energy efficiency programs, deployment of renewable energy, increasing nuclear output and building clean, efficient natural gas plants. PSEG continues to build on this success to further reduce emissions and provide more low-carbon energy. Even though PSEG has not set a new GHG reduction target, we continue to look for opportunities to reduce the GHG footprint for both our company and our customers. In fact, GHG emissions in 2016 were approximately 41% below 2005 levels.

PSE&G is investing almost \$400 million in energy efficiency initiatives that reduce emissions while creating jobs and saving customers money. PSE&G is spreading the benefits of energy efficiency to our small business customers located in Urban Enterprise Zones, to residents of multifamily buildings in our service territory and to institutions that are used by the communities we serve, like hospitals, government offices and non-profits. Our energy efficiency programs have helped PSE&G customers save more than 180 million kilowatt-hours of electricity, which is enough to power 25,000 homes for a year and 5,000,000 therms of natural gas, which is enough to supply 5,000 homes for a year. PSE&G programs match customers who would benefit from energy efficiency upgrades with initiatives that help pay for them. This includes the following: \$174 million investment to help hospitals make substantial and ongoing energy efficiency improvements; efficiency projects at more than 500 government facilities and non-profits, including more than 100 schools; and efficiency projects at 300 residential multifamily buildings with more than 10,000 total apartments. PSE&G expects to complete upgrades at an additional 10,000 apartments over the next several years. PSEG believes that there are tremendous opportunities to further reduce GHG emissions through energy efficiency programs. Energy utility companies are uniquely positioned to lead in the effort to deploy more energy efficiency programs. PSEG can achieve this by investing in energy-saving equipment, appliances and fixtures, all while receiving appropriate compensation for encouraging smart energy use. With the right economic incentives, energy efficiency can be a much larger contributor to our low-carbon future. In 2015, PSE&G received a Star of Energy Efficiency Award from the Alliance to Save Energy for its efforts to make New Jersey hospitals and apartment buildings more energy efficient. The Association of Energy Service Professionals (AESP) named Public Service Electric and Gas Company's (PSE&G's) Residential Multifamily Housing Program as the winner of the 2016 Energy Award for Outstanding Achievement in Residential Program Design & Implementation.

PSEG has also taken steps to lower our carbon footprint by making our facilities more energy efficient through utilization of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system. We have achieved LEED Commercial Interiors Gold Certification for our Linden Generating Station and our Energy and Environment Resource Center (EERC) in Salem, NJ. LEED Commercial Interiors Silver Certification has been achieved for our Customer Service Centers in Paterson, Passaic, Trenton and New Brunswick, NJ. We are working on LEED Commercial Interiors Silver Certification for our Customer Service Center in Jersey City, NJ. The company is also making strides in renewable energy. The Solar Electric Power Association (SEPA) ranked PSE&G as one of the top 10 U.S. utilities for integrated solar capacity. Our Solar 4 All Program includes 125 megawatts of solar within PSE&G's service territory. Our Solar Source Program, which implements large-scale solar facilities outside PSE&G's service territory, has nineteen facilities totaling 396.1 megawatts and two additional projects currently under construction totaling 47.2 megawatts. Finally, PSE&G's Solar Loan Program has helped homeowners and businesses finance and install photovoltaic solar energy systems. Since 2008, more than 1,100 PSE&G customers have financed over 85 megawatts of solar on homes and businesses in New Jersey.

PSEG is investing in resilient electricity and natural gas infrastructure and has agreed to implement a \$1.2 billion program in the wake of Superstorm Sandy. This effort, titled Energy Strong, includes the replacement and modernization of 250 miles of low-pressure cast-iron gas mains and the deployment of smart grid technologies. Both of these projects will aid our ongoing efforts to lower GHG emissions.

In addition, PSE&G will be replacing up to 510 miles of gas mains and 38,000 service lines beginning in 2016 through 2019 under its Gas System Modernization Program (GSMP). Aging cast iron pipes will be replaced with strong, durable plastic piping, which is much less likely to have leaks and release methane gas. Replacement of the pipelines will be prioritized though joint methane emissions study with the Environmental Defense Fund (EDF). PSE&G has proposed an expanded effort to our GSMP that would further reduce methane emissions.

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**CC2.2b**

Please explain why climate change is not integrated into your business strategy

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**CC2.2c**

**Does your company use an internal price on carbon?**

Yes

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**CC2.2d**

**Please provide details and examples of how your company uses an internal price on carbon**

PSEG employs an internal carbon price for strategic operational decision-making as we make long-term plans to meet energy and electricity needs, load factors, and amortization of investments and costs. This price is flexible to allow it to change with time as external prices evolve. This price as well as the methodology we use for calculations is confidential and proprietary.

