



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Thomas S. Burack, Commissioner**

November 27, 2013

NHPUC 3DEC13PM1:09

Debra A. Howland  
Executive Director and Secretary  
New Hampshire Public Utilities Commission  
21 South Fruit Street, Suite 10  
Concord, NH 03301-2429

**Re: Conditional Certification as a Class III Renewable Energy Source  
Pinetree Power – Fitchburg, Inc.  
Westminster, MA  
Docket DE 13-265; GIS Unit ID #: MSS 538**

Dear Ms. Howland:

The New Hampshire Department of Environmental Services (DES) has reviewed the application from Pinetree Power – Fitchburg, Inc. (PPF), a wood-fired power plant located in Westminster, MA, to be certified as a Class III renewable energy source. DES recommends that the Public Utilities Commission (PUC) grant conditional approval to PPF as a Class III renewable energy source eligible to generate renewable energy certificates. A summary of the facility description, DES's review of particulate and NOx emission rates and monitoring requirements, and recommended conditions of the approval are presented below.

**Facility Description**

**Facility Name:** Pinetree Power – Fitchburg, Inc.  
**Facility Location:** 2 Rowtier Drive  
Westminster, MA 01473

**Gross Nameplate Capacity:** 18 MW

**Primary Fuel:** Whole-tree wood chips and other low-grade clean wood fuels

**Particulate Matter (PM) Emissions**

New Hampshire Code of Administrative Rules Puc 2502.16, "*Eligible biomass technologies*", requires that the facility meet an average PM emission rate limit of 0.02 pounds/million British thermal units (lb/MMBtu).

A PM emission test was performed for PPF on June 26 and 27, 2013. The emission test was performed for PM in accordance with condition #7 of Table 4 in section 4.B. of Massachusetts DEP Final Operating Permit Transmittal No. 108009 for compliance with the permitted limit of 0.016 lb/MMBtu. The results of the test indicate the actual PM emission

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rate in lb/MMBtu was 0.012 lb/MMBtu, which meets the Renewable Portfolio Standard (RPS) PM standard of 0.02 lb/MMBtu pursuant to RSA 362-F:2 VIII(a). DES recommends conditional approval of PPF based on its capability to meet the RPS PM standard, provided that PPF continues to perform annual stack testing, reports the results to DES, and the results continue to show the actual PM emission rate is at or below 0.02 lb/MMBtu in accordance with Puc 2505.04, *Certification of Biomass Facilities*.

### **Nitrogen Oxides (NOx) Emissions**

New Hampshire Code of Administrative Rules Puc 2502.16 requires that the facility meet a quarterly average NOx emission rate limit of 0.075 lb/MMBtu.

PPF has installed a continuous emissions monitoring system (CEMS) to record NOx emissions in accordance with condition #1.b) of Table 4 in section 4.B. of Massachusetts DEP Final Operating Permit Transmittal No. 108009 for compliance with the permitted limit of 0.175 lb/MMBtu. Based on a review of third quarter 2013 data, DES anticipates that NOx emissions from the facility will meet the RPS NOx standard of 0.075 lb/MMBtu or less.

At the end of each quarter of operation and electricity generation, DES will review PPF's operational and testing data, including Relative Accuracy Test Audits (RATA) data in consultation with MA DEP, which will indicate if PPF operates the NOx CEMS in accordance with all applicable requirements, and the CEMS data is suitable for determining compliance with NOx emission limitations. Please note that daily averages of zero emissions due to non-operation and days with insufficient or invalid data shall not be counted in the calculation of the quarterly average NOx emission rate.

### **Conclusion and Recommended Conditions of Approval**

DES believes that PPF will meet the requirements to be certified as a Class III - Existing Biomass renewable energy source. DES recommends that, with the following conditions, the PUC certify PPF as a Class III renewable energy source eligible to generate renewable energy certificates:

- 1) PPF shall emit NOx at a quarterly average rate less than or equal to 0.075 lb/MMBtu.
- 2) PPF shall emit PM at an average rate less than or equal to 0.02 lb/MMBtu.

If you have any questions, please contact me at [joseph.fontaine@des.nh.gov](mailto:joseph.fontaine@des.nh.gov) or (603) 271-6794.

Sincerely



Joseph T. Fontaine  
Trading Programs Manager  
Air Resources Division