



# P E S E E

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## MESSAGE FROM THE CHAIRMAN

**PSEG IS COMMITTED TO SUSTAINABILITY.** At the forefront of that commitment are certain ideals: social awareness, care for the environment, and an enthusiastic pledge to support our customers and communities where we do business.

This commitment has guided our company for more than a century.

Our experience demonstrates that it is possible to power the economy, provide good jobs for people and protect the environment – all at the same time.

PSEG's dedication to social progress is evident in initiatives that occur both inside and outside our organization. Diversity and inclusion are essential to fostering an environment that can help us improve by becoming more closely aligned with the changing faces of our workforce, our customers and our communities. We also maintain a vital role in our communities, supporting educational and charitable programs through the contributions of the PSEG Foundation and our employee volunteers.

PSEG's mission, to deliver safe, reliable and economic energy to our 2.5 million electric and gas customers, provides a

foundation for economic growth throughout New Jersey and beyond. In doing so, we provide good jobs and work hard to attract and retain quality employees. Together, these efforts help us to deliver a fair return for our investors and build on one of the longest records of paying annual dividends of any U.S. company.

We believe it is our responsibility to work toward a cleaner energy future. To this end, we have invested more than \$1.5 billion in the development of solar energy; we have begun to modernize our underground natural gas system to reduce greenhouse gas emissions; we are working to sustain the state's nuclear fleet, which generates more than 90 percent of New Jersey's non air-polluting electricity; and we are seeking to expand programs that deliver energy and cost savings to every customer through energy efficiency.

We also have established a new climate goal: to eliminate 13 million tons of CO<sub>2</sub>-equivalent emissions by 2030, from 2005 levels.

For more than a century, Public Service has put sustainability – social awareness, economic growth and environmental protection – at the top of our company's agenda.

By setting high standards, we have established PSEG as a national model in renewable energy, in reliability and resiliency – leadership that positions us to help our business partners meet their own sustainability goals, as well.

We know there is still more to do, in order to assure a sustainable future for our state, our environment and our organization.

Making New Jersey and the surrounding communities we serve better places to work and live is central to our mission. We approach that challenge with the help of a skilled, dedicated workforce, with a proud Public Service tradition and with a vision based on safe, reliable, economic and greener energy. Our commitment to sustainability has guided our past, brought us to where we are today and will lead us to tomorrow.



A handwritten signature in dark ink that reads "Ralph Izzo". The signature is fluid and cursive.

Ralph Izzo  
Chairman, President and Chief Executive Officer,  
Public Service Enterprise Group Incorporated

January 2018

## ABOUT THIS REPORT

**P**ublic Service Enterprise Group Incorporated (PSEG) strives to be a leader in building an economically strong, environmentally responsible energy future. We are pleased to share with our

customers, communities, shareholders and employees our 2017 Sustainability Report, which updates our progress toward this goal. It contains reported data from 2016 with some 2017 updates.

Sustainability is deeply woven into our history, but takes on new dimensions all the time. This new report – our eighth in a series – discusses the many ways that our focus on sustainability aligns with our vision for being a recognized leader for **P**eople providing **S**afe, reliable, **E**conomic and **G**reener energy.

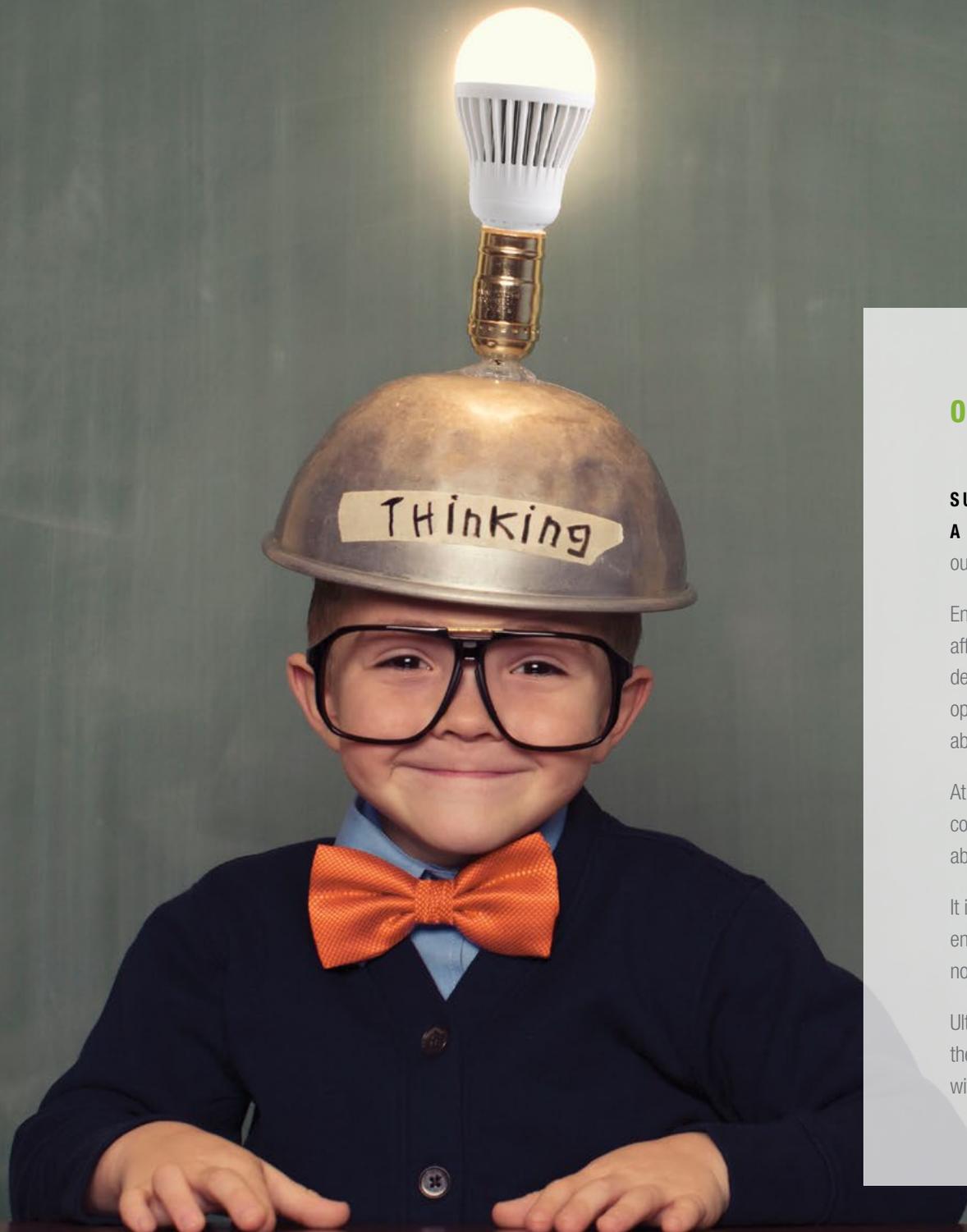
Each section of this report offers a critical look at the issues that matter most to our company and stakeholders as we strive to enhance the benefits we bring to people and reduce our environmental impact.

In this report, we discuss a number of key challenges and our concerted efforts to transform these challenges into growth opportunities. We are determined to continue our leadership role by working hard every day to better serve our customers and navigate an ever-changing energy marketplace.

We invite you to read more about our approach in the Sustainability section of our corporate website, located at: <http://www.pseg.com/sustainability>. This report was developed primarily according to the [Global Reporting Initiative](#) (GRI) Standards at the Core Level. A complete GRI guide is available online and includes the Electric Utility Sector Supplement for reporting on industry-specific information.

**FEEDBACK.** We welcome your feedback on our performance and reporting. For additional information about this report, the Global Reporting Initiative information posted on our website or PSEG's sustainability initiatives, please contact Angela Ortiz at [Angela.Ortiz@pseg.com](mailto:Angela.Ortiz@pseg.com) or send your comments to [sustainability@pseg.com](mailto:sustainability@pseg.com).

PSEG  
HAS OVER  
**13**  
THOUSAND  
DEDICATED  
EMPLOYEES



## OUR SUSTAINABILITY VISION

**SUSTAINABILITY IS AN APPROACH TO LIVING LIFE WITH A LONG-TERM VIEW.** It's how we manage the resources that sustain our lives – human, economic, environmental and the surrounding social fabric.

Energy empowers people and enables improvements in quality of life – it affects how we provide education and health care, and it drives the economic development necessary to ensure that every child grows up to have an equal opportunity to live a healthy, productive and economically viable life. We think about enabling that kind of future.

At PSEG, we innovate across our business, finding new ways to reduce energy consumption and deliver power to our customers more efficiently and sustainably. We help communities prosper. We invest in people.

It is important that we, at PSEG, put social awareness, economic growth and environmental protection – equally – at the forefront of our agenda. They are not mutually exclusive concepts. In fact, together they define sustainability.

Ultimately, our vision for PSEG is one where sustainability – for the benefit of the environment, the economy and our organization – is integrated seamlessly with our overall goal of making New Jersey a better place to work and live.

## PSEG'S VISION, STRATEGY, COMMITMENTS

**THIS YEAR MARKS PSEG'S 115TH YEAR AS A COMPANY**, a testament to our sustainability to our customers, our shareholders and the communities we serve. PSEG's vision is to be a recognized leader for safe, reliable, economic and greener energy – today and for our next 115 years – a vision that is consistent with who we are and what we have been throughout our long history.

To achieve this vision, and ensure sustainability, PSEG has long pursued a business strategy based on operational excellence, financial strength and disciplined investment. We emphasize sound fundamentals in executing our strategy, including through our efforts to:

- Improve utility operations by increasing our investments in transmission and distribution infrastructure projects designed to enhance system reliability and resiliency, meet our customers' expectations and support public policy objectives;
- Maintain and expand a reliable, efficient and environmentally responsible generation fleet with the flexibility to utilize a diverse mix of fuels, allowing us to respond to market volatility and capitalize on opportunities; and
- Sustain a solid financial profile capable of meeting our growth objectives.

### REINFORCING OUR CORE

**COMMITMENTS.** PSEG has a long history of ethical behavior on which we have built our business and earned the trust of those we serve. A good name is more than a source of pride: It gives us credibility in the marketplace, in the communities where we work and among current and potential employees.



In a changing business climate, we recognize the importance of constantly reinforcing the guiding principles that we stand for and live by, in all we do as a company and in the behaviors and actions of our 13,000 employees. We recently strengthened our already robust compliance program with the addition of a new chief compliance officer. We emphasize five core commitments:

- Safety
- Integrity
- Continuous Improvement
- Diversity & Inclusion
- Customer Service

THIS YEAR  
MARKS PSEG'S  
**115<sup>th</sup>**  
YEAR  
AS A  
COMPANY

## STANDARDS AND VALUES GUIDE THE COMPANY

### OUR STANDARDS GO BEYOND

**INTEGRITY.** Reflecting this, we adopted a new name – the PSEG Standards of Conduct – to emphasize that our standards represent how we conduct ourselves in the way we do business.

The PSEG Standards of Conduct and core commitments form the foundation of our ethics program.

PSEG is committed to conducting operations in accordance with the highest ethical standards and in compliance with the law. We require every employee and contractor to uphold our commitments and standards to work with PSEG.

The PSEG Standards of Conduct, reviewed and approved by the PSEG Board of Directors, describe the company's expectation of employee and contractor conduct in the workplace. Our Standards of Conduct set common

expectations for interaction with investors, customers, coworkers, competitors, vendors, government officials, the media and others. Our entire staff of management, administrative, supervisory and technical associates must complete training on the Standards of Conduct and results are reported to the Audit Committee of the Board of Directors annually. We ensure accountability by defining responsibility, reporting breaches, tracking results and responding to issues.

Our goal, as always, is to be a better company and a better workplace – in short, a better PSEG. In keeping with this focus, our employees engage in wide-ranging efforts across our organization each day to bolster a culture based on learning and improving as the key to creating sustained value.

The full Standards of Conduct are online at: [https://corporate.pseg.com/-/media/pseg/corporate/standardsofconduct/standards\\_conduct.ashx](https://corporate.pseg.com/-/media/pseg/corporate/standardsofconduct/standards_conduct.ashx)



## OUR APPROACH TO SUSTAINABILITY

### FOR MORE THAN 100 YEARS, WE HAVE BEEN OPERATING OUR BUSINESS WITH A FOCUS ON SUSTAINABILITY.

Our Sustainability Report allows us to share progress with our diverse range of stakeholders, while also discussing challenges on the road ahead.

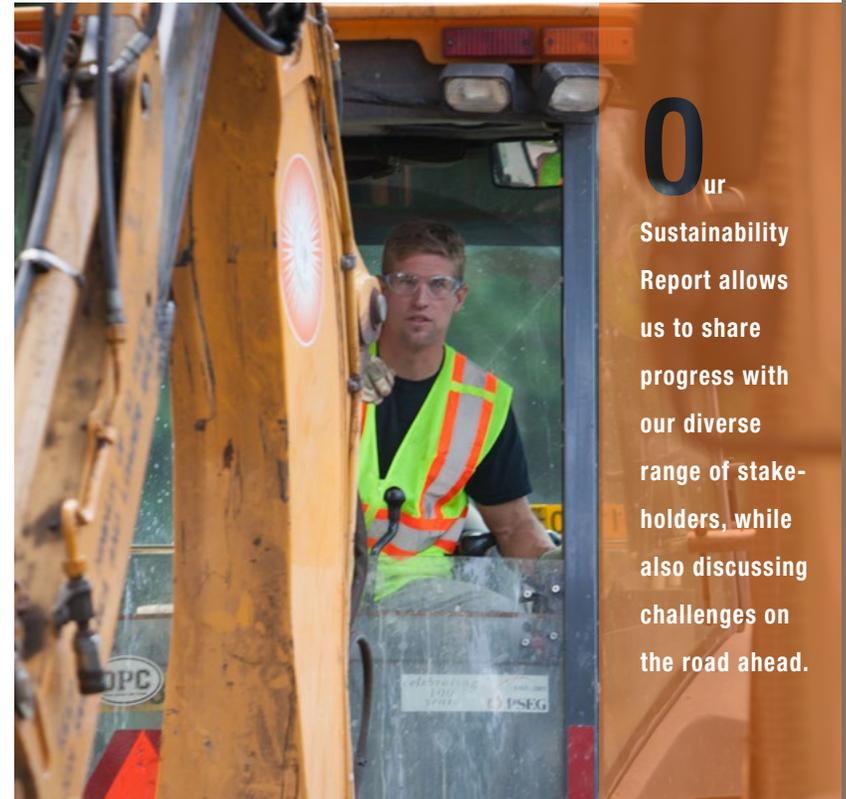
Change is a constant in our industry and our world. Our customers' demands are changing. They want energy that is more reliable, resilient and cleaner, along with better access to smart technology that can help them manage their energy use – all while keeping bills affordable.

These demands not only present a huge, multi-dimensional challenge, but also create an unparalleled opportunity to build a model energy company of the future. A multi-dimensional challenge calls for a multi-level, strategic response.

That is why we are moving ahead with major infrastructure modernization investments, enhancing the reliability and resiliency of our systems and building new, clean and efficient power plants. It is also why we have invested \$1.5 billion to develop or finance solar power and put more than \$400 million to work in helping hospitals, apartment buildings, government facilities and other customers make energy efficiency improvements that reduce their bills.

New and emerging technologies – from solar storage to electric cars to smarter, energy-saving devices for the home – can accelerate our progress toward a sustainable future. At the same time, we must not lose sight of the benefits of proven technologies such as nuclear power, which provides more than 90 percent of New Jersey's air emissions-free energy. We will continue to advocate for policies that recognize nuclear energy as a source of clean energy and an important part of a diverse, reliable energy portfolio.

Ultimately, as our history demonstrates, people make all the difference. Our employees have a proud tradition of being there for our customers and giving generously of their time to support many worthy causes in their communities. A diverse and inclusive workforce is fundamental to our continued progress.



**O**ur Sustainability Report allows us to share progress with our diverse range of stakeholders, while also discussing challenges on the road ahead.

## HOW WE MANAGE SUSTAINABILITY

Employees across the entire company, at all levels, are involved with managing sustainability. We pride ourselves on being a company with strong leadership, engaged employees and proven processes to manage sustainability throughout the business. We continue to emphasize the role that all of our employees have in achieving higher levels of operational excellence, which is fundamental to the future we are trying to build as a diverse, successful enterprise.

Our focus on sustainability at PSEG reflects a deep recognition that our continued ability to prosper as a business depends on helping others to prosper, too. Thus, we emphasize the importance of defining success not only by profitability, but also by the environmental and social dimensions of performance. We strive to be both systematic and comprehensive in our approach to sustainability-related issues. Doing so helps us to remain true to our most important commitments and to further improve performance.

### LEADING FROM THE TOP

Sustainability begins with our leadership. PSEG's Executive Officer Group is responsible for providing sound leadership and management that contributes to the company's long-term success and sets the right example for employees. Representing a wide range of experience, our officers take an active leadership role not only with regard to our business goals, but also on environmental issues and community engagement.

PSEG established a corporate Environmental, Health and Safety Policy in 1996. This policy, reviewed and approved by the PSEG Board of Directors, reflects the principles by which PSEG operates in eight areas: associate health and safety, nuclear safety, climate change, environmental compliance, risk reduction, pollution prevention and resource conservation, open communication, and continuous improvement.

The PSEG EH&S Policy is available online at: <https://corporate.pseg.com/aboutpseg/leadershipandgovernance/environmental-policy>

Good governance promotes accountability and trust in our company. We have adopted what we believe are strong

corporate governance standards and practices to assure effective management by our executives and oversight by our Board of Directors.

In overseeing corporate governance, our Board continues its focus on effectiveness and best practices. In 2016, we:

- Conducted a comprehensive review of the key risks facing our business and our risk management program and processes, including Board and Committee responsibilities;
- Mapped and identified key risks to specific Board and Committee calendars and oversight duties;
- Reviewed current trends and developments in corporate governance and their implications for us, including with respect to board composition, director diversity and tenure, sustainability, and stockholder proposals and engagement; and
- Continued to build and maintain relationships with stockholders by engaging in constructive dialogue and exploring areas of interest involving corporate governance, environmental issues, compensation and related matters.

## CORPORATE SUSTAINABILITY GOALS

With all of our sustainability efforts we set sights on supporting PSEG's strategic business model as well as our strategic objectives. The sustainability goals we have set for ourselves reflect the alignment between our sustainability approach and the way we conduct our business.

**GOAL 1:** To be a clear leader in reliability and safety, customer service and providing clean energy.

**GOAL 2:** To be recognized as a great place to work where engaged employees are our differentiator.

**GOAL 3:** To be a thought leader on energy and environmental issues.

**GOAL 4:** To be a strong partner of all the communities in which we operate, in keeping with our role for over 100 years in promoting a more sustainable future.

### OUR MATERIAL ISSUES

For this report, we focus our efforts on the issues that are most material to our

business, the communities we serve and our environmental impacts. We regularly conduct a materiality analysis that assesses risks and opportunities to help identify PSEG's most important issues. Our process allows us to weigh and quantify the degree of importance that our business and stakeholders give to a variety of issues we must manage. It includes input from investors, customers, local communities, NGOs, employees and other stakeholders to ensure alignment between our sustainability goals and our business objectives.

This materiality assessment enables us to map a clear path through the variety of environmental, financial and social challenges we face. The following are the most important issues to our stakeholders and business, based on our materiality analysis:

- Clean Air and Climate Change
- Diversity & Inclusion
- Employee Engagement
- Energy Efficiency
- Financial Performance
- Reliability and Resiliency

- Renewable Energy
- Stakeholder Engagement
- Talent Attraction and Retention

We develop goals and management processes for most of these, which are described in more detail throughout this report.



**T**he sustainability goals we have set for ourselves reflect the alignment between our sustainability approach and the way we conduct our business.

## PSEG'S RECOGNIZED LEADERSHIP ROLE

### PSEG IS REGULARLY RECOGNIZED

for how we go about our business, in ways that reflect strong economic performance, but also go well beyond the bottom line:

- In 2017, **for the 10th consecutive year, PSEG was named to the Dow Jones Sustainability Index North America.** The Dow Jones Sustainability Indices recognize forward-thinking companies based on an appraisal of the company's strategy, management and performance in dealing with opportunities and risks deriving from environmental, social and governance factors.
- It is a particular point of pride that, in 2016, **PSEG was named to the first-ever Forbes "Just 100"** list of companies celebrated for their commitment as exemplary corporate citizens. PSEG was recognized for success in creating jobs, conducting business in an ethical manner,

providing competitive retirement and health benefits, and caring about the communities in which we operate.

- Among other prestigious accolades, PSEG recently received the **"Extraordinary Good Works" award** from the Commerce and Industry Association of New Jersey for our commitment to veterans, support of STEM education and employee volunteer programs.
- PSEG continues to be honored as a top employer for military veterans. Victory Media named PSEG one of the **top employers in the United States for providing training and employment opportunities to veterans.**
- Two of our major infrastructure projects – our Gas System Modernization Program and Sewaren 7 power facility – were commended as projects of the year by the New Jersey Alliance for Action for improving the state's infrastructure, growing the economy and creating jobs.
- Our New Jersey utility, **PSE&G, has been recognized 16 years in a row as the most reliable utility in our**

**region** by PA Consulting and named a **Residential Customer Champion for two consecutive years** by Cogent Reports.

- PSE&G also was named **Investor Owned Utility of the Year** by the Smart Electric Power Alliance (SEPA), in recognition of PSE&G's success in increasing the amount of solar energy in New Jersey, in particular by building solar farms on landfills and brownfields.
- Also, PSE&G has been recognized for highly successful energy efficiency programs. The Alliance to Save Energy honored PSE&G with a **Star of Energy Efficiency Award** for the utility's efforts to make New Jersey hospitals and apartment buildings more energy efficient.

Recognition like this is a testament not only to the strength of our sustainability focus, but also to the continued dedication of our 13,000 employees. We have never been a company that rests on its laurels. We are well aware that our success depends on being responsive to the energy needs of our customers and the larger society around us.

PSEG WAS NAMED TO FORBES JUST **100** LIST OF COMPANIES

## ENGAGING OUR STAKEHOLDERS

### BUILDING STRONG RELATIONSHIPS WITH OUR STAKEHOLDERS IS ESSENTIAL

to maintain a high level of trust, understanding and service. We engage with stakeholders in various ways that accommodate their needs and find that we learn a lot in the process. Connecting with our customers, investors, employees, communities, government officials, regulators and suppliers helps us run a better business to meet and often exceed environmental and social expectations.