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**CC2.3**

**Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)**

Direct engagement with policy makers  
Trade associations  
Funding research organizations

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**CC2.3a**

**On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Regulation of methane emissions	Neutral	Support voluntary programs for the natural gas distribution sector. PSE&G is a long-time participant of EPA's Natural Gas STAR program and a founding partner of EPA's Methane Challenge.	
Clean energy generation	Support	Invested in nuclear uprates to increase benefits of zero emission nuclear energy, invested in renewables development via solar programs and in EE.	PSEG continues to support an economy-wide, legislative solution that puts a price on carbon.
Energy efficiency	Support	Actively implemented EE programs via utility investments and have supported policies to further advance use of EE as part of our NJ's Energy Future business strategy.	
Cap and trade	Support	Actively engaged in promoting legislation with multiple federal administrations. Supported NJ Global Warming Response Act and continue to promote its implementation. Active engagement on RGGI through the RGGI Collaborative.	PSEG continues to support an economy-wide, legislative solution that puts a price on carbon.
Mandatory carbon reporting	Support	PSEG has supported the voluntary reporting and reduction of GHGs. PSEG participated in both the DOE's Global Climate Challenge and EPA's Climate Leaders programs. Work with Industry Groups such as AGA and EEI to ensure common sense emission measurement methodologies.	PSEG continues to support an economy-wide, legislative solution that puts a price on carbon.
Carbon tax	Support	Supportive of market-based solutions to address climate change.	PSEG continues to support an economy-wide, legislative solution that puts a price on carbon.
Adaptation resiliency	Support	Hosted NJ Climate Adaptation Conference in 11/2011 that led to formation of the NJ Climate Adaptation Alliance. Remain an active leader of the NJCAA and continue to implement business strategies to foster increased resiliency of our infrastructure.	

**CC2.3b**

**Are you on the Board of any trade associations or provide funding beyond membership?**

Yes

**CC2.3c**

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
American Gas Association	Consistent	The Association acknowledges climate change, thinks early action to reduce emissions should be taken into account, and that natural gas should be a fundamental part of a clean energy future. They believe a national plan should be developed by Congress and not through environmental regulation.	
EEI	Consistent	EEI member companies are committed to addressing the challenge of climate change and have undertaken a wide range of initiatives over the last years to reduce or avoid emissions.	Ralph sits on the executive committee and co chairs the supply task force. He's also a member of the steering committee of the Institute for Energy Innovation

**CC2.3d**

**Do you publicly disclose a list of all the research organizations that you fund?**

No

**CC2.3e**

Please provide details of the other engagement activities that you undertake

**CC2.3f**

**What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Memberships in all directly funded or supported organizations are regularly reviewed by the Corporate Citizenship and Culture group within PSEG to ensure consistency. Additionally, executives and managers hold either board level or advisory positions in several of these organizations to further ensure consistency.

CC2.3g

Please explain why you do not engage with policy makers

Further Information

Page: **CC3. Targets and Initiatives**

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Absolute target  
Renewable energy consumption and/or production target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Scope 1+2 (location-based)		25%	2005	26566330	2025	No, and we do not anticipate setting one in the next 2 years	In 2009, PSEG established a goal of reducing GHG emissions by 25% from 2005 levels by 2025. In 2011, PSEG met that goal 14 years ahead of schedule.
Abs2	Scope 1+2		40%	2005	26566330	2030	No, but we	Given the success of this effort PSEG established a new

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
	(location-based)						anticipate setting one in the next 2 years	Eliminated Emissions goal of 13.5 million metric tons of CO2e from 2005 levels by 2030. The new goal expands on the previous goal by including avoided emissions through various programs. The Eliminated Emissions goal includes, but is not limited to the following activities: • Permanent retirement of our coal units at Bridgeport, Hudson and Mercer • Efficiency upgrades at our existing natural gas combined cycle fleet • Replacement of aging cast iron natural gas distribution pipelines with new plastic pipe • Continued replacement of traditional fleet vehicles with hybrid vehicles • Implementation of idle mitigation technology on fleet vehicles • Accounting avoided emissions for post-2005 uprates at our nuclear facilities • Accounting for avoided emissions from our solar programs, both in the utility and the merchant power business units • Accounting for avoided emissions from energy efficiency programs implemented through both our electric and gas distribution system • Accounting for avoided emissions from our electric vehicle charging programs for our employees and our commercial/industrial customers • Accounting for avoided emissions from our recycling of industrial waste under EPA's WasteWise program • Accounting for avoided emissions from PSEG Power's REC commitments

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
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CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
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CC3.1d

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
RE1	Electricity		0	0%	2016	5.6%	In 2016, PSEG had a total of 473 MW of solar capacity and 210 MW of

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
	production						pumped hydro in our fleet. This represents approximately 5.6% of PSEG's generation portfolio capacity. In addition, PSEG has a total of 3,715 MW of nuclear capacity. Therefore, the total capacity of PSEG's non-carbon emitting generation portfolio is 36.2%.

