



Daniel F. Caruso
Chairman

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

October 21, 2008

TO: Parties and Intervenors

FROM: S. Derek Phelps, Executive Director

RE: **PETITION NO. 784MR** – Plainfield Renewable Energy, LLC's declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed construction, maintenance, and operation of a 37.5 MW Wood Biomass Generating Project, Plainfield, Connecticut.

As stated at the hearing in New Britain on August 14, 2008, after the Council issues its draft findings of fact, parties, intervenors and participants may identify errors or inconsistencies between the Council's draft findings of fact and the record; however, no new information, evidence, argument, or reply briefs will be considered by the Council.

Parties, Intervenors and Participants may file written comments with the Connecticut Siting Council on the Draft Findings of Fact issued on this proceeding by October 28, 2008.

SDP/RDM/cm

Enclosure

PETITION NO. 784MR – Plainfield Renewable Energy, LLC’s declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed construction, maintenance, and operation of a 37.5 MW Wood Biomass Generating Project, Plainfield, Connecticut. Limited Proceeding pursuant to Connecticut General Statutes § 4-181a(b).	} Connecticut } Siting } Council } October 16, 2008
---	--

Limited Proceeding Findings of Fact

Introduction

1. On August 14, 2006, Plainfield Renewable Energy LLC (PRE) submitted a petition to the Connecticut Siting Council (Council) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a 37.5 MW (net) wood biomass fueled electric generating facility in the Town of Plainfield, Connecticut. The project includes a cooling water intake facility (know as ‘water diversion facility’) in the Town of Canterbury. (Record)
2. On November 16, 2006, the Council held a public hearing in the Town of Plainfield. The hearing included a site visit to both the power plant and water intake location. (Record)
3. The party to the initial proceeding was PRE. The Connecticut Light and Power Company intervened on November 14, 2006. (Record)
4. The Council approved the petition on June 7, 2007. PRE has not yet submitted a Development and Management Plan for the project. (Record)
5. On May 28, 2008, The Friends of the Quinebaug River (FQR) filed a Motion to Reopen with the Council contending the record is incomplete in regards to the following:
 - a) the water diversion facility is on a parcel of land that abuts and is downstream of property that contains a Superfund site;
 - b) the water diversion facility is near a recently constructed boat launch;
 - c) the location of the water diversion facility was not made generally known to the public; and
 - d) construction of the water diversion facility would allow industrial zoning on a residentially zoned parcel.

FQR made an additional claim of changed conditions on August 14, 2008, stating that the affected section of the Quinebaug River is in the process of being designated as an impaired waterway by the DEP.

(Record; Transcript 1 – August 14, 2008, 1:00 p.m. [Tr. 1] p. 142)

6. On June 26, 2008, the Council moved to hold a hearing in accordance with Connecticut General Statues § 4-181a(b) on whether to reopen the proceeding. Under Connecticut General Statues § 4-181a(b), the Council must first consider whether changed conditions, subsequent to the Council’s decision exist, and, if so, whether such conditions constitute a basis sufficient to hold further proceedings to consider whether such changes, if any, justify reversing or otherwise modifying the Council’s original decision rendered on June 7, 2007. (Record)
7. On August 14, 2008, the Council held a hearing to hear evidence as to whether conditions have changed such that the Council should conduct further proceedings. No member of the public who wished to participate in the subject limited proceeding was denied the opportunity to present evidence

and witnesses and to question witnesses. All parties and intervenors to the original proceeding were considered participants in the subject limited proceeding. All participants who requested participation in the subject limited proceeding were permitted to so participate. (Tr. 1, p. 4, Record)

8. The participants to the limited the proceeding are, PRE, CL&P, FQR and Margret Miner of the Rivers Alliance of Connecticut. (Tr. 1, pp. 4-5)
9. Notice of the limited proceeding was published by PRE on August 6, 2008 in *The Turnpike Buyer* and by the Council on July 16, 2008, in the *Norwich Bulletin*. (Record)
10. On July 30, 2008, PRE installed a two-foot by three-foot sign at the water diversion facility property that noticed the public hearing. (PRE 3)
11. PRE sent notice of the hearing and a brief description of the project by certified mail to abutters of the power plant, water diversion facility, and pipeline. (PRE 3)
12. No abutter provided comment to the Council. (Record)