Some of our stakeholder interests overlap and some compete, so we have been striving to take a proactive approach that reaches out to:

1. Educate stakeholders on our operations.
2. Support and engage in local community activities, initiatives and betterment programs.

3. Respond openly and immediately to stakeholder concerns about construction, design, operation and environmental compliance of our operations.

4. Give stakeholders a voice in decisions that could impact them.

Regional Public Affairs managers are an important face of stakeholder engagement in each region of our utility service area and nuclear emergency planning zones. They are trained and experienced in addressing public concerns and facilitating public hearings for stakeholders. They manage each step of stakeholder engagement and make critical decisions to continually improve our stakeholder engagement practices.

### PSEG STAKEHOLDER ENGAGEMENT COUNCIL

In 2015, PSEG consolidated its Stakeholder Engagement Council, led by an executive from our External Affairs organization and includes representatives from different parts of the company. The role of the Council is to consider key issues the company is

facing (short- and long-term), while also considering the interests and concerns of our key stakeholder groups and devising engagement strategies to find common denominators and design mutually beneficial strategies.

### WAYS WE ENGAGE SPECIFIC STAKEHOLDERS

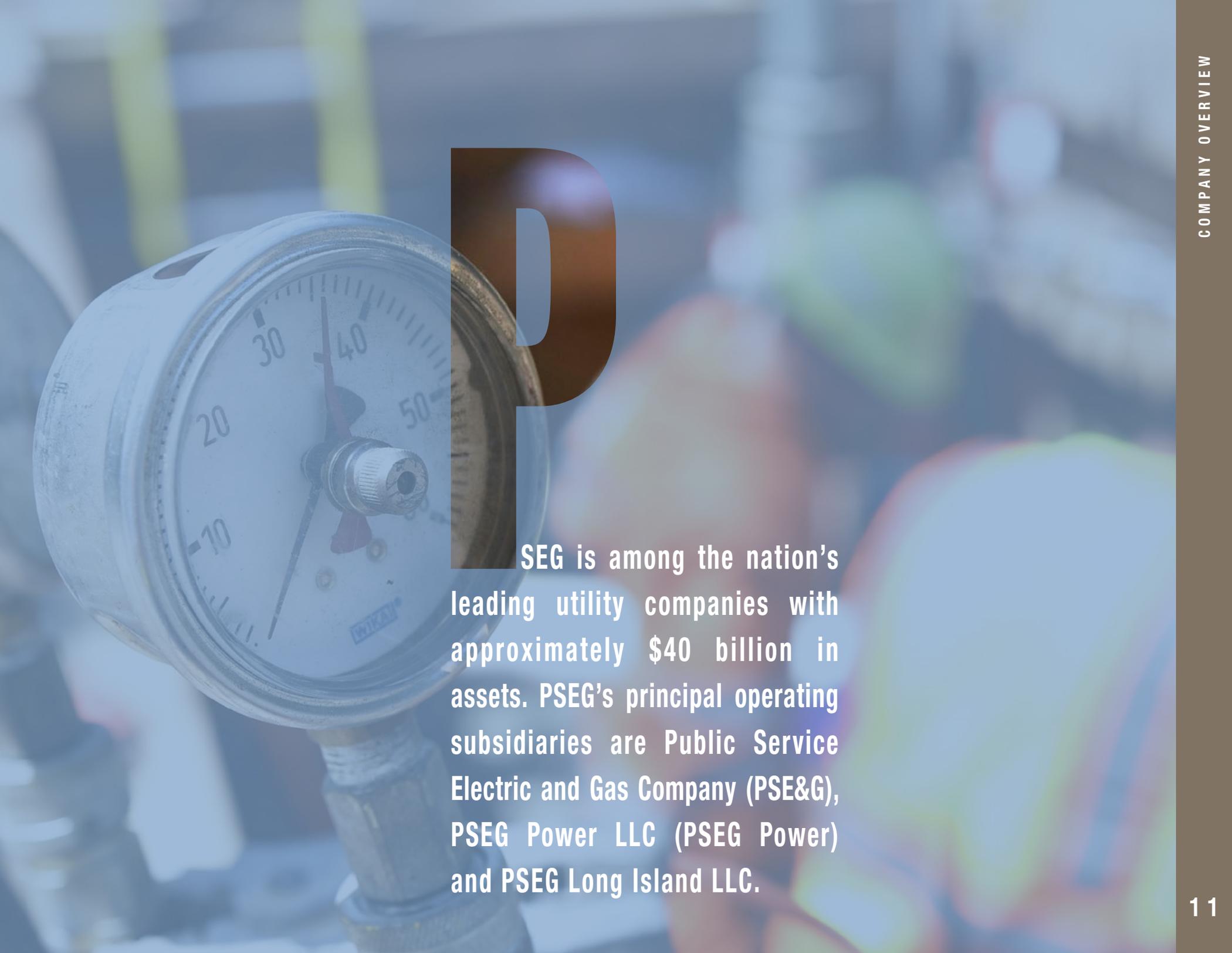
Accountability is one of PSEG's most important core values, informing our efforts to build even stronger stakeholder relationships. We recognize that our credibility ultimately depends not on words, but on deeds – on living up to our commitments and taking responsibility for our actions and results.

The importance of maintaining good, transparent lines of communication with our stakeholders cannot be overemphasized. Our experience is that different stakeholder groups prefer to communicate in different ways. We provide numerous channels tailored to the needs of each group for our stakeholders to communicate their interests and help us address issues or concerns.

## PSEG STAKEHOLDERS



**P**SEG's Stakeholder Engagement Council helps with the definition of the engagement scope for each stakeholder and the available communication channels.



# P

SEG is among the nation's leading utility companies with approximately \$40 billion in assets. PSEG's principal operating subsidiaries are Public Service Electric and Gas Company (PSE&G), PSEG Power LLC (PSEG Power) and PSEG Long Island LLC.

## COMPANY OVERVIEW

**PUBLIC SERVICE ENTERPRISE GROUP (PSEG)** is New Jersey's largest provider of electric and gas service, serving 2.2 million electric customers and 1.8 million gas customers, approximately 70 percent of the state's population. We also own and operate an 11,500-mega-watt fleet of power plants in the Northeast and Mid-Atlantic regions of the United States. We have been recognized not only for outstanding reliability, but also for our renewable solar energy and energy efficiency efforts. PSEG has been named to the Dow Jones Sustainability North America Index for 10 consecutive years. In 2016, PSEG was named to the first-ever Forbes "Just 100" list of companies celebrated as exemplary corporate citizens. PSEG is a publicly traded (NYSE: PEG) diversified energy company among the nation's leading utilities with approximately \$40 billion in assets. PSEG stock is included in the S&P 500 Index. Our headquarters are in Newark, New Jersey. PSEG's principal operating subsidiaries are Public Service Electric and Gas Company (PSE&G), PSEG Power LLC (PSEG Power) and PSEG Long Island LLC.

**PSEG EMPLOYEES**

	PSE&G	PSEG POWER	PSEG LONG ISLAND	OTHER	TOTAL
<b>NON-UNION</b>	1,898	1,165	811	1,030	4,904
<b>UNION</b>	5,108	1,549	1,496	8	8,161
<b>TOTAL</b>	7,006	2,714	2,307	1,038	13,065

**A**s of Dec. 31, 2016 PSEG had 13,065 employees within its subsidiaries, including 8,161 covered under collective bargain agreements.

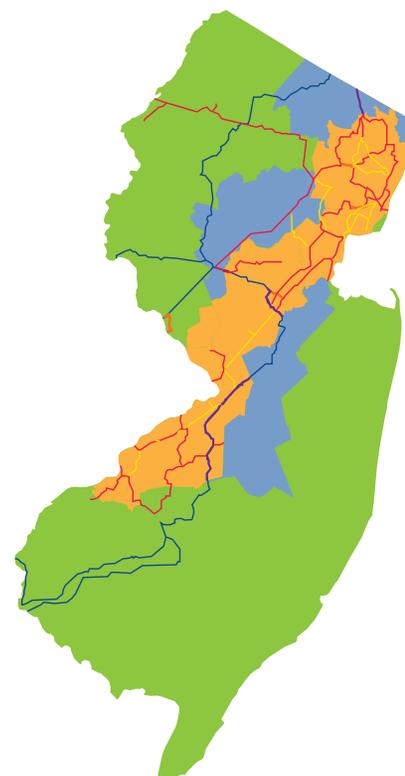
**PUBLIC SERVICE ELECTRIC AND GAS (PSE&G)** is the largest electric and gas distribution and transmission utility in New Jersey, as well as the largest investor

in renewable energy and energy efficiency, and the largest HVAC and appliance service contract provider in the state. PSE&G's 2,600-square-mile service territory runs

diagonally across New Jersey. The company serves 2.2 million electric and 1.8 million gas customers, or approximately 70 percent of the state's population.

	ELECTRIC	GAS	
Growth of Customer Base (2012 – 2016)	0.5%	0.4%	
Electric Sales and Gas Sold and Transported	41,580 GWh	2,360M therms*	
Projected Annual Sales Growth (2017 – 2019)**	0.3%*	0.7%*	
Sales Mix (2016)			
Residential	33%	59%	
Commercial	58%	37%	
Industrial	9%	4%	
	TRANSMISSION	DISTRIBUTION	SOLAR & EE
PSE&G 2016 Rate Base	44%	52%	4%
	NETWORK MILES/SOLAR MW INSTALLED	BASE RETURN ON EQUITY	
Electric Distribution	22,323	9.75% to 10.3%	
Gas Distribution	18,000	9.75% to 10.3%	
Solar and EE Assets	123 MW <sub>DC</sub>	9.75% to 10.3%	

\* Gas firm sales only  
 \*\* Estimated annual growth per year. Assumes normal weather.

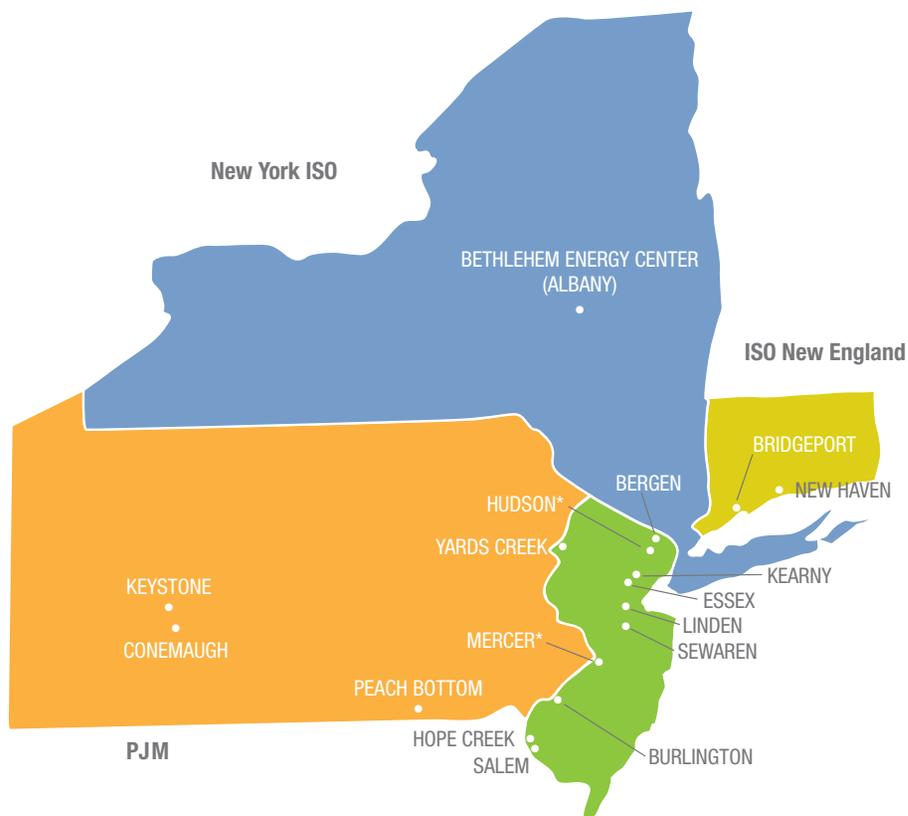


● Electric territory  
 ● Gas territory

**Transmission by Voltage**  
 138kv — 345kv —  
 161kv — 500kv —  
 230kv —

**PSEG POWER** owns an 11,500-mega-watt fleet of diverse and geographically well-positioned generating assets in the Northeast and Mid-Atlantic regions of the United States. PSEG Power also owns and operates a 350-MW fleet of grid-connected solar facilities throughout the United States. Having one of the most balanced portfolios in the country, both in terms of

fuel mix and market segment (baseload, load-following and peaking), helps us generate the power that our customers need, when they need it. PSEG Power is transforming its generation fleet with the addition of reliable, efficient and cleaner energy and now has 1,800 MW under construction at three sites – targeted to be online in 2018-2019.

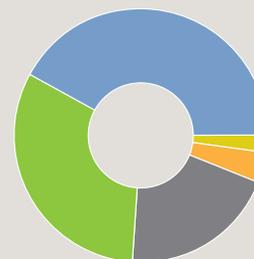


\* Retired 2017

**YEAR-END 2016**

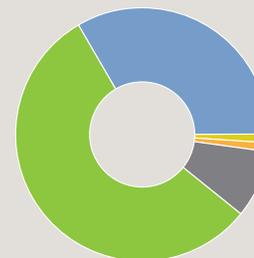
**FUEL DIVERSITY**

TOTAL MW: 11,577

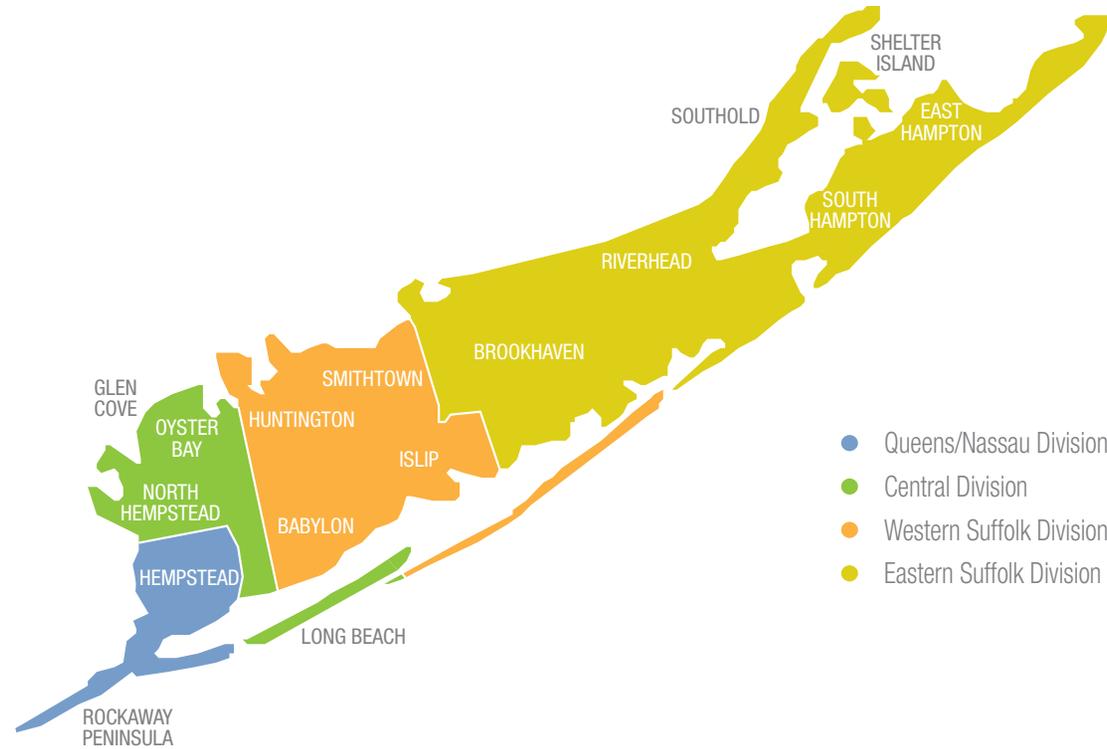


**ENERGY PRODUCED**

TOTAL GWh: 51,510



**PSEG LONG ISLAND** operates the electric transmission and distribution system of the Long Island Power Authority (LIPA), serving approximately 1.1 million customers in Nassau and Suffolk counties and the Rockaway peninsula of Queens, New York. PSEG Long Island began operations on Jan. 1, 2014, under a 12-year service agreement. In January 2015, PSEG Power began providing fuel procurement and power management services for LIPA under a separate agreement. PSEG Long Island has committed to improving processes and public perception with the goal of becoming a best-in-class electric utility.





# A

**Affordable and reliable energy is fundamental to the economic prosperity of the communities we serve. PSEG is proud to be a strong contributor to our economy by creating jobs, paying wages and supporting local suppliers.**

## BUILDING AN ECONOMICALLY VIBRANT ENERGY FUTURE

### AFFORDABLE AND RELIABLE

**ENERGY IS FUNDAMENTAL** to the comfort, convenience and safety of all of our customers in New Jersey and Long Island and to the economic prosperity of the communities we serve. PSEG is proud to be a strong contributor and supporter to our state's economy by creating jobs, paying living wages, generating tax payments and supporting local suppliers. Yet it is not only the scale of our economic activity that makes a difference, but also our ability to deliver results. Additionally, strengthening infrastructure supports business in our densely populated region.

Five years ago, Superstorm Sandy left 2 million of PSE&G's customers without power. Today, we are better prepared for future storms – in ways that will help keep the lights on for many and improve our ability to restore all customers in the event of a future Sandy-like storm.

There is a compelling need to continue this progress. It is clear that our customers are more dependent on electricity than in the past. They want fewer outages and, if outages occur, they

expect them to be short. At PSE&G, we have responded by investing to make our systems more reliable and resilient. We have done this by raising substations; replacing gas mains – some close to 100 years old; and by rewiring and upgrading our transmission system.

These investments are not only improving reliability and resiliency, but also creating jobs and strengthening the economy. Our transmission investments alone are creating 6,000 jobs a year over 10 years in New Jersey. As we modernize our systems, our economic impact continues to grow. In 2016, PSEG did nearly \$2 billion worth of business with other New Jersey companies.

We are ready to do more to invest in the resiliency of the electric system and upgrade and modernize our gas delivery system. Streamlining the regulatory process to support long-term planning of these critical programs – as opposed to a cumbersome, new filing process every 18 months to two years – would allow more effective planning, lower costs and promote more consistent job-creation.

Of course, customers, through rates, pay for these benefits. That is why we believe it is so important not only to take advantage of the current period of low natural gas prices and low interest rates, but also to offset costs from a full program of energy efficiency that lowers bills for our customers.



**P** SE&G's transmission investments are creating 6,000 jobs a year over 10 years in New Jersey.

## MAKING A STRONG SYSTEM EVEN STRONGER

**WE HAVE BEEN INVESTING IN ESSENTIAL INFRASTRUCTURE IN NEW JERSEY FOR MORE THAN 100 YEARS.** While older parts of our system have served their purpose, a heightened focus on replacing aging infrastructure is critical going forward.

Our customers want an energy system that is more capable of meeting their needs for a universal, around-the-clock supply of clean, affordable energy in all weather and seasons. We are working hard to meet their needs by continuing to invest in our infrastructure – improving our transmission and distribution system to be cleaner, more efficient, more reliable and more resilient to extreme weather. We are using new communication tools and technologies to connect better with our customers, not just on blue-sky days, but before, during and after storms, as well. And we are building new, clean power plants as we further improve the efficiency and environmental profile of our generation fleet.

Two huge events crystallized the need to modernize our infrastructure: the

Northeast Blackout of 2003, affecting 60 million people, and nine years later, Superstorm Sandy, which knocked out power to 90 percent of our customers and caused horrendous devastation across New Jersey, New York and the wider region. Nor have we forgotten that, only a year before Sandy, New Jersey suffered significant damage from Hurricane Irene and a rare October snowstorm.

During the last three years, we have made significant progress with our \$1.22 billion Energy Strong program to make PSE&G's network more resilient to extreme weather. We have completed strategic infrastructure investments that, in the event of another Sandy-like storm, will keep critical equipment out of floodwaters' way and keep the lights on for many. When our Energy Strong upgrades are complete, 490,000 PSE&G customers previously impacted would not lose power from flooding. And customers who did lose power would be restored more quickly.

Through our Energy Strong projects completed to date PSE&G has:

- Raised, eliminated or rebuilt 18 substations or switching stations that were impacted during severe weather

events. At the end of the program, 26 projects will be in service, including protected substations and switching stations.

**PSE&G is successfully executing on its \$1.22 billion Energy Strong program to address system resiliency and hardening.**

<b>PROGRAM</b>	<b>APPROVED*</b>	<b>SPENT**a</b>
<b>FLOOD MITIGATION</b>	\$620	\$310
<b>ELECTRIC CONTINGENCY RECONFIGURATION</b>	\$100	\$79
<b>ELECTRIC ADVANCE TECHNOLOGIES</b>	\$100	\$99
<b>GAS UTILIZATION PRESSURE CAST IRON (UPCI)</b>	\$350	\$370
<b>GAS METERING AND REGULATING (M&amp;R) STATION FLOOD MITIGATION</b>	\$50	\$20
<b>TOTAL</b>	<b>\$1,220</b>	<b>\$878</b>

\* In millions

\*\* Through 12-31-2016

- Installed 240 miles of new, sturdy and durable plastic natural gas pipes in flood-prone areas. Approximately 90,000 customers served by those pipes are no longer at risk of losing gas service from floodwaters seeping into these previously leak-prone mains.

- Created redundancy and installed technology to reduce the number and duration of outages for 260 critical customers, including hospitals, wastewater treatment facilities, police and fire stations. Also benefiting from this work are 412,500 customers and businesses in close proximity to these critical customers.

In addition to making New Jersey's energy system stronger, these projects are benefiting the state's economy by creating thousands of jobs over the life of the program.

Our Energy Strong investments have gone a long way toward making our system better able to stand up to severe weather events, but there is much more to be done. We have aging equipment that needs to be replaced, as part of a long-term, focused effort to make the grid smarter, elevate more stations in flood-prone areas, and protect more customers against weather and gas supply

outages. The continuation of this work, combined with new technology, will make New Jersey's energy networks smarter, more reliable and resilient, benefiting our customers while also creating thousands of jobs.

The importance of improving resiliency is increasingly recognized around the country.

