

RIPUC Use Only	
Date Application Received:	__ __ / __ __ / __ __
Date Review Completed:	__ __ / __ __ / __ __
Date Commission Action:	__ __ / __ __ / __ __
Date Commission Approved:	__ __ / __ __ / __ __

GIS Certification #: _____

RENEWABLE ENERGY RESOURCES ELIGIBILITY FORM

**The Standard Application Form
Required of all Applicants for Certification of Eligibility of Renewable Energy Resource
(Version 8 – December 5, 2012)**

**STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION
Pursuant to the Renewable Energy Act
Section 39-26-1 et. seq. of the General Laws of Rhode Island**

NOTICE:
When completing this Renewable Energy Resources Eligibility Form and any applicable Appendices, please refer to the State of Rhode Island and Providence Plantations Public Utilities Commission Rules and Regulations Governing the Implementation of a Renewable Energy Standard (RES Regulations, Effective Date: January 1, 2006), and the associated RES Certification Filing Methodology Guide. All applicable regulations, procedures and guidelines are available on the Commission’s web site: www.ripuc.org/utilityinfo/res.html. Also, all filings must be in conformance with the Commission’s Rules of Practice and Procedure, in particular, Rule 1.5, or its successor regulation, entitled “Formal Requirements as to Filings.”

- Please complete the Renewable Energy Resources Eligibility Form and Appendices using a typewriter or black ink.
- Please submit one original and three copies of the completed Application Form, applicable Appendices and all supporting documentation to the Commission at the following address:

Rhode Island Public Utilities Commission
Attn: Luly E. Massaro, Commission Clerk
89 Jefferson Blvd
Warwick, RI 02888

In addition to the paper copies, electronic/email submittals are required under Commission regulations. Such electronic submittals should be sent to res@puc.state.ri.us.

- In addition to filing with the Commission, Applicants are required to send, electronically or electronically and in paper format, a copy of the completed Application including all attachments and supporting documentation, to the Division of Public Utilities and Carriers and to all interested parties. A list of interested parties can be obtained from the Commission’s website at www.ripuc.org/utilityinfo/res.html.
- Keep a copy of the completed Application for your records.
- The Commission will notify the Authorized Representative if the Application is incomplete.
- Pursuant to Section 6.0 of the RES Regulations, the Commission shall provide a thirty (30) day period for public comment following posting of any administratively complete Application.
- Please note that all information submitted on or attached to the Application is considered to be a public record unless the Commission agrees to deem some portion of the application confidential after consideration under section 1.2(g) of the Commission’s Rules of Practice and Procedure.
- In accordance with Section 6.2 of the RES Regulations, the Commission will provide prospective reviews for Applicants seeking a preliminary determination as to whether a facility would be eligible prior to the formal certification process described in Section 6.1 of the RES Regulations. Please note that space is provided on the Form for applicant to designate the type of review being requested.
- Questions related to this Renewable Energy Resources Eligibility Form should be submitted in writing, preferably via email and directed to: Luly E. Massaro, Commission Clerk at res@puc.state.ri.us.

SECTION I: Identification Information

1.1 Name of Generation Unit (sufficient for full and unique identification):

NEWPORT HYDRO

1.2 Type of Certification being requested (check one):

Standard Certification Prospective Certification (Declaratory Judgment)

1.3 This Application includes: (Check all that apply)¹

- APPENDIX A: Authorized Representative Certification for Individual Owner or Operator
- APPENDIX B: Authorized Representative Certification for Non-Corporate Entities Other Than Individuals
- APPENDIX C: Existing Renewable Energy Resources
- APPENDIX D: Special Provisions for Aggregators of Customer-sited or Off-grid Generation Facilities
- APPENDIX E: Special Provisions for a Generation Unit Located in a Control Area Adjacent to NEPOOL
- APPENDIX F: Fuel Source Plan for Eligible Biomass Fuels

1.4 Primary Contact Person name and title: WILLIAM RODGERS

DIRECTOR OF OPERATIONS

1.5 Primary Contact Person address and contact information:

Address: GREAT BAY HYDRO CORPORATION

1 NEW HAMPSHIRE AVE, SUITE 207

PORTSMOUTH, NH 03801

Phone: 603-766-8747

Fax: 603-215-2918

Email: brodgers@greatbaypower.com

1.6 Backup Contact Person name and title: ANTHONY CALLENDRELLO

VICE PRESIDENT / SECRETARY

1.7 Backup Contact Person address and contact information:

Address: GREAT BAY HYDRO CORPORATION

1 NEW HAMPSHIRE AVE, SUITE 207

PORTSMOUTH, NH 03801

Phone: 603-766-8748

Fax: 603-215-2918

Email: acallendrello@baycorp Holdings.com

¹ Please note that all Applicants are required to complete the Renewable Energy Resources Eligibility Standard Application Form and all of the Appendices that apply to the Generation Unit or Owner or Operator that is the subject of this Form. Please omit Appendices that do not apply.

1.8 Name and Title of Authorized Representative (i.e., the individual responsible for certifying the accuracy of all information contained in this form and associated appendices, and whose signature will appear on the application):

WILLIAM RODGERS

DIRECTOR OF OPERATIONS, GREAT BAY HYDRO CORPORATION

Appendix A or B (as appropriate) completed and attached? Yes No N/A

1.9 Authorized Representative address and contact information:

Address: (SEE SECTION 1.5)

Phone: _____ Fax: _____

Email: _____

1.10 Owner name and title: GREAT BAY HYDRO CORPORATION

1.11 Owner address and contact information:

Address: 7 NEW HAMPSHIRE AVE, SUITE 207
PORTSMOUTH, NH 03801

Phone: 603-294-4850 Fax: 603-215-2918

Email: _____

1.12 Owner business organization type (check one):

- Individual
- Partnership
- Corporation
- Other: _____

1.13 Operator name and title: GREAT BAY HYDRO CORPORATION

1.14 Operator address and contact information:

Address: (SEE SECTION 1.11)

Phone: _____ Fax: _____

Email: _____

1.15 Operator business organization type (check one):

- Individual
- Partnership
- Corporation
- Other: _____

SECTION II: Generation Unit Information, Fuels, Energy Resources and Technologies

2.1 ISO-NE Generation Unit Asset Identification Number or NEPOOL GIS Identification Number (either or both as applicable): ISO-NE # 772 , GIS # MSS772

2.2 Generation Unit Nameplate Capacity: 4.0 MW

2.3 Maximum Demonstrated Capacity: 4.0 MW

2.4 Please indicate which of the following Eligible Renewable Energy Resources are used by the Generation Unit: (Check ALL that apply) – *per RES Regulations Section 5.0*

- Direct solar radiation
- The wind
- Movement of or the latent heat of the ocean
- The heat of the earth
- Small hydro facilities
- Biomass facilities using Eligible Biomass Fuels and maintaining compliance with all aspects of current air permits; Eligible Biomass Fuels may be co-fired with fossil fuels, provided that only the renewable energy fraction of production from multi-fuel facilities shall be considered eligible.
- Biomass facilities using unlisted biomass fuel
- Biomass facilities, multi-fueled or using fossil fuel co-firing
- Fuel cells using a renewable resource referenced in this section

2.5 If the box checked in Section 2.4 above is “Small hydro facilities”, please certify that the facility’s aggregate capacity does not exceed 30 MW. – *per RES Regulations Section 3.32*

- ← check this box to certify that the above statement is true
- N/A or other (please explain) _____

2.6 If the box checked in Section 2.4 above is “Small hydro facilities”, please certify that the facility does not involve any new impoundment or diversion of water with an average salinity of twenty (20) parts per thousand or less. – *per RES Regulations Section 3.32*

- ← check this box to certify that the above statement is true
- N/A or other (please explain) _____

2.7 If you checked one of the Biomass facilities boxes in Section 2.4 above, please respond to the following:

A. Please specify the fuel or fuels used or to be used in the Unit: _____

B. Please complete and attach Appendix F, Eligible Biomass Fuel Source Plan.
Appendix F completed and attached? Yes No N/A

- 2.8 Has the Generation Unit been certified as a Renewable Energy Resource for eligibility in another state's renewable portfolio standard?
- Yes No If yes, please attach a copy of that state's certifying order.
- Copy of State's certifying order attached? Yes No N/A

SECTION III: Commercial Operation Date

Please provide documentation to support all claims and responses to the following questions:

- 3.1 Date Generation Unit first entered Commercial Operation: 01/01/1940 at the site.
(approximate)

If the commercial operation date is after December 31, 1997, please provide independent verification, such as the utility log or metering data, showing that the meter first spun after December 31, 1997. This is needed in order to verify that the facility qualifies as a New Renewable Energy Resource.

