# PJM Pre-Qualification Application for Public Service Enterprise Group and Its Subsidiaries/Affiliates

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## Designated Entity Pre-Qualification Application By Public Service Enterprise Group and Its Subsidiaries/Affiliates

## 1. Name, Address, and Points of Contact

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## 2. Technical and Engineering Qualifications

Public Service Enterprise Group Incorporated (PSEG) is the holding company parent of Public Service Electric & Gas Company (PSE&G). PSEG is seeking qualification as a Designated Entity in PJM Interconnection, L.C.C. (PJM) for itself and any subsidiary or affiliate that PSEG may create to pursue competitive transmission development opportunities in PJM. This Designated Entity application by PSEG and its subsidiaries/affiliates should be viewed as separate from that of PSE&G, a wholly owned subsidiary of PSEG that owns and operates transmission and distribution assets in New Jersey and which already has obtained approval as a Designated Entity in PJM.

PSEG or any subsidiary or affiliate that PSEG may create to pursue competitive transmission projects in PJM will leverage the experience of PSE&G, PSEG's wholly-owned subsidiary. PSE&G provides electric and gas service to customers in New Jersey in an area consisting of 2,600-square-miles. PSE&G serves 2.3 million electric customers and 1.9 million gas customers in more than 300 urban, suburban, and rural communities, including New Jersey's six largest cities. In addition, PSE&G owns and maintains 834 miles of transmission right-of-way with 1,560.5 miles of transmission lines over 100kV and 484 miles of 500kV transmission lines. As an infrastructure company, PSE&G has an outstanding record of consistently delivering challenging projects within schedule and on budget.

PSEG has a team of experienced professionals to support the entire project life cycle of a transmission project. This team includes individuals focused on environmental assessment and permitting, project engineering, project management, project controls, procurement, construction, public affairs and community outreach, commissioning, operations and maintenance, and regulatory compliance.

PSE&G's Engineering team has experience designing transmission line projects in voltages ranging from 69kV to 765kV. PSE&G's team typically utilizes software tools like PLS-CADD, PLS-Pole, PLS-Tower, EPRI TL Workstation, STAAD, LPILE, FAD Tools, and others to complete its work.

# 3. Demonstrated Experience of the Entity or its Affiliate, Partner, or Parent Company to Develop, Construct, Maintain, and Operate Transmission Facilities.

As noted, PSEG and its subsidiaries/affiliates created to pursue competitive transmission projects in PJM will leverage the experience and expertise of PSEG's wholly-owned subsidiary, PSE&G, in pursuit of competitive transmission projects in PJM. As an infrastructure company located in one of the most congested areas of the United States, PSE&G has a record of consistently delivering challenging transmission projects within schedule and on budget. PSE&G's experience with overhead, underground, and station work in New Jersey makes it well-suited to construct transmission solutions in other environmentally challenging and densely populated portions of the PJM footprint. Some examples of the non-traditional construction methods PSE&G has recently deployed include:

- The utilization of alternative construction techniques (helicopter, wetland matting, etc.) to minimize the environmental impact of projects and to optimize construction sequencing.
- The siting, permitting, and construction of numerous projects, including GIS stations, in concentrated, urban areas across northern and central New Jersey.
- The utilization of horizontal directional drilling under the Newark Bay to accommodate two underground circuits in the Bergen Linden Corridor Upgrade Project.
- The successful creation of a temporary routing of the Appalachian Trail to minimize the length of the trail through the right-of-way of the Susquehanna Roseland project; the initiative minimized the negative visual impacts of the project and ensured that hikers were separate from the habitats of key endangered species in the area.

Below is a list of representative transmission projects that PSE&G has constructed or is constructing, owns, or operates and maintains.