**CC3.1e**

**For all of your targets, please provide details on the progress made in the reporting year**

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	100%	25%	
RE1	100%	5.6%	

**CC3.1f**

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

**CC3.2**



Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

**CC3.2a**

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Group of products	Energy efficiency programs, Solar 4 All, Solar Loan	Avoided emissions				
Product	PSEG Power Solar	Avoided emissions				
Product	Electric Vehicle Programs	Avoided emissions				
Product	Nuclear Generation	Low carbon product and avoided emissions				
Product						

**CC3.3**

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

Yes

**CC3.3a**

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	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		

**CC3.3b**

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	PSE&G is investing almost \$400 million in energy efficiency initiatives that reduce emissions while creating jobs and saving customers money. PSE&G is spreading the benefits of		Scope 2 (location-based)	Voluntary					

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>energy efficiency to our small business customers located in Urban Enterprise Zones, to residents of multifamily buildings in our service territory and to institutions that are used by the communities we serve, like hospitals, government offices and non-profits. Our energy efficiency programs have helped PSE&amp;G customers save more than 180 million kilowatt-hours of electricity, which is enough to power 25,000 homes for a year and 5,000,000 therms of natural gas, which is enough to supply 5,000 homes for a year. PSE&amp;G programs match customers who would benefit from energy efficiency upgrades with initiatives that help pay for them. This includes the following: \$174 million investment to help hospitals make substantial and ongoing energy efficiency improvements; efficiency projects at more than 500 government facilities and non-profits, including more than 100 schools; and efficiency projects at 300 residential multifamily buildings with more than 10,000 total apartments. PSE&amp;G expects to complete upgrades at an additional 10,000 apartments over the next several years. PSEG believes that there are tremendous opportunities to</p>								

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>further reduce GHG emissions through energy efficiency programs, but it will require a new regulatory compact. Energy utility companies are uniquely positioned to lead in the effort to deploy more energy efficiency programs. PSEG can achieve this by investing energy-saving appliances and fixtures, all while receiving appropriate compensation for encouraging smart energy use. With the right economic incentives, energy efficiency can be a much larger contributor to our low-carbon future. In 2015, PSE&amp;G received a Star of Energy Efficiency Award from the Alliance to Save Energy for its efforts to make New Jersey hospitals and apartment buildings more energy efficient. The Association of Energy Service Professionals (AESP) named Public Service Electric and Gas Company's (PSE&amp;G's) Residential Multifamily Housing Program as the winner of the 2016 Energy Award for Outstanding Achievement in Residential Program Design &amp; Implementation.</p>								
Transportation: fleet	PSE&G continues to replace older fleet vehicles with new hybrid vehicles. 777 hybrid vehicles have		Scope 2 (location-based)	Voluntary					

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>been placed into service in our fleet since 2007. In 2014, \$3.2 million was spent on hybrids and aeriels with electric drive and cab comfort. PSE&amp;G is projected to spend approximately \$5 million on hybrids and aeriels with electric drive and cab comfort</p>								
Transportation: use	<p>PSEG has been taking steps to reduce GHG emissions from mobile sources. In 2013, PSEG launched an Employee Electric Car Initiative Pilot Program, where employees who commute in an electric car may receive no-cost charging and parking for three years at three company locations (Newark, Edison and Salem). In July, PSEG opened the largest electric car charging facility in New Jersey as part of this program. Participation in this program has resulted in an estimated 50-60 ton reduction in carbon emissions annually. PSE&amp;G is a pledged supporter of the Northeast Electric Vehicle Network, which was established to accelerate the deployment of electric vehicles. Building on this internal program, PSE&amp;G is partnering with hospitals and businesses, a university, a</p>		Scope 2 (location-based) Scope 3	Voluntary					

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	condominium developer and a government agency to install a total of 50 electric vehicle charging stations as a part of our Customer Workplace Charging initiative. PSE&G are seeking 20 more participants for future involvement.								
Low carbon energy installation	The Solar Electric Power Association (SEPA) ranked PSE&G as one of the top 10 U.S. utilities for integrated solar capacity. Our Solar 4 All Program includes 125 megawatts of solar within PSE&G's service territory. Our Solar Source Program, which implements large-scale solar facilities outside PSE&G's service territory, has nineteen facilities totaling 396.1 megawatts and two additional projects currently under construction totaling 47.2 megawatts. Finally, PSE&G's Solar Loan Program has helped homeowners and businesses finance and install photovoltaic solar energy systems. Since 2008, more than 1,100 PSE&G customers have financed over 85 megawatts of solar on homes and businesses in New Jersey.		Scope 1	Voluntary					
Energy efficiency: Building fabric	PSEG has also taken steps to lower our carbon footprint by making our facilities more energy efficient through		Scope 2 (location-based)	Voluntary					

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	utilization of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system. We have achieved LEED Commercial Interiors Gold Certification for our Linden Generating Station and our Energy and Environment Resource Center (EERC) in Salem, NJ. LEED Commercial Interiors Silver Certification has been achieved for our Customer Service Centers in Paterson, Passaic, Trenton and New Brunswick, NJ. We are working on LEED Commercial Interiors Silver Certification for our Customer Service Center in Jersey City, NJ.								
Process emissions reductions	PSEG is investing in resilient electricity and natural gas infrastructure and has agreed to implement a \$1.2 billion program in the wake of Superstorm Sandy. This effort, titled Energy Strong, includes the replacement and modernization of 250 miles of low-pressure cast-iron gas mains and the deployment of smart grid technologies. Both of these projects will aid our ongoing efforts to lower GHG emissions. In addition, PSE&G will be replacing up to 510 miles of gas mains and 38,000		Scope 1 Scope 2 (location-based)	Voluntary					

