

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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December 17, 2013

Paul J. Corey, Chairman
BNE Energy, Inc.
17 Flagg Hill Road
Colebrook, CT 06021

RE: **PETITION NO. 983** - BNE Energy, Inc. Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a 4.8 MW Wind Renewable Generating facility located on Flagg Hill Road, Colebrook, Connecticut. Development and Management Plan (D&M Plan) Modification.

Dear Mr. Corey:

In reference to the above-mentioned matter, at a meeting held on December 12, 2013, the Connecticut Siting Council (Council) ruled on the following objections:

1. **Fairwind Objection to the Partial Sealing of BNE's D&M Plan Modification dated December 3, 2013.**
 - a. The Council, on its own motion, approved modification of the Protective Order for this matter to be consistent with the Superior Court ruling in *FairwindCT v.CSC*.
 - b. The Council overruled Fairwind's Objection to the Partial Sealing of BNE's D&M Plan Modification dated December 3, 2013.
2. **Fairwind Objection to BNE's D&M Plan Modification dated December 4, 2013.**

The Council overruled Fairwind's Objection to BNE's D&M Plan Modification, dated December 4, 2013.


Also at a public meeting of the Council held on December 12, 2013, the Council considered and approved the Development and Management (D&M) Plan Modification, dated November 5, 2013, with the condition that BNE implement the Ice Safety Management Plan received on September 16, 2011 and approved by the Council on November 17, 2011, to the extent applicable to the new turbine design configuration.

This approval applies only to the D&M Plan Modification, dated November 5, 2013. Any changes to the D&M Plan require advance Council notification and approval. Furthermore, the petitioner is responsible for reporting requirements pursuant to Regulations of Connecticut State Agencies Section 16-50j-62.

Please be advised that changes and 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 Modification, dated December 12, 2013.

Thank you for your attention and cooperation.

Very truly yours,

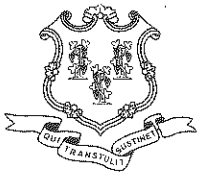

Robert Stein
Chairman

RS/MP/laf

Enclosure: Staff Report, dated December 12, 2013

c: Parties and Intervenors





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Petition No. 983
BNE Energy, Inc.
Flagg Hill Road, Colebrook
Revised D&M Plan
Staff Report
December 12, 2013

On June 2, 2011, the Connecticut Siting Council (Council) issued a Declaratory Ruling to BNE Energy, Inc. (BNE) that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a 4.8 megawatt (MW) wind renewable generating facility located on Flagg Hill Road, Colebrook, Connecticut. The project entails the construction and installation of three GE 1.6 MW wind turbines on a 79.4 acre parcel located on Flagg Hill Road and owned by BNE. As required in the Council's Decision and Order, BNE submitted a Development and Management Plan for this project on September 16, 2011. On October 20, 2011, the Council granted BNE approval for site clearing and to retain an environmental inspector (Dr. Michael Klemens). Dr. Klemens has been submitting erosion and sedimentation monitoring reports on a bi-weekly basis since the commencement of clearing on December 5, 2011. On October 28, 2011, the Council received a modification to the D&M Plan regarding the relocation of the temporary construction access road to avoid use of the driveway and utility easement in favor of the subject property over property owned by Robin Dziedzic Hirtle (Hirtle) located at 29A Flagg Hill Road. The complete D&M Plan, including the temporary construction access road, was approved on November 17, 2011.

BNE submitted a revised Development and Management Plan (Revised D&M Plan) on November 2, 2012 to modify the access road. The access road modification utilizes 1,200 feet of existing gravel driveway that serves the residence at 29A Flagg Hill Road in lieu of construction of 1,500 feet of new access road. The Revised D&M Plan was approved on February 7, 2013.

BNE submitted a request to modify the D&M Plan, dated November 5, 2013. The three approved 1.6 megawatt (MW) turbines (totaling 4.8 MW) have hub heights of 100 meters and rotor diameters of 82.5 meters. The 1.6 MW turbines with 100-meter hub heights are no longer available due to changes in the product line. Thus, BNE proposes to utilize three new 2.85 MW GE turbines. There is established Council precedent for requesting the use of different turbines through a D&M Plan modification. First, in 2001, the Council approved the request of NRG to use GE turbines in lieu of ABB turbines. This required a change in the site configuration, which required all associated buildings to be rotated 90 degrees counterclockwise and also required the construction of two buildings at a height of 75 feet as opposed to the construction of one building at a height of 72 feet. Second, in 2008, the Council approved the request of Kleen Energy to use SGT-5000F units in lieu of GE7FA units.

Use of the 2.85 MW turbines would result in 8.55 MW – a 78 percent increase in power output versus the 4.8 MW. The new rotor diameter would be 103 meters. While the new rotor diameter would be larger, the lower hub height of 98.3 meters would compensate and result in a total tip height of 149.8 meters or 491 feet.



This tip height of 491 feet is just below the maximum height that BNE requested in Petition No. 983. In that petition, BNE sought approval for up to 100 meter rotor diameter and 100 meter hub height. Thus, BNE already has approval for a tip height of up to 150 meters or 492 feet.

In Petition No. 983 the visual, shadow flicker and ice throw analyses were performed for the 150 meter or 492-foot tip height. Noise levels would decrease slightly due to GE's new Low Noise Trailing Edge serrations that are designed to reduce noise levels. The maximum worst-case noise levels would drop from 106 dBA to 105 dBA. Environmental impacts of the proposed turbines would be equivalent to those of the approved turbine configuration. There would no change in the turbine locations.

Besides the 103 meter rotor diameter for the 2.85 MW turbine, GE also makes a 100 meter rotor diameter. However, BNE is requesting the 103 meter rotor diameter in the event that the 100 meter rotor diameter design is phased out in the future. The 103 meter rotor diameter would also increase power production.

Finally, increased power production due to a more powerful turbine and larger rotor diameter would benefit the State by providing more Class I renewable-generated electricity to bring the State closer to its Renewable Portfolio Standards goals.

Pursuant to C.G.S. §16-50i (d), a modification means a significant change or alteration in the general physical characteristics of a facility. As noted in the petition, the 2.85-103 GE turbines would be constructed in the same locations as the original 82.5-100 GE turbines and would be slightly shorter in height.

BNE has complied with the Council's Decision and Order and with Regulations of Connecticut State Agencies Section 16-50j-61 Elements of a D&M Plan; thus, staff recommends approval.