Water Diversion Facility – Background Information

13. The original location of the water diversion facility, identified in the Petition dated August 14, 2006, was located on the Quinebaug Valley property on Packer Road in Canterbury. (Record; PRE 1, Q. 4)
14. The Quinebaug Valley property contains the Yaworski Lagoon Federal Superfund Site and the Yaworski Landfill State Superfund site. (PRE 1, Exhibit H)
15. PRE met with the First Selectman of Canterbury, Neil Dupont, in the summer of 2006 to discuss the river intake parcel. The town did not hold a public hearing on the matter. (Tr. 1, pp. 109-110)
16. The petition was filed with the Council on August 14, 2006 with copies provided to the following Town of Canterbury officials or departments: Neil Dupont, First Selectman; Steven Sadlowski, Town Planner/Zoning Enforcement/ Inland Wetlands official; David Norrell, Planning and Zoning Chairman; John Tetreault, Inland Wetlands and Watercourse Commission Chairman; Canterbury Public Library. (Record; PRE 1, Q. 3)
17. In early November 2006, PRE met with First Selectman Dupont to discuss the change in location of the water diversion facility. The town did not hold a public hearing on the matter. (PRE 1, Q. 4; Tr. 1, pp. 109-110)
18. PRE submitted a revised location for the water diversion facility to the Council on November 3, 2006, prior to the Council's public hearing on November 16, 2008. (Record)
19. The relocation was necessary due to tax liens that prevented PRE from completing a transaction for use of the Quinebaug Valley property. (Record, Tr. 1, pp. 124-125)
20. PRE discussed the water diversion facility and related pipeline with town officials in December 2006, January 2007, and February 2007. (PRE 1, Q. 4)
21. The water diversion facility will require a DEP water diversion permit. The permit was filed with the DEP in December of 2006. (Record, Tr. 1, pp 127-129)

22. PRE is required to publish notice of the permit in a local newspaper and notify the chief elected official of the affected community. PRE published notice of the permit filing in the *Norwich Bulletin* on December 26, 2007 and provided notice to the First Selectmen of both Canterbury and Plainfield. (PRE 1, Q. 6)
23. On April 7, 2008, the DEP issued a tentative determination to approve the water diversion permit. The final decision is still pending. The permit included provisions on the amount of water to be used and the amount of wetlands to be impacted, among others. (PRE Administrative Notice Item No. 1)
24. DEP regulations require a public hearing before a water diversion permit is finalized. DEP provided public notice regarding a public hearing and site visit for the PRE water permit. The hearing was held on August 13, 2008. (PRE 1, Q. 6)

Water Diversion Facility - Description

25. PRE intends to use wet cooling technology that would require up to 893,000 gallons of water per day, obtained from the Quinebaug River in Canterbury. According to the tentative water diversion permit, the annual average daily withdrawal cannot exceed 656,000 gallons of water. The maximum daily withdrawal shall not exceed 893,000 gallons. Approximately 126,000 to 194,000 gallons of non-contact cooling water would be returned to the river each day. (Record; PRE Administrative Notice Item No. 1, No. 55)
26. Infrastructure associated with the water diversion facility includes a water intake structure, intake piping, discharge piping, and a pump station. Piping includes segments from the river intake structure to the pump station and from the pump station to the power plant. (Record)
27. The pump station and river intake and discharge points are located on a 15-acre parcel in Canterbury owned by Man-Burch LLC. The property is on the west side of Packer Road and is identified in town tax records as Map 62, Lot 12B. (FQR 2)
28. The pump station is a 10-foot by 30-foot building that contains the pump equipment. PRE would construct a new, 260-foot long driveway extending from Packer Road. (PRE 1, Q. 1, Tr. 1, pp. 110-111)
29. The river intake location is at the top end of Aspinook Pond, an impoundment on the Quinebaug River. The river is approximately 12 feet deep and 200 feet wide at the intake location. The river depth fluctuates by a few feet depending on seasonal conditions. (PRE 1, Exhibit 1; PRE 2, Q. 11; Tr. 1, pp. 101-106)
30. The intake structure, a cylindrical screen 18-inches in length, would be mounted on a six-inch diameter pipe that extends off the bottom of the riverbed by one foot. The top of the screen would extend off the bottom by approximately 2.5 feet. (Tr. 1, pp. 98-99, 104)
31. The screen would be periodically cleared of debris by using a three to four second blast of air to force objects off it. (Tr. 1, pp. 131-132)
32. The intake and discharge pipelines would be installed within a four-foot wide trench located within the shoulder and roadway of Packer Road in Canterbury, and Lillibridge and Mill Brook roads in Plainfield. The pipelines would extend approximately 2.3 miles from the pump station to the power plant. (Record; PRE 2, Q. 17; Tr. 1, p. 112)

33. The Mann-Burch property is undeveloped and zoned Rural District, RD. (FQR 2, FQR 3)
34. The RD zone description does not include pump stations as a permitted use. The General Provisions section of the zoning regulations states a pump station can be constructed within 25 feet of any waterbody, watercourse or wetland or, if the area is subject to flooding, within 25 feet of the highest flood line. (PRE 1, Q. 5; Town of Canterbury Zoning Regulations, March 4, 2008)
35. Fourteen acres of the property would be placed into a conservation easement to prevent future development on the property. An invasive species management plan would also be implemented. (Tr. 1, pp. 133-134)