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>service lines beginning in 2016 through 2019 under its Gas System Modernization Program (GSMP). Aging cast iron pipes will be replaced with strong, durable plastic piping, which is much less likely to have leaks and release methane gas. Replacement of the pipelines will be prioritized though joint methane emissions study with the Environmental Defense Fund (EDF). PSE&amp;G has proposed an expanded effort to our GSMP that would further reduce methane emissions.</p>								
Fugitive emissions reductions	<p>PSE&amp;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. As of 2013, we have had cumulative reductions of methane emissions of 574,285 thousand cubic feet (Mcf) since joining the program in 1993. Since 2011, PSE&amp;G has reduced methane emissions 2% for a total of 32,000 million tons of CO2 equivalent. Additional reductions are expected under PSE&amp;G's GSMP. In 2016, PSE&amp;G became a founding partner of EPA's Natural Gas STAR Methane</p>		Scope 1	Mandatory					



Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	Challenge by committing to replace 1.5% of PSEG's cast iron gas mains and associated service lines by 2021.								
Waste recovery	PSEG reduced its overall GHG footprint through waste reduction and recycling programs. Since 1995, PSEG's recycling rates have consistently exceeded 90 percent. Hence, EPA inducted PSEG into its Hall of Fame for its Wastewise voluntary waste reduction program.			Voluntary				Ongoing	

**CC3.3c**

**What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	
Dedicated budget for energy efficiency	

**CC3.3d**

If you do not have any emissions reduction initiatives, please explain why not

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**Further Information**

**Page: CC4. Communication**

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**CC4.1**

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	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) in accordance with the CDSB Framework	Underway - previous year attached		<a href="https://www.cdp.net/sites/2017/71/15271/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/sustainability_report.pdf">https://www.cdp.net/sites/2017/71/15271/Climate Change 2017/Shared Documents/Attachments/CC4.1/sustainability_report.pdf</a>	
In other regulatory filings	Complete	Mandatory Reporting of Greenhouse Gases Rule		

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**Further Information**

**Module: Risks and Opportunities**

**Page: CC5. Climate Change Risks**

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**CC5.1**

**Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply**

Risks driven by changes in regulation

Risks driven by changes in physical climate parameters

CC5.1a

**Please describe your inherent risks that are driven by changes in regulation**

Risk driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Uncertainty surrounding new regulation	Concerns over global climate change could result in laws and regulations to limit CO2 emissions or other GHG emissions produced by our fossil generation facilities— Federal and state legislation and regulation designed to address global climate change through the reduction of GHG emissions could materially impact our fossil generation facilities. For example, in 2015 the EPA published new rules for both new and existing power plants. We may be required to incur significant costs to comply with these regulations and to continue operation of our fossil generation facilities, which could include the potential need	Increased operational cost	Unknown	Direct	Unknown				

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>to purchase CO2 emission allowances. Such expenditures could materially affect the continued economic viability of one or more such facilities. In addition to legislative and regulatory initiatives, the outcome of certain legal proceedings regarding alleged impacts of global climate change not involving us could be material to the future liability of energy companies. If relevant federal or state common law were to develop that imposed liability upon those that emit GHGs for alleged impacts of GHGs emissions, such potential liability to our fossil generation operations could be material .</p> <p>Uncertainty surrounding new regulation presents a significant risk to PSEG as uncertainty regarding future carbon price impairs long-term investment decision-making and could stifle new investments that are the foundation for long-term sustainable growth.</p> <p>Additionally, Uncertainty regarding the ultimate outcome of carbon policies also serves to impair decision-making related to long-term investments, as a price on carbon can significantly affect the cost/benefit of various</p>								

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	electric generation technologies. Operating in an uncertain regulatory environment may constrain our ability to pursue low-carbon investment opportunities which require a carbon price to be economic.								

**CC5.1b**

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation pattern	The success of our businesses is dependent on our ability to continue providing safe and reliable service to our customers while minimizing service disruptions. We are exposed to the risk of equipment failures, accidents, severe weather events, or other incidents which could	Increased operational cost	Unknown	Direct		Medium-high		Hedging: The availability and price of energy-related commodities are subject to fluctuations from factors such as weather, environmental policies, changes in supply and demand, state and federal regulatory policies,	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>result in damage to or destruction of our facilities or damage to persons or property. For instance, equipment failures in our natural gas distribution could give rise to a variety of hazards and operating risks, such as leaks, accidental explosions and mechanical problems, which could cause substantial financial losses and harm our reputation. In addition, the physical risks of severe weather events, such as experienced from Hurricane Irene and Superstorm Sandy, and of climate change, changes in sea level, temperature and precipitation patterns and other related phenomena have further exacerbated these risks. 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</p>							<p>market rules and other events. To reduce price risk caused by market fluctuations, we enter into supply contracts and derivative contracts, including forwards, futures, swaps and options with approved counterparties. These contracts, in conjunction with physical sales and other services, help reduce risk and optimize the value of owned electric generation capacity.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>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 transmission and distribution business, the cost of storm restoration efforts may not be fully recoverable through the regulatory process.</p>								
Tropical cyclones (hurricanes and typhoons)	<p>The success of our businesses is dependent on our ability to continue providing safe and reliable service to our customers while minimizing service disruptions. We are exposed to the risk of equipment failures, accidents, severe weather events, or other</p>	Reduction in capital availability	Unknown	Direct		Medium-high			