Documentation attached? Yes No N/A

- 3.2 Is there an Existing Renewable Energy Resource located at the site of Generation Unit?
- Yes
 No

- 3.3 If the date entered in response to question 3.1 is earlier than December 31, 1997 or if you checked "Yes" in response to question 3.2 above, please complete Appendix C.
- Appendix C completed and attached? Yes No N/A

- 3.4 Was all or any part of the Generation Unit used on or before December 31, 1997 to generate electricity at any other site?
- Yes
 No

- 3.5 If you checked "Yes" to question 3.4 above, please specify the power production equipment used and the address where such power production equipment produced electricity (attach more detail if the space provided is not sufficient):

SECTION IV: Metering

- 4.1 Please indicate how the Generation Unit's electrical energy output is verified (check all that apply):
- ISO-NE Market Settlement System
 Self-reported to the NEPOOL GIS Administrator

Other (please specify below and see Appendix D: Eligibility for Aggregations):

Appendix D completed and attached? Yes No N/A

SECTION V: Location

5.1 Please check one of the following that apply to the Generation Unit:

- Grid Connected Generation
- Off-Grid Generation (not connected to a utility transmission or distribution system)
- Customer Sited Generation (interconnected on the end-use customer side of the retail electricity meter in such a manner that it displaces all or part of the metered consumption of the end-use customer)

5.2 Generation Unit address: 964 CLYDE STREET
NEWPORT, VT 05855

5.3 Please provide the Generation Unit’s geographic location information:

A. Universal Transverse Mercator Coordinates: _____

B. Longitude/Latitude: 44.935 N / 72.178 W

5.4 The Generation Unit located: (please check the appropriate box)

- In the NEPOOL control area
- In a control area adjacent to the NEPOOL control area
- In a control area other than NEPOOL which is not adjacent to the NEPOOL control area ← *If you checked this box, then the generator does not qualify for the RI RES – therefore, please do not complete/submit this form.*

5.5 If you checked “In a control area adjacent to the NEPOOL control area” in Section 5.4 above, please complete Appendix E.

Appendix E completed and attached? Yes No N/A

SECTION VI: Certification

6.1 Please attach documentation, using one of the applicable forms below, demonstrating the authority of the Authorized Representative indicated in Section 1.8 to certify and submit this Application.

Corporations

If the Owner or Operator is a corporation, the Authorized Representative shall provide **either**:

- (a) Evidence of a board of directors vote granting authority to the Authorized Representative to execute the Renewable Energy Resources Eligibility Form, **or**
- (b) A certification from the Corporate Clerk or Secretary of the Corporation that the Authorized Representative is authorized to execute the Renewable Energy Resources Eligibility Form or is otherwise authorized to legally bind the corporation in like matters.

Evidence of Board Vote provided? Yes No N/A

Corporate Certification provided? Yes No N/A

Individuals

If the Owner or Operator is an individual, that individual shall complete and attach APPENDIX A, or a similar form of certification from the Owner or Operator, duly notarized, that certifies that the Authorized Representative has authority to execute the Renewable Energy Resources Eligibility Form.

Appendix A completed and attached? Yes No N/A

Non-Corporate Entities

(Proprietorships, Partnerships, Cooperatives, etc.) If the Owner or Operator is not an individual or a corporation, it shall complete and attach APPENDIX B or execute a resolution indicating that the Authorized Representative named in Section 1.8 has authority to execute the Renewable Energy Resources Eligibility Form or to otherwise legally bind the non-corporate entity in like matters.

Appendix B completed and attached? Yes No N/A

6.2 Authorized Representative Certification and Signature:

I hereby certify, under pains and penalties of perjury, that I have personally examined and am familiar with the information submitted herein and based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties, both civil and criminal, for submitting false information, including possible fines and punishment. My signature below certifies all information submitted on this Renewable Energy Resources Eligibility Form. The Renewable Energy Resources Eligibility Form includes the Standard Application Form and all required Appendices and attachments. I acknowledge that the Generation Unit is obligated to and will notify the Commission promptly in the event of a change in a generator's eligibility status (including, without limitation, the status of the air permits) and that when and if, in the Commission's opinion, after due consideration, there is a material change in the characteristics of a Generation Unit or its fuel stream that could alter its eligibility, such Generation Unit must be re-certified in accordance with Section 9.0 of the RES Regulations. I further acknowledge that the Generation Unit is obligated to and will file such quarterly or other reports as required by the Regulations and the Commission in its certification order. I understand that the Generation Unit will be immediately de-certified if it fails to file such reports.

Signature of Authorized Representative:

SIGNATURE:

DATE:

William C. Rodgers

3/8/2013

DIRECTOR OF MARKETING
(Title)

APPENDIX C
(Revised 6/11/10)
(Required of all Applicants with Generation Units at the Site of Existing
Renewable Energy Resources)

STATE OF RHODE ISLAND
PUBLIC UTILITIES COMMISSION

RENEWABLE ENERGY RESOURCES ELIGIBILITY FORM
Pursuant to the Renewable Energy Act
Section 39-26-1 et. seq. of the General Laws of Rhode Island

If the Generation Unit: (1) first entered into commercial operation before December 31, 1997; or (2) is located at the exact site of an Existing Renewable Energy Resource, please complete the following and attach documentation, as necessary to support all responses:

- C.1 Is the Generating Unit seeking certification, either in whole or in part, as a New Renewable Energy Resource? Yes No
- C.2 If you answered "Yes" to question C.1, please complete the remainder of Appendix C. If you answered "No" and are seeking certification entirely as an Existing Renewable Energy Resource, you do NOT need to complete the remainder of Appendix C.
- C.3 If an Existing Renewable Energy Resource is/was located at the site, has such Existing Renewable Energy Resource been retired and replaced with the new Generation Unit at the same site? Yes No
- C.4 Is the Generation Unit a Repowered Generation Unit (as defined in Section 3.29 of the RES Regulations) which uses Eligible Renewable Energy Resources and which first entered commercial operation after December 31, 1997 at the site of an existing Generation Unit? Yes No
- C.5 If you checked "Yes" to question C.4 above, please provide documentation to support that the entire output of the Repowered Generation Unit first entered commercial operation after December 31, 1997.
- C.6 Is the Generation Unit a multi-fuel facility in which an Eligible Biomass Fuel is first co-fired with fossil fuels after December 31, 1997? Yes No

- C.7 If you checked “Yes” to question C.6 above, please provide documentation to support that the renewable energy fraction of the energy output first occurred after December 31, 1997.
- C.8 Is the Generation Unit an Existing Renewable Energy Resource other than an Intermittent Resource (as defined in Sections 3.10 and 3.15 of the RES Regulations)? Yes No
- C.9 If you checked “Yes” to question C.8 above, please attach evidence of completed capital investments after December 31, 1997 attributable to efficiency improvements or additions of capacity that are sufficient to, were intended to, and can be demonstrated to increase annual electricity output in excess of ten percent (10%). As specified in Section 3.23.v of the RES Regulations, the determination of incremental production shall not be based on any operational changes at such facility **not directly** associated with the efficiency improvements or additions of capacity.

Please provide the single proposed percentage of production to be deemed incremental, attributable to the efficiency improvements or additions of capacity placed in service after December 31, 1997. Please make this calculation by comparing actual electrical output over the three calendar years 1995-1997 (the “Historical Generation Baseline”) with the actual output following the improvements. The incremental production above the Historical Generation Baseline will be considered “New” generation for the purposes of RES. Please give the percentage of the facility’s total output that qualifies as such to be considered “New” generation.

- C.10 Is the Generating Unit an Existing Renewable Energy Resource that is an Intermittent Resource? Yes No
- C.11 If you checked “Yes” to question C.10 above, please attach evidence of completed capital investments after December 31, 1997 attributable to efficiency improvements or additions of capacity that are sufficient to, were intended to, and have demonstrated on a normalized basis to increase annual electricity output in excess of ten percent (10%). The determination of incremental production shall not be based on any operational changes at such facility **not directly** associated with the efficiency improvements or additions of capacity. In no event shall any production that would have existed during the Historical Generation Baseline period in the absence of the efficiency improvements or additions to capacity be considered incremental production. Please refer to Section 3.23.vi of the RES Regulations for further guidance.
- C.12 If you checked “Yes” to C.10, provide the single proposed percentage of production to be deemed incremental, attributable to the efficiency improvements or additions of capacity placed in service after December 31, 1997. The incremental production above the Historical Generation Baseline will be considered “New” generation for the purposes of RES. Please make this calculation by comparing actual monthly electrical output over the three calendar years 1995-1997 (the “Historical Generation Baseline”) with the actual output following the improvements on a normalized basis. Please provide back-up

information sufficient for the Commission to make a determination of this incremental production percentage.

