

STATE OF NEW HAMPSHIRE

Intra-Department Communication

DATE: May 7, 2015
AT (OFFICE): NHPUC

FROM: Barbara Bernstein, Sustainable Energy Analyst *BB*
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SUBJECT: DE 12-278, Application of Hopkinton Hydro Project for Certification as a
New Hampshire Class I Renewable Energy Source

TO: Chairman Martin P. Honigberg
Commissioner Robert R. Scott
Debra A. Howland, Executive Director and Secretary

CC: Karen Cramton, Director, Sustainable Energy Division

Summary

Commission Staff recommends approval of the request by Contoocook Hydro, LLC (Contoocook Hydro) for Class I renewable energy certificate (REC) eligibility for 74 percent of the increased incremental electric generation output of the 0.25 megawatt (MW) Hopkinton Hydro Project (Hopkinton Hydro) above its historical generation baseline. This recommendation is based on Staff's review of information submitted by the applicant in response to the Commission's request for additional information issued on February 4, 2015. This supplemental information addressed both the eligibility of specific upgrades and improvements made to the Hopkinton Hydro facility and the estimated electricity production increases attributable to such upgrades and improvements.

Standard for Eligibility

Under RSA 362-F:4, I (i), Class I REC production includes the "incremental new production of electricity in any year from ... any hydroelectric generating facility ... over its historical generation baseline, provided the commission certifies demonstrable completion of **capital investments attributable to the efficiency improvements, additions of capacity, or increased renewable energy output that are sufficient to, were intended to, and can be demonstrated to increase annual renewable electricity output.** The determination of incremental production shall not be based on any operational changes at such facility but rather on **capital investments in efficiency improvements or additions of capacity.**" (emphasis supplied). The term "historical generation baseline" is defined as "the average annual production of a hydroelectric facility from the later of January 1, 1986 or the date of

first commercial operation through December 31, 2005,” under RSA 362-F:2, X (b).¹ The Commission’s rules also address certification of incremental new electricity production. *See* N.H. Code Admin. Rules Puc 2505.05.

In order to be eligible to produce Class I RECs based on incremental electricity output above its 20-year historical generation baseline level, a hydroelectric facility therefore must demonstrate the following:

- (1) *capital investments* have been made in or to the facility;
- (2) the capital investments *are attributable to* efficiency improvements, capacity additions, or increased renewable energy output;
- (3) the investments *are sufficient to* increase annual renewable electricity output;
- (4) the investments *were intended to* increase annual renewable electricity output;
- (5) the investments *can be demonstrated to* increase annual renewable electricity output; and
- (6) the increase in annual renewable electricity output is *not due to operational changes* at the facility, but rather to *capital investments in efficiency improvements or additions of capacity*.

Application Review and Analysis – Additional Information

On February 4, 2015, the Commission issued a secretarial letter determining that Contoocook Hydro had not yet adequately demonstrated that the Hopkinton Hydro facility meets the statutory criteria for Class I REC eligibility, and requesting that the applicant submit a revised list of claimed eligible improvements and a good faith estimate of the increase in electricity production attributable to such improvements, both individually and in the aggregate.

The applicant’s consultant submitted a response to this request on February 26, 2015 that outlined nine items claimed to be eligible capital improvements, and estimated that the electricity production increases attributable to these nine improvements totaled 100% of the increase above the historical generation baseline. Staff questioned this estimate because the consultant had previously filed a list of nearly 70 claimed efficiency improvements, asserting that each of the listed items had an impact on the total production increase. On March 23, 2015, the consultant filed a revised good faith estimate of the electricity production increase attributable to each of the nearly 70 efficiency improvements (and not merely the nine principal improvements listed in the earlier filing), with each estimated increase expressed as a percentage of the total aggregate increase in production.

Staff believes the capital improvements list submitted with the March 23rd filing continues to include numerous items that have not been demonstrated to meet the Class I eligibility criteria

¹ If the hydroelectric facility experienced an upgrade or expansion during the historical generation baseline period, then the actual generation for that entire period shall be adjusted to estimate the average annual production that would have occurred had the upgrade or expansion been in effect during the entire historical generation baseline period. RSA 362-F:2, X (b).

summarized above. This filing does, however, include the estimated percentage impact of each listed item on the facility's increased electricity production. Staff has used these estimates to assign a percentage value to each of the nine principal capital improvement items identified in the applicant's February 26th filing. In addition, Staff has included one additional item, "refurbished trash racks," which is estimated to have increased production by 10 percent, as this item appears to meet the statutory eligibility criteria. Table 1 below provides a list of the capital improvements believed to be eligible and the percentages assigned to such improvements.

Table 1

**ELIGIBLE CAPITAL IMPROVEMENTS AND
ESTIMATED PRODUCTION INCREASES
(Based on Consultant's tables in March 23, 2015 submission)**

	Capital Improvement Item	Percent of Overall Production Increase
1	Installed new leaf boom	12%
2	Installed new 24-inch exhaust fan with thermostat and floor fans	12%
3	Installed new 100 cfm Ingersoll Rand gas powered compressor (% incl. under 1)	-- %
4	Refurbished left side of dam facing upstream	20%
5	Installed new gate limit switches (ordered 2 spare)	20%
6	Modified gates for single gate operation (% incl. under 5)	-- %
7	Installed new small center fan & set up thermostat for floor fans (% incl. under 2)	-- %
8	Replaced hydraulic lines to gates (% incl. under 5)	-- %
9	Refurbished dam - 2012 (% incl. under 4)	-- %
10	Refurbished trash racks	10%
	TOTAL	74%

Based on this review and analysis², Staff recommends that the Commission certify as eligible for Class I RECs only 74% of the electricity production of the Hopkinton Hydro facility above its historical generation baseline of 780.13 MWh per year. The balance of the facility's increased electricity production during any year should be eligible for Class IV RECs.

² Staff's review of Contoocook Hydro's application has been unfortunately and unnecessarily complicated by the failure of the applicant's consultant to provide appropriate documentation and analysis sufficient to demonstrate the facility's eligibility for incremental Class I RECs under the statutory criteria. Staff reasonably expects that each REC applicant will provide a thorough analysis and supporting information to confirm its claimed eligibility. In this case, the applicant's consultant provided reams of background information and data in formats that nonetheless failed to meet the relevant eligibility criteria, leaving Staff to make inferences and draw connections that should have been clearly stated by the applicant in the first instance. Staff hopes and expects that this lengthy and difficult review process will not be repeated with future applications.

SERVICE LIST - EMAIL ADDRESSES - DOCKET RELATED

Pursuant to N.H. Admin Rule Puc 203.11 (a) (1): Serve an electronic copy on each person identified on the service list.

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Docket #: 12-278-1 Printed: May 07, 2015

FILING INSTRUCTIONS:

- a) Pursuant to N.H. Admin Rule Puc 203.02 (a), with the exception of Discovery, file 7 copies, as well as an electronic copy, of all documents including cover letter with: DEBRA A HOWLAND
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21 S. FRUIT ST, SUITE 10
CONCORD NH 03301-2429
- b) Serve an electronic copy with each person identified on the Commission's service list and with the Office of Consumer Advocate.
- c) Serve a written copy on each person on the service list not able to receive electronic mail.