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>incidents which could result in damage to or destruction of our facilities or damage to persons or property. For instance, equipment failures in our natural gas distribution could give rise to a variety of hazards and operating risks, such as leaks, accidental explosions and mechanical problems, which could cause substantial financial losses and harm our reputation. In addition, the physical risks of severe weather events, such as experienced from Hurricane Irene and Superstorm Sandy, and of climate change, changes in sea level, temperature and precipitation patterns and other related phenomena have further exacerbated these risks. 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</p>								



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>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 transmission and distribution business, the cost of storm restoration efforts may not be fully recoverable through the regulatory process.</p>								

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
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**CC5.1d**

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**CC5.1e**

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**CC5.1f**

**Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure**

**Further Information**

**Page: CC6. Climate Change Opportunities**

**CC6.1**

**Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply**

Opportunities driven by changes in regulation

**CC6.1a**

**Please describe your inherent opportunities that are driven by changes in regulation**

<b>Opportunity driver</b>	<b>Description</b>	<b>Potential impact</b>	<b>Timeframe</b>	<b>Direct/Indirect</b>	<b>Likelihood</b>	<b>Magnitude of impact</b>	<b>Estimated financial implications</b>	<b>Management method</b>	<b>Cost of management</b>
Renewable energy regulation	State and/or a potential federal renewable portfolio standard provide a revenue stream to support PSEG's investments in renewable energy technologies.	Increased demand for existing products/services	Unknown	Direct	Likely	Medium-high			
Product efficiency regulations and standards	State efficiency requirements could provide an opportunity for PSE&G to invest	New products/business services	Unknown	Direct	Unknown	Unknown			

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	patient capital in delivering additional efficiency services to its customers.								

CC6.1b

Please describe your inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management

CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**CC6.1e**

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**CC6.1f**

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

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**Further Information**

**Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading**

**Page: CC7. Emissions Methodology**

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**CC7.1**

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Sat 01 Jan 2005 - Sat 31 Dec 2005	24898116
Scope 2 (location-based)	Sat 01 Jan 2005 - Sat 31 Dec 2005	1668214
Scope 2 (market-based)		

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**CC7.2**

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use

US EPA Mandatory Greenhouse Gas Reporting Rule

The Climate Registry: General Reporting Protocol

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**CC7.2a**

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

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**CC7.3**

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	IPCC Fourth Assessment Report (AR4 - 100 year)

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**CC7.4**

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Biodiesels	9.46	Other: kg CO2/Gallon	CL Mobile Source Combustion 5/2008
Diesel/Gas oil	10.15	Other: kg CO2/Gallon	CL Mobile Source Combustion 5/2008
Motor gasoline	8.81	Other: kg CO2/Gallon	CL Mobile Source Combustion 5/2008
Bituminous coal	0.011	Other: kg CH4/mmBtu	Table C-2, Subpart C of Part 98
Bituminous coal	0.0016	Other: Kg N2O/mmBtu	Table C-2, Subpart C of Part 98
Propane	0.0006	Other: Kg N2O/mmBtu	Table C-2, Subpart C of Part 98
Propane	0.003	Other: kg CH4/mmBtu	Table C-2, Subpart C of Part 98
Propane	62.87	Other: kg CO2/mmBtu	Table c-1, Subpart C of Part 98

Fuel/Material/Energy	Emission Factor	Unit	Reference
Natural gas	0.0001	Other: Kg N2O/mmBtu	Table C-2, Subpart C of Part 98
Natural gas	0.001	Other: kg CH4/mmBtu	Table C-2, Subpart C of Part 98
Natural gas	53.06	Other: kg CO2/mmBtu	Table c-1, Subpart C of Part 98
Kerosene	0.0006	Other: Kg N2O/mmBtu	Table C-2, Subpart C of Part 98
Kerosene	0.003	Other: kg CH4/mmBtu	Table C-2, Subpart C of Part 98
Kerosene	75.20	Other: kg CO2/mmBtu	Table c-1, Subpart C of Part 98
Distillate fuel oil No 2	0.0006	Other: Kg N2O/mmBtu	Table C-2, Subpart C of Part 98
Distillate fuel oil No 2	0.003	Other: kg CH4/mmBtu	Table C-2, Subpart C of Part 98
Distillate fuel oil No 2	73.96	Other: kg CO2/mmBtu	Table c-1, Subpart C of Part 98
Distillate fuel oil No 6	0.0006	Other: Kg N2O/mmBtu	Table C-2, Subpart C of Part 98
Distillate fuel oil No 6	0.003	Other: kg CH4/mmBtu	Table C-2, Subpart C of Part 98
Distillate fuel oil No 6	75.10	Other: kg CO2/mmBtu	Table c-1, Subpart C of Part 98