Water Diversion Facility – Post Decision Modifications

36. Various portions of the water diversion facility have changed since the Council's June 7, 2007 decision; as follows:
 - a. The pump station has been relocated from an embankment adjacent to the south property line to a central location on the property. The relocation was at the request of the DEP to avoid potential habitat for the eastern spadefoot toad, a state endangered species. 95-97)
 - b. PRE intends to install piping from the pump house to the river intake and discharge locations using horizontal directional drilling rather than open trenching, as originally proposed. By use of horizontal directional drilling, wetland impacts were reduced by approximately 3,000 square feet. The DEP's tentative water diversion permit allows up to 3,397 square feet of permanent wetland impact and 6,098 square feet of temporary wetland impact.
(PRE Administrative Notice Item No. 5; PRE 1, Q. 1; Tr. 1, pp. 95-97)

Water Diversion Facility – Water Quality and Fishery Concerns

37. The Man-Burch property is immediately south and downstream of the Yaworski superfund sites. A plume of contaminated groundwater extends west from the superfund sites and under the Quinebaug River. (PRE 1, Q. 7; Tr. 1, pp. 89-90)
38. The river intake location is 7,000 feet downstream of the Yaworski lagoon and 2,900 feet downstream of the Yaworski landfill. The straight-line distance to the intake location from the lagoon is 2,400 feet and the straight-line distance to the intake location from the landfill is 800 feet. (PRE 1, Q. 7)
39. Operation of the water diversion facility would have no effect on the groundwater plume. (PRE 1, Q. 1)
40. Surface water samples collected downstream from the landfill and lagoon were reviewed as part of the water permit process. No significant contaminants attributed to these or other sources were identified. (PRE 1, Q. 7)
41. There is no evidence that contaminants from the Yaworski landfill or lagoon have migrated onto the Man-Burch property. (PRE 1, Q. 7; PRE 2, Q. 1)
42. The DEP Remediation Division reviewed the water diversion permit application and determined the project would have a negligible effect on the Division's program interests. The Remediation Division plans no further review. (PRE 1, Q. 7; Tr. 1, pp. 46-47)

43. Fish species that inhabit this portion of the Quinebaug River consist mainly of warm water pond species (sunfish, perch, bullhead e.g.) that construct nests along shallow, shoreline habitats and are not likely to encounter the water intake screen. The water intake would not result in significant impingement or entrainment losses on these resident species. (PRE 1, Exhibit 1)
44. Some diadromous fish species (river herring, shad, e.g.) have been reintroduced by the DEP into the Quinebaug River near the location of the planned water diversion facility. These fish release their eggs in the water column, and the eggs could be drawn into the water intake. To reduce the intake velocity and thus minimize the threat of impingement and entrainment, the diameter of the screen was increased from 13-inches to 18-inches. (PRE 1, Q. 1, Exhibit 1; Tr. 1, pp. 120-123)
45. The DEP Fisheries Division recommended that any unconfined instream work be restricted to the period of June 1 to September 30 to avoid fish spawning and fry development, seasonal migratory behaviors, and historic seasonal low water levels. (PRE 1, Exhibit 1)
46. PRE's plume model assumed a discharge temperature of 90 degrees. The actual discharge temperature would be less since the water would be pumped 2.3 miles from the power plant to the river with resulting heat loss. Fishery resources would not be adversely affected by the thermal discharge. (PRE 1, Exhibit 1; Tr. 1, pp. 134-135)
47. The water diversion amount would have a negligible effect on the river volume and would not result in significant loss of instream habitats. (PRE 1, Exhibit 1)
48. The DEP issued a draft State of Connecticut Integrated Water Quality Report, 2008, that lists the Quinebaug River in Canterbury as impaired due to *Escherichia coli* contamination. (PRE 2, Q. 13; FQR 27; Tr. 1, pp. 63-66)
49. PRE would pretreat the intake water with chlorine to eliminate *E. coli* prior to use. The discharge water would be neutralized by removing the chlorine prior to release into the river. (Tr. 1, pp. 63-66, 74-74, 114-115, 118-121)

Water Diversion Facility – Recreational Concerns

50. A boat launch is located on Aspinook Pond, approximately three quarters of a mile downstream of the intake location. Operation of the river intake would have no effect on the boat launch. (Tr. 1, pp. 69-73)
51. PRE intends to install navigational markers to alert boaters to the presence of the intake screen. PRE would consult with the DEP regarding the form of the markers prior to installation. (Tr. 1, pp. 108-109)
52. PRE would install bollards upstream of the intake structure to protect it from large debris. The bollards would be six to ten inches in diameter and approximately three feet high. The top of the bollards would be nine to ten feet below the river surface. (Tr. 1, Tr. 1, pp. 101-107)