### **INFRASTRUCTURE IMPROVEMENT ON LONG ISLAND**

PSEG Long Island has made significant improvements to the transmission and distribution infrastructure, storm process, technology and customer communications since Superstorm Sandy made landfall five years ago.

Superstorm Sandy and the Nor'easter that followed caused nearly all of the service territory's 1.1 million customers to lose power. The entire service territory was declared a federal major disaster area. Power was lost as a result of flooding, downed and up-rooted trees, damaged switching and substations, and significantly damaged poles and electrical equipment.

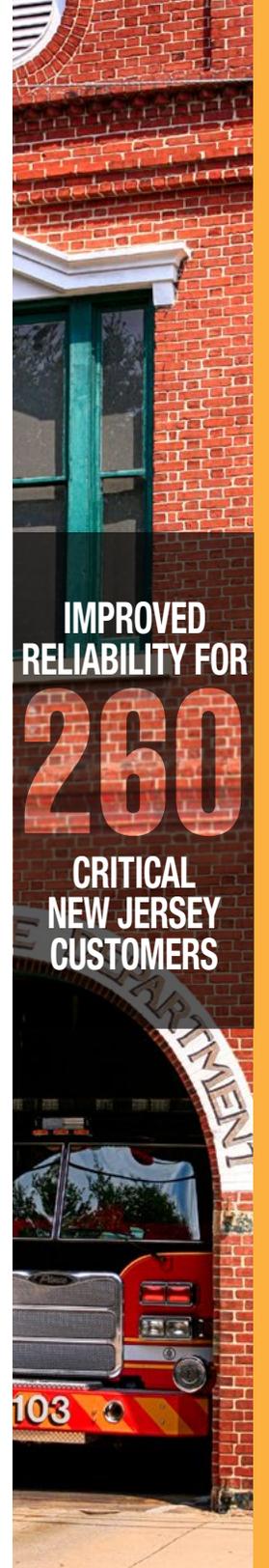
More than \$729 million of federal recovery funds was secured via an agreement between New York Gov. Andrew M. Cuomo

and the Federal Emergency Management Agency, under the FEMA Hazard Mitigation Assistance Program. This project has permitted PSEG Long Island to execute substantial storm-hardening improvements, including flood mitigation, stronger infrastructure, and smarter transmission and distribution equipment.

The utility also has transformed its communications strategy and implemented a more robust vegetation-management program to minimize storm damage and improve the experience for customers.

### **FLOOD MITIGATION**

Superstorm Sandy brought unprecedented storm surges and flooding that swept over all precautions put in place and caused tremendous damage to substations that provide electricity to individual neighborhoods. When the repairs and upgrades began, PSEG Long Island incorporated new storm surge prediction models to set new standards for elevating crucial equipment. The 12 substations affected by the storm have been upgraded and elevated to protect against flooding in the future.



**IMPROVED  
RELIABILITY FOR  
260  
CRITICAL  
NEW JERSEY  
CUSTOMERS**

## **STRONGER INFRASTRUCTURE**

In the months and years following Superstorm Sandy, PSEG Long Island evaluated the electric system and the damage that occurred to find ways to improve the design of the infrastructure to integrate new construction standards and help mitigate future storm damage. The improvements include stronger poles able to withstand winds up to 135 mph, thicker insulated wires to protect against tree limbs causing an electric problem in the event of contact, and shorter cross arms to move the lines closer together and help deflect falling limbs.

## **SMARTER TRANSMISSION AND DISTRIBUTION EQUIPMENT**

Automatic switching units, a smarter technology, have been installed on targeted circuits across Long Island and the Rockaways. This automated technology transmits more data to the control room to help minimize the number of customers affected when equipment fails. By the time the FEMA-funded work is complete, PSEG Long Island expects to install up to 1,000 automatic switching units.

PSEG Long Island has also implemented a new outage management system to improve the company's ability to identify

and manage outage conditions all year long. The OMS also expands the ability to respond and coordinate resources in the aftermath of a major storm.

Superstorm Sandy's strong winds brought down many trees across Long Island. Even smaller storms can bring vegetation in contact with overhead lines. To further minimize storm damage to the electric system, PSEG Long Island's tree trimming program works throughout the year to identify and trim tree limbs in rights-of-way and along easements that could potentially cause outages during or after a storm. Tree limbs that come in contact with electric lines remain a major cause of customer outages during storms. Since 2014, trees have been trimmed along more than 7,700 miles of distribution lines and 950 miles of transmission lines.

## **COMMUNICATING WITH CUSTOMERS**

Superstorm Sandy revealed a critical need for the utility to enhance communication with customers. To address this need, PSEG Long Island launched a new voice-activated, automated customer service telephone system to record and report outages to system operators. This system is easier

for customers to use and makes the restoration process quicker and more efficient.

Customers now have access to a new enhanced outage map for both mobile and desktop devices. This map lets customers view outages and get updates on estimated restoration time and crew locations. Customers also can report outages through social media, or sign up for My Alerts and receive outage updates via text, email and phone.

Communication means more than being there for customers when their power is out. PSEG Long Island's emergency response plan has increased focus on stakeholders at every level. Before, during and after a storm, there are coordination calls with municipalities, liaisons are located within the municipalities to enhance communications and scheduled media updates are released and coordinated. To better communicate with customers with extended outages in the hardest-hit areas after a storm, the Customer Liaison program was created, making real people available to provide information about the restoration efforts and provide supplies such as ice and water to ease the inconvenience of an extended outage.

## MODERNIZING OUR GAS SYSTEM

**PSE&G'S GAS DISTRIBUTION SYSTEM** currently operates and maintains almost 4,000 miles of cast-iron pipes – more than any other U.S. utility. Through our Gas System Modernization Program, we are replacing 510 miles of aging cast-iron and unprotected steel pipes with new, more durable plastic, resulting in fewer leaks while enhancing service.

Modernizing our gas system in this way involves a host of improvements, including the installation of excess flow valve safety devices, the reduction of methane emissions, and further benefits from a higher-pressure system that allows the use of high-efficiency appliances by customers. These upgrades, which are being made across PSE&G's service territory, are especially concentrated in older urban areas where much of our gas system was first built.

This effort supports a safe, reliable gas system, creates hundreds of jobs and boosts the economy while being good for the environment, too. With the help of new technology developed by the

Environmental Defense Fund, Google and Colorado State University, PSE&G reduced natural gas pipeline emissions by 83 percent in the GSMP areas that were surveyed while replacing about one-third less mileage to do so. Using a specially equipped Google Street View mapping car, the team was able to estimate the volume of gas escaping – and not just the number of leaks – to help prioritize replacement and reduce methane emissions more effectively.

In July 2017, PSE&G proposed a second phase of our Gas System Modernization

Program, involving an investment of \$2.7 billion over a five-year period. This would enable us to continue to replace more aging gas pipes at an accelerated pace. In addition to ensuring the continued safety and reliability of the gas system, this program would create almost 3,000 full-time jobs per year and reduce emissions equal to taking 43,000 cars off the road. With gas heating bills down 50 percent for our residential gas customers since 2009 because of the lower cost of natural gas, these improvements can be made without undue harm to household budgets.



### CONTINUING TO INVEST IN OUR NETWORKS

We've shown what we can accomplish in successfully executing major infrastructure projects – to the benefit of our customers, the economy and the environment. By modernizing our infrastructure, we are creating an energy network that is not only more reliable and resilient, but also improves safety, protects the environment and, in doing so, creates thousands of jobs for New Jersey's workforce.

In addition to improving our pipes and wires at the local level, we continue to replace aging parts of our transmission system – the high-voltage network for moving electricity safely and reliably to the ultimate customer. During the past decade, PSE&G has invested \$13.7 billion in electric system upgrades. Most of that investment – approximately \$9.5 billion – was spent to modernize and upgrade transmission facilities. Moving forward, we expect to invest another \$6 billion

over the next five years to continue improvements in transmission – all part of our ongoing mission to make a reliable network even stronger.

Our energy is increasingly important to support today's busy lifestyles and a competitive economy. We will continue to invest in our people and systems to meet our customers' evolving needs – in ways that also support economic vibrancy and make our communities better places to live and work.

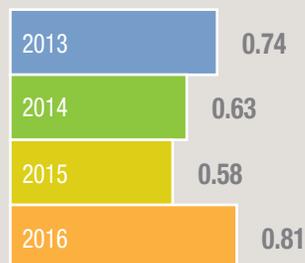
### OPTIMIZING VALUE

Reliability at PSEG is also about having power plants that are available to run as needed to help meet the energy needs of millions of people. Our generation fleet is not only one of the largest in the northeastern United States, but also one of the most diverse by fuel mix and dispatch capability. This diversity improves our ability to meet market demand around the clock from season to season. Some of our generating units

## NETWORK RELIABILITY

### SAIFI<sup>1</sup>

(System Average Interruption Frequency Index)



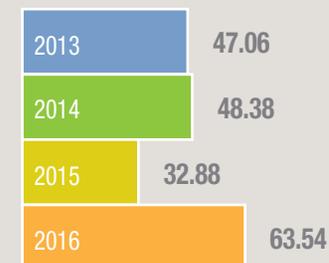
### CAIDI<sup>2</sup>

(Customer Average Interruption Duration Index)



### SAIDI<sup>3</sup>

(System Average Interruption Duration Index)



<sup>1</sup> Length in minutes the average customer experiences an interruption in electric service in a given year

<sup>2</sup> Number of interruptions experienced by customers in a year

<sup>3</sup> Average length of time it takes to restore service when an outage occurs

have dual-fuel capability, providing us with additional flexibility in responding to various market conditions.

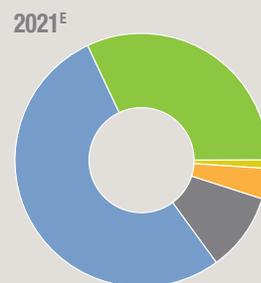
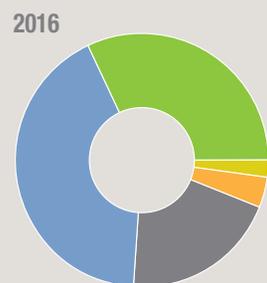
Nuclear energy has a vital role in providing clean, affordable, carbon-free power for New Jersey. PSEG Power's nuclear units produce nearly half of New Jersey's energy and more than 90 percent of the state's air emissions-free energy.

The array of benefits that New Jersey enjoys from nuclear power begins with, but goes well beyond, keeping the lights on for millions of families. Our nuclear units anchor the local economy, providing thousands of good jobs along with the reliable power that supports New Jersey's economic base. Also, our nuclear plants generate the bulk of the air emissions-free energy that results in cleaner, healthier air and promotes New Jersey's long-term carbon-reduction goals. Nor can the key role of

nuclear power be overlooked in helping maintain fuel diversity and protecting against over-reliance on any one fuel. With our nuclear plants maintaining their solid performance, New Jersey has a more reliable, affordable and cleaner energy supply than it would otherwise.

**PSEG POWER REMAINS COMMITTED TO MEETING THE LONG-TERM ENERGY NEEDS OF NEW JERSEY AND THE REGION.** We are currently constructing three new combined-cycle gas plants: the 540-MW Sewaren 7 facility in Sewaren, New Jersey; the

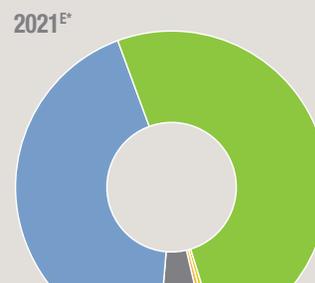
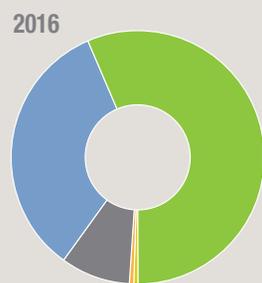
### PROJECTED FLEET COMPARISON: 2016 – 2021<sup>E</sup>



#### FUEL DIVERSITY

TOTAL MW  
**2016:** 11,577  
**2021:** 11,900

	2016	2021 <sup>E</sup>
Gas	42%	53%
Nuclear	32%	32%
Coal	20%	10%
Oil	4%	4%
Pumped Storage	2%	1%



#### ENERGY PRODUCED

TOTAL GWh  
**2016:** 51,510  
**2021:** 61,000

	2016	2021 <sup>E</sup>
Gas	34%	43%
Nuclear	57%	51%
Coal	9%	5%
Oil	<1%	<1%
Pumped Storage	<1%	<1%

<sup>E</sup> Estimate  
 \* Energy produced increases by >18%

755-MW Keys Energy Center in Maryland; and 485-MW Bridgeport 5 facility in Connecticut. The three plants represent a combined investment of approximately \$2 billion in nearly 1,800 MW of new clean, efficient generation capacity – enough power to meet the energy needs of about 1.5 million homes. In June 2017, the early retirement of our two New Jersey coal plants, Hudson and Mercer, which had admirably served our customers’ energy needs for 50 years, marked another step in the transformation of PSEG Power’s fleet with a focus on improved efficiency and environmental performance.

Sewaren 7 illustrates how we are working to add new generation capacity that will support electric system reliability and provide economic and environmental benefits to New Jersey. This new power plant – involving an investment of more than \$600 million – is scheduled to begin operation in time for summer 2018. It will replace nearly 70-year-old generating units with exceptionally reliable, clean, state-of-the-art technology. It is being built by union labor and has generated more than 500 jobs during construction. When

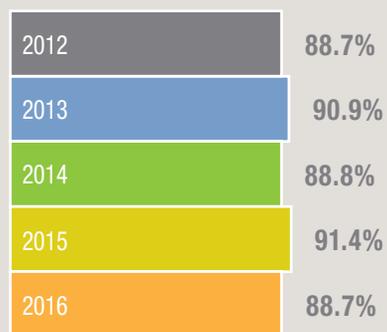
completed, Sewaren 7 will be the most efficient, clean plant of its type in the Garden State. We are proud to be adding Sewaren 7 to our roster of facilities powering New Jersey homes and businesses for decades to come.

In addition to building new, efficient plants, we are getting more out of our existing generation assets through various plant improvements. For example, we installed advanced gas path technology at our Linden and Bergen

combined-cycle units, making these units more fuel-efficient and increasing their capacity. Similar improvements are being made at our Bethlehem Energy Center near Albany, New York. In total, these upgrades are expected to produce a net power increase of 152 MW – the equivalent of building a new, three-unit peaking station. Through other economic investments, we have increased the capacity of our nuclear units.

### COMBINED-CYCLE AVAILABILITY FACTOR

Fossil Fleet Performance



- Highlights generation records at BEC and Bergen 2 combined-cycle units
- Highlights combined-cycle EFORd\* and EFORp lowest in five years
- Start success rate:
  - Peaking: 99.7%
  - Coal/steam: 93%

\* EFORd excludes events outside of management control.

**P** SEG Power’s fossil fleet maintains solid performance in a challenging environment.

## PUTTING CUSTOMERS FIRST

PSEG strives for top-quartile performance in providing safe, reliable, economic and greener energy. We ensure customer satisfaction with a focus on safe, reliable service at costs that we try to keep as low as possible. In doing so, we must constantly manage costs to maximize value to our customers and shareholders alike.

### CUSTOMER SERVICE

PSE&G is proud of its strong customer service tradition. Each year, we set quantitative targets for customer satisfaction as one of our top goals and do so with a strong focus on continuous improvement. We measure customer perception of our service using a Customer Perception Index as well as transactional surveys. The results are used to benchmark a database of approximately 100 companies. Employees receive feedback on how we can improve our service based on the results.

Reliability is a cornerstone of excellence in our industry. In 2016, PSE&G was named the Mid-Atlantic region's most reliable electric utility for the 16th consecutive year by PA Consulting, a firm that bench-

marks utility performance. While proud of this recognition, we are even prouder of our employees, who have a strong tradition of being there for our customers day-in and day-out, and in storms and emergencies.

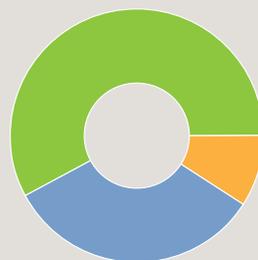
PSE&G performs well in customer satisfaction when compared with other utilities. In 2016, PSE&G was one of 11 combined utilities nationwide that ranked highest in brand trust, product experience and operational satisfaction, according to Cogent Reports, a division of Market Strategies International, a leading nationwide research firm. This marked the second consecutive year that PSE&G was named a

Customer Champion by Cogent. In the survey, customers indicated they trust and appreciate PSE&G's effective communications, community support, safe and reliable service, and energy efficiency offerings.

In the past year, PSE&G has strived to improve brand trust and product experience by increasing enrollments in its My Alerts texting service, introducing the ability to pay monthly bills by text and sending 8.5 million weather-related email alerts to keep customers informed during challenging weather. Our customer satisfaction results also reflect the positive impact of frequent communications about our ongoing work

### PSE&G CUSTOMER PROFILE

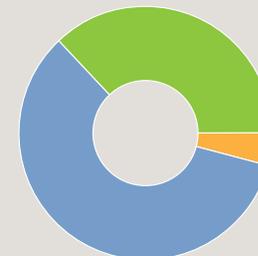
Customers, as a percentage of 2016 sales



#### ELECTRIC

Total number of customers:  
**2.2 million**

- Commercial **58%**
- Industrial **9%**
- Residential **33%**



#### GAS

Total number of customers:  
**1.8 million**

- Commercial **37%**
- Industrial **4%**
- Residential **59%**

in communities across New Jersey to upgrade our infrastructure.

PSE&G is also hard at work to improve the experience of business customers. In recent years, PSE&G established a Business Solutions Center and enhanced a range of customer-friendly tools – including an online portal to programs, products and services designed for the business community. We find a personal touch goes a long way, as well. Our executives and customer account representatives meet with customers one-on-one to better

understand their needs and help resolve specific issues.

PSE&G’s focus on improving the resiliency of the grid and increasing operational efficiency also has translated into strong performance in a number of areas of customer satisfaction, such as price, billing and payment, among others. We are further strengthening our customer relationships by making system enhancements targeted to the needs of hospitals, water treatment plants and other critical facilities that serve the public.

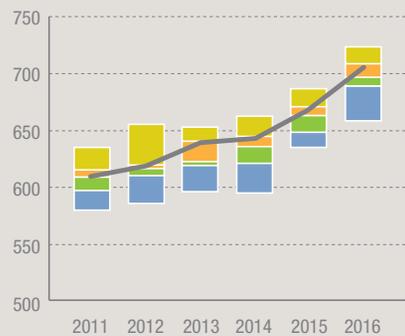
**USING NEW TOOLS TO BUILD EVEN STRONGER CUSTOMER RELATIONSHIPS**

In addition to improving infrastructure, PSE&G has made significant changes to better communicate with customers before, during and after major storms. Since Superstorm Sandy, we have ramped up proactive and interactive communication with customers, and have more ways for people to stay informed about the status of repairs.

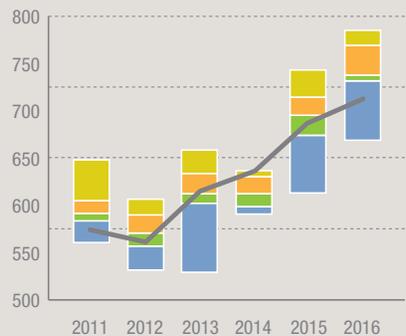
**CUSTOMER SATISFACTION**

JD Power residential and business scores

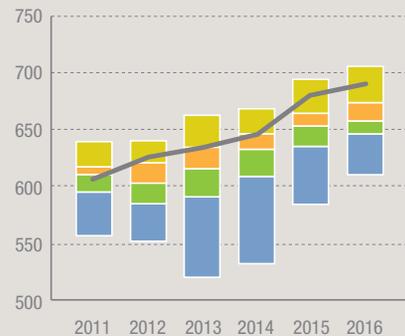
**GAS RESIDENTIAL**



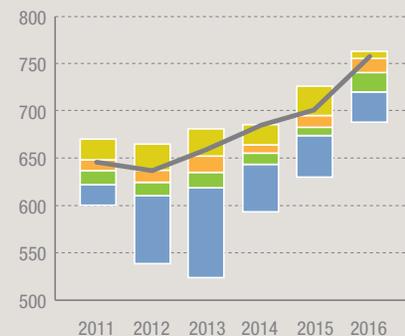
**GAS BUSINESS**



**ELECTRIC RESIDENTIAL**



**ELECTRIC BUSINESS**



● 1st Quartile    ● 2nd Quartile    ● 3rd Quartile    ● 4th Quartile    ● PSE&G Result

New communication tools include two-way texting, email notifications and an enhanced online outage map that provides customers detailed information about power outages in their neighborhood and across PSE&G's service area. We continue to be an industry leader in connecting with customers using social media such as Facebook to alert customers about project work being done in their communities. Among utilities, PSE&G has one of the largest audiences on Twitter, with more than 100,000 followers.

To provide our customers even more access to our customer service team, PSE&G is one of the few utilities in the nation that offers customers in-person assistance at 16 urban walk-in Customer Service Centers.

**PSEG LONG ISLAND** is using new tools and social media channels to build stronger customer relationships as well. In 2016, PSEG Long Island increased its Facebook audience by 132 percent. With a social following of more than 50,000 customers and channels that include Twitter, Instagram and YouTube, PSEG Long Island is reaching out to customers like no other electric utility on Long Island has ever done before.

The information shared via social media includes topics such as outage and storm communications, energy saving advice, community events and current system reliability work. In 2017, PSEG Long Island established a dedicated social media customer service team to further enhance the way the utility supports and communicates with its customers within the digital landscape. This is in addition to a state-of-the-art, 24/7 automated telephone service, dedicated Business Solutions Center, and 12 Customer Service locations throughout the service territory.

Paired with two-way texting, proactive outage alerts, a mobile-friendly outage map, website and redesigned My Account portal, PSEG Long Island is committed to staying connected to its customers – providing best-in-class customer service and support in any medium.

#### **DELIVERING SAVINGS TO CUSTOMERS WITH LOW-COST NATURAL GAS**

In addition to enjoying the benefits of reliability, PSE&G's residential customers have reaped the benefits of plentiful natural gas supplies with lower prices while

we continue to make investments and upgrades to modernize our distribution system. In 2016, PSE&G reduced residential gas rates for the seventh consecutive year. Since 2009, we have reduced residential gas customers' bills by about 50 percent, saving the typical customer more than \$800 a year. PSE&G also has issued bill credits since 2012 totaling approximately \$800 million, or \$590 for the average customer.

