

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

Petition of The United Illuminating Company for a ) Petition 1104  
Declaratory Ruling that No Certificate of Environmental )  
Compatibility and Public Need is Required for the Proposed )  
Construction, Maintenance and Operation of a 2.2 MW AC )  
Solar Photovoltaic Facility and a 2.8 MW AC Fuel Cell )  
Facility on Approximately 22 Acres of the former Seaside )  
Landfill Located at 350 Waldemere Avenue, Bridgeport, ) October 24, 2014  
Connecticut

**Proposed Findings of Fact**

**Introduction**

1. The United Illuminating Company (“UI” or the “Company”), in accordance with provisions of Connecticut General Statutes §§ 16-50k and 4-176(a), submitted a petition (“Petition”) to the Connecticut Siting Council (the “Council”) on May 23, 2014 for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (“Certificate”) is required for the construction, operation, and maintenance of a 2.2 MW AC Solar Photovoltaic Facility and a 2.8 MW AC Fuel Cell Facility (the “Project”) in the City of Bridgeport, on a peninsula adjacent to Barnum Boulevard and Seaside Park. (Petition of The United Illuminating Company [UI 1], pp. 1-2).
2. The purpose of this Project is the development of Class I renewable energy, in accordance with the direction of the Connecticut Legislature as expressed in Section 127 of Public Act 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut’s Energy Future*.
3. The parties in this proceeding are UI and the City of Bridgeport (“City”). Mr. Enrique Torres (“Torres”) (in his individual capacity) is an intervenor. (Transcript 1, September 11, 2014, 3:00 p.m. [Tr. 1] p. 5).
4. Pursuant to Conn. Agencies Regs. § 16-50j-40(a), UI provided the abutting property owner, Sikorsky Aircraft Corporation, 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. (UI 1, p.15; Exhibit V).
5. The Council and its staff made an inspection of the proposed Project site on September 11, 2014 beginning at 2:00 p.m. (Council’s Hearing Notice dated July 11, 2014).

6. Pursuant to Conn. Agencies Regs. § 16-50j-21, UI erected three (3) signs, measuring four feet by six feet, at various entrances to Seaside Park and the Project site generally, which provided a brief description of the docket and notice of the Council's September 11, 2014 hearing. The sign also indicated that a copy of the petition and additional information is available on the Council's website or by calling the Council. The signs were installed on August 29, 2014. (Affidavit of Thomas Judge, September 8, 2014).

#### **State Agency Comment**

7. Pursuant to Conn. Gen. Stat. § 16-50j(g), on July 11, 2014, 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 ("PURA"), 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"), and the Department of Construction Services ("DCS"). (Council Memorandum dated July 11, 2014).
8. The Council received responses from DOT's Bureau of Engineering and Construction on July 17, 2014 and DEEP on September 4, 2014. After reviewing the project DOT had no comments. (DOT Comments dated July 17, 2014. Record.) DEEP submitted comments supporting the addition of the five megawatts of renewable power proposed by the Project, concurred with UI's findings with regard to the Natural Diversity Data Base ("Natural Diversity Data Base"), and provided contact information for those members of DEEP staff that UI should contact for further guidance pertaining to the site's hydroxide sludge area. (DEEP Comments dated September 4, 2014. Record.)
9. UI independently asked the SHPO to comment on the solar photovoltaic facility. After review, the SHPO concluded that "the proposed project will have no adverse effect" so long as the "solar field is adequately screened with plants consistent with Olmsted's original design for the park." (SHPO Letter, dated 8/07/14).
10. The Council solicited comments from the same group of Connecticut State agencies listed supra ¶ 7 for a second time on October 1, 2014, but received no further comment.

#### **Municipal Consultation**

11. UI met with Bridgeport officials and residents numerous times prior to the filing of the Petition, including presentations before the City Council Contracts Subcommittee on January 14, 2014 and February 11, 2014, at a community forum on February 6, 2014, a Parks Commission meeting on March 3, 2014, a City Council meeting on March 18, 2014, and a Public Works and emergency services meeting on May 29, 2014. (UI 1, p. 14).

12. On May 23, 2014, UI provided a copy of the Petition to the following municipal agencies, organizations, and relevant elected officials within Bridgeport: Planning and Zoning Commission & Inland Wetlands and Watercourses Agency, Office of the City Attorney, Office of Planning and Economic Development, Regional Planning Agency, Bridgeport Parks Department, Mayor Bill Finch, the Honorable Andres Ayala, the Honorable Anthony J. Musto, the Honorable Auden C. Grogins, the Honorable Ezequiel Santiago.
13. Mayor Bill Finch made a limited appearance statement into the record at the September 11, 2014 hearing expressing support for the Project. (Tr. 1, pp. 6-12).