For example, for small hydro facilities, please use historical river flow data to create a monthly normalized comparison (e.g. average MWh produced per cubic foot/second of river flow for each month) between actual output values post-improvements with the Historical Generation Baseline. For solar and wind facilities, please use historical solar irradiation, wind flow, or other applicable data to normalize the facility's current production against the Historical Generation Baseline.

C.13 If you checked "no" to both C.3 and C.4 above, please complete the following:

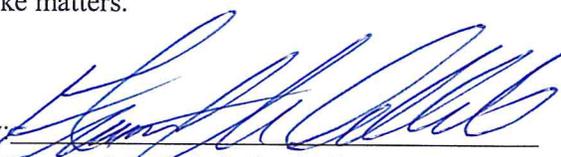
- a. Was the Existing Renewable Energy Resource located at the exact site at any time during calendar years 1995 through 1997? Yes No
- b. If you checked "yes" in Subsection (a) above, please provide the Generation Unit Asset Identification Number and the average annual electrical production (MWhs) for the three calendar years 1995 through 1997, or for the first 36 months after the Commercial Operation Date if that date is after December 31, 1994, for each such Generation Unit.
- c. Please attach a copy of the derivation of the average provided in (b) above, along with documentation support (such as ISO reports) for the information provided in Subsection (b) above. Data must be consistent with quantities used for ISO Market Settlement System.

GREAT BAY HYDRO CORPORATION

SECRETARY'S CERTIFICATE

The undersigned, Anthony M. Callendrello, Secretary of Great Bay Hydro Corporation, a New Hampshire corporation (the "Corporation"), does hereby certify this 8th day of March, 2013 on behalf of the Corporation as follows:

That William Rodgers is an Authorized Representative of the Corporation and is hereby authorized to execute, on behalf of the Corporation, the Renewable Energy Resources Eligibility Form for certification of eligibility of the Newport Hydro generating facility pursuant to the State of Rhode Island's Renewable Energy Act, or is otherwise authorized to legally bind the Corporation in like matters.

By: 

Anthony M. Callendrello
Vice President and Secretary

**Great Bay Hydro Corporation, Newport Hydro Facility
Application for Certification of Eligibility of Renewable Energy Resource
Pursuant to the Renewable Energy Act
Section 39-26-1 et. seq. of the General Laws of Rhode Island**

March 8, 2013

Attachment to Section 2.8 of Renewable Energy Resources Eligibility Form



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC UTILITY CONTROL
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

DOCKET NO. 04-09-11 APPLICATION OF GREAT BAY HYDRO CORPORATION
FOR QUALIFICATION OF NEWPORT HYDRO AS A
CLASS I RENEWABLE ENERGY SOURCE

January 12, 2005

By the following Commissioners:

Anne C. George
Donald W. Downes
John W. Betkoski, III

DECISION

INTRODUCTION

A. SUMMARY

In this Decision, the Department of Public Utility Control determines that the Newport Hydro 1,2,3 (Newport) generating facility qualifies as a Class I renewable energy source as a run-of-river hydroelectric facility for fourth Quarter generation on an annual basis and assigns it Connecticut Renewable Portfolio Standard (RPS) Registration Number CT00164-04.

B. BACKGROUND OF THE PROCEEDING

By application dated September 1, 2004, Great Bay Hydro Corporation (Great Bay) requested that the Department of Public Utility Control (Department) determine that the Newport 1,2,3 generation facility qualifies as a Class I renewable energy source.

Newport 1, 2, 3 will operate as a run-of-river hydroelectric facility from October 1 through December 31 and is located in Newport, Vermont. Newport began commercial

operation as a run-of-river facility for fourth quarter generation on November 21, 2003, and has a nameplate capacity of 4.0MW.

C. CONDUCT OF THE PROCEEDING

There is no statutory requirement for a hearing, no person requested a hearing, and none was held.

D. PARTICIPANTS IN THE PROCEEDING

The Department recognized Great Bay Hydro Corporation, 1 New Hampshire Avenue Suite 125, Portsmouth, NH 03801, and the Office of Consumer Counsel, Ten Franklin Square, New Britain, Connecticut 06051, as participants in this proceeding.

II. DEPARTMENT ANALYSIS

Pursuant to Connecticut General Statutes (C.G.S.) §16-1(a)(27), as amended by Public Act 03-221, An Act Concerning Technical Revisions to the Utility Statutes and Telecommunications Towers on Agricultural Land, "Class I renewable energy source" includes energy derived from a run-of-the-river hydropower facility provided such facility has a generating capacity of not more than five megawatts, does not cause an appreciable change in the river flow, and began operation after July 1, 2003.

In interpreting C.G.S. §16-1(a)(26), the Department determined that:

(1) "Facility" refers to an entire hydroelectric plant at a single site rather than a turbine generating unit within a hydroelectric plant;

(2) The "generating capacity of not more than five megawatts" refers to a hydroelectric facility's nameplate capacity, not its actual or average generation output;

(3) In order to qualify as "run-of-the-river," a hydroelectric facility must show a current FERC license or exemption that requires the facility to operate in run-of-river mode. In addition, a facility can qualify as a Class I or Class II renewable energy facility only to the extent that its FERC license or exemption requires run-of-river operation. Hydroelectric facilities that are not regulated by FERC will be required to show a FERC order or a court decision stating that FERC has no jurisdiction, or has declined to exercise jurisdiction, over such facility. In such cases, the hydroelectric facility must show that its operation allows the river inflow to equal outflow instantaneously and therefore, does not cause an appreciable change in the river flow; and

(4) "Began operations" means (A) the date an existing facility with generation began commercial operation as shown in documentation from FERC; (B) the new date given to an abandoned or destroyed facility that comes back into operation as shown in its documentation from FERC or as determined by the Department; (C) the date upon which a facility changes operation from store and release to run-of-river as shown in documentation from FERC; or (D) the new date that incremental generation is in operation at an existing facility as shown in its documentation from FERC.

See Docket No. 04-02-07, DPUC Declaratory Ruling Concerning "Run-of-the-River Hydropower" as That Term is Used in the Definitions of Class I and Class II Renewable Energy Source in C.G.S. §16-1(a)(26) & (27).

As provided in the application, Newport is a hydroelectric facility located at 964 Clyde Street, Newport, VT 05855. Newport is currently owned by Great Bay. According to Great Bay, there are 3 turbine generators at this facility, with a total combined nameplate capacity of 4 megawatts. According to its current FERC license, Newport is licensed to operate as a hydroelectric facility for 40 years beginning on November 1, 2003. Under its license, Newport is required to operate in run-of-river mode from October 1st through December 15th. FERC License, November 21, 2003, Project Nos. 2306-008 and -024, Article 402/Appendix p. A-3 (FERC License). Great Bay submitted a letter committing itself to operate the Newport Facility in run-of-river mode for the entire fourth quarter generation. It further states that it will notify the Department immediately if it is unable to maintain run-of-river status for the entire fourth quarter. Letter dated December 7, 2004. The FERC license also shows that Newport began operation in 1963. FERC license p. 1.

The Clyde River Hydroelectric Project, as originally licensed, consisted of three hydroelectric generating developments on the Clyde River and two storage impoundments located on an unnamed tributary to the Clyde River. Echo Pond and Seymour Lake impounded in 1922 and 1928, respectively, are storage reservoirs located on an unnamed tributary to the Clyde River. The West Charleston Development, constructed in 1900, is located at river mile 10.8. The Newport Nos. 1, 2, 3 Development, the most downstream of the project's developments, was located at river mile 1.5, just upstream of the river's mouth at Lake Memphremagog. The developments are located in the towns Newport, Derby, and Charleston in Orleans County in the St. Lawrence River Basin. Under its current license, Great Bay operates the Clyde River Project as a daily peaking facility. FERC License, p.2. The separation of over 9 miles of the developments associated with the Clyde River Project, along with the fact that they use different dams, is acceptable to the Department to determine Newport 1, 2, 3 eligibility as a single site.

Under its current FERC License, Newport Units 1 and 2 are the primary hydro units used at the Newport Nos. 1, 2, 3 Development for peaking operation. Unit 3 is used primarily during high flow conditions. FERC License, p. 5. According to Great Bay, the West Charleston facility and Newport 11 are currently not in operation. Also, Echo Pond and Seymour Lake are non-powered dams with no generation associated with it.

The Newport facility was not operating in run-of-river mode before being required by the Water Quality Certification (WQC) issued by the State of Vermont on August 1, 2002. The FERC License requires compliance with any terms and conditions established by Federal or State agencies. FERC License, p. 9. The Newport facility is a part of the Clyde River Project which has other generating stations on the river, however, Newport 1, 2 and 3 generators are being required to operate in run-of-river mode from October 1 thru December 15. The WQC describes the river flows on the Clyde River, where the Newport facility is located, and indicates, "Presently, the Newport 1,2,3 facility is the only station which significantly alters the natural river hydrology." WQC, Paragraph 39, p. 11. The WQC explicitly rejected the 150 cfs flow and the artificial flow fluctuations proposed by the applicant and stated, "For these reasons, this certification is being conditioned to require true run-of-river operations

from October 1 - December 15." The Department will accept this new requirement as evidence that the Newport facility has been required for the first time to operate in run-of-river mode. WQC, p. 91 and as adopted in FERC License.