Although we do our best to keep bills low, we know some customers will still struggle to heat their homes. We provide simple, yet effective, energy conservation tips to lower usage and bills. We also partner with state and federal agencies to spread the word about a variety of payment assistance programs for low-income customers, as well as for those customers who may have larger paychecks but have fallen on hard times. The availability of low-cost domestic gas reserves will continue to have important implications. With gas prices low, we believe this is an ideal time to modernize our system – replacing older pipes and making other critical improvements that enhance safety and reliability while keeping energy as affordable as possible.



**WE'VE REDUCED  
RESIDENTIAL  
GAS BILLS  
BY ABOUT  
50  
PERCENT  
SINCE 2009**

## GROWING THE ECONOMY AND CREATING JOBS

PSEG's role as an economic engine has continued to grow from year to year. PSEG boosted the New Jersey economy by spending nearly \$2 billion with other New Jersey-based firms during the year. Company wide, we directly employ more than 13,000 people and spend upward of \$1 billion annually on wages. In addition, we provide another \$150 million in financial support to retirees and survivors. The businesses and suppliers we work with provide additional jobs in the region. Several of our facilities are the primary economic engines of their communities, including our Salem and Hope Creek nuclear facilities, the largest employer in Salem County, New Jersey, with 1,600 employees.

### INVESTMENTS FUELING ECONOMIC GROWTH

Economic development is part and parcel of what we do as an energy company that invests on many levels in efforts that strengthen communities and promote prosperity. Our five-year, \$15 billion capital spending program is dedicated to vital infrastructure improvements. This program includes spending

\$4.7 billion during 2017 to further improve the efficiency and reliability of our New Jersey utility, PSE&G, and our wholesale generator, PSEG Power. This capital expenditure represents a record amount for PSEG to invest in any one year. As we continue to invest in our system, our efforts are having an increasingly powerful impact – creating thousands of jobs, providing business for many other firms and contributing to the economy's long-term health and competitiveness.

PSE&G's transmission investment program is a case in point. The Bloustein School of Planning & Public Policy at Rutgers University evaluated the economic impact of seven of our large-scale transmission projects designed to improve the flow of electricity across the state – and found that these efforts not only produce a more reliable electric system, but also create 6,000 jobs a year over 10 years.



**W**e continue to invest in our system, creating thousands of jobs, providing business for many other firms and contributing to the economy's long-term health.

Local tax payments and the funding of charitable organizations also fuel economic development by contributing to local services. Annually, we spend approximately \$375 million on state and local taxes, which help fund roads and services such as job training to grow the economy. The PSEG Foundation funds nearly \$8 million through its philanthropic activities.

### **ECONOMIC DEVELOPMENT – LONG ISLAND**

The same focus on economic development rings through across PSEG Long Island's service territory, too. PSEG Long Island has helped hundreds of companies grow and expand on Long Island, with electric rate discounts and generous rebates for installing energy efficient technologies. PSEG Long Island provides assistance to its customers so that they have access to the full array of state and local economic and governmental resources available.

PSEG Long Island is not just its customer's electric company; the utility

is their business partner. Companies considering relocation to or expansion on Long Island may receive benefits through PSEG Long Island's Economic Development team, who will work to ensure that companies receive all the benefits for which they qualify.

In addition, PSEG Long Island launched two pilot Main Street Revival Programs this year, designed to help businesses occupy vacant spaces and to revitalize struggling business districts.

### **VACANT SPACE REVIVAL PILOT PROGRAM**

Vacant business space detracts from the economic vitality of a business district and results in underutilization of existing electric infrastructure. The Vacant Space Revival Program is designed to encourage occupancy of commercial space in a business district that has been vacant for a period of one year or more. The goal of this program is to offer financial incentives to support the redevelopment of commercial and business facilities, encourage new

business growth, optimize the electric infrastructure, create electric revenue from existing assets, add jobs and drive economic growth in local economies.

### **MAIN STREET REVITALIZATION PILOT PROGRAM**

Designed to encourage economic vitality of a business district and to optimize the use of existing electric infrastructure, this program offers financial incentives for projects expected to improve the economic stability and growth of a local business district. Eligible projects may include interior renovations, façade improvements, streetscape improvements or other investments that would enhance the economic viability/vibrancy of the business district. Any PSEG Long Island award or incentive offered to an applicant's project is intended to supplement funding from other non-PSEG Long Island sources.

## WORKING WITH SUPPLIERS

### SUPPORTING SMALL BUSINESSES, ENSURING QUALITY AND INTEGRITY

We value suppliers who share our commitment to reliability, quality and integrity. We have strong relationships with our suppliers and depend on them to meet the highest standards of service.

Working with as many suppliers as we do is a complex process that requires thoughtful and meticulous management. We expect our suppliers to meet our ethical standards and have a procurement and supplier management process that conforms to the highest standards in the industry.

PSEG's management practices and ethical code, our Standards of Conduct, are woven into everything we do, including our relationships with suppliers. When considered for a new contract of any type, suppliers go through a rigorous pre-qualification review. After a contract is awarded, PSEG Procurement monitors the performance of key suppliers in concert with the Corporate Health and Safety organization. In addition, a

third-party compliance auditor verifies certain health and safety information to conform with regulatory and PSEG standards. Key suppliers are graded based upon performance metrics and incentives are included in a majority of key supplier contracts.

### SUPPLIER SPENDING

PSEG is one of New Jersey's biggest supporters of local business and spends nearly \$2 billion annually with New Jersey vendors, which provides benefits annually to approximately 1,500 vendors across the state.

### SUPPLIER DIVERSITY

We believe it is important to build a supplier list that reflects our diverse customer base. PSEG's Supplier Diversity Program has proactively engaged minority-, women- and veteran-owned business (MWVBES) for more than 25 years to level the playing field and increase the range of perspectives and capabilities among our service providers.

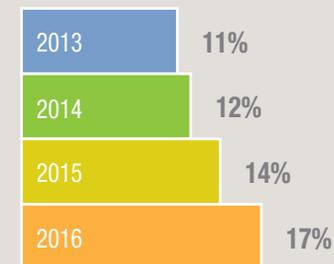
We are proud to have achieved a record of \$472 million, or 17 percent of PSEG's total supplier spend, with minority-, women- and veteran-owned

companies in 2016. During the year, we added 34 new certified MWVBES to our active vendor roster and awarded contracts to newly identified diverse suppliers providing products and services in areas such as engineering, construction, environmental services, security, information technology, electrical supplies, marketing and advertising. These results reflect the extent to which supplier diversity is woven into our culture, processes and practices.

We are working hard to build on this success. Supplier diversity goals are tied directly to PSEG's performance indica-

### SUPPLIER DIVERSITY

Percent of total supplier spend with MWVBES



# 17%

of PSEG's total supplier spend in 2016 was with minority-, women- and veteran-owned companies.

tors and are linked to PSEG's executive leadership and managers. Moving forward, PSEG intends to continue to expand our supplier diversity goals in appropriate increments that will take into consideration upcoming construction projects, company infrastructure developments, sustainability projects and system improvements.

**PSEG WORKS WITH MORE THAN 200 MWVBES** across a broad array of business needs, including but not limited to: construction services; engineered equipment; paving and vegetation management; tools and hardware; office equipment; and more. Toward this effort, PSEG has developed strategies, training, communication and processes that educate, offer exposure to and understanding of its supplier diversity process and business needs. Suppliers receive regular mentoring, development, coaching, certification assistance and additional support by participating in our process.

**EACH YEAR, WE HOST POPULAR SUPPLIER DIVERSITY PROCUREMENT FAIRS** at our Newark headquarters and at our nuclear site in Salem County, New Jersey. At no fee to the sup-

pliers, PSEG's Procurement organization brings all of its sub-groups together to interview MWVBE suppliers for procurement opportunities and share information that clarifies how to do business with us.

Demographics are shifting, creating a steady increase in the number of minority- and women-owned businesses across the region. Like its parent company, PSEG Long Island is sourcing from this widening pool of diverse suppliers through

a supplier diversity program, as well. Tapping into this pool helps strengthen our connection to the community, lower costs and improve efficiency. PSEG Long Island is demonstrating more than just social responsibility by making the supplier diversity model part of our business strategy. We are benefiting our customers, suppliers and community.

We continue to expand our supplier diversity outreach efforts. In 2016, we



**B**y making the supplier diversity model part of our business strategy, we are benefiting our customers, suppliers and community.

co-sponsored or hosted a wide variety of events, including: the New Jersey Association of Women Business Owners Annual Conference; the New York/New Jersey Minority Supplier Development Council and the Eastern Minority Supplier Development Council's Annual Expo & Conference; the New Jersey LGBT Chamber of Commerce meeting at our Newark headquarters; the New Jersey Board of Public Utilities Supplier Diversity Development Council's workshop on cybersecurity and its Annual Diversity Conference; and the African American Chamber of Commerce Annual Conference.

To develop and expand PSEG's supplier diversity process to a world-class level, PSEG is a corporate member or sponsor of many supplier diversity organizations, including:

- African American Chamber of Commerce of New Jersey
- Edison Electric Institute – Supplier Diversity Group
- Hispanic Business Council of Commerce & Industry of New Jersey
- Minority Supplier Development Council PA-NJ-DE
- National Hispanic Business Group
- National Minority Supplier Development Council

- New Jersey Association of Women Business Owners
- New Jersey Board of Public Utilities Supplier Diversity Development Council
- New York & New Jersey Minority Supplier Development Council
- Regional Alliance for Small Contractors
- U.S. Hispanic American Chamber of Commerce
- Women Business Enterprise Network
- Women Presidents' Educational Organization

**PSEG HAS RECEIVED MANY BUSINESS AWARDS FOR PROMOTING SUPPLIER DIVERSITY.** The company also holds board-level positions on the New York and New Jersey Minority Supplier Development Council, the New Jersey BPU's Supplier Diversity Development Council, New Jersey Commerce and Industry Group and the New Jersey Association of Women Business Owners. PSEG supports and accepts business ownership certification from the state of New Jersey, National Minority Supplier Development Council, Women's Business Enterprise National Council, New Jersey Transit, the Port Authority of New York and New Jersey and others.



**W**orking with as many suppliers as we do requires thoughtful and meticulous management. We have a procurement and supplier management process that conforms to the highest standards in the industry.

## MAINTAINING OUR FINANCIAL STRENGTH

### MANAGING AND INVESTING FOR RETURNS

Financial strength enhances our ability to sustain superb operations, deploy capital effectively and deliver value to our customers and shareholders, while also making meaningful contributions to our communities. PSEG has now paid dividends for 110 consecutive years – putting it among a select group of companies.

Financial management is especially challenging in this sometimes uncertain economic and regulatory climate. Our financial results depend on many risk factors including, but not limited to, commodity prices, regional market rules, environmental regulations, and state and federal energy regulation. We strive to manage or mitigate these risks to make disciplined investment decisions.

Key metrics on our financial performance can be found in the Company Overview section of this report and our 2016 Annual Report, which is available on our website. To cite some of the year's highlights:

- We added to the reputation we have built for highly reliable service, as evidenced by PSE&G being recognized as the most reliable electric utility in its region for the 16th year in a row.
- We continued to harden and improve the resiliency of our electric and gas systems. We reached another key milestone when we energized the Sewaren Switching Station – the first elevated station placed into service as part of our Energy Strong program.
- We significantly improved our employee safety record, achieving the lowest rate of reportable injuries in our company's history.
- We moved ahead with our three-year, \$905 million Gas System Modernization Program in which we have accelerated the replacement of aging cast-iron and steel pipes with modern plastic to enhance service and prevent methane leaks.
- We made further progress with our program to streamline operations and increase the efficiency of PSEG Power's fleet, driven in larger part by our \$2 billion investment in new, clean generation facilities.
- We further enhanced our financial strength, with a balance sheet that has remained one of the strongest in our industry.
- We again delivered substantial savings to our customers and low-cost fuel to our power plants through the access we enjoy to shale gas.
- PSEG Long Island continued to improve customer service and reliability while managing costs.
- And we continued to demonstrate that utilities can be instrumental in expanding

### FINANCIAL SUMMARY (YEAR-END 2016)

<b>TOTAL ASSETS</b>	\$40.1 billion
<b>TOTAL ANNUAL REVENUES</b>	\$9.1 billion
<b>INCOME FROM CONTINUING OPERATIONS</b>	\$887 million
<b>DIVIDEND PER SHARE</b>	\$1.64

access to the benefits of energy efficiency and solar energy in ways that promote a sustainable future.

Our strong financial position has allowed us to steadily increase our dividend. In February 2017, we increased our dividend for the 13th time in 14 years, raising our indicative annual dividend rate to \$1.72 per share from \$1.64 per share. We are proud of our track record of having paid dividends for 110 consecutive years.

We see the potential for our shareholders to continue to benefit from consistent and sustainable growth in our dividend, given our business mix, continued positive cash flow from our generation business and our strong balance sheet.

Our five-year capital investment program stands at approximately \$15 billion, with regulated utility investments representing more than 80 percent of our planned capital expenditures. Growth at PSE&G is offsetting challenges at PSEG Power primarily due to a changing energy marketplace driven by lower power prices. Nevertheless, we continue to look

for ways to increase the efficiency and performance of PSEG Power assets while lowering costs – without compromising safety or reliability.

We have continued to execute well on our investment program, which is closely aligned with our customers' needs and public policy

goals. Our record of delivering on our commitments and realizing growth provides a strong platform on which to build for the future. As we do so, we are building an energy company that aims to provide strong growth for our shareholders and a sustainable energy future for our customers.



**O**ur strong financial position has allowed us to steadily increase our dividend. We are proud of our track record of having paid dividends for 110 consecutive years.



**P**

**SEG is proud to be a leader in undertaking green energy initiatives that create jobs and grow the economy while protecting the environment. Sustainable green energy strategies have never been more needed than they are today.**

## GREENING THE ENERGY FUTURE

### **THE ELECTRICITY SECTOR HAS BEEN UNDERGOING A TRANSFORMATION**

due to low natural gas prices and a strong desire for clean energy resources. In particular, climate change is a clarion call for action. Sustainable energy strategies to promote job creation, economic growth and a healthy environment have never been more needed than they are today. We believe PSEG is a valuable resource for achieving our customers' strong desire for cleaner energy and improved air quality.

We have long been at the forefront of our industry in advocating for public policies that support the transition to a cleaner energy future. We will continue to pursue a three-pronged strategy to reduce carbon emissions in the energy sector through:

1. energy efficiency
2. renewable energy
3. clean central station power, including air emissions-free nuclear energy and environmentally responsible fossil fuel facilities. PSEG has made a combined investment in these areas in excess of \$3 billion since 2007.

While proud of the progress we have made over decades in reducing our environmental footprint, we recognize there is much more to do. We continue to invest in new, clean and efficient power facilities – making a clean fleet even cleaner. Through our investments in our existing nuclear fleet and renewable solar power, we are enabling our customers to reap benefits from cleaner energy, with a strong focus on keeping energy affordable, as well. In addition, PSEG invests in projects that avoid greenhouse gases such as energy efficiency, upgrades in natural gas distribution pipelines and electric vehicles.

We have strong partnerships with many local and national environmental organizations, reflecting our commitment to the responsible management of natural resources across the full spectrum of our activities. Our efforts to protect the environment can be found throughout our organization and include longstanding initiatives such as our Estuary Enhancement Program, which has restored thousands of acres of marshlands in southern New Jersey and neighboring areas along Delaware Bay.

PSEG is working hard to develop new, innovative approaches to environmental challenges. We are partnering with Google on the use of technology that helps us prioritize repairs as

we modernize our gas distribution system – and thus substantially reduce methane leaks while improving service. As part of our innovative solar initiatives, we have a new solar battery storage project that will provide clean energy for a sewage treatment plant in West Caldwell, New Jersey, as well as backup power in the event of outages. We have been working with Nissan, among others, on efforts that encourage the adoption of electric vehicles. In addition, PSE&G is a member of ChargEVC, a not-for-profit coalition of automotive retailers, utilities, technology companies, local governments, environmental, community and labor advocates formed to identify programs and policies to accelerate electric vehicle growth in New Jersey.

### **THESE EFFORTS, ALONG WITH OTHERS, PLACE US AT THE FOREFRONT OF OUR INDUSTRY**

in implementing environmental solutions to meet our sustainability challenges. They testify to our strong environmental commitment, yet also make an important contribution to our competitive position. Environmental stewardship will remain a core component of our mission.

We are always looking for new ways to green the energy future – not least in how we set long-term goals and work to achieve them.

**WE RECENTLY ESTABLISHED A NEW ELIMINATED EMISSIONS GOAL** to lower greenhouse gas emissions by 13 million tons below 2005 levels by 2030.

Even as we move forward, we must ensure that we do not take a huge step backward by losing the enormous contribution that our nuclear plants make to energy sustainability, especially for New Jersey – in terms of clean air, reliability and customer affordability. Maintaining this vital resource is one of our most important challenges – and, we believe, in the public interest.

No one approach, fuel or company, for that matter, can guarantee a sustainable future. As stated above, we will continue to emphasize three keys to cleaner energy:

1. energy efficiency;
2. renewables; and
3. clean central station power.

Furthermore, PSEG is expanding our emission-reduction efforts to include the advancement of electric vehicles and the modernization of our gas and electric distribution system. There is room for a rich diversity of ideas, approaches and

contributions. Partnerships are indispensable to progress.

#### **OUR MANAGEMENT APPROACH**

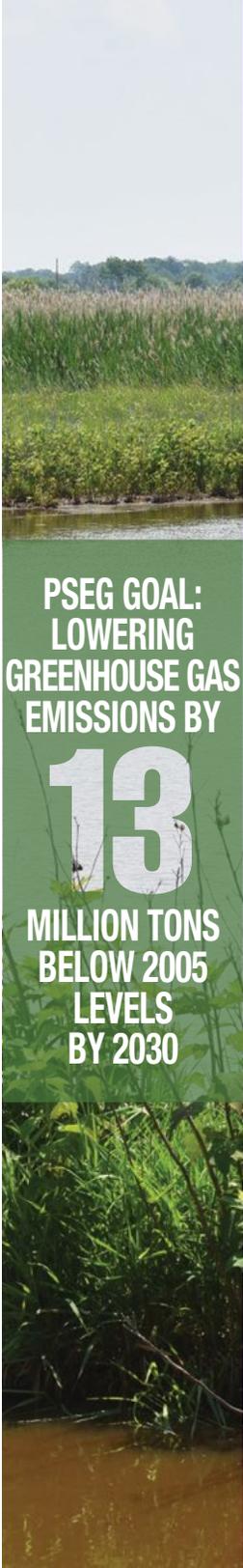
Environmental stewardship and sustainability require strong commitments and excellent management. Our Environmental, Health and Safety policy underscores the strength of this commitment and the PSEG EH&S Program Guide outlines our management approach to environmental health and safety.

The PSEG EH&S policy describes our commitment to conduct our business in a safe, environmentally friendly and responsible manner. We underscore our commitment to nuclear safety through our emphasis on a strong nuclear safety culture and continually strive for excellence in every part of our nuclear operations. We also require that our employees and business processes comply with all relevant environmental, health and safety laws and regulations and we continuously look for opportunities beyond our compliance obligations.

The cornerstone of our corporate-wide environmental management approach is the PSEG EH&S Program Guide. We set

environmental performance goals and targets annually as well as long-term goals every few years. PSEG uses a 14-point management system based on the International Standards Organization (ISO 14001) standard and Occupational Health and Safety Assessment Series Specification (OSHAS 18001). We also use and regularly test our emergency preparedness system in case of unexpected plant, nuclear or transmission problems. A recent third-party review confirmed that PSEG is a top performer among utilities nationwide in this area

Our strong relationships with the public sector, renewable energy developers and policymakers help us identify and implement innovative environmental solutions. PSEG continues to embrace public-private partnerships that have contributed to New Jersey's economic health and quality of life for more than a century. These partnerships support our ability to invest in areas such as energy efficiency and solar energy, which are critical to a sustainable energy future.



**PSEG GOAL:  
LOWERING  
GREENHOUSE GAS  
EMISSIONS BY  
13  
MILLION TONS  
BELOW 2005  
LEVELS  
BY 2030**

## COMBATING CLIMATE CHANGE

### AS A LEADER IN LOW-CARBON ENERGY,

PSEG recognizes that climate change is the preeminent challenge for a business such as ours with a strong commitment to building a sustainable energy future. With this challenge, we believe there is the opportunity to create an energy system that is cleaner and more efficient – one that protects the environment and helps our customers reduce their energy bills. We began factoring climate change into our business decisions and investments in the early 1990s – well before many others in our industry.

In 2009, PSEG established a goal of reducing GHG emissions by 25 percent from 2005 levels by 2025. We met that goal 14 years ahead of schedule 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 PSEG's GHG emissions in 2016 were approximately 41 percent below 2005 levels.

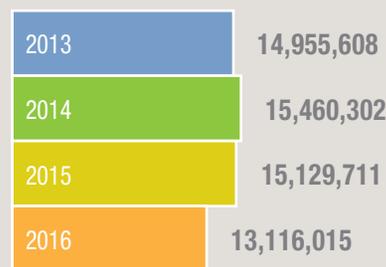
We are determined to do even more to reduce emissions. PSEG recently established a new goal to eliminate 13 million metric tons of CO<sub>2</sub> equivalent emissions by 2030 from

2005 levels. We believe our new Eliminated Emissions goal is realistic, given the range of our efforts, including:

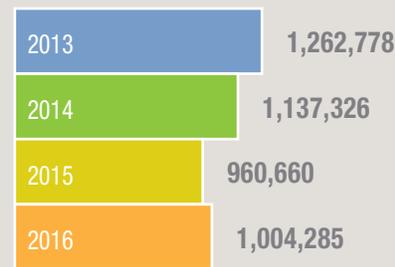
- Accounting for avoided emissions from the post-2005 uprates at our nuclear facilities;
- Retirement of our New Jersey and Connecticut coal units;
- Efficiency upgrades of our existing natural gas combined cycle fleet;
- PSE&G's Gas System Modernization Program, which by replacing old cast-iron pipes with new plastic helps prevent methane leaks;
- Continued replacement of traditional fleet vehicles with hybrid vehicles and the installation of idle mitigation technology on fleet vehicles;
- Solar and energy efficiency investments and programs;
- Electric vehicle charging programs for our employees and our commercial/industrial customers;
- Recycling of industrial waste under EPA's Waste Wise program; and
- Emission reductions in fulfilling PSEG Power's REC commitments.