Project	Circuit Miles	Voltage (kV)	Cost	Scope	In-Service Dates
Metuchen-Trenton- Burlington 230kV Conversion Project	54	230	Up to \$739M	Upgrade overhead transmission lines to 230kV; 12 station upgrades	2022 Target Completion
Bergen-Linden Corridor Upgrade Project	30	345	\$1.2B	1 new station; 9 station upgrades, new overhead and underground lines	2019
Sewaren-Metuchen 230kV Conversion Project	14	230	\$125M	Convert existing lines to 230kV; 4 station upgrades	August 2016
Northeast Grid Reliability Project	69	138/230	\$975M	11 stations, upgrade overhead transmission line (50 miles) and underground transmission lines (19 miles)	July 2016
Mickleton- Gloucester-Camden	16	230	\$435M	Two new 230kV overhead lines; three new 230kV underground lines, upgrade 5 stations	2015
Susquehanna- Roseland	45	500	\$790M (PSE&G portion)	New 500kV overhead lines, construct new 500kV GIS station and expand an existing station	2014 (PSE&G portion); Energized 2015
Burlington-Camden Network Reinforcement Project	37	230	\$399M	Reconfigure overhead transmission lines and upgrade	2014
Bayonne 3 <sup>rd</sup> Source	5.5	230	\$123M	New underground transmission line from Bayonne to Marion stations	2013

# 4. Previous Record of the Entity or Its Affiliate, Partner, or Parent Company to Adhere to Standardized Construction, Maintenance, and Operating Practices

PSEG and its subsidiaries/affiliates that may be created to pursue competitive transmission projects in PJM will leverage the experience of its wholly-owned subsidiary, PSE&G, in managing projects effectively and delivering consistent, high quality services. PSE&G's extensive experience building transmission projects has led to a set of standardized practices and procedures to guide the execution of our work. PSE&G's standards can stand alone or be integrated with other Transmission Owner Interconnection Requirements as needed.

### **Project Management Procedures**

PSE&G has various project management procedures that address topics ranging from scope management to contractor safety. All of PSE&G's procedures closely model the Project Management Body of Knowledge, published by the Project Management Institute. Additionally, PSE&G has 22 reference manuals (playbooks), for critical project functions.

#### Licensing, Permitting, and Community Outreach

PSE&G has an Environmental Licensing and Permitting organization which oversees all county, state, and Federal siting and permitting activities. PSE&G's Environmental Licensing and Permitting organization also manages any environmental compliance and remediation issues we may encounter throughout the course of a project.

Additionally, because of the impacts that PSE&G's transmission projects may have on residents with its service territory, PSE&G maintains a communication and outreach team to interface with local

communities, siting boards, residents, and other key stakeholders in the communities affected by its operations.

#### Engineering, Construction, and Maintenance Practices

PSE&G's Asset Management and Engineering groups prepare and maintain transmission project standards and practices for the design, construction, operation, and maintenance of transmission facilities. Below is a high level summary of PSE&G's standard manuals for construction, maintenance, and operating practices:

Transmission Line

- Overhead Transmission Construction Manual
- Underground Transmission Construction Manual
- Transmission Live Line Maintenance Manual

#### Substation/Switching Station

- Engineering Design Guide
- Civil / Structural / Environmental Design and Construction Standards
- Construction Standards Inside Plant Manual
- Controls Design Standards
- Relay Test Manual
- Substation Maintenance Manual
- Substation Operating Manual

In addition, PSE&G has the ability to prepare project specific standard specifications that meet or exceed industry guidelines for construction materials and transmission facility material and equipment. Examples of these stand-alone specifications include those for:

- Tubular steel transmission pole structures
- Cable and conductor
- Station equipment and materials
- Concrete mix design

#### Health and Safety

PSEG has a demonstrated commitment to preserving the safety and well-being of its employees and the employees of its contractors. This commitment is evidenced by PSEG's corporate vision, which describes its desire to be a leader for providing safe, reliable, economic, and green energy.

PSEG is proud to foster a culture that makes the health, safety, and well-being of its employees and contractors a number one priority - more important than production, profits, and serving the customer. This culture provides every employee and contractor the absolute right and obligation to question, stop, and correct any unsafe act or condition. This culture of safety is based on PSEG's four key pillars:

- **Trust** We respect and trust each other's opinions and decisions and follow through on all health and safety concerns
- **Care** We approach each day with the determination to care for ourselves, co-workers, contractors, and the communities we serve
- Knowledge We have the knowledge and skills to be healthy and safe
- Communication We communicate in a clear, open, and honest manner

All of PSE&G's projects and operations are governed by PSEG's Safety Standards and Procedures Manual. In addition, PSE&G has a safety program that requires project-specific health and safety plans, job hazard analysis, and pre-job briefings.