Based on the foregoing, the Department determines that Newport 1, 2 and 3 qualifies as a Class I renewable energy facility for 4th quarter generation.

FINDINGS OF FACT

1. Newport 1, 2, 3 is a hydroelectric generating facility located in Newport, Vermont.
2. Newport 1, 2, 3 is currently owned by Great Bay Hydro Corporation.
3. Newport 1, 2, 3 began operation in 1963.
4. Newport 1, 2, 3 began operation as a run-of-river facility for fourth quarter generation beginning on November 1, 2003.
5. Newport 1, 2, 3 has 3 turbine generators with a total combined nameplate capacity of 4 megawatts.
6. Newport is licensed by FERC to operate as a hydroelectric facility for 40 years beginning on November 1, 2003.
7. Under its FERC license, Newport 1, 2, 3 is required to operate in run-of-river mode during the period from October 1 to December 15th.
8. Great Bay submitted a letter committing itself to operate the Newport 1, 2, 3 Facility in run-of-river mode for the entire fourth quarter generation.

CONCLUSION

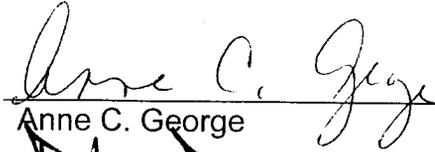
Based on the evidence submitted, the Department finds that Newport 1, 2, 3 qualifies as a Class I renewable generation source for fourth quarter generation on an annual basis pursuant to Connecticut General Statutes §16-1(a)(26).

The Department assigns each renewable generation source a unique Connecticut Renewable Portfolio Standard (RPS) registration number. Newport's 1, 2, 3 Connecticut RPS registration number is CT00164-04.

The Department's determination in this docket is based on the information submitted by Great Bay. The Department may reverse its ruling or revoke the Applicant's registration if any material information provided by the Applicant proves to be false or misleading. The Department reminds Great Bay that it is obligated to notify the Department within 10 days of any changes to any of the information it has provided to the Department.

DOCKET NO. 04-09-11 APPLICATION OF GREAT BAY HYDRO CORPORATION
FOR QUALIFICATION OF NEWPORT HYDRO AS A
CLASS I RENEWABLE ENERGY SOURCE

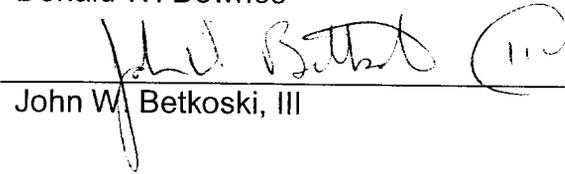
This Decision is adopted by the following Commissioners:



Anne C. George



Donald W. Downes



John W. Betkoski, III

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Department of Public Utility Control, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.



Louise E. Rickard
Acting Executive Secretary
Department of Public Utility Control

JAN 18 2005

Date



STATE OF CONNECTICUT

AUG 31 2005

DEPARTMENT OF PUBLIC UTILITY CONTROL
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

DOCKET NO. 04-09-11RE01 APPLICATION OF GREAT BAY HYDRO
CORPORATION FOR QUALIFICATION OF
NEWPORT HYDRO AS A CLASS I RENEWABLE
ENERGY SOURCE

August 24, 2005

By the following Commissioners:

Anne C. George
Linda J. Kelly
Jack R. Goldberg

DECISION

I. INTRODUCTION

A. SUMMARY

By letters dated April 25, 2005 and May 3, 2005, Great Bay Hydro Corporation requested pursuant to Connecticut General Statute (C.G.S.) §4-181a(b) and 16-9, that the Department of Public Utility Control (Department) reopen Docket No. 04-09-11, and consider qualification of the Newport Hydro facility as a Class I renewable energy source for the period January 1 through September 30.

On January 12, 2005, the Department issued a Decision in Docket No. 04-09-11. In this decision the Department of Public Utility Control determined that the Newport Hydro 1, 2, 3 (Newport) generating facility qualifies as a Class I renewable energy source as a run-of-river hydroelectric facility for fourth Quarter generation on an annual basis.

In the current docket, 04-09-11RE01, the Department of Public Utility Control determines that Newport qualifies as a Class I renewable energy source as a run-of-river hydroelectric facility for the period of January 1 through September 30 and maintains its Connecticut Renewable Portfolio Standard (RPS) Registration Number CT00164-04.

B. BACKGROUND OF THE PROCEEDING

By letters dated April 25, 2005 and May 3, 2005, Great Bay Hydro Corporation (Great Bay) requested that the Department of Public Utility Control (Department) determine that Newport qualifies as a Class I renewable energy source for the period of January 1 through September 30.

C. CONDUCT OF THE PROCEEDING

There is no statutory requirement for a hearing, no person requested a hearing, and none was held.

D. PARTICIPANTS IN THE PROCEEDING

The Department recognized Great Bay Hydro Corporation, 1 New Hampshire Avenue Suite 125, Portsmouth, NH 03801, and the Office of Consumer Counsel, Ten Franklin Square, New Britain, Connecticut 06051, as participants in this proceeding.

II. PETITIONER'S EVIDENCE

In a final decision issued on January 12, 2005 in Docket No. 04-09-11, the Department found that Newport facility qualifies as a Class I renewable generation source for the period of October 1 through December 31 of each year. Given changes in the operating mode of Newport, Great Bay is seeking qualification of Newport as a Class I renewable energy source for the period of January 1 through September 30.

III. DEPARTMENT ANALYSIS

Pursuant to Connecticut General Statutes (C.G.S.) §16-1(a)(27), as amended by Public Act 03-221, An Act Concerning Technical Revisions to the Utility Statutes and Telecommunications Towers on Agricultural Land, "Class I renewable energy source" includes energy derived from a run-of-the-river hydropower facility provided such facility has a generating capacity of not more than five megawatts, does not cause an appreciable change in the river flow, and began operation after July 1, 2003.

In interpreting C.G.S. §16-1(a)(26), the Department determined that:

(1) "Facility" refers to an entire hydroelectric plant at a single site rather than a turbine generating unit within a hydroelectric plant;

(2) The "generating capacity of not more than five megawatts" refers to a hydroelectric facility's nameplate capacity, not its actual or average generation output;

(3) In order to qualify as “run-of-the-river,” a hydroelectric facility must show a current FERC license or exemption that requires the facility to operate in run-of-river mode. In addition, a facility can qualify as a Class I or Class II renewable energy facility only to the extent that its FERC license or exemption requires run-of-river operation. Hydroelectric facilities that are not regulated by FERC will be required to show a FERC order or a court decision stating that FERC has no jurisdiction, or has declined to exercise jurisdiction, over such facility. In such cases, the hydroelectric facility must show that its operation allows the river inflow to equal outflow instantaneously and therefore, does not cause an appreciable change in the river flow; and

(4) “Began operations” means (A) the date an existing facility with existing generation began commercial operation as shown in documentation from FERC; (B) the new date given to an abandoned or destroyed facility that comes back into operation as shown in its documentation from FERC or as determined by the Department; (C) the date upon which a facility changes operation from store and release to run-of-river as shown in documentation from FERC; or (D) the new date that incremental generation is in operation at an existing facility as shown in its documentation from FERC.

See Docket No. 04-02-07, DPUC Declaratory Ruling Concerning “Run-of-the-River Hydropower” as That Term is Used in the Definitions of Class I and Class II Renewable Energy Source in C.G.S. §16-1(a)(26) &(27).

As provided in the letter submitted by the Applicant, “amendment for qualification of Newport Hydro as a Class I Renewable Energy Source”, the FERC license issued for the Newport Hydro facility was granted subject to Great Bay’s compliance with the articles contained within the license. Order Issuing New License, Project No. 2306, November 21, 2003. These license articles include requirements for the implementation of measures to allow for the upstream and downstream passage of fish. On April 15, 2005, Great Bay submitted to FERC its plan for complying with those license articles. The Fish Passage Plan was developed after months of consultation with State of Vermont and Federal agency representatives. Fish Passage Plan, Clyde River Hydroelectric Project, FERC No. 2306-VT.