## GREENHOUSE GAS EMISSIONS

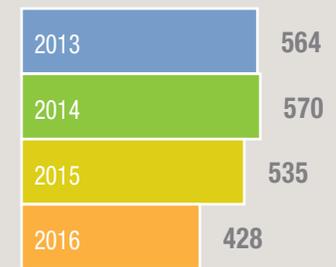
### SCOPE 1 EMISSIONS (Metric tons CO<sub>2</sub>e)



### SCOPE 2 EMISSIONS (Metric tons CO<sub>2</sub>e)



### EMISSION RATE CO<sub>2</sub>\* (Lbs/MWh)



\*Source: M.J Bradley & Associates (2017) Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States.

**THE EVOLUTION OF ELECTRIC GENERATION TECHNOLOGY**

also affords opportunities to reduce PSEG's emissions profile. We are transforming our generation fleet to be cleaner and more efficient while emphasizing the continued importance of fuel diversity to ensure reliable and affordable energy. In 2017, we closed our two remaining New Jersey coal stations. Meanwhile, we are constructing three new power plants that will use highly efficient, natural gas-fired combined-cycle technology.<sup>1</sup> As we continue this transformation, emissions levels of NOx and SO<sub>2</sub> as well as CO<sub>2</sub> and other pollutants will be reduced from our 2005 baseline, along with residuals from the coal-burning process and the need to employ chemicals to treat them.

**PSE&G'S COMMITMENT TO ENERGY EFFICIENCY IS A KEY COMPONENT OF OUR COMMITMENT TO COMBATING CLIMATE CHANGE AND KICK-STARTING NEW JERSEY'S ECONOMY.**

We have invested approximately \$400 million in energy efficiency initiatives that reduce emissions while creating jobs and saving customers money. There is no cleaner or cheaper kilowatt-hour than the one that is not used.

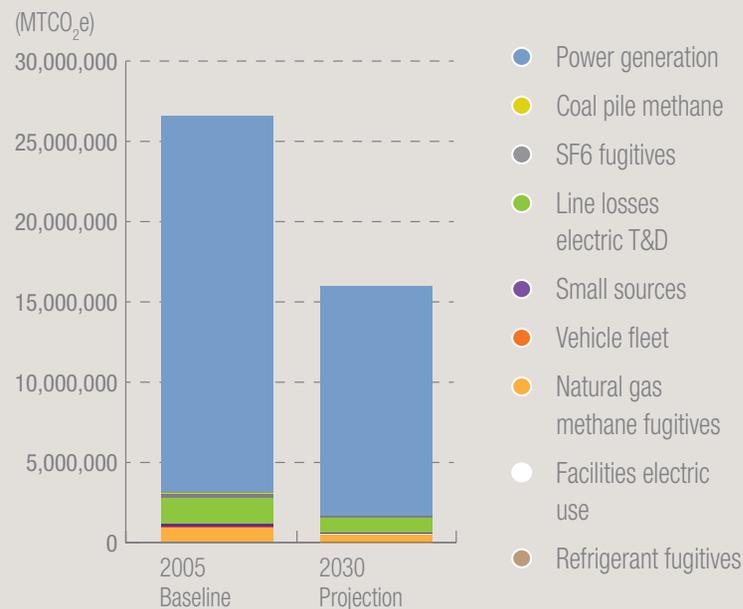
The company also is making strides in renewable energy. Our solar development program includes approximately 158 MW of direct ownership of large-scale, grid-connected projects in our electricity delivery area, as well as more than \$295 million in loans granted to help customers finance over 95 MW of solar capacity on their homes and businesses. In addition, our power merchant subsidiary owns and operates 349 MW of solar outside our New Jersey service area with another 58 MW currently under construction.

PSEG also has taken steps to promote sustainability by making our facilities more energy efficient through utilization of the U.S. Green Building Council's Leadership in Energy and Environmental Design rating system. We have achieved LEED Commercial Interiors Gold Certification for our Linden Generating Station and our Energy and Environment Resource Center in Salem County, New Jersey. LEED Commercial Interiors Silver Certification has been achieved for our Customer Service Centers in Paterson, Passaic, Trenton, New Brunswick, and Jersey City, New Jersey.

PSE&G is a long-time participant in EPA's Natural Gas STAR program, a voluntary initiative that encourages natural gas companies to adopt cost-effective technologies and

practices that reduce methane emissions. As of 2013, we had reduced methane emissions by 574,285 thousand cubic feet since joining the program in 1993. From 2011 to 2015 PSE&G reduced its methane emissions 2 percent for a total of 32,000 million tons of CO<sub>2</sub> equivalent.

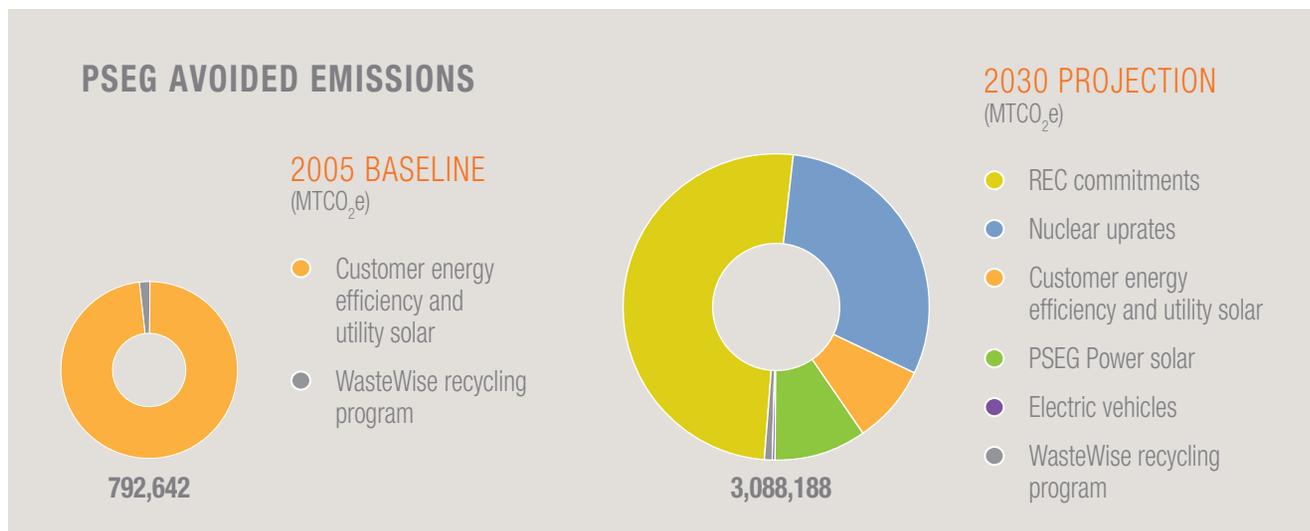
**PSEG GENERATED EMISSIONS**



1. Facilities are located in Connecticut, Maryland and New Jersey.

**ADDITIONAL REDUCTIONS ARE EXPECTED UNDER PSE&G'S GAS SYSTEM MODERNIZATION PROGRAM.**

In the summer of 2017, PSE&G unveiled a proposal for the second phase of its natural gas infrastructure modernization program. If approved by the New Jersey Board of Public Utilities (BPU), the program will enable PSE&G to continue to accelerate the replacement of its aging cast-iron and unprotected steel gas pipes that reduces methane fugitive emissions. PSE&G's proposal includes installing 1,250 miles of new gas mains over a five-year period. In 2016, PSE&G became a founding partner of EPA's Natural Gas STAR Methane Challenge by committing to replace 1.5 percent of PSE&G's cast-iron gas mains and associated service lines by 2021.

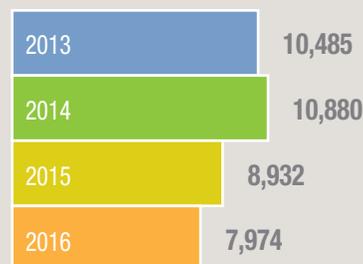


We continue to reduce our GHG footprint through waste reduction and recycling programs. Since 1995, PSEG's recycling rates have consistently exceeded 90 percent.

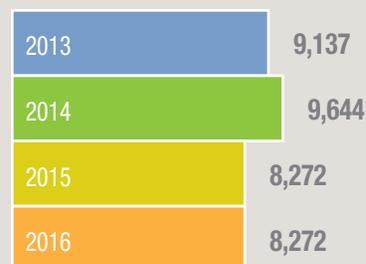
We are proud that PSEG was inducted into EPA's Waste Wise Hall of Fame due to these achievements and are working to build on this success.

**AIR EMISSIONS**

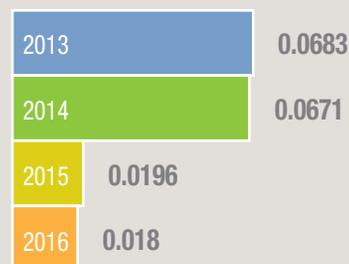
NOX (Metric tons)



SOX (Metric tons)



Mercury (Metric tons)



SF<sub>6</sub> (Metric tons)



## ENSURING NUCLEAR ENERGY'S FUTURE

### SAFE, RELIABLE, CLEAN ENERGY

For more than 40 years, nuclear energy has powered millions of New Jersey homes and businesses with clean, safe, reliable and affordable electricity. Today, PSEG's Salem and Hope Creek nuclear plants are an indispensable part of New Jersey's energy mix. Nuclear energy provides nearly half of the 24/7 supply of power generated in New Jersey – power that is essential to the state's economy and environment. In fact, New Jersey has the 10th-lowest statewide electric generating fleet CO<sub>2</sub> emission rate in the United States.<sup>1</sup>

Nuclear energy continues to hold several advantages for helping to meet the country's future energy needs. Nuclear generation emits no carbon or other air pollutants associated with fossil-fueled plants, providing more than 90 percent of New Jersey's air emissions-free generation, which benefits the environment and public health. Nuclear energy also provides tremendous fuel diversity, economic and job benefits for the state. In 2016, PSEG's ownership share of nuclear

avoided approximately 13 million tons of CO<sub>2</sub> emissions.<sup>2</sup> Continued operation of Salem and Hope Creek will aid New Jersey in reaching its GHG-reduction goals under the Global Warming Response Act.

According to the Brattle Group, PSEG's nuclear plants in New Jersey are the stimulus for more than \$800 million worth of economic activity each year. The plants also support more than 1,600 direct jobs, plus 1,000 contractors during refueling outages, as well as thousands more indirect jobs in surrounding communities throughout the year.

Our nuclear power generating fleet consists of the Salem and Hope Creek nuclear generating stations in Lower Alloways Creek, New Jersey, and part-ownership of the Peach Bottom nuclear generating station in Delta, Pennsylvania. We recognize the importance of educating the public about nuclear energy and have been recognized for our community outreach efforts. More than 25,000 stakeholders have toured our nuclear plants and community information center in the past five years.

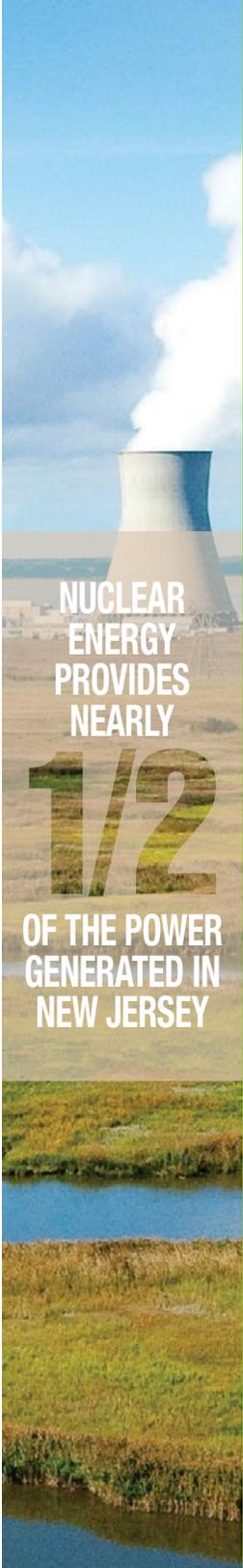
PSEG has taken steps to ensure that nuclear power will be part of New Jersey's future. We

have received 20-year license extensions for the Hope Creek unit and both Salem units, ensuring these plants can continue to operate well into the 21st century. We also have obtained an early site permit, the first step needed for the construction of a new plant, for a site north of our Hope Creek reactor.

We believe a systematic approach to nuclear energy management ensures public safety. The recent success of our application to relicense two facilities is further endorsement of our management expertise.

### EMERGENCY PREPAREDNESS

PSEG Nuclear maintains a strong emergency response plan. As part of this plan, we work closely with the states of New Jersey and Delaware to protect the health and safety of the public. The Nuclear Regulatory Commission assesses the capabilities of the plan by requiring us to perform a full-scale exercise that includes the participation of government agencies at least once every two years. An exercise was performed in May 2015 with no issues. We perform these exercises to maintain the skills of our emergency responders and conduct additional drills quarterly.



NUCLEAR ENERGY PROVIDES NEARLY

1/2

OF THE POWER GENERATED IN NEW JERSEY

1. M.J. Bradley and Associates, *Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States* (June 2017), 27.  
2. Based on 2016 MWhrs generated and PJM's 2016 annual average CO<sub>2</sub> emission rate.

## MOBILIZING THE POWER OF ENERGY EFFICIENCY

### SAVING CUSTOMERS ENERGY AND MONEY

We believe energy efficiency must be the centerpiece of a comprehensive effort to build a sustainable energy future. Energy efficiency works for the environment by delivering clean-energy benefits similar to renewable energy sources such as solar or wind, but at a fraction of the cost.

Moreover, if society's goal is lower air emissions, then energy efficiency – improving lighting, replacing old heaters and air conditioners and even just caulking windows – is the most cost-effective tool to accomplish this goal. A report by the consulting firm McKinsey found that, by reducing demand, efficiency improvements could move the world about 25 percent toward the ultimate goal of avoiding the worst impacts of climate change.

Energy efficiency doesn't just decrease air emissions. It can decrease bills, as well. It just makes economic sense.

### ENERGY EFFICIENCY AT PSE&G

**OUR APPROACH.** The customers who could benefit most from energy efficiency cost savings are often those least able to

make the up-front financial commitment. The hurdles to such investments vary, ranging from a lack of energy expertise and awareness, limited access to capital or credit, difficulty finding technical assistance and/or qualified contractors, to skepticism about the payback and competing priorities for investment dollars. In essence, the benefits of energy efficiency are undervalued, misunderstood and obscured by barriers both real and perceived. Public policy and well-designed programs can overcome these hurdles and unleash the potential for energy efficiency.

In the past, energy efficiency was promoted through rebates that often disproportionately benefited affluent customers.

### TARGETED INVESTMENT

PSE&G's energy efficiency programs have targeted a range of stakeholders over the past several years, from hospitals and government entities to homeowners and small-business operators. These initiatives have included:

- Hospital Efficiency Program
- Residential Whole House Efficiency Program
- Direct Install Program for Small Businesses, Government Facilities and Non-Profits
- Residential Multifamily Housing Program

Through these programs, we pay the up-front costs for the energy efficiency work and participants repay a portion of the cost over time, interest-free, on their utility bill.

We have already invested nearly \$400 million in these efforts, and in August 2017 received approval from the New Jersey Board of Public Utilities to invest an additional \$69 million to extend the Hospital Efficiency Program, the Residential Multifamily Housing Program and the Direct Install for Small Businesses, Government Facilities and Non-Profits Program. The recent BPU approval will also allow PSE&G to initiate a new Smart Thermostat



Program and a new Residential Data Analytics Program. This extension will enable PSE&G to serve a roster of hospitals, healthcare facilities and residential multi-family housing units that are currently on program waiting lists. It will also allow us to continue to offer energy efficiency assistance for government facilities and nonprofits as well as to PSE&G small business customers in Urban Enterprise Zones. The two new programs will help residential customers save money on their home energy bills by encouraging the purchase of smart thermostats through a rebate and by providing selected customers with personalized energy reports.

Between 2009 and 2014, our programs have achieved annualized electric and gas savings that could power more than 30,000 homes a year and provide enough natural gas to supply 7,500 homes annually.

### **HOSPITAL EFFICIENCY PROGRAM**

PSE&G identified hospitals as a high energy-usage sector that faced unique challenges and market barriers that required more than traditional energy efficiency rebates to overcome.

Our \$199 million Hospital Efficiency Program finances major energy efficiency upgrades to help hospitals reduce energy costs and

thus focus on their core mission. It is the only program we know of where the utility bears all of the up-front capital costs and enables these large users to repay their share of the costs over time on their utility bill. On average, hospitals repay about 30 percent of the cost of improvements over three years, interest-free, on their PSE&G bill. PSE&G's Hospital Efficiency Program has upgraded 35 hospitals to date by installing energy-conserving equipment

### **RESIDENTIAL MULTIFAMILY HOUSING PROGRAM**

The Residential Multifamily Housing Program helps increase comfort and reduces energy costs by providing expert advice, incentives and interest-free on-bill financing to install efficient heating and hot water systems and controls, lighting, insulation, refrigerators and more in apartment buildings. Participating building owners repay a portion of the total cost of the project interest-free on their PSE&G bill over a five- or 10-year repayment period. This program has already made more than 13,000 apartments more energy efficient. In addition to improving energy efficiency, this effort also typically enhances comfort and safety along with resident satisfaction.

### **DIRECT INSTALL FOR GOVERNMENT FACILITIES/NON-PROFITS PROGRAM**

The Direct Install Program helps government agencies and non-profits, as well as small businesses located in Urban Enterprise Zones, reduce their energy consumption and bills by paying for 70 percent of project costs for lighting, heating and cooling systems upgrades, and by providing interest-free on-bill financing for the balance of the cost. The Direct Install Program has helped more than 1,500 government facilities, non-profits, and small businesses become more energy efficient.

### **TRACKING PROGRESS**

Our programs have shown that the hurdles to energy efficiency investments in urban areas and in high energy-use sectors can be overcome. PSE&G has directly installed measures and/or provided incentives to more than 10,000 residential customers, 300 schools, 600 urban small businesses, 500 government agencies, 300 non-profits and approximately 35 hospitals and 300 apartment buildings, many of which are senior housing. PSE&G has also managed a "Standard Offer" program for approximately 20 years among its residential and small and large commercial customers. Participants in the program submit a proposal to install

energy savings measures, such as lighting, heating, cooling or insulation, and receive standard incentives based on savings of natural gas and electricity. To date, the Standard Offer program has paid out more than \$1.1 billion in incentives and saved 16 million megawatt-hours of electricity and 253 million therms of natural gas.

PSE&G is also one of several utilities in New Jersey that run the BPU's Comfort Partners energy efficiency program for low-income residents. Through Comfort Partners, PSE&G has improved the energy efficiency of more than 67,000 homes, helped those customers hold the line on their energy costs and save 77 million kilowatt-hours of electricity and 6.1 million therms of natural gas annually.

**ENERGY EFFICIENCY – PSEG LONG ISLAND**

PSEG Long Island also has a number of effective energy efficiency programs designed to help customers save energy and money while also helping the environment. PSEG Long Island customers participating in the utility's energy efficiency programs in 2016 saved more than 300,000 megawatt-hours of electricity – amounting to more than \$55 million per year in savings, which equates to taking 45,000 cars off the road.

**NATIONAL RECOGNITION**

In light of the performance of its energy efficiency programs, PSEG Long Island was honored with an ENERGY STAR Partner of the Year in 2015 – Sustained Excellence Award from the U.S. Environmental Protection Agency (EPA) for our commitment and dedication to energy efficiency and the ENERGY STAR program.

PSEG Long Island's efforts were recognized for the results it delivers, too. For example,

PSEG Long Island's Home Performance programs have served more than 12,000 customers, saving nearly 17 million kWh of energy, which is equivalent to removing approximately 2,500 cars from the road a year. Also, ENERGY STAR-certified light emitting diodes sales have increased from almost 3,500 in 2010 to more than 600,000 in 2013, and 1.8 million in 2016. LED lighting uses 75 percent less energy and lasts 25 times as long as incandescent bulbs.



**P**SEG Long Island customers participating in the utility's energy efficiency programs in 2016 saved more than 300,000 megawatt-hours of electricity.

## AN ARRAY OF ENERGY EFFICIENCY PROGRAMS

PSEG Long Island's energy efficiency programs are targeted to residential customers and local businesses. They include:

- **ENERGY EFFICIENT PRODUCTS**

**PROGRAM** – The goal of this program is to bring proven ENERGY STAR technologies to customers so they can benefit from energy savings, thereby lowering their electric bills. Establishing cost-effective rebate and incentive levels is necessary to achieve desired participation and meet energy savings and demand-reduction goals. Rebates and incentives offered on a variety of ENERGY STAR-rated appliances, lighting fixtures and household electrical equipment.

- **HOME PERFORMANCE WITH ENERGY STAR® PROGRAM**

– This program is designed to save homeowners up to 20 percent on their monthly energy bills. It starts with a free home energy audit. Based upon the recommendations from the comprehensive home assessment during the initial audit a homeowner can make additional improvements and take actions to stop wasting energy and start saving money. Specifically, these improvements might involve a home's

insulation, heating and cooling system, windows, appliances and lighting. Each customer that participates is provided with four free LED bulbs.

- **RESIDENTIAL ENERGY AFFORDABILITY PARTNERSHIP PROGRAM**

– The REAP program is an energy efficiency program for income-eligible customers designed to save energy and reduce electric bills. A REAP technician (PSEG Long Island contractor) will come to the home and provide a free home energy survey and educate the customer how to use less electricity by practicing energy efficiency. During the home energy survey, the technician may install high-efficiency lighting, energy efficient appliances, pipe insulation and domestic hot water flow devices. Eligibility is based on household size and annual income.

- **COOL HOMES – CENTRAL AIR REBATE PROGRAM**

– A new, efficient central air conditioning system can reduce cooling energy costs by up to 40 percent compared to older inefficient models and save customers as much as \$500 a year on their electric bill. Rebates for new and replacement installations are available, as well as rebates for geothermal and ductless mini-split systems.

Participating contractors are eligible to receive quality installation incentives, as well.

- **COMMERCIAL EFFICIENCY REBATE PROGRAM**

– Customers can receive cash incentives for installing energy efficient electric equipment in their facilities. Rebates are available for measures including lighting and lighting controls, HVAC, VFDs, refrigeration equipment and kitchen equipment. Combined heat and power and custom measures can also be considered for rebates.