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#### Further Information

**Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)**

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#### CC8.1

**Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory**

Equity share

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#### CC8.2

**Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e**



13116015

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**CC8.3**

**Please describe your approach to reporting Scope 2 emissions**

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have operations where we are able to access electricity supplier emissions factors or residual emissions factors, but are unable to report a Scope 2, market-based figure	

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**CC8.3a**

**Please provide your gross global Scope 2 emissions figures in metric tonnes CO<sub>2</sub>e**

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
1004285		

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**CC8.4**

**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?**

No

CC8.4a

Please 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	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Assumptions	In terms of magnitude, the largest source of uncertainty in our total gross global Scope 1 emissions determination is with emissions associated with electricity generation. While these emissions determinations are robust and reported pursuant to established regulatory procedures, the fact that these emissions comprise over 93% of our total emissions, a small uncertainty among this source category results in a large uncertainty in absolute terms relative to other emissions sources. CO <sub>2</sub> , methane (CH <sub>4</sub> ) and nitrous oxide (N <sub>2</sub> O) emissions from EGUs are determined using either continuous emissions monitoring system (CEMS) data (in case of CO <sub>2</sub> ) or calculated using annual fuel usage at each facility and standard CO <sub>2</sub> emission factors for a given fuel type. When determining uncertainty in these calculations, we defer to the maximum allowable uncertainties established in applicable regulatory requirements. As such, we applied an uncertainty margin of ±10% to annual coal use, ±10% to annual oil and natural gas use values from direct measure CEMS units, and ±2% to annual oil and natural gas use for facilities which do not have direct measurement CEMS units. Other sources of uncertainty are associated with EPA emissions factors that we use to determine fugitive methane emissions from our natural gas distribution network and coal pile storage. For these sources, we estimate uncertainty ranges of -20.2% to 0% and -66.7% to +200%, respectively.

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
			<p>Although large in percentage terms, these uncertainties are relatively small in absolute terms, given these respective sources' overall contribution to our total global Scope 1 emissions (approximately 5% of total emissions). Finally, measurement constraints limit the precision with which we are able to measure emissions associated with SF6 and refrigerant fugitive emissions. For these sources, we estimate uncertainty ranges of -7.1 to -0.6% and -38.5% to 0%, respectively. Again, as these sources comprise just over 1% of our total emissions, the larger uncertainties expressed as a percentage are extremely small when viewed in absolute terms.</p>
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Data Gaps	<p>PSEG's Scope 2 emissions comprise emissions associated with internal electricity consumption and line losses in our electric transmission and distribution (T&amp;D) network. We obtain electricity consumption data from internal customer billing database systems which we consider robust. We arrive at total line losses by subtracting total billed sales from the total system output of electricity that enters PSE&amp;G's electric T&amp;D network. Both of these measurements are robust, as they are used to settle electricity sales transactions pursuant to regulatory requirements. The main uncertainty associated with our Scope 2 emissions determination involves the assumptions we use to subtract emissions associated with electricity that our independent power producing subsidiary (PSEG Power) generates and supplies to our regulated electric distribution utility (PSE&amp;G). We account for these emissions in our Scope 1 total and subtract them from our Scope 2 total, per the GHG Protocol's guidance in Appendix A to avoid double-counting. The uncertainty we face is in tracking the exact amount of electricity that PSEG Power provides to PSE&amp;G, as it is impossible to track individual electrons as they travel from an individual power plant to an end user. We default to PSEG Power's Basic Generation Supply (BGS) load obligation to PSE&amp;G, as this represents the best estimate of the electricity that PSEG Power directly generates and provides to PSE&amp;G. The other uncertainties associated with our Scope 2 emissions determination involve the PJM grid average emissions factor and any minute inaccuracies that may exist in electric meters.</p>
Scope 2 (market-based)			

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

No third party verification or assurance – regulatory CEMS required

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**CC8.6a**

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)

---

**CC8.6b**

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emission Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
CFR 40 Part 75	95	Fri 01 Jan 2016 - Sat 31 Dec 2016	

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**CC8.7**

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

No third party verification or assurance

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**CC8.7a**

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)

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**CC8.8**

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
No additional data verified	

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**CC8.9**

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

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**CC8.9a**

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

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**Further Information**

**Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)**

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**CC9.1**

**Do you have Scope 1 emissions sources in more than one country?**

No

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**CC9.1a**

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
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**CC9.2**

**Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)**

By GHG type

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**CC9.2a**

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
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**CC9.2b**

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
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**CC9.2c**

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	13113654.06
CH4	838943.60
N2O	6254.35

GHG type	Scope 1 emissions (metric tonnes CO2e)
SF6	76602.00
HFCs	2151.00

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CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
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**Further Information**

**Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)**

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CC10.1

**Do you have Scope 2 emissions sources in more than one country?**

No

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CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region



Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
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**CC10.2**

**Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)**

By activity

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**CC10.2a**

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
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**CC10.2b**

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
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**CC10.2c**

**Please break down your total gross global Scope 2 emissions by activity**

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Line Losses	1080509	
Facilities Electrical Use	25203	

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**Further Information**

**Page: CC11. Energy**

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**CC11.1**

**What percentage of your total operational spend in the reporting year was on energy?**

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

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**CC11.2**

**Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year**

Energy type	MWh
Heat	
Steam	
Cooling	

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**CC11.3**

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

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**CC11.3a**

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Bituminous coal	
Natural gas	

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**CC11.4**

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
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CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
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Further Information

Page: **CC12. Emissions Performance**

CC12.1

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

Decreased

CC12.1a

Please 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

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	8	Increase	PSE&G enables its customers to reduce and/or avoid their emissions associated with electricity and natural gas consumption. PSE&G commenced modernizing its gas distribution system as part of our Gas System Modernization Program (GSMP) which was approved by the BPU in late 2015. The GSMP, through which we will invest \$905 million over three years, will replace approximately 510 miles of cast iron and unprotected steel gas mains and about 38,000 unprotected steel service lines to homes and businesses, including the uprating of the mains to higher pressure. The mains and service lines will be replaced with stronger, more durable plastic piping, reducing the potential for leaks and release of methane gas. The new elevated pressure systems also enable the installation of excess flow valves that automatically shut off gas flow if a service line is damaged, and better support the use of high-efficiency appliances.
Divestment		Decrease	
Acquisitions			
Mergers			
Change in output	92	Decrease	the sustained lower pricing of natural gas over the past several years has resulted in changes in relative operating costs compared to historical norms, wherein some gasfired generation is now able to displace the majority of PSEG's coal-fired generation. This change, combined with the addition of new, more efficient generation capacity, has altered the historical dispatch order of certain plants in the markets where we operate.
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

**CC12.2**

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
	metric tonnes CO2e					

**CC12.3**

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
	metric tonnes CO2e	full time equivalent (FTE)					

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
		employee					

#### Further Information

**Page: CC13. Emissions Trading**

#### CC13.1

**Do you participate in any emissions trading schemes?**

Yes

#### CC13.1a

**Please complete the following table for each of the emission trading schemes in which you participate**

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO <sub>2</sub> e	Details of ownership
Regional Greenhouse Gas Initiative	Fri 01 Jan 2016 - Sat 31 Dec 2016	0	2442420	2442420	Facilities we own and operate

#### CC13.1b

**What is your strategy for complying with the schemes in which you participate or anticipate participating?**

PSEG's strategy is to comply with all applicable requirements in the most efficient manner possible. RGGI required that 50% of our 2016 compliance obligation be surrendered by March 1, 2017 and the remaining amount following the end of the Control Period. Allowance purchases are made to ensure compliance consistent with these deadlines.

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**CC13.2**

**Has your organization originated any project-based carbon credits or purchased any within the reporting period?**

No

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**CC13.2a**

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance
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**Further Information**

**Page: CC14. Scope 3 Emissions**

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**CC14.1**

**Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions**



Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services					
Capital goods					
Fuel-and-energy-related activities (not included in Scope 1 or 2)					
Upstream transportation and distribution					
Waste generated in operations					
Business travel					
Employee commuting					
Upstream leased assets					
Downstream transportation and distribution					
Processing of sold products					
Use of sold products					
End of life treatment of sold products					
Downstream leased assets					
Franchises					
Investments					
Other (upstream)					
Other (downstream)					

**CC14.2**

**Please indicate the verification/assurance status that applies to your reported Scope 3 emissions**

No emissions data provided

**CC14.2a**

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
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**CC14.3**

**Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?**

No, we don't have any emissions data

**CC14.3a**

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
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**CC14.4**

**Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)**

No, we do not engage

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CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

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CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
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CC14.4c

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

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Further Information

**Module: Sign Off**

**Page: CC15. Sign Off**

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CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Angela Ortiz	Energy and Sustainability Policy Manager	Environment/Sustainability manager

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**Further Information**

**Module: Electric utilities**

**Page: EU0. Reference Dates**

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**EU0.1**

Please enter the dates for the periods for which you will be providing data. The years given as column headings in subsequent tables correspond to the "year ending" dates selected below. It is requested that you report emissions for: (i) the current reporting year; (ii) one other year of historical data (i.e. before the current reporting year); and, (iii) one year of forecasted data (beyond 2021 if possible).