Contained within Section 3.1 of the Fish Passage Plan are the measures that will be taken to ensure upstream fish passage in compliance with the license articles. Specifically, documented within Section 3.1 is a proposal by Great Bay Hydro to operate in run-of-river mode for the entire year until the upstream passage is constructed and operational. Section 3.1 of the Fish Passage Plan states in part:

To aid in the development of a motivated run of upstream migrants, Great Bay proposes to operate the Newport 1, 2, 3 Development in an instantaneous run-of-river mode until the upstream passage is constructed and operational. The License currently requires that Newport 1, 2, 3 operate in a run-of-river mode from October 1 through December 15 of each year. Great Bay operated Newport 1, 2, 3 in the run-of-river mode for this period during 2004, and has voluntarily continued run-of-river operation since December 16, 2004 as part of its proposed fish passage plan.

In support of its request, the Applicant states that the extension of time is needed to allow for final resolution of the pending appeal¹ of the project's amended Water Quality Certification (WQC) and to allow the agencies² additional time for consultation and review of the design of the upstream and downstream fish passage systems. The Applicant indicates that the design of the fish passage facilities would likely be impacted by the decision reached in the appeal process. The Applicant includes letters from the resource agencies expressing their support for a further extension of time for final fish passage plans based on the pending appeal of the WQC. The reasons advanced by the Applicant in support of the requested extension of time are reasonable and justify the extension. Federal Energy Regulatory Commission, Order Granting Extension of Time Requests Under Articles 409, 410, 411, 412, and 413, May 17, 2005.

In order to achieve run-of-river operation, Great Bay Hydro controls pond level and has committed to maintain the pond level to within plus or minus 0.125 foot (1.5 inches) of dam crest. Maintaining constant pond level results in outflow equaling inflow, or true run-of-river operation. Response to Interrogatory EL-1. June 28, 2005. The Flow Management Plan described the final configuration of the water level control system to be installed at the Newport plant. The water level control system will ultimately consist of two new water level sensors located at the dam to measure headpond elevation and which transmit pond level information to the plant via fiber optic cables. Id. Water level data and turbine gate position are inputs into a programmable logic controller (PLC) located at the powerhouse. The PLC monitors headpond level and sends signals to the turbine governor to increase or decrease turbine gate opening to maintain the pond level within the operating limits in response to changes in inflow. The PLC is linked to a personal computer that provides the ability to input commands and display and record operating data. Id.

The Water Level Control system will provide continuous flow releases through the turbines at the powerhouse as required to control pond level within required limits during normal operating conditions. Flow Management Plan FERC License Articles 310, 312, and 408. Clyde River Hydroelectric Project, FERC No. 2306-VT, November 2004. Two water level sensors will be operated simultaneously to provide redundancy and ensure proper operation of the system. Turbine operation data will also be monitored by the system to ensure that the release requirements are being met. During run-of-river operation the system will maintain the pond level within a 0.25 foot band. Order Approving Flow Management Plan Under Articles 310, 313 and 408, Projects Nos. 2306-059, 2306-060, 2306-061, March 9, 2005. During the first quarter of 2005 there were no deviations in impoundment level of greater than one inch. Response to Interrogatory EL-2.

The Department will require the Applicant to file quarterly affidavits and operational data reports depicting the daily pond level and river flow at the Newport facility supporting the facility's operation in run-of-river mode for the first three

¹ The pending appeal is currently before the Vermont Supreme Court (Docket No. 2004-101.)

² Vermont Agency of Natural Resources and the U.S. Fish and Wildlife Service.

quarters of any given calendar year. If and when the Applicant obtains an amended FERC license depicting the requirement to operate in run-of-river mode year-round, the Department may waive the quarterly affidavit and operational data filing requirement.

Based on the foregoing, the Department determines that Newport 1, 2, 3 qualifies as a Class I renewable energy facility.

IV. FINDINGS OF FACT

1. By letters dated April 25, 2005 and May 3, 2005, Great Bay Hydro Corporation (Great Bay) requested that the Department of Public Utility Control (Department) determine that the Newport generation facility qualifies as a Class I renewable energy source for the period of January 1 through September 30.
2. Great Bay is not required by FERC to operate in run-of-river mode but voluntarily does so.
3. Facility provided data showing it has operated voluntarily in run-of-river mode since December 16, 2004.
4. The FERC license issued for the Newport Hydro facility was granted subject to Great Bay's compliance with the articles contained within the license. Order Issuing New License, Project No. 2306, November 21, 2003. These license articles include requirements for the implementation of measures to allow for the upstream and downstream passage of fish.
5. On April 15, 2005, Great Bay submitted to FERC its plan for complying with those license articles.
6. Contained within Section 3.1 of the Fish Passage Plan are the measures that will be taken to ensure upstream fish passage in compliance with the license articles. Specifically, documented within Section 3.1 is a proposal by Great Bay Hydro to operate in run-of-river mode for the entire year until the upstream passage is constructed and operational.

V. CONCLUSION AND ORDERS

A. CONCLUSION

Based on the evidence submitted, the Department finds that Newport qualifies as a Class I renewable generation source pursuant to Connecticut General Statutes §16-1(a)(26).

The Department assigns each renewable generation source a unique Connecticut Renewable Portfolio Standard (RPS) registration number. Newport's Connecticut RPS registration number will continue as CT00164-04.

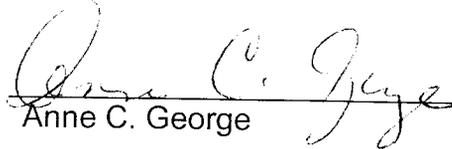
The Department's determination in this docket is based on the information submitted by Great Bay. The Department may reverse its ruling or revoke the Applicant's registration if any material information provided by the Applicant proves to be false or misleading. The Department reminds Great Bay that it is obligated to notify the Department within 10 days of any changes to any of the information it has provided to the Department.

B. ORDERS

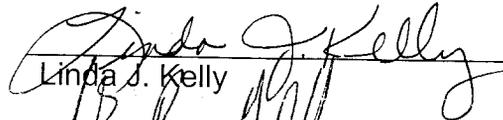
1. The Department will require that Great Bay Hydro file an affirmation with the Department each quarter that Newport has operated in run-of-river mode for the prior calendar quarter. The report is to be filed within 30 days following the end of each calendar quarter. Additionally, the Department notes that, at any time, it may request operating data from Newport that demonstrates its operation as a run-of-river facility, including, but not limited to, pond level, generator output, and flow rates.

DOCKET NO. 04-09-11RE01 APPLICATION OF GREAT BAY HYDRO CORPORATION FOR QUALIFICATION OF NEWPORT HYDRO AS A CLASS I RENEWABLE ENERGY SOURCE

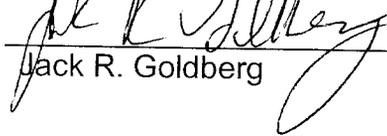
This Decision is adopted by the following Commissioners:



Anne C. George



Linda J. Kelly



Jack R. Goldberg

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Department of Public Utility Control, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.



Louise E. Rickard
Acting Executive Secretary
Department of Public Utility Control

AUG 29 2005

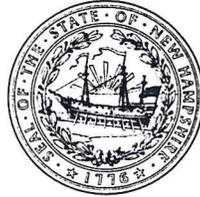
Date

THE STATE OF NEW HAMPSHIRE

CHAIRMAN
Thomas B. Getz

COMMISSIONERS
Clifton C. Below
Amy L. Ignatius

EXECUTIVE DIRECTOR
AND SECRETARY
Debra A. Howland



PUBLIC UTILITIES COMMISSION
21 S. Fruit Street, Suite 10
Concord, N.H. 03301-2429

Tel. (603) 271-2431

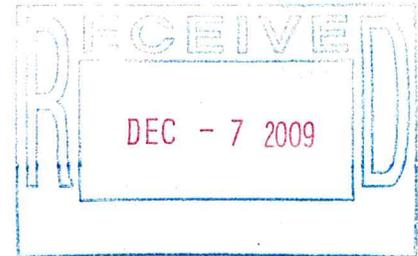
FAX (603) 271-3878

TDD Access: Relay NH
1-800-735-2964

Website:
www.puc.nh.gov

December 2, 2009

Anthony M. Callendrello
Vice President
Great Bay Hydro Corporation
1 New Hampshire Avenue, Suite 207
Portsmouth, NH 03801



Re: DE 09-192, Great Bay Hydro Corporation
Certification Application for Class II Eligibility of its Newport Hydroelectric
Facility pursuant to RSA 362-F

Dear Mr. Callendrello:

On October 9, 2009, Great Bay Hydro Corporation submitted an application requesting certification for its Newport hydroelectric facility (Newport facility) as a Class IV facility pursuant to RSA 362-F, New Hampshire's Renewable Portfolio Standard law. Staff has reviewed the application and recommends approval noting that the Newport facility application was completed on October 9, 2009 in accordance with N.H. Code Admin Rule Puc 2500.