- **ENERGY ASSESSMENTS**

– Services are provided for business customers to assess their energy demands and analyze energy conservation measures – free for customers. This program is specifically for small businesses interested in becoming more energy efficient.

- **TECHNICAL ASSISTANCE PROGRAM**

– PSEG Long Island's Technical Assistance program provides co-funding to customers who require engineering and design services in order to qualify for certain rebates or certifications. The TA program supports LEED certification and requirements, ENERGY STAR benchmarking certification and requirements, and will fund approved studies to determine the energy savings potential of a technology.

## ACHIEVING THE PROMISE OF RENEWABLES FOR ALL

### PSE&G – A LEADER IN SOLAR DEVELOPMENT

Our renewable energy initiatives have helped make New Jersey one of the leading states for solar energy development – creating jobs, spurring economic activity and helping the state meet its renewable energy targets. New Jersey ranks fifth in cumulative solar electric capacity installed through 2016, according to the Solar Energy Industries Association. PSE&G was recently named Investor-Owned Utility of the Year by the Smart Electric Power Alliance, in recognition of PSE&G's success in increasing the amount of solar energy in New Jersey, in particular by building solar farms on landfills and brownfields.

We are aggressively helping New Jersey meet its renewable energy goals. New Jersey's Renewable Portfolio Standard requires load-serving entities in the state to procure 22.5 percent of the electricity they sell to customers from qualifying renewable energy by 2021. Also included in that goal is specific allocation for solar power. PSEG is helping to meet the RPS target by directly developing solar projects and providing financing for solar projects. PSE&G's solar investments create a demand for technology

that will transform the way we generate electricity and create green jobs.

### OUR APPROACH

Our approach to solar development includes direct ownership of large-scale, grid-connected projects through our Solar 4 All® program, and a Solar Loan Program targeted to businesses and homeowners that need financing for their projects.

### SOLAR 4 ALL®

Solar 4 All® is a 158-megawatt-dc (MW-dc) program that utilizes rooftops, solar farms, utility poles and landfills/brownfields for large-scale, grid-connected solar projects. As of October 2017, more than 124 MW-dc of the 158 MW-dc total are in service.

Solar 4 All helps New Jersey reach its solar power goals, helps promote a cleaner environment, turns landfills and brownfields green with solar power and spurs economic development by creating good jobs and making the state a center for solar development. The program also benefits PSE&G customers directly by connecting solar power into the PSE&G electric grid. Solar 4 All will eventually provide enough solar electricity to power more than 25,000 average-size New Jersey homes annually.

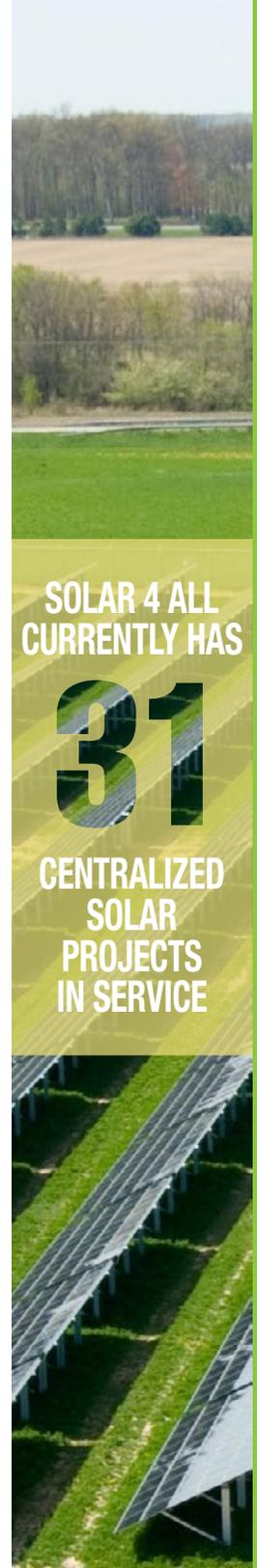
Solar 4 All is also helping to turn landfills and brownfields green. Of the 31 centralized solar

projects currently in service, four are located on PSE&G remediated brownfield sites in New Jersey – Trenton, Silver Lake/Edison, Linden and Hackensack – and five are located on closed New Jersey landfill sites in Bordentown, Deptford, Eastampton, Edison and Kearny. These sites provide more than 50 MW-dc of solar capacity and return more than 190 acres of landfill and brownfield space to productive use.

These landfill solar projects are about 40 percent less expensive than the typical residential net-metered solar project. Utility scale solar projects will help New Jersey to meet its RPS in a more cost-effective, efficient manner.

Solar 4 All also features 40 MW-dc of pole-attached solar, which saves space while generating highly distributed solar energy. A 40 MW-dc solar farm would require about 140 acres, or about 110 football fields, of land. The 40 MW-dc of utility pole-mounted solar units occupies no real estate. More than 174,000 pole-attached solar units are installed in PSE&G electric service territory around the state.

Solar 4 All also supports a 3 megawatt-dc pilot program to develop projects that integrate solar with other technologies to reduce the impact solar has on the grid or demonstrate reliability and grid resiliency for critical facilities during prolonged power outages. There



SOLAR 4 ALL  
CURRENTLY HAS  
**31**  
CENTRALIZED  
SOLAR  
PROJECTS  
IN SERVICE

are currently four pilot projects in service. One is at Hopewell Valley Central High School, the second is at Cooper University Hospital in Camden and the third is at a West Caldwell wastewater treatment plant.

Over the next few years, PSE&G will be building an additional 33 MW-dc of solar capacity on additional landfills and brownfields in the utility's electric service territory.

#### **SOLAR 4 ALL PROJECT WILL KEEP WASTEWATER TREATMENT PLANT ONLINE DURING OUTAGES**

In addition to supplying renewable energy directly to the power grid, PSE&G's newest Solar 4 All project will also help keep the Borough of Caldwell's wastewater treatment plant operating during extended power outages.

The Caldwell solar storage project combines a 2,682-panel, 902 kilowatt-dc solar system with 2,000 kilowatt-hour batteries. In normal operation, the solar system provides electricity directly to the grid and can power about 165 homes annually. In the event of an extended power outage, the system works in conjunction with the treatment plant's existing diesel back-up generators. During the day, the solar panels recharge the batteries and help power the sewage treatment plant. At night, the batteries are used to help keep the facility running.

The Caldwell wastewater treatment plant project will go a long way toward helping to ensure that this critical facility can operate even during extended power outages. This is the third project of its kind that we have put in service demonstrating the benefits of solar storage.

#### **SOLAR LOAN**

The 177.5 MW-dc Solar Loan Program is the second piece of PSE&G's solar development strategy. This program encourages business and residential customers in our electric service territory to install solar energy systems

on their homes and businesses. PSE&G solar loans can help make solar ownership affordable by financing a major portion of the solar system and providing a unique repayment option that locks in a guaranteed value of the Solar Renewable Energy Certificates the system is expected to generate.

The Solar Loan Program has granted more than \$265 million in loans and helped more than 1,300 customers finance over 95 MW-dc of solar capacity on their homes and businesses.



**H**opewell Valley Central High School is one of the sites in the Solar 4 All pilot program to develop projects that integrate solar with other technologies.

**PSEG SOLAR SOURCE**

PSEG Solar Source, a subsidiary of PSEG Power Ventures, develops, owns and operates utility-scale solar facilities outside our New Jersey service area. PSEG Solar Source has been able to expand its portfolio to 22 utility-scale solar projects in 14 states. The company has 24 facilities with a total capacity of 414 MW<sub>DC</sub> in operation.

We are proud to be a part of efforts across the country to combat climate change and increase the amount of locally generated renewable energy while spurring the economy as well. And, we are actively exploring opportunities to add to PSEG Solar Source's portfolio.

**RENEWABLE ENERGY – PSEG LONG ISLAND**

New York has established a goal of obtaining 50 percent of its energy from renewable energy by 2030. PSEG Long Island is working to do its part toward achieving that goal. PSEG Long Island has moved aggressively to integrate solar energy into its service area, from both the wholesale and retail sides of the market. Overall, PSEG Long Island has

<b>PSEG RENEWABLES PROGRAM</b>		
	<b>SOLAR LOAN I, II, III</b>	<b>SOLAR 4 ALL AND EXTENSION</b>
<b>2009-2016 IN SERVICE</b>	90 MW	123 MW
<b>TOTAL MW PROGRAM PLAN</b>	178 MW	158 MW
<b>TOTAL INVESTMENT</b>	\$259 million	\$598 million

interconnected more than 241 MW of solar through 2016.

Over the past few years, PSEG Long Island has seen a surge of interest in its rooftop solar program. Nearly 25,000 customers have taken advantage of the program, installing about 182 MW of clean solar power on their homes. PSEG Long Island also has a feed-in

tariff program for larger commercial projects. This program has resulted in the installation of about 28 MW of solar power.

In addition, PSEG Long Island put out a solicitation for up to 280 MW of grid-connected renewable energy in 2014. To date, 122 MW of projects have been authorized.

## REDUCING EMISSIONS FROM MOBILE SOURCES

### PROMOTING ELECTRIC VEHICLES

Electric vehicles can have a powerful impact in combating climate change and reducing pollutants – from carbon, to nitrogen oxide to particulates – especially in a state like New Jersey, where about half of our electricity comes from air emissions-free nuclear power. The popularity of electric vehicles is increasing at a record-setting pace. Here, in New Jersey, there has been a surge in demand, with registration of model year 2016 plug-in electric vehicles up 79 percent.

At PSE&G, we are doing our part to support New Jersey's growing fleet of plug-in electric vehicles and their drivers:

- We partnered with Nissan USA to promote its rebates on an all-electric 2017 Nissan Leaf, giving PSE&G customers a chance to buy a new EV for less than half price;
- We have the largest EV employee incentive program in the state, with more than 45 chargers at company locations. Elsewhere, PSE&G has provided 135 chargers to 23 New Jersey hospitals, colleges and businesses in a pilot program to encourage EV workplace commuting;

- In 2017 PSE&G partnered with EVgo to install fast charging stations at five rest areas along the NJ Turnpike and Garden State Parkway, starting with two new fast chargers at the Turnpike's Molly Pitcher service area; and

- PSE&G is a member of ChargeVC, a non-for-profit coalition of automotive retailers, utilities, technology companies, local governments, environmental, community and labor advocates formed to identify programs and policies to accelerate electric vehicle growth in New Jersey.

As more car buyers switch to plug-in vehicles, PSE&G is committed to being there

to support them with clean, reliable and affordable energy.

PSE&G continues to take action to lower the emissions from our own fleet of vehicles. We have improved the fuel efficiency of our fleet by 15 percent over the past five years. Almost 50 percent of our light-duty vehicles are now hybrids, and 66 percent of our aerial lift trucks now have electric drives, allowing the operation of the lift without running the engine. We have also increased the purchases of aerial lift trucks with a “cab comfort option” which reduces engine idling time by running the cab temperature control equipment off of the electric drive battery.



**P**  
SE&G  
partnered with  
EVgo to install  
fast charging  
stations at rest  
areas along the  
NJ Turnpike  
and Garden  
State Parkway.

## CLIMATE ADAPTATION AND RESILIENCY

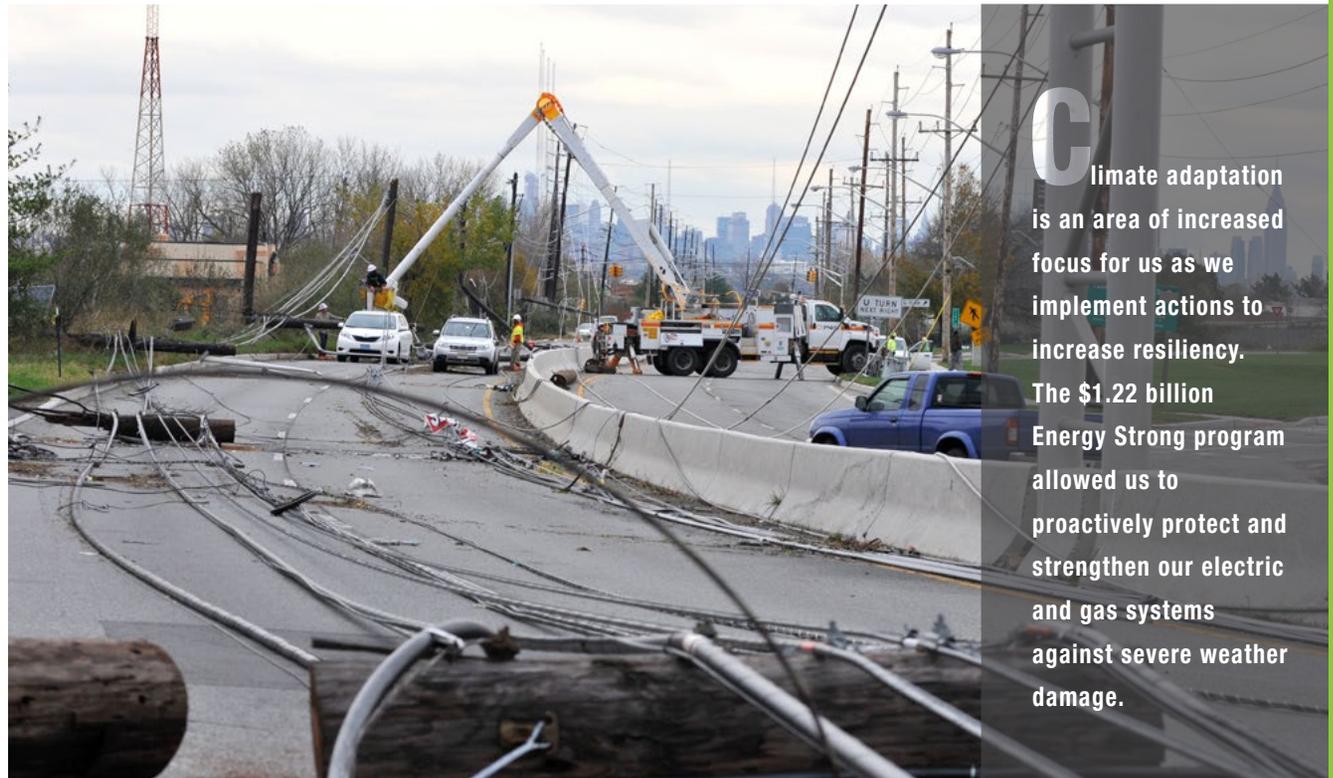
In October 2012, Superstorm Sandy hit New Jersey. The storm served as a wake-up call to rebuild essential electric, natural gas and water systems in response to climate change challenges.

On May 1, 2014, PSE&G reached a settlement with the BPU on our Energy Strong program. The \$1.22 billion program allowed us to proactively protect and strengthen our electric and gas systems against severe weather damage like the state experienced during Hurricane Irene and Superstorm Sandy.

### BUILDING PARTNERSHIPS

Climate adaptation is an area of increased focus for us as we implement actions to increase resiliency. PSEG is a founding member of the New Jersey Climate Adaptation Alliance, which was formed in 2011 by a diverse group of stakeholders. The alliance's focus is on climate change preparedness and adaptation in key impacted sectors, including energy infrastructure.

Expanding this approach to a national stage, PSE&G collaborated with the U.S. Department of Energy along with sixteen other utilities, to launch the Partnership for Energy Sector Climate Resilience in April 2015. This partnership is a voluntary program aimed at enhancing energy security against the impacts of extreme weather and climate change. The partnership will develop resources to facilitate risk management and the adoption of cost-effective strategies to improve the resiliency of energy infrastructure.



**C**limate adaptation is an area of increased focus for us as we implement actions to increase resiliency. The \$1.22 billion Energy Strong program allowed us to proactively protect and strengthen our electric and gas systems against severe weather damage.

WHEN  
ENERGY STRONG  
programs are complete...

460k  
FEWER  
ELECTRIC CUSTOMERS  
WILL LOSE POWER IF ANOTHER SANDY HITS

## WATER RESOURCE MANAGEMENT AND USE

### STEWARDSHIP OF A PRECIOUS RESOURCE.

Stewardship of water resources remains a priority for PSEG in the areas where we operate. None of our plants are located in a water-stressed area, with most being located on non-potable estuarine waters. However, New Jersey is also one of the most populated and developed areas of the United States and is beginning to experience water resource constraints on a localized basis. In addition, extreme weather events have led to impacts related to flooding.

PSEG's operations interact with water as a resource in a variety of ways. PSEG's power plants use water to drive steam turbines, for cooling in boilers and to reduce air emissions. The largest volume of water is linked to non-contact cooling water systems. Several different systems are in use ranging from once-through systems to wet cooling towers and a wet/dry hybrid-cooling tower. Each design has different attributes and water resource issues.

Once-through systems withdraw high volumes of water with relatively low water con-

sumption rates, but also affect local aquatic habitats. PSEG has addressed these impacts in several ways, including the installation of state-of-the-art technologies and the restoration of marsh habitats (see further discussion under Biodiversity below). Cooling towers withdraw significantly less water, but with a relatively higher consumption rate. To offset this, PSEG has chosen at two locations to use an available alternate water source, reclaimed wastewater effluent, to limit reliance on potable water supplies.

Our generation fleet has continued to develop a cleaner profile with less impact on the environment. In 2017, we retired our Hudson and Mercer coal-fired generating stations. As a result, the majority of water used for these facilities has been discontinued, including both the once-through cooling water and the high-quality potable water used for the air pollution control equipment. Meanwhile, PSEG is constructing three new natural gas combined-cycle plants that will employ dry-cooling technologies and using much less water for the steam cycle.

Meeting water quality standards continues to be an issue we manage at our plants daily. In addition to discharges related to the generation of electricity, PSEG's locations are subject to precipitation events that require the management of storm water. PSEG has designed and installed systems to treat industrial wastewater at its facilities, reduce the concentration of pollutants in the discharge and reduce the potential for storm water to carry pollutants from its facilities.

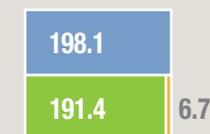
### GUIDELINES AND VERIFICATION

PSEG guidelines call for all of our power plants to ensure that they maintain the quality and quantity of water on both the intake and discharge sides of their operations. We use best available technology to safely remove and return fish to rivers during water intake at our facilities. We also monitor pH and temperature of the water returned to rivers and we are in compliance with state environmental quality permits. We treat all effluents on-site before discharge and both our measured and reported water data are externally verified in several ways by federal and state regulatory agencies.

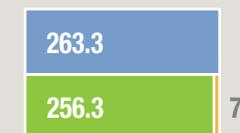
## POWER GENERATION WATER CONSUMPTION

(Million cubic meters)

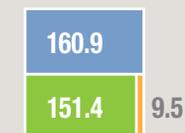
2013



2014



2015



2016



- Water withdrawals
- Water returned to source
- Water consumed

## BIODIVERSITY

### PROTECTING AND RESTORING NEW JERSEY'S NATURAL SPACES

Geographically, PSEG operates within a very diverse region of the world. The northeastern United States and New Jersey, in particular, are part of a cycle of migratory travel for many avian, aquatic and terrestrial species, such as red knots, horseshoe crabs and golden wing warblers, to name a few.

New Jersey also is home to several species that require special habitats that are in limited supply. These include bog turtles and flora such as swamp pink that inhabit wetland areas.

Providing safe, reliable and efficient energy to meet the needs of our customers requires maintenance of transmission and distribution lines that pass through local ecosystems. We work closely with experts from environmental NGOs, including the New Jersey Audubon Society and The Nature Conservancy, along with state and federal agencies to integrate biodiversity considerations and mitigate ecosystem impacts from design through project construction and maintenance. At first glance, swamp pink, a member of the lily family, the golden-winged warbler, a small migratory bird, and the frosted elfin, a butterfly native to North America, couldn't be less alike. Yet despite their obvious differences, they all have some

things in common; all three are threatened or endangered species in New Jersey, and they all have habitats on and around the nearly 1,000 miles of transmission rights-of-way that PSE&G owns and maintains in New Jersey. They have lots of company, too, as some 131 other threatened or endangered species make their homes on or near our ROWs.

The presence of these plants, animals and insects requires us to balance the responsibility we have to upgrade and maintain our transmission facilities with the obligation we have to do this work in a manner that en-

sures we do no harm to the plants, animals and insects that call our ROWs home. It's an obligation PSEG takes very seriously, and we employ a variety of strategies to meet it.

We start by having experts in environmental science and land use on our team to assess the potential impacts of any work we are planning, whether it is expanding a switching station, constructing a new transmission line, or just trimming trees along distribution lines. This equips us to plan and execute our work safely, while limiting potential environmental impacts.



Over 130 threatened or endangered species have habitats on and around the nearly 1,000 miles of transmission rights-of-way that PSE&G owns and maintains in New Jersey.

It's the work our teams do every day that makes a large collective difference – whether it's banding bald eagle chicks in our tower nests; seeding our ROWs to improve pollinator habitat; developing vegetation maintenance prescriptions to avoid impacts to nesting golden-winged warblers and other rare species; using helicopters for crew transport and tower installation, limiting trucks, cranes and other equipment from traveling through environmentally sensitive areas; having certified wildlife monitor onsite to protect wildlife from harm during work activities; and having detailed restoration plans to return the work areas in a better ecological condition than when we started – It all adds up.

PSE&G's longstanding partnerships with various groups such as the New Jersey Division of Fish and Wildlife, Conserve Wildlife Foundation, The Nature Conservancy and New Jersey Audubon, to name a few, have allowed us to play a greater role in enhancing New Jersey's wildlife habitats. These partnerships highlight PSE&G's commitment to environmental stewardship, sustainability and awareness. Our in-house experts work closely with environmental agencies and

advocacy organizations that share our interest in preserving and protecting the state's environment.

PSE&G is committed to maintaining our infrastructure in an environmentally responsible manner to provide safe, reliable electric service for our customers. Because, while we know our customers want safe and reliable electricity, we also know they want a healthy environment. At PSE&G, we're working hard to make sure we can have both.

#### **NEW JERSEY CORPORATE WETLANDS RESTORATION PARTNERSHIP**

PSEG formed and chairs the New Jersey Corporate Wetlands Restoration Partnership (NJCWRP) an innovative public-private initiative aimed at restoring, preserving, enhancing and protecting aquatic/coastal habitats throughout New Jersey. Bringing together corporations, federal and state agencies, non-governmental organizations and academia, the NJCWRP allows participants to contribute in a fundamental way to crucial projects involving the state's coastal and inland wetlands and aquatic habitats.