#### **Description of Proposed Project**

14. The proposed Project location is proposed for location on an approximately 41-acre inactive landfill (“Seaside Landfill”) in Bridgeport, on a peninsula adjacent to Barnum Boulevard and Seaside Park. (UI Interrogatory CSC-6; UI 1, p. 6). The property is bounded to the north by Cedar Creek, to the west by Black Rock Harbor, and to the sound by the Long Island Sound. (UI 1, p. 6).
15. The property is accessible from the north via Cedar Creek Drive. (UI 1, p. 6). Existing on-site roads will be upgraded to provide access directly to the facilities. (UI 1, p. 9).
16. The City operated Seaside Landfill from 1938 to 2000 for the disposal of various waste products, including municipal solid waste, metal hydroxide sludge, and mechanically processed demolition debris. (UI 1, p. 7).
17. The City closed the main portion of Seaside Landfill in 2000, by installing approximately two feet of cover material (known as the “Cap”). (UI 1, p. 7). The metal hydroxide sludge area is also inactive, and currently in the closure process. (UI 1, p. 7). Although not part of the Project area, UI must work with DEEP if any portion of the hydroxide sludge section of Seaside Landfill could be disturbed. (DEEP Comments dated September 4, 2014. Record.)
18. Only the fuel cell portion of the Project falls within a FEMA floodplain. Based on FEMA’s most current map, a 100-year floodplain covers the fuel cell area. (Transcript 2, September 30, 2014 [Tr. 2], p. 259).
19. The Project will include: (i) approximately 8,550 photovoltaic panels and associated ground equipment; (ii) upgrading of the main access road; (iii) one DFC3000 power plant; and (v) associated interconnection equipment. (UI 1, pp. 9-10).
20. In order to prevent individuals from gaining access to the facilities, the Company will install approximately 6,000 feet of chain-link fence around the solar facilities as well as at the fuel cell facility. While both fences will be eight feet in height, the fence around the fuel cell facility will include the use of barbed wire. (UI 1, pp. 9-10; Tr. 1, pp. 24, 36, 371).
21. The efficiency of the proposed photovoltaic modules is approximately 16% and while

- the efficiency does not decrease over time, factors such as age and weather do cause a degradation of power output. (Interrogatory CSC-12).
22. The degradation associated with the solar photovoltaic modules is minimal, roughly half a percent per year. (Tr. 1, p. 77).
  23. The Company will connect the Project to UI's electric grid (both the solar and fuel cell facilities) with a dedicated 13.8kV circuit that is part of UI's distribution system, using standard switchgear. (UI 1, p. 11).
  24. UI will source the interconnection circuit via the Pequonnock substation, constructing a path of both aerial and underground cable systems from the substation to the interconnection point at the site. The aerial portion will include the replacement of existing poles, the installation of new aerial cable and associated equipment, and shifting of related equipment. The underground portion will utilize existing infrastructure as well as the installation of a series of new splice chambers and duct bank, underground cable, and necessary related equipment. (UI 1, p. 11).
  25. The facilities have a service life of approximately 25 years. Although the lease term entered into between UI and Bridgeport lasts only 20 years, UI has the option to extend the lease for two additional five year periods. (UI 1, p. 12).
  26. UI will monitor the performance of both the solar and fuel cell facilities in determining whether to exercise the lease extensions. (Tr. 2, pp. 285, 308-09).

### **Environmental Considerations**

#### **Emissions**

27. During operation, the fuel cell low levels of air emissions of regulated air pollutants or greenhouse gases (e.g. PM, VOCs, GHG, or Ozone). (UI 1, p. 18).

#### **Topography, Geology and Soils**

28. To protect the Cap, the Company designed the Project in such a manner that minimal grading is required. (UI 1, p. 16).
29. Additionally, the system itself is ballasted, meaning the solar panels and associated equipment are anchored into concrete blocks that sit atop the landfill, eliminating a need to penetrate the Cap.
30. The Company will raise the grade for the fuel cell area to the FEMA 100-year floodplain plus an additional foot. (Tr. 1, pp. 87-88, Tr. 2, p. 312).
31. The Project will not disturb the metal hydroxide sludge area. (UI 1, p. 7).

