STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

PSEG Power Connecticut LLC petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a new 485 megawatt (MW) dual fuel combined-cycle electric generating facility at the existing Bridgeport Harbor Station located at 1 Atlantic Street, Bridgeport, Connecticut

PETITION NO. 1218

June 10, 2016

Petitioner’s Proposed Findings of Fact

Introduction

1. PSEG Power Connecticut LLC (“PSEG” or the “Company”), in accordance with provisions of Connecticut General Statutes § 16-50k and Sections 16-50j-38 to 16-50j-40 of the Regulations of Connecticut State Agencies, submitted a petition (“Petition”) to the Connecticut Siting Council (the “Council”) on March 9, 2016 for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a 485 megawatt (MW) dual fuel combined-cycle electric generating facility (the “Project” or the “Facility”) at 1 Atlantic Street, Bridgeport, Connecticut (the “Site”). (Petition of The Company [PS 1], p. 1.)

2. The purpose of this Project is the development and operation of an independent power production facility in the wholesale electric power markets operated by ISO New England, Inc. (“ISO-NE”) at a site where an electric generating facility existed prior to July 1, 2004.

3. The parties in this proceeding are PSEG and the United Illuminating Company (“UI”). (Transcript 1, May 5, 2016, 3:00 p.m. [Tr. 1], p. 5.)
4. Pursuant to Conn. Agencies Regs. § 16-50j-40(a), PSEG provided the abutting property owners, and appropriate municipal and State officials and governmental agencies notice of its intent to file a petition with the Council via certified mail or hand delivery. (PS 1, p. 2, Exhibits L and M.)

5. The Council and its staff made an inspection of the proposed Project Site on May 5, 2016 beginning at 2:00 p.m. (Council’s Hearing Notice dated April 1, 2016.)

6. Pursuant to Conn. Agencies Regs. § 16-50j-21, PSEG erected a sign, measuring four feet by six feet, at the Atlantic Street entrance to the Project Site, which provided a brief description of the docket and notice of the Council’s May 5, 2016 hearing. The sign also indicated that a copy of the Petition and additional information are available on the Council’s website or by calling the Council. (Tr. 1, p. 20.) The sign was installed on April 13, 2016.

State Agency Comment

7. Pursuant to Conn. Gen. Stat. § 16-50j(g), on April 1, 2016, the Council solicited comments from the following Connecticut state agencies: Department of Energy and Environmental Protection (“DEEP”), Department of Public Health (“DPH”), Council on Environmental Quality (“CEQ”), Public Utility Regulatory Authority (“PUR”), Office of Policy and Management (“OPM”), Department of Economic and Community Development (“DECD”), Department of Agriculture, Department of Transportation (“DOT”), Connecticut Airport Authority (“CAA”), State Historic Preservation Office (“SHPO”), Department of Emergency Services and Public Protection (“DESPP”), the Department of Consumer Protection (“DCP”), the Department of Labor and the Department of Construction Services (“DCS”). (Council Memorandum dated April 1, 2016.)

8. The Council received responses from DOT’s Bureau of Engineering and Construction on April 19, 2016, the Drinking Water Section of the DPH on April 22, 2016, the
CAA on April 28, 2016 and DEEP on May 4, 2016. After reviewing the Project, DOT had no comments. (DOT Comments dated April 19, 2016. Record.) The Drinking Water Section of the DPH had no comments after reviewing the Petition. (DPH Comments dated April 19, 2016. Record.) The CAA submitted comments recommending that PSEG complete an Exhaust Plume Analysis and provide its results to the Council, and that the Company file a Federal Form 7460-1 “Notice of Proposed Construction or Alteration” for the Federal Aviation Administration’s determinations. (CAA Comments dated April 28, 2016. Record. Late Filed Exhibit LF-03.) DEEP submitted comments detailing the air (New Source Review (“NSR”)) permits PSEG has applied for, asking about the ultra-low sulfur distillate (“ULSD”) capacity on-site for periods of prolonged gas supply curtailment, asking for justification for the retaining walls proposed for the Facility site, and asking the Council for assurance that the Facility design is consistent with current Federal Emergency Management Agency flood standards and sea level forecasts. (DEEP Comments dated May 4, 2016. Record. Tr. 1 pp. 54, 57-8, 72.)

**Municipal and Stakeholder Consultation**

9. PSEG met with many State and local officials and other stakeholders, including many City of Bridgeport officials, members of the Citizens Advisory Committee, the Connecticut Coalition of Environmental and Economic Justice (“CCEJ”), the Connecticut Fund for the Environment, the University of Bridgeport, the Sierra Club, Environment Connecticut, Conservation Law Foundation and Healthy Connecticut Alliance in 2015 and 2016, in advance of filing PSEG’s Petition with the Council. (PS 1, p. 22-23.)