The NJCWRP is unique not only in its collaborative approach to solving the problems facing New Jersey's valuable water resources, but also in its ability to apply federal dollars to projects that improve the health of our coastlines, rivers, and waterways. Because company dollars are combined with governmental and other funds, the value of NJCWRP contributions is increased many fold. A company's ability to leverage funds is one of the many reasons the NJCWRP stands out in its conservation efforts.

The corporate and NGO partners have contributed time, materials and money to facilitate selected projects. Since its inception in 2003, NJCWRP has received more than \$700,000 in contributions and pledges of in-kind services from its partners. This has resulted in projects totaling more than \$8.5 million which have aided in the preservation of more than 520 acres and 17 stream miles.

In 2016 the NJCWRP was honored to be recognized by the New Jersey Department of Environmental Protection with the Governor's Environmental Excellence Award in the category of Healthy Ecosystems.



**NJCWRP  
HAS RESTORED  
MORE THAN  
520  
ACRES AND  
17 MILES OF  
STREAMS**



## ENVIRONMENTAL IMPACT ASSESSMENT

The cornerstone of our approach to maintaining biodiversity is an environmental impact assessment process for our projects. The process includes three steps: project planning, permitting and compliance. We subject our new facilities and transmission development projects to an impact assessment, which includes an evaluation of biodiversity impacts, using inventory maps created by the New Jersey Geographic Information System. In addition, we file our Environmental Impact Statements and Environmental Assessments with the appropriate regulatory agencies such as the New Jersey Department of Environmental Protection, the Board of Public Utilities and the National Park Service. Our EIS and EA reports are publicly available through those agencies and we post updates to project websites for many of our larger projects.

As a result, while we advance the development of projects to maintain and improve the reliability of our energy systems, we have worked closely with regulators and environmental stakeholders to mitigate the environmental impacts of those projects. In addition, PSEG has sought out and partnered with others to identify practices that will lead to improved habitat diversity throughout the geographic area of our operations.

## GUIDELINES AND VERIFICATION

PSEG guidelines call for all of our power plants to ensure that they maintain the quality and quantity of water on both the intake and discharge sides of their operations. We use best available technology to safely remove and return fish to rivers during water intake at our facilities. We also monitor pH and temperature of the water returned to rivers and we are in compliance with state environmental quality permits. We treat all effluents on-site before discharge and both our measured and reported water data are externally verified in several ways by federal and state regulatory agencies.

## ESTUARY ENHANCEMENT PROGRAM

Under our Estuary Enhancement Program, created in 1994 in cooperation with the New Jersey Department of Environmental Protection, PSEG has restored marshes and habitats once used to grow salt hay and other crops near the PSEG Nuclear campus along the Delaware River. Colonial-era farmers built dikes to make land more suitable for agriculture, but also destroyed breeding grounds for native fish, plants and wildlife.

In addition to restoring salt marshes, PSEG maintains fish migration ladders along more than a dozen Delaware River tributaries; monitors fish populations; and has upgraded

fish-protection technology in the Salem generation unit's cooling-water intakes.

At more than 21,000 acres, PSEG's Estuary Enhancement Program is the largest privately funded tidal marsh restoration project in U.S. history. The salt marshes support grasses and algae that provide food and shelter for spawning fish, and habitats for native birds and wildlife, including threatened and endangered species. Trails, boardwalks, observation platforms and boat launches provide public access throughout the project.



**A**t more than 21,000 acres, PSEG's Estuary Enhancement Program is the largest privately funded tidal marsh restoration project in U.S. history.



**Employee engagement is an important part of our journey to continuously improve as a company building a culture where everyone not only contributes, but also feels valued and appreciated, and has a range of opportunities for growth and development.**

## EMPOWERING THE DIVERSE AND HIGHLY SKILLED WORKFORCE OF THE FUTURE

### WINNING THE RACE FOR TALENT

PSEG is a company with strong ethical values and a deep commitment to its employees. We understand that our success ultimately depends on our ongoing ability to attract, develop and retain a highly skilled, diverse and engaged workforce. We advocate the continuous improvement of operations through a culture that recognizes the value of diversity and inclusion and where all employees are engaged and comfortable speaking up. Indeed, our people are the key to achieving operational excellence in providing safe, reliable, economic and greener energy.

Each year, we review our people strategy to ensure we have the initiatives in place to deliver on the enterprise strategic goals. PSEG promotes an environment where employees develop and utilize skills, feel comfortable sharing their ideas and concerns, and directly support the achievement of key business objectives. We continue to invest in our human capital to meet business challenges and are confident that these efforts contribute to a high-performance culture.

Employee engagement is an important part of our journey to continuously improve as a company. Our engagement initiatives focus on issues such as comfort in speaking up, building employee capabilities through our People Strong curriculum, and fostering diversity and inclusion to ensure we move forward effectively as one team. We want to build a culture where everyone not only contributes, but also feels valued and appreciated, and has a range of opportunities for growth and development.

We identify and manage numerous risks and opportunities through our people strategy. This is evidenced in our commitment of maintaining employee and public safety, good relations with our labor unions and a highly engaged workforce.

To maintain engagement, we keep our employees informed through a variety of communication forums. The PSEG intranet and myPSEG.com provide employees with a wide range of helpful information on their total rewards package including salary and benefits, retirement plans and services. We maintain an electronic catalog of policies, practices, procedures and operational excellence models so employees know exactly how to excel. Internally, public information is communicated through myPSEG.com, daily Outlook Online emails and PSEG Outlook, our employee newsmagazine. In addition,

our frontline supervisors and management teams routinely convey information of importance to our workforce.

### EMPLOYEE HEALTH AND SAFETY

A safe and healthy workforce is a high-performing workforce. We ensure employees and contractors have the proper knowledge, training and protective equipment to maintain their personal health and safety.

PSEG's business requires sophisticated energy production and distribution operations which involves commodities that are inherently hazardous. We control the risks associated with those hazards through the successful implementation of engineering controls, work processes and setting continuous improvement goals. All of this is done by our highly trained and skilled workforce.

### OUR APPROACH

PSEG's commitment to employee wellbeing and safety is our foremost priority and supported by our employees' exemplary efforts over many years. Our commitment to employee wellbeing and safety has fostered a culture that reflects strong and continuing employee involvement, teamwork and pride. At PSEG, we believe that safety excellence enables operational excellence.

WE AIM TO  
ACHIEVE  
TARGET



WHERE  
NO ONE  
GETS HURT



Our culture was built around strong values, policies and practices that encourage employee involvement, continuous learning, disciplined risk assessment, prioritization and control. To determine the strength of our processes and management systems we conduct self-assessments, third-party audits and benchmarking activities within and outside our industry.

The full PSEG Environment, Health and Safety Policy outlining our responsibility is available at: <https://corporate.pseg.com/aboutpseg/leadershipandgovernance/environmentalpolicy>

**MOVING TOWARD TARGET ZERO**

Building on our health and safety culture, we aim to achieve our vision of Target Zero – where no one gets hurt – through a strong commitment to continuous improvement and employee involvement. PSEG achieved an extraordinary milestone in 2016: the lowest rate of reportable injuries in our history. This accomplishment builds on two decades of improved safety performance.

Our journey toward a strong safety culture took a major step forward in 1997, when PSEG founded its network of employee health and safety councils. These grassroots councils established the cornerstones of our safety culture:

- Health and safety is always the first priority and must never be compromised.
- Everyone has the absolute right to question, stop and correct any unsafe action or condition.

Over two decades, our safety record has shown steady improvement, with reductions in both the number and severity of workplace accidents. This progress testifies to the safety culture that our management team, our labor partners and dedicated workforce have worked together to create.

We have added tools to help us on our safety journey. For example, our Safety Information Management System provides the data to support our ongoing efforts in understanding safety performance across the company. Our efforts expanded into areas such as contractor safety, elimination of distracted driving, and to introduce employee wellbeing as a necessary contributor to PSEG’s safety culture. Among other improvements, we have established a more detailed and focused investigation and analysis process to evaluate and track incidents and ensure that corrective actions are taken.

EMPLOYEE HEALTH AND SAFETY				
	2013	2014	2015	2016
<b>OSHA RECORDABLE CASE INCIDENCE RATE</b>	1.01	1.57	1.16	0.90
<b>EMPLOYEE FATALITIES</b>	0	0	0	0
<b>LOST-TIME CASE RATE</b>	0.28	0.56	0.52	0.36
<b>CONTRACTOR FATALITIES</b>	0	0	0	0
<b>DAYS AWAY, RESTRICTED, AND TRANSFER (DART) RATE</b>	0.63	1.09	0.81	0.67

## EMPLOYEE WELFARE

### TAKING CARE OF OUR EMPLOYEES

People select companies that share their values. We find that job candidates are drawn to us because of our reliability, reputation and core commitments including safety, integrity, diversity and inclusion, customer focus; along with our clean energy initiatives, environmental stewardship and community role. PSEG has provided opportunities for our employees to grow with us for more than 100 years, and we will continue to foster a workplace environment that contributes to this success.

Employees who are members of labor unions covered under collective bargaining agreements comprise nearly two-thirds of our workforce. Contract negotiations will be a priority for us in the next few years since individual contracts with our eight unions expire between 2019 and 2022. We are proud of our strong union-management relations and continue to negotiate timely and fiscally responsible agreements in support of the company's strategic objectives and business goals.

### TOTAL REWARDS

Taking great care of our customers starts with making sure we take great care of our employees. We continually strive to provide our employees with a market competitive

total rewards package supporting our strategic objective to attract, retain and develop a high-performing and diverse workforce.

We conduct market research and analysis and adjust our reward programs periodically to ensure we remain competitive with the external marketplace. Our comprehensive rewards package empowers employees to be their best. Highlights of our benefits include:

**EMPLOYEE ASSISTANCE PROGRAM:** Employees working through a personal problem that could affect their wellbeing can call the EAP hotline 24 hours a day for confidential counseling and referrals. Counselors provide assessment, short-term counseling referrals and treatment monitoring.

**BEACON LIFE SOLUTIONS:** This confidential service provides employees and their family with resources, referrals and counseling services to help them reach their personal and professional goals, manage daily stresses and develop fulfilling relationships. Beacon Life Solutions helps with an array of work and life challenges, including:

- Emotional distress
- Stress
- Workplace concerns
- Managing a chronic illness
- Short-term counseling
- Anxiety
- Depression

- Legal and financial concerns
- Elder and child care services

**BRIGHT HORIZONS CHILD CARE PROGRAM:** This service offers priority access for back-up, full-time and part-time child care to company employees. In addition, employees are provided with 20 visits per year, subject to a co-payment, at Bright Horizon's Child Care facilities nationwide for back-up child care.

More information on careers with PSEG and our benefits is available on the following websites:

**PSEG CAREERS:** <https://jobs.pseg.com/>

**PSEG BENEFITS:** <https://corporate.pseg.com/careers/benefits>



**W**e continually strive to provide our employees with a market competitive total rewards package.

## WELLNESS AND LIFESTYLE

Lifestyle and employee wellbeing are essential to a safe and high-performance culture. PSEG recognizes the importance of offering comprehensive benefits to our employees. We provide equivalency in spousal and partner benefits as well as transgender-inclusive benefits for medically necessary care. PSEG makes available additional services beyond traditional benefits to support and encourages employee wellbeing through physical, emotional, financial and social health. Our Be Well program focuses on employee risk factors that impact our employees' performance and drive health care costs. We offer a variety of programs to support employee wellbeing which include on-site fitness centers, health screenings, customized weight loss programs, walking challenges and incentives.

A strong corporate wellness council, consisting of various union and management personnel, has played a significant role in promoting employee wellbeing and related programs. These resources are available to all full-time employees.

### TALENT MANAGEMENT

**DEVELOPING OUR EMPLOYEES:** A high-performance culture rewards personal growth and professional development.

We recognize the challenge of preparing our workforce for a transition with the retirement of baby boomers in the next decade. While PSEG provides strong development and training programs, like others in our industry, we have an aging workforce. More than 40 percent of our employees will be retirement-eligible over the next five years. This can be especially difficult to manage since finding employees with the skills necessary to replace these career veterans is not always easy, particularly in areas such as PSEG Nuclear, where it can take years of on- and off-the-job training and development to qualify for certain positions. We continue to strengthen our internal hiring, classroom training and recruitment process to develop a pipeline of employees that can meet anticipated attrition needs.

In the area of workforce planning, PSEG uses a holistic and structured approach based on best practices from the nuclear and energy industries and the Center for Energy Workforce Development. PSEG has been closely monitoring employee retirement eligibility, especially to address critical positions or areas of potential risk. During the past several years, PSEG has conducted workforce planning exercises across our businesses.

### ONBOARDING

Ensuring that our new employees are assimilated effectively is a key priority for PSEG, with our approach combining classroom with on the job initiatives.

PSEG invested in a progressive onboarding tool to actively engage pre-hires prior to their first day. This web-based solution provides pre-hires with an introduction to PSEG's policies and practices, as well as affords them with a way to upload data needed by the recruiter post offer acceptance.

PSEG has recently updated the new employee orientation and published a New Employee Toolkit available in soft and hard copy for employees. Orientation is a blended solution of a one-day orientation classroom program, a 30-minute e-learning program called PowerUp and on-the-job checklist of initiatives driven by the employee and their manager. The one-day new employee orientation classroom program provides an overview of PSEG's culture, our people policies and practices. The New Employee Toolkit is the new employee's take-away reference from the program. The PowerUp e-learning program is updated annually or as business needs change. New employee orientation and PowerUp are to be completed during the employee's first 45 to 90 days with the company.

To provide a *campus to corporate* experience for all new college hires, PSEG provides a six-month program called Accelerate to assist them in assimilating to the business. Attendees include new college recruits (including MBAs) and intern conversions. This program introduces these new employees to the entire PSEG business through tours and guest speakers, as well as, an increased understanding on how to partner with their manager and other leaders through an assessment called Accelerating Your Personal Growth. They also gain a deeper understanding of themselves as an employee in the workplace.

### CAREER DEVELOPMENT

PSEG provides comprehensive approaches and tools for employee career development. All non-union employees set development goals with their managers, participate in a performance appraisal process and have access to a variety of tools and resources to improve their skills and track their progress.

PSEG's People Strong curriculum is designed to address ongoing development needs identified in employee's individual development plans, the culture survey, talent development process and the needs of the organization.

PSEG is very proud of our People Strong professional development curriculum, which addresses the ongoing development needs of our employees to help us succeed together. The curriculum provides employees with the option to attend classroom or elearning programs. The curriculum also addresses the needs of individual contributors and people managers at all levels. Additionally, there are programs available on a nomination-only basis to accelerate the development of those employees seen as having the potential to take on higher and broader roles.

Two flagship programs in the People Strong curriculum are the leadership and supervisory academies. Participants in these programs are nominated by their leadership teams with the focus of developing high-potential leaders to expand succession plan bench strength.

- The PSEG Leadership Academy is a week-long immersive program for top-performing managers. It provides intensive training on leadership, decision-making and problem-solving by engaging executives and their peers across the company.
- The PSEG Supervisory Academy provides frontline leaders with skills necessary to lead their own teams, drive continuous

improvement and manage up within their organization.

### MAPPING THE PATH TO EMPLOYEE SUCCESS – CONTINUING TO DEVELOP HIGH-POTENTIAL TALENT

In addition to the supervisor and leadership academies, PSEG provides a program focused on the leadership development needs of women. This program, GROW, Growing and Reaching for Opportunities for PSEG Women, is a nine-month program focused on accelerating leadership-development skills, increasing self-awareness and broadening business knowledge across the enterprise. The participants are nominated by their leadership teams with an emphasis on providing an opportunity for the participants to expand their network with leaders across the business. This program also has a major team mentoring component which includes higher-level diverse leaders focused on not only teaching the participants the business, but also sharing leadership behavior perspectives. Our graduates and their mentors are monitored to measure movement within the organization.

Charting Your Course also is an important program focused on developing more junior level talent. The program is focused on help-



**PSEG SCORED  
100  
OUT OF 100 ON  
THE 2018  
CORPORATE  
EQUALITY INDEX**

ing the participants contemplate their next career move – primarily as a subject matter expert individual contributor or through a move into supervision. This program is focusing on developing employees with an opportunity to leverage managers and directors as mentors through the six-month program. This program also has a team mentoring component focused on expanding business knowledge while sharing what the transition needs are for a people manager. PSEG also monitors and measures movement of the program participants in the organization.

## TRAINING

Our Training & Development Centers in New Jersey and Long Island provide state-of-the-art facilities for technical training of our craft employees and for the training of new hires, as well as the ongoing development for PSEG's highly skilled workforce.

## WORKFORCE

Attracting a qualified, diverse and high-performing workforce is a key step in our diversity strategy. We partner with a variety of local, regional and national organizations to position PSEG as an employer of choice and attract top talent.

We are especially proud of our relationships with the military, supporting our efforts to attract and recruit members of our armed forces returning from tours of duty. We design specific outreach, hiring and policies to meet the needs of members of the military and their families. One policy allows some members of the reserve forces, who are activated for a tour of duty, to return to their jobs at PSEG afterward. For four years in a row, we were named a Military Friendly Employer by GI Jobs Magazine. We are extremely proud of our diversity efforts and have received external recognition, including ranking No. 19 in the nation on the Top 100 Military-Friendly Employers for 2016.

We received Readers' Choice recognition from Equal Opportunity Magazine as Top 50 Employers for three years running. Our programs are consistent with industry best practices for top-performing companies according to Diversity Inc. We have also been recognized by organizations dedicated to certifying and promoting Minority and Women Business Enterprises. We have won the NY and NJ Minority Supplier Development Council's Corporation of the Year Award three times and the Coordinator of the Year Award three times.

PSEG has long been a partner and supporter of organizations that support diversity. From sharing our employment opportunities with local organizations such as the United Way and Goodwill Industries, to our direct partnership with the GI Go Fund, PSEG always seeks to recruit a diverse talent pool, including individuals with disabilities, people of color, LGBTQ, veterans, and women for its broad range of job types and openings.

PSEG participated in the most recently completed course of the WISE (Women in Sustainable Employment) Program and are continuing our commitment in 2018 by participating in the next WISE class. PSEG scored a 100 out of 100 on the 2018 Human Rights Campaign Foundation's Corporate Equality Index and the designation of being a "Best Place to Work for LGBTQ Equality." Additionally, for the LGBTQ population, PSEG will, in conjunction with our LGBTQ Employee Business Resource Group group (GALA), partner with Rutgers University to bring awareness of PSEG's commitment to diversity in the workplace to the LGBTQ community to the students of Rutgers.

For women, in the university space, PSEG has strong partnerships with both Society of Women Engineers and the Rutgers Douglass Project, which is a living/learning community for females pursuing degrees in STEM.

In 2017, PSEG began working with the city of Newark in partnership with the mayor's office on the Newark 2020 Hire Buy Live initiative, bringing PSEG employment opportunities to resident of the city of Newark by the end of the year 2020.

PSEG is especially proud of our partnership with the All-Star Project for Development School for Youth, which provides opportunities to the underserved youth of Newark. PSEG is committed to expanding the program across the enterprise. Many of the students from the summer 2017 have gone on to apply and be considered for the PSEG internship program for summer 2018.

We continue to maintain our longstanding partnerships with National Society of Black Engineers and Society of Hispanic Professional Engineers in both the university and professional chapters.

#### ADDITIONAL ACHIEVEMENTS

- PSEG was named to the America's Best Employers List by Forbes magazine for 2017.
- PSEG was named a 2017-18 STEM JobsSM Approved Employer by STEM Jobs, the leader in connecting young professionals with education and career opportunities, and creator of STEM JobsSM media and resources for students interested in science, technology, engineering and math.

- PSEG's human resources development programs, People Strong Development Curriculum and Leadership Academy, have been awarded a Leadership Excellence Award by HR.com.
- PSEG was named to the 2017 Fortune List of Most Admired Companies, ranking No. 8 among electric and gas companies in the United States.
- PSEG was recognized for its board diver-

sity by 2020 Women on Boards, a national campaign to increase the percentage of women on U.S. company boards to 20 percent or greater by 2020. Twenty percent of the independent members on PSEG's Board of Directors are women

- G.I. Jobs and Military Spouse magazine – Gold ranking for Military Friendly Company
- 2017 Association for Talent Development – Best Award for GROW



**P**SEG is especially proud of our partnership with the All-Star Project for Development School for Youth, which provides opportunities to the underserved youth of Newark.

## EMPLOYEE ENGAGEMENT

We know we will have to continue to engage employees to win the race for talent. We implemented several employee engagement programs in keeping with this priority, and will continue to seek ways to create opportunities for employees to speak up with their ideas and concerns all with the focus of creating a People Strong culture.

### EMPLOYEE CULTURE AND ETHICS STRATEGY

In a challenging business environment, PSEG's success depends on employee engagement, as well as sustaining a collaborative work environment both inside and outside of the company.

Creating a People Strong culture of talented, diverse and engaged employees is a priority in our business.

Four cross-functional teams were launched late 2016 and worked into early 2017 to identify actions the business should take to increase engagement while focusing on issues employees were asking to be addressed. These teams concentrated on leadership visibility; teamwork and inclusion; compliance; and the implementation of IT tools to accomplish goals. As an outcome of the work of these teams, all directors and officers were given a 2017 People Strong goal to mentor employees; hold their own

meeting or be a guest at another meeting focused on engaging employees in conversations; share important business information in town hall meetings; participate in a diversity and inclusion experience; and volunteer or provide a means for employees to volunteer time or resources in our community. To support mentoring, PSEG launched mentoring circles to provide employees an opportunity to receive mentoring from a variety of senior-level individuals from across the organization. Additionally, achievements were made providing additional IT tools and improvements to the current infrastructure.

PSEG will continue efforts started in 2017 to strengthen our open reporting/speak up culture. During the upcoming year, communications will target different segments of the employee population with messages reinforcing the importance of driving an open reporting culture regardless of the employee's role.

Engagement isn't always measured through a survey. It is the actions a business, their leaders and employees take together to discuss and address issues that builds an engaged culture. At PSEG, we call this People Strong.



**A**ttracting a qualified, diverse and high-performing workforce is a key step in our diversity strategy.

## STRENGTHENING OUR COMPANY WITH DIVERSE EXPERIENCE

**A DIVERSE COMPANY IS A STRONG COMPANY.** We believe in a culture that values and promotes equal opportunity. Our diversity strategy focuses on our workplace, workforce and marketplace.