Water Resources and Floodplains

32. Due to the raised nature of Seaside Landfill, the solar facilities do not fall within a FEMA floodplain. As noted supra ¶ 18, the fuel cell portion of the Project falls within the FEMA 100-year floodplain. (Tr. 2, pp. 312-313).
33. The solar facilities will consume no water during operation. (UI 1, p. 16). The fuel cell facilities will consume approximately 26,000 gallons per day of water sourced from Bridgeport's city water system. Much of the water will release from the system as steam, while UI will send approximately 13,000 gallons per day from the facilities directly to the City via a nearby wastewater line. (UI 1, p.16).
34. The Company identified three wetlands within the lease area, but only one within the Project area. Interrogatory CSC-19 (Wetland Delineation Report, 10). The affected wetland is manmade, not part of a larger wetland system, and low functioning. (Tr. 37). UI will fill in the area and prevent it from reforming. (Tr. 1, p. 37).
35. UI will deploy silt fencing to protect a wetland identified within close proximity to construction activities. (Interrogatory CSC-19 Wetland Delineation Report, 10).
36. The third identified wetland will be unaffected by the Project. (Interrogatory CSC-19 Wetland Delineation Report, 10).
37. The solar panels present little fire risk, as the melting and combustion points are extremely high. (Tr. 2, p. 286).
38. The Company will maintain the grass and brush atop the landfill, further limiting the chance of a brush fire impacting the solar facilities. (Tr. 2, p. 286).

Vegetation and Wildlife

39. Due to the nature of the Project site, limited tree removal will occur. (UI 1, p. 16).
40. Any tress currently growing on the landfill are considered invasive species, and do not conform to accepted landfill maintenance practices. (Tr. 1, pp. 315, 332, 344, 404).
41. The Company identified four potentially affected Natural Diversity Data Basespecies, but found no suitable habitat within the Project site. (Interrogatory CSC-19 Habitat Assessment, 2).
42. In DEEP's comments, it noted that "[t]he applicant has submitted documentation that no suitable habitat for any of [the potential NDDDB-listed species] occurs at the landfill. DEEP concurs with these assessments." (DEEP Comments dated September 4, 2014. Record.)
43. On a site visit, Company experts did spot a state threatened species not previously identified by a review of the NDDDB within Seaside Landfill, the American Kestrel, but it was located outside of the Project area. (Interrogatory CSC-19 Habitat Assessment,

2). However, there exists no evidence of nesting activity. (Interrogatory CSC-19 Habitat Assessment, 8).

#### Land Use and Recreation

44. The Project sits within close proximity to heavy industries, and will not affect any currently permitted recreational uses within Seaside Park due to natural screening. The Company committed to working with the City to develop additional screening for Seaside Park if necessary. (Tr. 1, pp. 50, 374).
45. The Company will return the Project site to its original condition when the facilities are decommissioned. (UI 1, p. 17).

#### Cultural & Historical Resources

46. There are no known archaeological sites on or near the proposed Project. (Tr. 2, pp. 255-56).
47. Today, the Project site has little potential for meaningful use beyond the contemplated Project. (Tr. 1, p. 11).
48. The SHPO has indicated in a written response that “the proposed project will have no adverse effect” on historical or cultural resources as long as the “solar field is adequately screened with plants consistent with Olmsted’s original design for the park.” (SHPO Letter, dated 8/07/14).
49. 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 UI anticipates no adverse effects on cultural resources to occur. (Tr. 1, p. 7; SHPO Letter, dated 8/07/14).

#### Noise and Lighting

50. 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. There are no schools or residential neighborhoods in the immediate vicinity of the site. (Interrogatory CSC-4).
51. After the facilities become operational, the solar field will produce no sound, while the sound produced by the fuel cell will be minimal. (Tr. 1, pp. 28-29).
52. The fuel cell produces 72 decibels of sound at a distance of ten feet, and will not be audible from the nearest recreational center. (Tr. 1, pp. 28-29).
53. Further, the sound levels associated with the facilities will not exceed the limits for adjacent noise classes identified in the City of Bridgeport noise ordinance and in State noise regulations. (UI 1, p. 17; Tr. 1, pp. 28-29).

54. During operation, the fuel cell facility will have spotlighting in the working area but there will be no general lighting. (Tr. 28). There will be no lighting on the solar project so the nighttime visibility of the project will be minimal. (Tr. 1, pp. 84).

Visibility

55. Immediate foreground threshold views into the Project from Seaside Park would be limited by existing topographic and vegetative screening and by the Project's low profile components. (UI 1, p. 19).
56. The solar photovoltaic module glass, which comprises 97.5% of the module area, is finished with an anti-reflective coating. This coating reduces but does not completely eliminate the reflection of sunlight from the surface of the module. There are no solar modules which are entirely non-reflective. (Interrogatory CSC-21).
57. After reviewing the project, the Federal Aviation Administration determined that the Project would have no effect on air travel or nearby airports. (Interrogatory CSC-19, FAA Determination of No Hazard to Air Navigation).