10. As part of its compliance with C.G.S. § 22a-20a, the Environmental Justice Act, PSEG submitted an Environmental Justice Public Participation Plan (the “EJ Plan”) to the CT DEEP, which was approved on August 15, 2014. PSEG also presented the City of Bridgeport with a Technical Report on November 14, 2015. (PS 1, p. 24-25, Exhibits H and I.)
11. PSEG conducted extensive community outreach, including mailing hundreds of letters, posting signs in English and Spanish at the entrance to the Site, advertising in the local newspaper and a Spanish language newspaper, media outreach, and outreach to Federal, State and City public officials, as well as community groups and leaders, and invited abutters to the Site to an informal public meeting held on October 27, 2014, all as part of its compliance with the EJ Plan. (PS 1, p. 25.)

12. PSEG, the City of Bridgeport, the University of Bridgeport, CCEJ, the South End Neighborhood Revitalization Zone Committee, the West Side/West End Neighborhood Revitalization Zone Implementation Committee, and Black Rock NRZ entered into a Community Environmental Benefit Agreement (“CEBA”) on February 25, 2016. (PS 1, pp. 23-24, Exhibit G.)

**Description of Proposed Project**

13. The proposed Site is at the location of an existing electric generating station that has been operating to supply electric power to the region since 1957. (PS 1, p. 1.) The Site consists of approximately 58.8 acres on Bridgeport Harbor just south of Bridgeport’s transportation center and ferry terminal. (S 1, p. 3-4.)

14. There are two active generating units at the Site, including Unit 3, which runs primarily on coal and uses fuel oil for startup, and Unit 4, a jet-fueled combustion turbine peaking unit. (PS 1, pp. 3-4.) The Facility will be built on the southerly portion of the Site in an area currently occupied by four fuel oil storage tanks, which will be removed. (PS 1, p. 4.)

15. PSEG plans to construct a replacement fuel oil storage tank to the north of the Facility after limited Site remediation in accordance with CT DEEP-approved plans. (PS 1, p. 4.) To allow for future oil deliveries by barge, PSEG also intends to rehabilitate the existing
fuel dock terminal facility at the Site, which was damaged during Superstorm Sandy on October 29, 2012. (PS 1, pp. 5-6.)

16. The Site is accessible for vehicles via Atlantic Street, subject to security controls and access approval. Routine traffic, including heavy trucks and commuters, enters through the gate at Atlantic Street unless other access gates on Keifer Street or Henry Street are open for operational reasons. (PS 1, p. 9.)

17. The Site is located directly at Bridgeport Harbor and the elevation of the Project Site will be raised to approximately 16.5 feet (North American Vertical Datum 1988 ("NAVD88")), above the 500-year Federal Emergency Management Agency ("FEMA") flood level, which is 15.3 feet NAVD88. (Tr. 1, p. 57.)

18. The Facility will consist of a 485 MW dual fuel combined-cycle power plant which includes a combustion turbine (similar to a very large jet engine), a heat recovery steam generator ("HRSG"), and a steam turbine to generate electricity. (PS 1, p. 3.) The combustion turbine will use natural gas or ULSD fuel oil to generate electricity. (PS 1, p. 3.) PSEG refers to the plant as having a capacity of 485 MWs, which reflects the Capacity Supply Obligation that PSEG has obtained from ISO-NE for 484.3 MW at 90°F. This amount is consistent with the Large Generator Interconnection Agreement that PSEG has signed with ISO-NE and UI, which grants the Facility capacity injection rights (Capacity Network Resource Capability) of 484.3 MW net for summer and 529.8 MW net for winter, and energy injection rights (Network Resource Capability) of 509.6 MW net for summer and 529.8 MW net for winter. (Interrogatory CSC-07.) The combustion turbine generator will produce electricity directly, and waste heat from the combustion turbine will be routed through the HRSG to create steam, powering the steam turbine and generating additional power. (PS 1, p. 3.) The Facility will primarily run on
natural gas, with provisions to use ULSD for up to an equivalent of 30 days per year as a back-up fuel, ensuring fuel diversity and dependability. (PS 1, p. 4.)

19. PSEG has selected a GE 7HA.02 gas turbine for the Project, which incorporates an air-cooled condenser to minimize the Facility’s operational water requirements, and eliminates the need to use harbor water for cooling, avoiding surface water requirements and impacts. (PS 1, p. 4.) Aquarion Water Company, the local water utility, will supply the Facility’s water requirements. Wastewater will be minimized through the use of technology and discharged to the Bridgeport Water Pollution Control Authority facility. (PS 1, p. 4, Exhibit B, Figure B-1; Tr. 1, pp. 80-1.)

20. In order to prevent individuals from gaining access to the facilities, PSEG will maintain the fencing currently around the Site. (Tr. 1, p. 21.)