Year ending	Date range
2016	Fri 01 Jan 2016 - Sat 31 Dec 2016

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**Further Information**

**Page: EU1. Global Totals by Year**

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**EU1.1**

In each column, please give a total figure for all the countries for which you will be providing data for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emission intensity (metric tonnes CO2e/MWh)
2016	11938	55634	14120299	460

#### Further Information

**Page: EU2. Individual Country Profiles - United States of America**

#### EU2.1

**Please select the energy sources/fuels that you use to generate electricity in this country**

- Coal - hard
- Oil & gas (excluding CCGT)
- Nuclear
- Other renewables

#### EU2.1a

##### Coal - hard

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	1408	4408	358291	

#### EU2.1b

##### Lignite

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

#### EU2.1c

##### Oil & gas (excluding CCGT)

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	6348	18284	13440624	

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**EU2.1d****CCGT**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1e****Nuclear**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2016	3715	29553

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**EU2.1f****Waste**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
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### EU2.1g

#### Hydro

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
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### EU2.1h

#### Other renewables

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2016	473	389

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### EU2.1i



**Other**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1j**

**Solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO <sub>2</sub> e)	Emissions intensity (metric tonnes CO <sub>2</sub> e/MWh)
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**EU2.1k**

**Total thermal including solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016				

## EU2.11

### Total figures for this country

Please enter total figures for this country for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	11944	52633754	14978711	

## Further Information

### Page: EU3. Renewable Electricity Sourcing Regulations

## EU3.1

In certain countries, e.g. Italy, the UK, the USA, electricity suppliers are required by regulation to incorporate a certain amount of renewable electricity in their energy mix. Is your organization subject to such regulatory requirements?

Yes

### EU3.1a

Please provide the scheme name, the regulatory obligation in terms of the percentage of renewable electricity sourced (both current and future obligations) and give your position in relation to meeting the required percentages

Scheme name	Current % obligation	Future % obligation	Date of future obligation	Position in relation to meeting obligations
USA state scheme – New Jersey	14.89%	24.5%		Our position is to meet 100% of current and future requirements, whether through owning generation, procuring RECs, or providing Alternative Compliance Payments.
USA state scheme – Connecticut	19.5%	27%		Our position is to meet 100% of current and future requirements, whether through owning generation, procuring RECs, or providing Alternative Compliance Payments.
USA state scheme – Pennsylvania	13.7%	18%		Our position is to meet 100% of current and future requirements, whether through owning generation, procuring RECs, or providing Alternative Compliance Payments.

### Further Information

New Jersey's Renewable Portfolio Standard (RPS) was first adopted in 1999 and has been updated several times. The total RPS requirement in New Jersey including solar carve out is 24.39% by EY 2028. As it is set up today, the RPS includes two separate provisions for renewable energy. The first provision, which was part of the initial RPS goal requires each supplier/provider serving retail customers in the state to procure 20.38% of the electricity it sells in New Jersey from qualifying renewables by EY2021 ("energy year" 2021 runs from June 2020 – May 2021). Solar specific provision was added in later in 2010 which requires suppliers and providers to procure additional 4.1% of sales from qualifying solar electric generation facilities by EY 2028. The mandate sets different requirements for different types of renewable energy resources, termed "classes". "Class I" renewable energy is defined as electricity derived from solar energy, wind energy, wave or tidal action, geothermal energy, landfill gas, anaerobic digestion, fuel cells using renewable fuels, and -- with written permission of the New Jersey Department of Environmental Protection (DEP) -- certain other forms of sustainable biomass. As a result of S.B. 1925, Class I renewable energy also includes hydroelectric facilities of 3 MW or less that are: placed in service after July 23, 2012 (the effective date of S.B. 1925); located in the state and connected to the distribution system; and, certified as low-impact by a nationally recognized organization based on a system that includes a variety of minimum criteria. "Class II" renewable energy is defined as electricity generated by hydropower facilities larger than 3 megawatts (MW) and less than 30 MW\*, and resource-recovery facilities (i.e., municipal solid waste or MSW) located in New Jersey approved by the DEP. Electricity generated by a resource-recovery facility outside New Jersey qualifies as "Class II" renewable energy if the facility is located in a state with retail electric competition and the facility is approved by the DEP. Solar energy, while it remains an eligible Class I technology, occupies a special place as the only resource eligible for the solar electric component of the standard. Offshore wind, defined as a wind turbine located in the Atlantic Ocean and connected to the New Jersey electric transmission system, likewise also occupies a special place within the RPS.

**EU4.1**

Please give the contribution of renewable electricity to your organization's EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization) in the current reporting year in either monetary terms or as a percentage

Please give:	Monetary figure	%	Comment
Renewable electricity's contribution to EBITDA			In 2016, PSEG had a total of 473 MW of solar capacity and 210 MW of pumped hydro in our fleet. This represents approximately 5.6% of PSEG's generation portfolio capacity. In addition, PSEG has a total of 3,715 MW of nuclear capacity

**EU4.2**

Please give the projected contribution of renewable electricity to your organization's EBITDA at a given point in the future in either monetary terms or as a percentage

Please give:	Monetary figure	%	Year ending	Comment
Renewable electricity's contribution to EBITDA				

**EU4.3**

Please give the capital expenditure (capex) planned for the development of renewable electricity capacity in monetary terms and as a percentage of total capex planned for power generation in the current capex plan

Please give:	Monetary figure	%	End year of capex plan	Comment
Capex planned for renewable electricity development				

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**Further Information**

**CDP**