



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

www.ct.gov/csc

September 23, 2011

D. Scott Atkin, LEP
Vice President
Anchor Engineering Services, Inc.
41 Sequin Drive
Glastonbury, CT 06033

RE: **PETITION NO. 784** - Plainfield Renewable Energy, LLC 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. Development and Management Plan.

Dear Mr. Atkin:

At a public meeting of the Connecticut Siting Council (Council) held on September 22, 2011, the Council approved the Development and Management (D&M) Plan for this project. This approval applies only to the D&M Plan submitted on May 13, 2011, with revisions submitted on May 27, 2011, and September 1, 2011. The Council previously approved site clearing, with conditions, on June 23, 2011.

The Council requests copies of the DEEP-required invasive species monitoring reports and Invasive Species Control Plan. Additionally, staff recommends that erosion control blankets constructed entirely of organic materials be utilized to reduce the potential for wildlife entrapment after soils have stabilized.

Please be advised that deviations from this plan are enforceable under the provisions of the Connecticut General Statutes § 16-50u. Enclosed is a copy of the staff report on this D&M Plan, dated September 22, 2011.

Thank you for your attention and cooperation.

Very truly yours,

Robert Stein
Chairman

Enclosure: Staff Report, dated September 22, 2011

c: Parties and Intervenors
The Honorable Paul E. Sweet, First Selectman, Town of Plainfield
Gloria Rizer, Planning & Zoning Chairman, Town of Plainfield
The Honorable Brian H. Sear, First Selectman, Town of Canterbury
Steve Sadlowski, Zoning Enforcement Officer, Town of Canterbury
Daniel Donovan, PRE
Bethany L. Appleby, Esq., Wiggin and Dana

RS/RDM:haf

PETITION NO. 784 – Plainfield Renewable Energy, LLC } declaratory ruling no Certificate of Environmental } Compatibility and Public Need is required for the } construction, maintenance, and operation of a 37.5 MW } Wood Biomass Generating Project, Plainfield, Connecticut. } Development and Management Plan.	Connecticut Siting Council September 22, 2011
---	--

STAFF REPORT

On June 7, 2007, the Connecticut Siting Council (Council) issued a Declaratory Ruling to Plainfield Renewable Energy, LLC (PRE) that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a 37.5 megawatt wood biomass generating facility in Plainfield, Connecticut. As required in the Council's Decision and Order, PRE submitted a Development and Management Plan for this project on May 13, 2011 with subsequent filings on May 27 and September 1, 2011. The project entails the construction of a power plant and a cooling water intake facility on a separate parcel.

Power Plant

The power plant site is located on a 26.5-acre parcel north of Mill Brook Road and west of Route 12 in Plainfield. The Providence and Worcester Railroad abuts the site to the west. The site is a brownfield with remediation activities occurring in the 1970's. An Environmental Land Use Restriction (ELUR) was established on a 1.8-acre section of the parcel where soil-disturbing activities are prohibited. This ELUR area will be under different ownership once the project is completed.

Site development will impact approximately 13 acres of the 26-acre power plant site. The site will be accessed from a new driveway off Millbrook Road. Infrastructure for the plant would be laid out in a linear arrangement. The southern area of the plant would contain the access road, truck scales, and wood storage yard. The northern area of the plant would contain the power generation building, emission control equipment, and electrical interconnection equipment and transmission line. Four nearby properties have been established as construction staging areas and will be utilized as appropriate.

The power block building is the most significant building at the site and is 196 feet long, 180 feet wide and 108 feet tall. Other buildings include the scale house, fire pump house, circulating water and chemical feed building, service water pump house, the filter press building, and a three-cell cooling tower.

The generator will use wood from a variety of sources to generate 37.5 megawatts of electricity. Wood fuel will consist of forest thinnings, pallets, recycled and waste wood. PRE has developed a wood supply quality control procedure as part of the Department of Energy and Environmental Protection (DEEP) permitting for the project to ensure waste wood meets quality specifications. All wood will be processed off-site by the wood suppliers into four-inch or smaller wood chips before shipment to PRE. Wood fuel delivery will be accepted Monday through Friday from 6:30 a.m. to 7:00 p.m. and on Saturday from 6:30 a.m. to 3:00 p.m. PRE anticipated 62 truck deliveries per day, although their DEEP Solid Waste permit allows for up to 100 trucks per day.

Wood will be stored in a wood storage yard with a fuel capacity of 22 to 28 days. Part of the storage area will be under an 85-foot tall metal canopy measuring 120 feet by 500 feet. A wood storage fire suppression system includes water cannons located within the yard and a water deluge system on the conveyor that feeds wood from the yard to the generator.

Wetlands/Erosion and Sedimentation Controls

The power plant site contains six wetland areas and a variety of upland habitats. PRE will clear the central portion of the site and grade the area to accommodate the site access road and plant infrastructure. Site clearing must be conducted between April 1 and November 1 to avoid impacts to the state-endangered spadefoot toad that may occur at or near the power plant site.

Silt fencing will be installed as necessary to prevent erosion from affecting downslope non-project areas. Double rows of siltation fence will be installed to protect wetland resources in close proximity to the construction areas. Two of the wetlands, Wetland 4 and 5, are adjacent to the construction areas. Four temporary sediment traps will be installed on the construction site to remove silt from run-off before discharge to off-site areas. Erosion control blankets will be used on slopes on the east side of the parcel. Staff recommends PRE use erosion control blankets constructed entirely of organic materials to reduce the potential for wildlife entrapment after soils have stabilized.