21. The efficiency of the proposed plant is approximately 59%, which accounts for operation of both the gas and steam turbines. (Interrogatory CSC-06.)

22. The Project will connect to the existing Southern Connecticut Gas Company high-pressure natural gas lateral pipeline adjacent to the Site, which is capable of delivering natural gas for the Facility through a new high pressure natural gas service lateral off-take connection. (PS 1, p. 6.) PSEG will use on-site compression for its natural gas supply. (Interrogatory CSC-16.)

23. As part of the Project, PSEG will construct, own and operate a single radial 345-kV underground generator lead cable electrically interconnecting the Project with UI, installing two 345-kV generator step-up transformers and a 345-kV collector bus with gas-insulated substation equipment. (PS 1, p. 7.) The generator lead will run underground in the public right
of way to UI’s substation, eliminating the potential for additional overhead lines in the area.  
(PS 1, p. 7; Interrogatory CSC-17.)

24. PSEG, UI and ISO-NE entered into a Large Generator Interconnection Agreement on January 19, 2016 which specifies the Point of Interconnection, the Point of Change in Ownership and PSEG’s construction responsibility.  (Interrogatory CSC-17.)

**Environmental Considerations**

**Emissions**

25. During operation, air emissions of regulated air pollutants (e.g. particulate matter (“PM”), volatile organic compounds (“VOCs”), oxides of nitrogen (“NOx”)) will not exceed any State or Federal requirements, and impacts from these emissions will be in compliance with State and National Ambient Air Quality Standards (“NAAQS”) and allowable Prevention of Significant Deterioration (“PSD”) increments (PS 1, p. 10, Tr. 1, p. 49). Emissions will be minimized by air emission control technology and good engineering practices.  (PS 1, p. 7.)

26. The Project will be located within an industrial zone surrounded by other existing energy infrastructure, including the Emera Bridgeport Energy power plant and UI’s Singer substation, and will run primarily on natural gas as fuel.  (PS 1, pp. 7-8.)  The Facility will have state-of-the-art air quality emission control technology including dry-low NOX burners, water injection, selective catalytic reduction (“SCR”) and an oxidation catalyst system to substantially reduce air emissions.  (PS 1, p. 9.)  The Facility’s exhaust stack will be designed to reduce potential ground-level air quality impacts to comply with all applicable State requirements and the NAAQS.  (PS 1, p. 9.)

27. PSEG will further limit emissions with barge delivery of equipment and materials during construction, where practicable, to reduce truck travel through nearby residential
neighborhoods and barge delivery of ULSD upon completion of the fuel oil dock repairs. (PS 1, p. 9.)

28. PSEG has agreed to retire the existing Unit 3 coal-fired power plant by July 1, 2021 as part of the CEBA (contingent on receipt of all regulatory approvals for the Project), which will further reduce emissions from the Site. (PS 1, p. 8; TR. 1, pp. 70-1.)

Topography, Geology and Soils

29. The Facility will be built at an existing power generating station on approximately 16 acres of previously disturbed land within the Site. (PS 1, p. 5.) There will be local grading around the location for the Facility and small foundation excavations, but construction will not involve gross cuts. (Tr. 1, p. 23.)

30. The Company will raise the grade for the Facility to the FEMA 500-year flood elevation of 15.3 NAVD88 plus an additional 1.2 feet. (Tr. 1, pp. 23-24.)

Water Resources and Floodplains

31. The Facility will use an air cooled condenser to provide cooling for the steam turbine, completely eliminating the need for surface water withdrawals from Bridgeport Harbor, the discharge of any heated cooling water to Bridgeport Harbor and the emission of particulate matter associated with evaporative condenser cooling systems. (PS 1, p. 9.)

32. As noted supra at ¶ 17 and 30, the Project involves raising the grade for the Facility above the FEMA 500-year flood elevation of 15.3 NAVD88 by 1.2 feet. (Tr. 1, pp. 23-24.)

33. The Site is adjacent to Bridgeport Harbor on its northeast, east and south borders and is riprapped along the entire Site perimeter. (Tr. 1, p. 39.) An onsite wetland complex will be undisturbed by the Facility. The larger southernmost wetland area is a coastal wetland with tidal exchange. (Tr. 1, p. 39.)
Vegetation and Wildlife

34. Due to the nature of the Project Site, thirty-nine trees six inches in diameter or larger will be removed, which are within previously-developed portions of the Site. (Interrogatory CSC-18.)

35. A portion of the proposed Unit 5 development along the southern property boundary is located within the shaded area identified as State and Federal Listed Species & Significant Natural Communities. In its initial response, dated October 21, 2014, DEEP found it unlikely that construction activities and subsequent operations of the proposed Facility will negatively impact State-listed species. AKRF, Inc. (on behalf of PSEG) subsequently received a renewed response from DEEP on March 12, 2016, confirming it does not anticipate negative impacts to State-listed species. (Interrogatory CSC-21.)