Pursuant to RSA 362-F:4, IV, Class IV eligibility requires that a facility began operation prior to January 1, 2006, has a nameplate capacity of five megawatts or less, has installed upstream and downstream diadromous fish passages, and when required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act.

Your application indicates that the Newport facility is a run-of-river hydroelectric facility located on the Clyde River at 964 Clyde Street, Newport, Vermont and it has a gross nameplate capacity of four megawatts. The Newport facility, which is part of the Clyde River Hydroelectric Project (FERC No. P-2305), received its initial Federal Energy Regulatory Commission license in November 1963, although the Newport generating units date back to the 1930s. Your application included proof that the facility's upstream and downstream fish passages have been in operation since September 2007, thus demonstrating that the facility meets the requirements of RSA 362-F. Your application also provided support that the water quality certification for the Clyde River

December 2, 2009

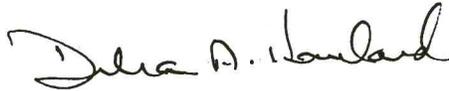
Page two

Project was issued in July 2003 by the Vermont Water Resources Board. The facility's NEPOOL generation information system (GIS) facility code is MSS772.

The Commission has reviewed the Newport facility application and determined that it has provided all the necessary documentation to demonstrate that the Newport facility is eligible for certification as a Class IV facility. Therefore, the Commission hereby certifies that the Newport facility is a Class IV renewable energy source effective October 9, 2009 and is eligible to be issued New Hampshire Class IV Renewable Energy Certificates.

Attached please find a copy of the notice of this certification provided to the GIS administrator. The New Hampshire Renewable Portfolio Standard certification code for the Newport facility is NH-IV-09-049.

Sincerely,

A handwritten signature in cursive script, appearing to read "Debra A. Howland".

Debra A. Howland
Executive Director

cc: William C. Rodgers
Great Bay Hydro Corporation

Encl.



**Great Bay Hydro Corporation, Newport Hydro Facility
Application for Certification of Eligibility of Renewable Energy Resource
Pursuant to the Renewable Energy Act
Section 39-26-1 et. seq. of the General Laws of Rhode Island**

March 8, 2013

Additional Responses to Renewable Energy Resources Eligibility Form, Appendix C

*C.11. If you checked “Yes” to question C.10 above, please attach evidence of completed capital investments after December 31, 1997 attributable to efficiency improvements or additions of capacity that are sufficient to, were intended to, and have demonstrated on a normalized basis to increase annual electricity output in excess of ten percent (10%). The determination of incremental production shall not be based on any operational changes at such facility **not directly** associated with the efficiency improvements or additions of capacity. In no event shall any production that would have existed during the Historical Generation Baseline period in the absence of the efficiency improvements or additions to capacity be considered incremental production. Please refer to Section 3.23.vi of the RES Regulations for further guidance, including fuel type, gross nameplate generation capacity, the initial commercial operation date, and the date it began operation, if different.*

Great Bay Hydro Corporation (“Great Bay”) has completed three significant capital investment projects at its Newport Hydroelectric Facility (“Newport Hydro”) since acquiring the facility in 2004. These projects have improved the efficiency of the facility and led to incremental electrical power output. The investment projects are described as follows:

1. In 2005, Great Bay replaced the hydraulic control system at the Newport Hydro facility and installed new electronic controls for all three generating units (Unit Nos. 1, 2, and 3) to replace what had been a completely manual system. The most significant aspects of the station upgrade included installation of (i) pond level instrumentation and control system, (ii) intake rack differential instrumentation, (iii) hydraulic gate controls with gate position instrumentation, (iv) automatic unit start and synchronization, (v) programmable logic controller to automatically adjust generating units, (vi) automatic restart of all generating units following a plant utility trip, and (vii) new switchgear and digital excitation systems.

Also in 2005, Great Bay rebuilt Unit No. 3 with work including (i) replacement of an approximately 20 foot long section of penstock to the generating unit, (ii) complete refurbishment of the turbine runner, (iii)

fabrication and installation of new wicket gates and gate controls, (iv) rewinding of the generator, and (v) integration of the unit into the plant's new automated control system.

All of the above efficiency improvements became operational on December 16, 2005.

2. In 2010, Great Bay replaced the existing Unit No. 3 turbine runner with a new runner manufactured by Canadian Hydro Components. The new runner has increased the unit's generating efficiencies and improved the hydraulic capacity of the turbine. The project involved the replacement of several other component parts of the generating unit, including wicket gates, runner chest, stuffing box, and a refurbished shaft. This work was completed and on-line on September 1, 2010.
3. In 2012, Great Bay replaced the existing Unit No. 2 turbine runner with a new runner manufactured by Canadian Hydro Components. The new runner has increased the unit's generating efficiencies and improved the hydraulic capacity of the turbine. This work was completed and on-line on September 5, 2012.

Commissioning letters for each of the above investment projects are attached hereto as Exhibit 1.

C.12. If you checked "Yes" to C.10, provide the single proposed percentage of production to be deemed incremental, attributable to the efficiency improvements or additions of capacity placed in service after December 31, 1997. The incremental production above the Historical Generation Baseline will be considered "New" generation for the purposes of RES. Please make this calculation by comparing actual monthly electrical output over the three calendar years 1995-1997 (the "Historical Generation Baseline") with the actual output following the improvements on a normalized basis. Please provide back-up information sufficient for the Commission to make a determination of this incremental production percentage.

For example, for small hydro facilities, please use historical river flow data to create a monthly normalized comparison (e.g. average MWh produced per cubic foot/ second of river flow for each month) between actual output values post-improvements with the Historical Generation Baseline. For solar and wind facilities, please use historical solar irradiation, wind flow, or other applicable data to normalize the facility's current production against the Historical Generation Baseline.

Great Bay received Orders Certifying Incremental Hydropower Generation for Production Tax Credit from the Federal Energy Regulatory Commission ("FERC") for each of the three efficiency improvement projects described above. The FERC Orders are attached hereto as Exhibit 2.

The Historical Generation Baseline and Incremental Generation values used by FERC in its determinations were calculated by using 78 years of monthly mean stream flow data from the USGS Gage # 04296500 Clyde River at Newport, Vermont. This gage is located 0.67 miles downstream from the project site.

The Historic Generation Baseline prior to the first efficiency improvement in 2005 was 13,578 MWh of annual production. The annual Incremental Generation attributable to the three efficiency improvements is 4,464 MWh, resulting in total annual production of 18,042 MWh. Therefore, the percentage of incremental production attributable to the efficiency improvements placed in service since 2005 is 24.74%.

C.13. (b) If you checked "yes" in Subsection (a) above, please provide the Generation Unit Asset Identification Number and the average annual electrical production (MWhs) for the three calendar years 1995 through 1997, or for the first 36 months after the Commercial Operation Date if that date is after December 31, 1994, for each such Generation Unit.

(c) Please attach a copy of the derivation of the average provided in (b) above, along with documentation support (such as ISO reports) for the information provided in Subsection (b) above. Data must be consistent with quantities used for ISO Market Settlement System

The ISO-NE Generation Unit Asset ID Number for Newport Hydro is 772.

A new FERC License for Newport Hydro was issued in November 2003 that significantly changed the operating requirements of the facility. The November 2003 license for the first time required run-of-river operation at Newport Hydro for a portion of the year, minimum pond levels, and a minimum bypass flow, all of which result in reduced annual electrical production.

As explained in Great Bay's response to question C.12, the calculations used by FERC in its Orders Certifying Incremental Hydropower Generation for Newport Hydro are based on 78 years of monthly mean stream flow data (including the years 1995 through 1997) from the USGS Clyde River Gage at Newport, Vermont. The stream flow data was normalized to reflect the new flow regime instituted under the 2003 license. This more extensive set of normalized stream flow data was used to calculate the Historic Generation Baseline and the Generation with Improvements, and was relied upon by FERC in issuing its Orders Certifying Incremental Hydropower Generation.

Should the Public Utilities Commission require further information regarding Great Bay's application for renewable energy resource eligibility for Newport Hydro, please contact Bill

Great Bay Hydro, Newport Hydro Facility
Additional Responses to Eligibility Form
Page 4

Rodgers by phone at (603) 766-8747 or electronic mail at brodgers@greatbaypower.com, or
Tony Callendrello by phone at (603) 766-8748 or electronic mail at
acallendrello@baycorpholdings.com.