### WORKPLACE

A workplace that respects team members is the first step in our diversity strategy. We strive to build a culture that is inclusive through awareness, team member support and decision making, and engagement of underrepresented employees. The following workplace programs help us meet our diversity goals:

**MANAGER TRAINING:** Creating an atmosphere of candor and respect for high-performing teams begins with managers.

We provide managers with coaching and resources to set standards for respect, train their employees on diversity, and communicate with employees over their concerns.

**CAREER SUPPORT:** We post jobs internally and encourage internal referrals and applicants. We offer support for internal applicants with resume-writing and interview skill-building.

**EMPLOYEE BUSINESS RESOURCE GROUPS:** Employee Business Resource Groups allow employees to share their

## CURRENT EMPLOYEE BUSINESS RESOURCE GROUPS

### PSEG

- AABE (American Association of Blacks in Energy)
- Adelante
- ASPIRE (Asians & Pacific Islanders Reaching for Excellence)
- Enabling Ability
- FEAT (Functional Environmental Achievement Team)
- GaLA (Gay and Lesbian Alliances at PSEG)
- PSEG VETS
- RISE UP
- TYPP (The Young Professional of PSEG)
- Women's Network

### PSEG LONG ISLAND

- ASPIRE (Asians & Pacific Islanders Reaching for Excellence)
- Enabling Disabilities
- GREEN
- Health and Wellness
- HELP
- HOLA (Hispanic Organization for Leadership and Achievement)
- Miquank
- The Alliance
- TYPP (The Young Professional of PSEG)
- VERG (Vets ERG)
- We Care
- Women's ERG

### PSEG POWER-NUCLEAR

- Black Professional Network
- North American Young Generation in Nuclear
- PSEG Nuclear Vets
- Women In Nuclear of PSEG

diverse interests, talents and learning often to advance career goals. They also support our workforce and marketplace goals by helping us build relationships with other organizations in the marketplace to source talent and suppliers.

**2015-2016 TRUE DIVERSITY SERIES**

The PSEG's Chief Diversity Officer and D&I team developed and sponsored the New Jersey Performing Arts Center's True Diversity film series. The films provided opportunities for the greater Newark community to have guided conversations, through film and discussion, about important community issues. Our participation was a reflection of our commitment to inclusive communities and inclusive places of work.

**PSEG'S HUMAN RIGHTS PRACTICE**

PSEG has a fundamental commitment to human rights. We are proud of our employees' dedication over more than 100 years to pro-

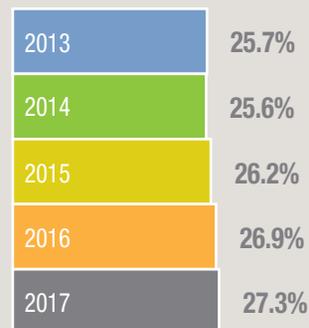
viding safe, reliable energy to our customers and making our communities better places to work and live. As a responsible corporate citizen and leader in the energy field, we remain steadfast in our commitment to treating people with dignity and respect at all times. We are determined to maintain the high standards of ethical conduct on which our business and reputation have been built.

In 2017, we started working on a new Human Rights Commitment as our formal statement of values and practices that have long defined our way of doing business. PSEG's Human Rights Commitment is inspired by international human rights principles expressed in the Universal Declaration of Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, the United Nations Global Compact and the United Nations Guiding Principles on Business and Human Rights.

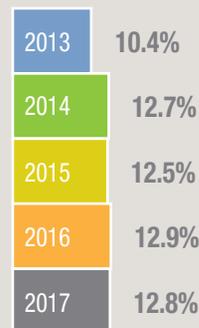
**PERCENT MINORITIES IN PSEG WORKFORCE**

**FEMALES**

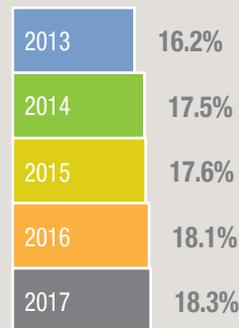
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Union

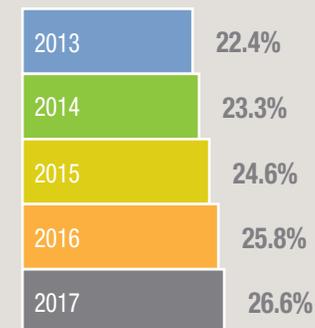


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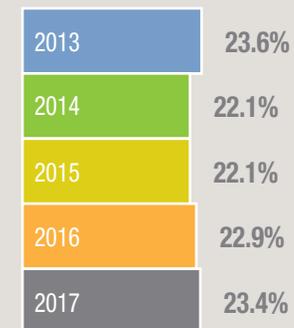


**PEOPLE OF COLOR**

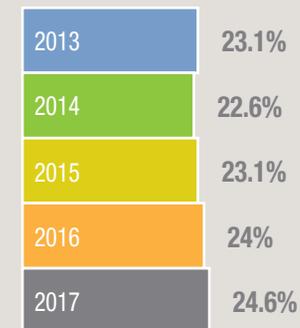
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Union



Total



## CORPORATE CITIZENSHIP EMPLOYEE ENGAGEMENT AND CULTURE

In 2014, PSEG's Corporate Social Responsibility work was redefined as Corporate Citizenship & Culture to recognize the extent to which our deep involvement in community affairs and philanthropy is interwoven with our people, reputation and culture. Sustainability drives our business and citizenship goals across the enterprise. Our core commitments, such as safety, integrity, and diversity and inclusion, guide and inspire our business efforts.

PSEG's story demonstrates that corporate citizenship – like citizenship itself – is all about involvement. We are not a company of bystanders, but of people who care, and our employees contribute in many ways to make life better for those we serve. They take pride in the words Public Service in our company's name, and we encourage their participation in the life of our communities. Our volunteer time-release practice opens up more opportunities for employees to connect with their communities on behalf of the company. Our community role has taken on an added dimension through the activities of the PSEG Diversity & Inclusion Council as well as our Employee Business Resource Groups. And we are working to leverage the impact of the PSEG Foundation

by focusing on three key areas – sustainable neighborhoods, STEM education and safety and disaster preparedness – with signature programs in each portfolio.

**DIVERSITY & INCLUSION.** PSEG needs all employees to be able to perform at their highest capability, feel trusted and have the opportunity to be heard in the workplace. In order to achieve our operational excellence, reliability, profitability and customer service objectives, we must develop our workforce to reflect and respect

our marketplace and our communities. We must develop an inclusive culture that empowers all of our people to contribute to our success.

The corporate-wide Diversity & Inclusion Council now stands at 95 employee members. Following the signing of an enterprise-wide Diversity & Inclusion Commitment Letter, council and corporate leadership created a strategic goal, People Strong, to define measurable outcomes of the council's work. The goal focuses on employee retention,



**E**mployees can receive matching gifts to charitable and civic organizations up to \$2,500, and PSEG matched \$713,537 in 2015 and \$719,191 in 2016.

employee engagement, and diversity spend with suppliers and corporate and foundation giving. Two local Diversity & Inclusion councils have been formed with local executive leadership and representation at major locations outside corporate headquarters.

**EMPLOYEE VOLUNTEERISM.** Employees engaged in their community strengthen our relationship with customers and community leaders. We support employee volunteering, volunteer grants, and employee matching programs in the community. Employees continue to embrace the volunteer time-release practice adopted in 2014 that allows up to eight paid hours of volunteer time for our employees to use for company-approved activities. In 2015 and 2016, there were 39 company-sponsored volunteer events, such as the Special Olympics Torch Run, with more than 500 employee participants. Our time-release practice garnered more than 4,400 hours and was utilized by more than 60 employees, most notably for the KaBOOM! builds in Camden and Ridgewood, respectively in 2015 and 2016. Including individual volunteering, a total of 21,547 volunteer hours were logged and/or performed by employees over the two-year period.

**POWER OF GIVING.** PSEG recognizes and rewards many of our most committed volunteers through three programs that

offer grants to non-profit organizations where our employees contribute time and talent. PSEG's matching gift program is open to employees, retirees and members of our Board of Directors. Employees can receive matching gifts to charitable and civic organizations up to \$2,500, and PSEG matched \$713,537 in 2015 and \$719,191 in 2016. Employees can also receive up to \$1,000 annually in volunteer grants for their organizations, including qualified 501(c) (3) organizations, youth sports groups, and veterans, fire and rescue organizations. In 2015 and 2016, the company provided volunteer grants totaling \$71,340 and \$80,410, respectively. Of special note are recipients of our Recognizing Excellence in Volunteerism awards, who collectively served 6,030 hours in 2015 and 11,326 hours in 2016 and garnered \$34,000 in volunteer awards for both years.

#### PSEG FOUNDATION

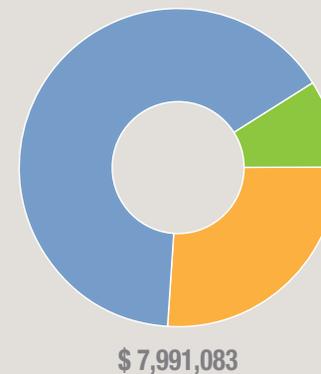
**INVESTING IN COMMUNITY, EDUCATION, AND SAFETY.** Our community investments totaled \$7,844,703 in 2015 and \$7,991,083 in 2016. The foundation strengthened its strategic community investments by establishing signature programs within each giving portfolio across our service and operating territories in New Jersey, Long Island, the Albany region of New York,

and Bridgeport and New Haven, Connecticut. The foundation invests in programs and organizations in three key areas: sustainable neighborhoods, STEM education, and safety and disaster preparedness. In 2015, we began tracking grants that align with our diversity and inclusion initiatives separately to align with our corporate-wide focus.

The Neighborhood Partners funding program is in its third year of supporting projects with demonstrated impact on improving the quality of life in local communities. These grants have a maximum award of \$5,000.

### TYPE OF PHILANTHROPIC ACTIVITIES

PSEG Foundation



YEAR END 2016

- Charitable donations **9%**
- Community Investments **65%**
- Commercial Initiatives **26%**

\$ 7,991,083

## SUSTAINABLE NEIGHBORHOODS

We invest in public parks that improve the quality of life for local residents and in the environmental organizations that protect and preserve natural resources, address climate adaptation and build sustainable communities. We support organizations that anchor their communities by providing a variety of programs and services for the whole family unit, including child care services that enable parents to work full time, mortgage and financial counseling, job placement and skills training, health care resources and information and housing stability.

PSEG has been part of Sustainable Jersey's development and success since its formation in 2011 and has provided more than \$1.2 million in funding for the small grants municipal and schools program. Sustainable Jersey's mission aligns with ours in its commitment to sustainability, especially by fostering a new generation of informed citizens and promoting a healthier environment in communities across New Jersey. The Sustainable Jersey movement impacts 234 municipalities with a total population of 5.5 million in PSE&G's service territory. Half of these cities and towns, encompassing 3.4 million people, have achieved Sustainable Jersey certification. The Small Grants Program funded by PSEG has touched the lives of more than 600,000 people living in these communities.

Sustainable Jersey has established a supportive framework for communities and schools working toward sustainability. PSEG's underwriting of the Small Grants Program has enhanced Sustainable Jersey's ability to support core program functions, manage the certification program and provide technical assistance to communities. The Small Grants Program helps participants implement sustainability initiatives that improve the quality of life for their residents and communities. Past recipients have proven that significant advances in sustain-

ability can be accomplished with modest funding. The proposed 2017-2018 Small Grants Program funded by PSEG would provide 32 grants to municipalities and 34 grants to public schools.

PSEG also supports the Trust for Public Lands NJ chapter's Parks for People program focused on provided additional outdoor space in urban areas, and in 2016, in partnership with KaBoom! and the city of Camden, New Jersey, we held our fifth KaBoom! build.



**P**SEG also supports the Trust for Public Lands NJ chapter's Parks for People program focused on provided additional outdoor space in urban areas.

## STEM EDUCATION

We support programs that engage, excite and inspire students in science, technology, engineering and math subjects. Now in its third year, the PSEG Science SPARK Partners is our signature program to support organizations that provide highly technical, hands-on STEM learning experiences for youth during out-of-school time. We also partner with key colleges and universities with strategic programs that build a pipeline of curious and prepared middle and high school students, ready to pursue a field of study in the STEM fields, particularly women and minority students. We provide scholarship funding and identify real-world work experiences that prepare students for their careers after college, through capstone projects, internships and mentoring programs.

The PSEG Institute of Sustainability Studies at Montclair State University provides program support for sustainable communities and businesses. PSEG funding is matched with other funding sources to provide internship opportunities to students from MSU and other New Jersey universities to serve on the Green Teams and complete sustainability focused projects. As a transdisciplinary field comprising STEM disciplines (e.g., math-

ematics, geology, geography, engineering, statistics, chemistry, biochemistry, biology, and computer science) and integrated across business and behavioral and social sciences, sustainability engages students to benefit corporations and communities alike.

As a compliment to the Sustainable Jersey for Schools funding, PSEG supports a diverse range of funding for environmentally based education programs. These programs provide further support to attain Sustainable Jersey certification, expanded subject matter including energy and endangered species topics and leadership opportunities for students. The National Wildlife Federation's Eco-Schools program managed by its New Jersey affiliate, New Jersey Audubon provides project pathways along with teacher training and staff support for schools that are partners in developing sustainable projects. Through Eco-Schools, PSEG also provides support for the New Jersey School Boards Association's Steam Tank program where teams of student design projects and compete for funding at the annual NJSBA conference. In an area linked to Biodiversity, the Conserve Wildlife Foundation's Species on the Edge and Wild Child programs offer opportunities for students to learn about and engage with the endangered species of New Jersey.

## SAFETY AND DISASTER PREPAREDNESS

In partnership with Sesame Workshop, the foundation launched "Let's Get Ready!" – a disaster planning app that parents and guardians can use to prepare their children for emergency situations. The app and associated educational materials have been disseminated at community events as well as through a range of outreach efforts, driven by PSEG's role as a first-responder and Sesame Street's safe and trusted brand.

We strengthened our partnership with police, fire and rescue, local officials, and other disaster response organizations to establish communication and response plans within the communities we serve before the next crisis occurs. We also educate customers, government and emergency responders about electric and gas safety issues.

Burn and trauma centers provide critical care when our employees and customers need it most. We support burn and trauma centers throughout PSEG's service and operating territories in New Jersey, Connecticut and New York.

## PSEG GOES TO SESAME STREET

The PSEG Foundation partnered with Sesame Workshop to develop Let's Get Ready: Planning Together for Emergencies, and Here For Each Other: Helping Families After Emergencies, free emergency preparedness and response initiatives in English and Spanish.

The initiatives are aimed at instituting emergency preparedness into families' routines through simple tips, strategies and activities, as well as preparing families with effective and comforting ways to respond when a disaster occurs. The app and associated materials can be used in the home and classroom.

Since its launch in October 2014, the Let's Get Ready! app has approximately 10,500 downloads. Let's Get Ready is available for free download in the iTunes and GooglePlay stores for iOS, Android and Kindle.

## CELEBRATING NEWARK'S DIVERSITY AND HISTORY

PSEG capped a year of events honoring the city of Newark's 350th anniversary with a gift to the city in support of the Newark 100 People Project, a special photography and video interview exhibit that celebrates the diversity of Newark. A proud corporate citizen of Newark for more than 100 years,

PSEG has a strong continuing commitment to the city of Newark and its residents.

PSEG Chairman Ralph Izzo formally presented Newark Mayor Ras Baraka with a gift to the city from the PSEG Foundation during an event at the newly remodeled Hahne & Co. building in downtown Newark.

<http://www.100people.org/wp/100-people-of-newark/>

## THE POWER OF GENEROSITY

PSEG has been a corporate supporter of the Leukemia & Lymphoma Society for over 15 years. In 2015, we strengthened our involvement as Corporate Champion of the Light the Night Walk in Verona. More than 200 employees, friends and families participated across five walk sites in both 2015 and 2016 in events that exemplified our employees' tradition of caring and reinforced the company's Be Well initiative. PSEG employees, friends, families and sponsorships raised more than \$180,000 for the Leukemia & Lymphoma Society.

## TEAM PSEG LONG ISLAND LEADS THE WAY IN MARCH FOR BABIES

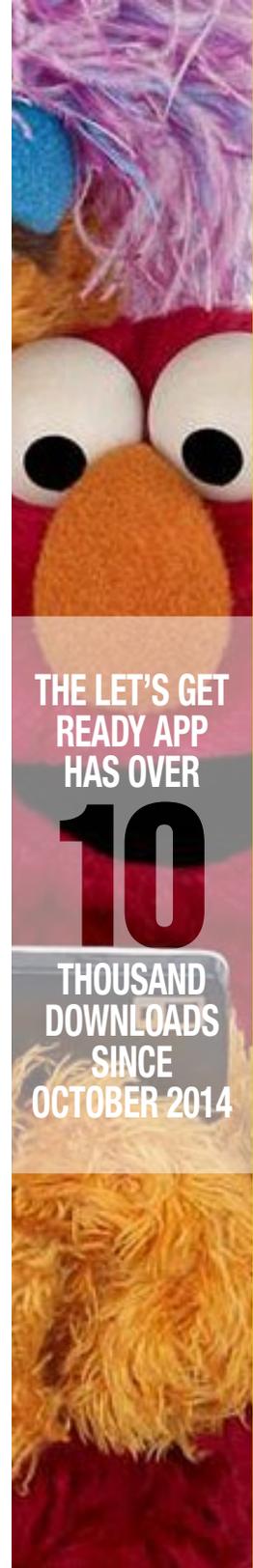
On April 30, 2017, nearly 1,000 PSEG Long Island employees, including many representing IBEW Local 1049, joined families and

friends to show their commitment toward helping PSEG Long Island's littlest customers. Walking the five-mile course along the Jones Beach boardwalk, they demonstrated together their continued support in the fight to improve the health of babies.

Dave Daly, PSEG Long Island's former President and COO and current PSE&G President and COO, served as corporate chairperson for the third consecutive year. In recognition of his overall leadership and support, the March of Dimes presented him with its Community Hero award. Daly also was presented with a citation from the Town of Hempstead recognizing his significant contributions to the community.

In addition to supporting the People Strong goal of supporting the community in which we live and work, the money raised will fuel continued research that will help more moms have healthy pregnancies, support families in neonatal intensive care units, and support efforts to fight premature birth and birth defects.

Learn more about PSEG's citizenship efforts at: <https://corporate.pseg.com/corporatecitizenship>



## LOOKING FORWARD

**CORE VALUES FOR OVER A HUNDRED YEARS.** The same core values that have defined PSEG since its inception continue to guide the company today.

While many things have changed since the day this company was founded, our commitments to our employees, shareholders, customers and the communities we serve have remained constant. Each one of these commitments will ensure that we thrive during our second century of **P**eople providing **S**afe, reliable, **E**conomic and **G**reener energy.

## SUPPORTING THE U.N. SUSTAINABLE DEVELOPMENT GOALS (SDGs)

**THERE ARE MANY CHALLENGES FACING HUMANITY.** In order to secure the future for the Earth and its inhabitants, the governments of 193 United Nations member states in September 2015 signed a joint development plan, which included a program with 17 Sustainable Development Goals.

Based on our analysis, we believe our core business, initiatives, social impact agenda and philanthropic efforts contribute to – and can benefit from – many areas of focus within the 17 SDGs. The graphic below summarizes the topics most relevant to our core business and provides links to sections where we discuss our approach and contributions:

Our core business most closely aligns with: **GOAL 7:** Ensure access to affordable, reliable, sustainable and modern energy for all.

**GOAL 8:** Decent work and economic growth

**GOAL 9:** Build resilient infrastructure, promote sustainable industrialization and foster innovation.

**GOAL 11:** Make cities inclusive, safe, resilient and sustainable.

**GOAL 13:** Take urgent action to combat climate change and its impacts.

Our activities also support other SDGs. Find examples within this report using the table below.

## SUSTAINABLE DEVELOPMENT GOALS



<p><b>4</b> QUALITY EDUCATION</p>	<p><b>7</b> AFFORDABLE AND CLEAN ENERGY</p>	<p><b>8</b> DECENT WORK AND ECONOMIC GROWTH</p>	<p><b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p><b>11</b> SUSTAINABLE CITIES AND COMMUNITIES</p>	<p><b>13</b> CLIMATE ACTION</p>	<p><b>15</b> LIFE ON LAND</p>
<p>Ensure inclusive and quality education for all and promote lifelong learning</p>	<p>Ensure access to affordable, reliable, sustainable and modern energy for all</p>	<p>Promote inclusive and sustainable economic growth, employment and decent work for all</p>	<p>Build resilient infrastructure, promote sustainable industrialization and foster innovation</p>	<p>Make cities inclusive, safe, resilient and sustainable</p>	<p>Take urgent action to combat climate change and its impacts</p>	<p>Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss</p>
<ul style="list-style-type: none"> <li>• PSEG Foundation</li> <li>• STEM education investments</li> <li>• MSU Institute for Sustainability Studies</li> <li>• Educational matching gift</li> </ul>	<ul style="list-style-type: none"> <li>• EE programs</li> <li>• Solar 4 All</li> <li>• Solar Loan Program</li> <li>• Solar Source Program</li> </ul>	<ul style="list-style-type: none"> <li>• Target zero</li> <li>• Spending forecast infrastructure</li> <li>• Job creation</li> <li>• Benefits and job security</li> </ul>	<ul style="list-style-type: none"> <li>• Energy Strong</li> <li>• Fleet optimization</li> <li>• EV programs</li> </ul>	<ul style="list-style-type: none"> <li>• PSEG Foundation</li> <li>• Sustainable Jersey</li> <li>• Sustainable neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>• New GHG goal and climate strategy</li> <li>• Keys energy center</li> <li>• Sewaren 7</li> <li>• Solar Loan</li> <li>• Solar 4 All</li> <li>• SF<sub>6</sub> emissions reduction</li> </ul>	<ul style="list-style-type: none"> <li>• Ecosystem impact mitigation</li> <li>• Fleet optimization</li> <li>• EV programs</li> </ul>

## FORWARD-LOOKING STATEMENTS

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.

**From time to time, PSEG, PSE&G and PSEG Power release important information via postings on their corporate website at <http://investor.pseg.com>. Investors and other interested parties are encouraged to visit the corporate website to review new postings. The “Email Alerts” link at <http://investor.pseg.com> may be used to enroll to receive automatic email alerts and/or Really Simple Syndication (RSS) feeds regarding new postings.**

Please [click here](#) to read our complete Forward Looking Statement.