36. The Company commissioned a Wetland Assessment Report from GEI Consultants, Inc., which noted vegetation, but not any significant wildlife activity, in the wetlands near the Site. (Tr. 1, pp. 41-2; Late Filed Exhibit LF-03.)

Land Use and Recreation

37. The Project sits within close proximity to other industrial uses, and will not affect any currently permitted recreational uses within Seaside Park or of adjacent property. The Company did not receive any feedback from community groups or other members of the public related to impacts on Seaside Park, which is the nearest recreational area. (Tr. 1, p. 44.)

38. Any magnetic field exposures related to the Project will be well below those permitted under allowable standards, which standards are well below levels which could trigger a biological response. (Tr. 1, pp. 37-8.)
Cultural & Historical Resources

39. There are no known archaeological sites on or near the proposed Project. (PS 1, p. 21.) The State Historic Preservation Office found on February 5, 2015 that no historical or cultural resources would be affected by the Project. (PS 1, p. 21, Exhibit A, Appendix A.) This determination was re-confirmed with the State Historic Preservation Office on March 21, 2016.

40. All construction activities associated with the proposed Project will take place in areas previously developed for industrial use, where soils have already been extensively disturbed. As a result, the potential for encountering intact, previously unrecorded, significant archaeological resources is negligible, and PSEG anticipates no adverse effects on cultural resources to occur. (PS 1, p. 21.)

Noise

41. The construction of the Project will cause temporary increases in sound levels on and in the vicinity of the Project Site as a result of activities such as the operation of construction equipment and vehicles. (PS 1, p. 11.)

42. Existing ambient background noise levels in the direct vicinity of the Site are typical for industrial areas with significant industrial activity including a large amount of heavy truck activity throughout the day and substantial background traffic noise from I-95. Within the nearby residential neighborhoods, ambient background noise levels are typical of city areas. Noise sources identified in the area include industrial activity, vehicle traffic along I-95 and local roadways, rail traffic along the adjacent Amtrak Northeast Corridor / Metro North rail line, and Bridgeport-Port Jefferson Ferry operations at the waterfront, among other marine activities. (PS 1, p. 22.)

43. After the Facility becomes operational, any additional noise will be minimal, since much of the equipment that emits significant noise will be enclosed and because of existing
industrial uses between the planned Facility and the Site boundaries. (Tr. 1, p. 20.) PSEG conducted a noise evaluation, which considered the compressor and found that since it will be inside a building, it will not increase noise from the Site. (Tr. 1, p. 25.)

44. Further, the sound levels associated with the Facility, both during construction and after it becomes operational, will not exceed the limits for adjacent noise classes identified in the City of Bridgeport noise ordinance and the State noise regulations. (PS 1, p. 22; Tr. 1, p. 20.)

Spill Prevention and Safety

45. Flammable natural gas will not be used to clear the natural gas lines and procedures for clearing the natural gas lines will be in compliance with the findings and recommendations in the executive report issued by the Thomas Commission and Siting Council in Docket NT-2010. (Tr. 1, p. 33.)

46. All of the tanks that will have petroleum or hazardous materials will have containment. The standard practice is for the containments to be designed to 110 percent of the volume of the largest container plus six inches of rain. (Tr. 1, p. 26.)

Visibility

47. The proposed stack height at the Facility will be no taller than approximately 300 feet above the Site design grade, significantly lower than the existing 498-foot stack height of BHS Unit 3. (PS 1, p. 16.) Primary Facility structures, including the proposed turbine building, HRSG building, and air-cooled condenser are anticipated to have heights of approximately 97, 125, and 125 feet above the proposed site design grade, respectively. The new exhaust stack will be the most prominently visible new structure. (PS 1, p. 16.) The Federal Aviation Administration’s (“FAA”) pilot training manuals include warnings about flying near power plants and their standard ceilings for pilots flying near congested areas are 2000 feet. (Tr. 1, p. 29.)
48. The stack height is the minimum height to maintain model-predicted impacts for the pollutant PM2.5 at less than the Significant Impact Level and to meet the Facility’s emissions requirements. (Interrogatory CSC-18.)

49. After reviewing the project, the FAA determined that the Project would have no effect on air travel or nearby airports, subject to specific lighting requirements. (Interrogatory CSC-24, FAA Determination of No Hazard to Air Navigation.)
CERTIFICATE OF SERVICE

This is to certify that on this 10th day of June, 2016, an original of the foregoing will be filed electronically and the original and fifteen (15) copies will be delivered by overnight carrier to Melanie Bachman, Esq., Acting Executive Director of the Connecticut Siting Council, 10 Franklin Square, New Britain, CT 06051, and one (1) copy will be delivered electronically on this 10th day of June, 2016 to the individuals listed on the Service List.

___________________________
Stephen J. Humes, Esq.