5. Capabilities of the Entity or Its Affiliate, Partner, or Parent Company to Adhere to Standardized Construction, Maintenance, and Operating Practices PSE&G, a subsidiary of PSEG, adheres to standardized construction, maintenance, and operating

practices as described in Section 4.0. PSE&G complies with industry standards as well as PJM and NERC requirements. PSEG and its subsidiaries/affiliates created to pursue competitive transmission projects in PJM would follow similar standards if awarded a competitive transmission project in PJM.

6. Financial Statements of the Entity or its Affiliate, Partner, or Parent Company. PSEG's strategy is to maintain a focus on operational excellence, financial strength and disciplined investment. For more on PSEG's financial strength and recent fiscal quarter (Form 10Q), as well as the most recent three fiscal years (Form 10K), see the link for the Investor Relations page at: <u>http://investor.pseg.com/</u>

### 7. Consolidated Transmission Owners Agreement Commitment

PSE&G is a transmission owner member of PJM and is already a signatory to the Consolidated Transmission Owners Agreement. PSEG commits that it or any subsidiary or affiliate that becomes a Designated Entity will execute the PJM Consolidated Transmission Owners Agreement.

### 8. Facility Failure Remedy Experience

PSEG and any subsidiary or affiliate created to pursue competitive transmission projects in PJM would leverage PSE&G's best practices in responding to any facility failures encountered while owning any transmission assets. Such practices are described below.

PSE&G has operations personnel on duty 24 hours per day, 365 days per year for immediate response to emergency events. Maintenance and repair supervisors are also on call 24 hours per day, 365 days per year. If an incident should occur resulting in equipment damage or failure, the on call supervisor is notified immediately to evaluate the situation. Maintenance and repair staff is called in as necessary once the nature of the repair is determined. PSE&G has a comprehensive set of policies and procedures which cover emergency repair for substations and transmission lines. PSE&G maintains an inventory of critical spare equipment available for immediate replacement in the event of a catastrophic failure.

PSE&G has award-winning experience in emergency preparedness and in responding to storms and catastrophic outages. PSE&G closely monitors the track of all significant events likely to impact the project or territory and makes emergency preparations in advance to address the potential impacts. The purpose of such preparations is to ensure PSE&G is ready to respond to potentially widespread power outages.

#### Outside Industry Recognition for Emergency Response and Reliability

PSE&G, a subsidiary of PSEG, earned the Edison Electric Institute Award for outstanding restoration efforts after Superstorm Sandy in 2012 and Hurricane Irene in 2011. The awards highlighted both PSE&G's ability to restore power to its ratepayers, as well how PSE&G communicated with ratepayers before, during, and after these weather events.

PSE&G has also earned industry recognition for operational excellence in key operating areas. PSE&G was named Electric Light & Power's 2015 Utility of the Year for its high ranking performance in customer satisfaction, leadership in employing state-of-the-art technology, and capital investment programs designed to enhance reliability and improved system resiliency.

Additionally in 2019, PSE&G was awarded the ReliabilityOne award from PA Consulting for outstanding reliability performance in the Mid-Atlantic region for the 18<sup>th</sup> consecutive year.

## 9. Right-of-Way Acquisition Experience

PSE&G, a subsidiary of PSEG, has 834 miles of transmission right-of-way which is either owned-infee or has been acquired through easements. PSE&G has significant experience securing certificates of public necessity and acquiring the necessary rights-of-way to site transmission facilities.

PSE&G has in-house staff to manage the acquisition of property for transmission projects. PSE&G also hires the services of local vendors, including Member of Appraisal Institute (MAI) designated appraisers, who prepare market analysis and appraisals for properties that require acquisition rights.