Site mitigation includes the removal of debris from Wetlands 3 and 4. Four separate conservation easements will be established on the parcel; Easement 1 is 2.7-acres and contains Wetlands 1, 2, and 3; Easement 2 is 0.09-acre and encompasses the boundaries of Wetland 5; Easement 3 is a 1.6-acre wooded area fronting Route 12; Easement 4 is a 9.6-acre area on the north side of the property that includes the separate ELUR area, Wetland 6 and supporting buffer areas. A 100-foot buffer area around Wetlands 1 and 2 will be improved by the planting of native vegetation. A wetland seed mix will be sown in Wetlands 3 and 5 to enhance habitat values. Two rows of coniferous trees will be planted along the east side of the project development area to provide screening and soil stabilization.

Drainage System

Once construction is completed, stormwater will be managed through a self-contained system in the wood storage yard, and by directing run-off from other locations into underground infiltrators. Water collected within the fuel storage yard will be collected through catch basins and directed into underground tanks with a capacity of 600,000 gallons. This water will be used in the spray dryer system associated with the air pollution control equipment. Run-off from roof drains will be directed to underground infiltrators. Run-off from other areas of the facility will be collected in catch basins and swales and directed to separators prior to discharge into the underground infiltrators.

Interconnection

The plant would interconnect with The Connecticut Light and Power Company's (CL&P) Fry Brook substation, located approximately 1,500 feet north of the site. The interconnection will require the installation of five utility poles in a railroad right-of-way that extends in a north-south direction from the west side of the site property to the substation. Although the final interconnection design is under development, no impacts are anticipated beyond the raised bed of the railroad in this area.

River Intake Parcel

Cooling water will be obtained from the Quinebaug River in Canterbury. PRE will construct a pump house and underground intake and discharge pipes on a 14.2-acre riverfront parcel in Canterbury. The 30-foot by 18-foot pump house will be accessed by an approximately 250-foot long gravel driveway extending from Packer Road.

Construction of the gravel drive will result in 0.08-acre of permanent wetland impact and 0.14-acre of temporary wetland impact. Due to the minimal effect on wetlands, the project will not require a permit from the U.S. Army Corps of Engineers. To prevent further disturbance to on-site wetlands, PRE will install the river intake and discharge pipelines using horizontal directional drilling (HDD). This method will go under the on-site wetlands located between the pump house and the riverbank. A temporary turbidity curtain will be installed in the river prior to drilling.

The river intake structure is a cylindrical screen (16-inch diameter, 50 inches long) mounted on a ten-inch diameter pipe, extending off the bottom of the riverbed by 2.5 feet, in an area where the river is approximately 12 feet deep. The low velocity of the intake draw, as well as the intake screen, will protect fish populations from entrainment and impingement. The river discharge point will be approximately 100 feet down-river of the intake location.

The river intake/discharge pipelines to the power plant will be installed within the limits of existing roads in Canterbury and Plainfield for a distance of 2.25 miles. All water lines will be installed below existing pavement in four-foot wide trenches. The water lines will be jacked and bored under three small streams and associated culverts along the route to avoid stream impacts. After construction, PRE will re-pave over the trenched areas in Plainfield and repave the entire road in Canterbury.

As part of the water diversion permit approved by the DEP, PRE will place 13.9-acres of the river intake parcel into conservation easement and has obtained an additional 5.25-acre conservation easement on an adjacent riverfront property to preserve habitat for the state endangered spadefoot toad and state threatened blue-spotted salamander, both of which occur in the surrounding area. Both easements will be conveyed to the State of Connecticut.

Site Monitoring

Consistent with the Council's Decision and Order Item 5, PRE has retained Anchor Engineering to conduct periodic on-site monitoring of environmental controls during construction of the facility, except for the HDD portion of the project. The Council, by its approval of the site-clearing portion of the project on June 23, 2011, required that PRE retain an outside environmental inspector experienced in HDD to monitor the HDD installation at the river intake/discharge location.

PRE will institute an invasive species control plan for a 10-year period.

Other Items

The following information will be submitted at a later date:

- 1) Additional DEP permits as follows:
 - *General Discharge Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities*
 - *General Permit for the Discharge of Stormwater Associated with Industrial Activity*
 - *General Permit for Miscellaneous Discharge of Sewer Compatible Wastewater.*
 - *DEP navigational marker (may be required)*
- 2) Post-construction noise survey consistent with the Council's Decision and Order.
- 3) Blasting plan, if applicable.
- 4) Qualifications of the outside environmental inspector to be retained for the HDD portion of the project.
- 5) Filing with the Federal Aviation Administration for a determination of no aviation hazard.
- 6) Spill Prevention, Countermeasures and Control Plan (for construction and operation).
- 7) Copies of the invasive species monitoring report and the DEEP required Invasive Species Control Plan
- 8) Plant Operation Emergency Response Plan.
- 9) Operation Report, to be submitted to the Council within three months after the conclusion of the first year of operation, to include:
 - reliability of the facility and number of hours of operation and interruption in electric generation.
 - types and quantity of fuel used.
 - summary of the performance of the plant's environmental controls.