**Great Bay Hydro Corporation, Newport Hydro Facility
Application for Certification of Eligibility of Renewable Energy Resource
Pursuant to the Renewable Energy Act
Section 39-26-1 et. seq. of the General Laws of Rhode Island**

March 8, 2013

EXHIBIT 1

Commissioning Letters for Investment Projects



Eaton Corporation
1130-B U.S. Route 202
Winthrop, ME. 04364
Tel: 207-377-5950
Fax: 207-377-5746

4 October 2006

Mr. Bill Rodgers
Great Bay Hydro Corporation
1 New Hampshire Avenue
Suite 207
Portsmouth, NH 03801

Mr. Gary Robinson
Great Bay Hydro Corporation
P.O. Box 134
Milo, Maine 04463

Attn: Bill Rodgers, Gary Robinson
CC. Mark Hinton

Subject: Clyde River Hydro Operating Efficiencies.

Background

The Clyde River Hydro Project, FERC No. 2306-VT, located in Newport, Vermont and owned by Great Bay Hydro Corporation, consists of two Francis hydro-turbine generators rated at 2100kVA and one horizontal unit rated at 800kVA.

Eaton Electrical was contracted to provide new protection and automation equipment for the Clyde River Hydro Project in 2005. Included in the scope of work was; new gate controls, a PLC based control system, automatic synchronizer and other miscellaneous equipment. In addition Great Bay has purchased new switchgear, protection equipment and had done extensive mechanical work on all three units. In December of 2005 this new equipment was commissioned as part of the overall upgrade project. All three units become fully operational on December 16th of 2005.

Eaton was asked to evaluate the efficiencies gained by the implementation of the upgraded equipment and control systems. This report outlines the site conditions prior to the upgrade and expected gains attributed to each aspect of the upgrade. Many improvements were made to achieve overall project objectives of improving protection, safety, reliability, and availability and maximizing power production. Great Bay gave these goals to Eaton and equipment design and controls implementation was executed to maximize all of the project objectives.

Pre-Upgrade Site Conditions

Prior to the upgrade the Clyde River project had absolutely no automation equipment in service. Each machine was manually started and synchronized by

the plant operator. Adjustments to the machine load were accomplished manually based on operator observations and at intervals that could only be accomplished while the operator was on site.

There was no in-plant instrumentation relative to water flows and levels, the only real data was via a USGS stream flow gauge located downstream of the site with data that could be viewed by the operator on the Internet. This data was given in 15 minute intervals and posted to the USGS website every 4 hours. It was our observation that the limited protection systems were not reliable and due to unusual operating parameters at the utility point of connection, the site would trip offline frequently due to an unreliable inter-tie connection.

It was our observation that unit #3 was not in operation and could not be utilized as a viable energy source due to lack of maintenance and repair. The Governor system was no longer functional, the generator required a rewind of the stator and rotor and the turbine required extensive mechanical repair.

Site and System Upgrades

Included in the scope of work that was contracted to Eaton Electrical, or work completed in conjunction with Great Bay, were the following system upgrades:

- Pond Level Instrumentation and Control System
- Intake Rack Differential Instrumentation
- Hydraulic Gate Controls with Gate Position Instrumentation
- Generator Management System
- Automatic Unit Start and Synchronization
- Stream Flow Monitoring
- Complete Rebuild of Unit #3
- Wicket gate and gate linkage rework
- Unit monitoring and alarms
- Remote Operator Access to Plant Control System
- Automatic Restart of all units following a Plant Utility Trip
- Upgraded real time Generation Metering and Instrumentation
- Backup Manual Control System
- New Circuit Breakers, Switchgear and Power Cable
- New Digital Excitation Systems
- Automatic Power Factor Control

Each of the above items has significantly increased the total efficiency of the plant and the ability of the equipment to utilize the resource. Although no real empirical data is available to compare the new operation to the old, based on our experience at other sites and our observations of the plant operation over the last year, we can estimate with a high degree of confidence that overall plant operations have improved by 15%-20%. **That is not accounting for the increased output achieved by the return to service of unit #3.**

The following paragraphs compare or evaluate each component of the upgrade.

Pond Level Instrumentation and Control System

Relative to pond level controls, each unit can be used to automatically regulate the pond level as measured at the Clyde Pond impoundment. In the past it was the operator's responsibility to adjust the units' kW output to attempt to maintain a stable pond level. In the event of excess water availability due to snow melt or rain storm, the operator had to travel to the impoundment to observe the excess water and then travel to the plant to make adjustments based on operational experience.

The new system continuously monitors pond water level and will make instantaneous adjustments to the unit output in response to water level changes. In the past it could have been hours before the operator was able to observe changes in water levels and in the process an excessive amount of water would spill over the dam crest, resulting in lost generation opportunities.

Intake Rack Differential Instrumentation

New intake rack differential instrumentation was installed as part of the upgrade. This instrumentation is used to protect the racks from failure due to excessive blockage due to debris or ice. Another benefit of this feature is a real time readout and multi-level alarm that alerts the operator when rack differential get too high. The benefit is that now the operator knows when he is losing generation due to a plugged rack condition and can quickly remedy the situation.

Hydraulic Gate Controls with Gate Position Instrumentation

New hydraulic gate controls were installed in direct replacement of the old Woodward governor system. These systems allow for more precise control of each unit's output. These controls have eliminated the governor hunting and drift that would occur with the old system.

Generator Management System

New protection equipment was installed on each generator to monitor machine stator and bearing temperatures. In addition to providing more extensive unit protection, machine temperatures can be monitored and trended to allow for a more precise predictive maintenance program. Another benefit of this system is to allow the operator to run the units at higher loads as ambient conditions allow without risk of overloading or stressing the machine insulation systems.

Automatic Unit Start and Synchronization

One key feature of the new equipment is the automatic unit start and synchronization. Each unit can now be remotely or automatically started and put online without the operator being on site. This feature has saved a substantial

amount of downtime as the units can quickly recover from a power system disturbance or be put online in response to rapidly changing water levels. This can save hours of water over the dam in these situations. It is expected that this feature alone can increase plant efficiency by as much as 8%-10% on an annual basis.

Stream Flow Monitoring

All possible water flow passages or channels are now monitored for water flow. This not only includes water flow through the units and the low-level gate at the dam, but water spillage over the dam. The control and monitoring system allows the plant operator to make informed decisions on his generation levels to maximize power production.

Complete Rebuild of Unit #3

Upon our initial involvement in the refurbishment of this site, unit #3 was not in operation. In working with Great Bay we were not only able to make this unit operational, we were able to utilize all of the capacity of this unit and integrate this unit into the plant control scheme. This unit can now be used as a low-flow unit at better efficiency than one of the larger units and as a supplement to the larger units.

Wicket gate and gate linkage rework

We observed that Great Bay completed extensive mechanical work the units during our time onsite. Leakage through the gates was great enough prior to the upgrade that sometimes it was difficult to stop a unit using the brakes. This work has gone a long way to reducing leakage through the units when down as well as improving on-line efficiency due to improved energy conversion.

Remote Operator Access to Plant Control System Automatic Restart of all units following a Plant Utility Trip

Prior to the control system upgrade it would take some time for the operator to put units online after a trip. If he was not on site he would have to drive to the site to evaluate the conditions prior to putting the units back online. This delay, which could be as long as several hours, resulted in lost generation opportunities.

With the new controls, the units will come back online automatically as soon as conditions allow without operator intervention. Also, if an alarm is holding the unit out the operator can dial-in to the site to reset the alarm if appropriate, and put the unit(s) online remotely, saving driving time.

Upgraded real time Generation Metering and Instrumentation

New metering and instrumentation allows for better control of the units especially around the full load operation of the machines. Therefore, the units can be

operated at full potential when conditions dictate without risk of creating and overload.

Backup Manual Control System

A redundant set of controls was installed to allow backup manual operation of the units in the event of a component or control system failure. This adds to the overall reliability of the system and reduces downtime by eliminating most single-point failures.

New Circuit Breakers, Switchgear and Power Cable

Improved reliability was achieved by replacing the old breakers and power system components. Efficiencies were gained in losses by eliminating the step-up transformer for unit #3 and increasing cable sizes.

New Digital Excitation Systems Automatic Power Factor Control

With the new excitation equipment the units can be run in power factor control at unity power factor. This control mode allows for most of the generator capacity to be used to generate kilowatts. By having tighter control of voltage and power factor, system losses are reduced.

Summary

Without real comparison data Eaton cannot provide exact numbers as to actual gains in efficiencies for the Clyde River Hydro Project. However, we can say with a good degree of certainty, based on recent generation and uptime numbers at the project, that the above improvements have greatly improved the operation of the facility.

Eaton expects that if the above improvements attribute to 1%-2% gain individually, over time, the net cumulative gain should be 15%-20%, conservatively. We have achieved similar results for other stations in Vermont of similar size and design.

Prepared By:

Ian Peacock
Advisory Engineer
Eaton Electrical Services and Systems
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March 18, 2011

Mr. Anthony Callendrello
Vice President
Great Bay Hydro Corporation
1 New Hampshire Avenue, Suite 207
Portsmouth, NH 03801

Subject: Commissioning Report for Newport Hydro Unit #3

Dear Mr. Callendrello:

Per your request, Canadian Hydro Components Ltd. ("CHC") is providing Great Bay Hydro Corporation ("Great Bay") with this commissioning report for the Newport Hydro Unit #3 located in Newport, Vermont.

CHC was the equipment vendor for the Unit #3 project, which included the replacement of the historic Unit #3 runner and associated equipment. A CHC representative was on-site in Newport observing the installation of the replacement equipment and the testing of the unit.

Based on our involvement in the project, CHC hereby certifies that the refurbished Newport Unit #3 project was placed in service as of September 1, 2010, and is capable of generating the as-built capacity of 600 kW.

Please feel free to contact me with any questions regarding this matter.

Yours truly,

Mike Dupuis
President

MD/nb

Cc: Mr. Bill Rodgers, Great Bay Hydro Corporation



16 Main Street West, PO Box 640
Almonte, Ontario, Canada K0A 1A0

Telephone: (613) 256-1983 Fax: (613) 256-4235
Email: inquiries@canadianhydro.com

September 10, 2012

Mr. Anthony Callendrello
Vice President
Great Bay Hydro Corporation
1 New Hampshire Avenue, Suite 207
Portsmouth, NH 03801

Subject: Commissioning Report for Newport Hydro Unit #2

Dear Mr. Callendrello:

Per your request, Canadian Hydro Components Ltd. ("CHC") is providing Great Bay Hydro Corporation ("Great Bay") with this commissioning report for the Newport Hydro Unit #2 located in Newport, Vermont.

CHC was the equipment vendor for the Unit #2 project, which included the replacement of the historic Unit #2 runner and associated equipment. A CHC representative was on-site in Newport observing the installation of the replacement equipment.

Based on our involvement in the project, CHC hereby certifies that the refurbished Newport Unit #2 project was placed in service as of September 5, 2012, and is capable of generating the as-built capacity of 1700 kW.

Please feel free to contact me with any questions regarding this matter.

Yours truly,

A handwritten signature in dark ink, appearing to read "M. Dupuis".

Mike Dupuis
President

MD/nb

Cc: Mr. Bill Rodgers, Great Bay Hydro Corporation

**Great Bay Hydro Corporation, Newport Hydro Facility
Application for Certification of Eligibility of Renewable Energy Resource
Pursuant to the Renewable Energy Act
Section 39-26-1 et. seq. of the General Laws of Rhode Island**

March 8, 2013

EXHIBIT 2

FERC Orders Certifying Incremental Hydropower Generation

UNITED STATES OF AMERICA 117 FERC ¶ 62, 124
FEDERAL ENERGY REGULATORY COMMISSION

Great Bay Hydro Corporation

Project No. 2306-101

ORDER CERTIFYING INCREMENTAL HYDROPOWER GENERATION
FOR PRODUCTION TAX CREDIT
(Issued November 3, 2006)

On October 5, 2006, Great Bay Hydro Corporation, licensee for the Clyde River Hydroelectric Project, FERC No. 2306, filed a request for certification for a renewable energy production tax credit for efficiency improvements due to the addition of capacity that went on-line on December 16, 2005. The licensee made the filing pursuant to Internal Revenue Service Code section 45.¹ The project is located on the Clyde River near Newport, Orleans County, Vermont.

Section 1301 of the Energy Policy Act of 2005 (EPAAct)² amended section 45 to apply the tax credit to incremental production gains from efficiency improvements or capacity additions to existing hydroelectric facilities placed in service after August 8, 2005, and before January 1, 2008. Under EPAAct section 1301(c), the Commission is required to certify the “historic average annual hydropower production” and the “percentage of average annual hydropower production at the facility attributable to the efficiency improvements or additions of capacity” placed in service during that time period. Based on the above, we are issuing this certification order.

The Director orders:

(A) Based on our review of the information provided by the licensee, we certify the following:

Type of Improvement	Improved Efficiency due to Additional Installed Capacity
Historical Generation Baseline (kWh)	13,578,000
Generation with Improvements (kWh)	16,912,000
Incremental Generation (kWh)	3,334,000
Percentage of Generation Due to Improvements (%)	19.71%

¹ I.R.C. § 45 (2000)

² Pub. L. No. 109-58, 119 Stat. 594, (2005).

Project No. 2306-101

2

(B) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 385.713.

Mohamad Fayyad
Engineering Team Lead
Division of Hydropower Administration
and Compliance

134 FERC ¶ 62,189
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Great Bay Hydro Corporation

Project No. 2306-167

ORDER CERTIFYING INCREMENTAL HYDROPOWER GENERATION
FOR PRODUCTION TAX CREDIT
(Issued March 02, 2011)

1. On December 3, 2010, and supplemented on February 25, 2011, Great Bay Hydro Corporation, (Great Bay), licensee for the Clyde River Hydroelectric Project, FERC No. 2306, filed a request for certification for a renewable energy production tax credit for efficiency improvements due to the addition of capacity that went on-line on September 1, 2010. The licensee made the filing pursuant to Internal Revenue Service Code Section 45.¹ The project is located on the Clyde River near Newport, in Orleans County, Vermont.
2. Section 1301 of the Energy Policy Act of 2005 (EPAAct)² amended Section 45 to apply the tax credit to incremental production gains from efficiency improvements or capacity additions to existing hydroelectric facilities placed in service after August 8, 2005, and before January 1, 2014. Under EPAAct section 1301(c), the Commission is required to certify the “historic average annual hydropower production” and the “percentage of average annual hydropower production at the facility attributable to the efficiency improvements or additions of capacity” placed in service during that time period. Based on the above, we are issuing this certification order.

The Director orders:

(A) Based on our review of the information provided by the licensee, we certify the following:

Type of Improvement	Improved Efficiency due to Additional Installed Capacity
Date of Operation	September 1, 2010
Historical Generation Baseline (kWh)	16,912,000
Generation with Improvements (kWh)	17,388,000
Incremental Generation (kWh)	476,000
Percentage of Generation Due to Improvements	2.81%

¹ I.R.C. § 45 (2000)

² Pub. L. No. 109-58, 119 Stat. 594, (2005), and Pub. L. No. 109-432, Title II, §201, (2006), Pub. L. No. 110-343, Div B, Title I, (2008), and Pub. L. No. 111-5, Div B, Title I, §1101, (2009).

(B) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2006), and the Commission's regulations 18 C.F.R. § 385.713 (2010). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

M. Joseph Fayyad
Engineering Team Lead
Division of Hydropower Administration
and Compliance

138 FERC ¶ 62,226
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Great Bay Hydro Corporation

Project No. 2306-170

ORDER CERTIFYING INCREMENTAL HYDROPOWER GENERATION
FOR PRODUCTION TAX CREDIT
(Issued March 13, 2012)

1. On November 17, 2011, Great Bay Hydro Corporation, (Great Bay), licensee for the Clyde River Hydroelectric Project, FERC No. 2306, filed a request for certification for a renewable energy production tax credit in connection with its equipment modification at its Newport Development. The modification includes a new more efficient runner in Unit No. 2, which will be on-line on August 31, 2012. The licensee made the filing pursuant to Internal Revenue Service Code Section 45.¹ The project is located on the Clyde River near Newport, in Orleans County, Vermont.

2. Section 1301 of the Energy Policy Act of 2005 (EPAAct)² amended Section 45 to apply the tax credit to incremental production gains from efficiency improvements or capacity additions to existing hydroelectric facilities placed in service after August 8, 2005, and before January 1, 2014. Under EPAAct section 1301(c), the Commission is required to certify the “historic average annual hydropower production” and the “percentage of average annual hydropower production at the facility attributable to the efficiency improvements or additions of capacity” placed in service during that time period. Based on the above, we are issuing this certification order.

The Director orders:

(A) Based on our review of the information provided by the licensee, we certify the following:

Type of Improvement	Improved Efficiency Due To A More Efficient Runner Replacement ³
Date of Operation	August 31, 2012
Historical Generation Baseline (kWh)	17,388,000
Generation with Improvements (kWh)	18,042,000
Incremental Generation (kWh)	654,000

¹ I.R.C. § 45 (2000)

² Pub. L. No. 109-58, 119 Stat. 594, (2005), and Pub. L. No. 109-432, Title II, §201, (2006), Pub. L. No. 110-343, Div B, Title I, (2008), and Pub. L. No. 111-5, Div B, Title I, §1101, (2009).

³ The information in this table is for the Newport Development only.

Percentage of Generation Due to Improvements	3.76%
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(B) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2006), and the Commission's regulations 18 C.F.R. § 385.713 (2011). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

M. Joseph Fayyad
Engineering Team Lead
Division of Hydropower Administration
and Compliance