Pioneer Hydro Electric Co., Inc.
c/o Ware River Power, Inc.
48 Allen Drive; P.O. Box 512
Barre, Massachusetts 01005
(978) 355-4575 (office and fax number)
(978) 852-6034 (cell)
wareriverpower@aol.com

March 17, 2014

Via E-Mail & U.S. Mail

Rhode Island Public Utilities Commission
Attn: Renewable Energy Resources Eligibility
89 Jefferson Boulevard
Warwick, Rhode Island 02888

Re: Docket #3856; Application for Certification of 41% of Pioneer Hydro Electric Co., Inc.'s Ware River Hydro Project (the "Ware River" or the "Project" or the "Facility") as a Rhode Island New Renewable Resource and 59% of the same Facility as a Rhode Island Existing Renewable Resource (the "Application")

Dear Sir:

Attached please find the Application of Pioneer Hydro Electric Co., Inc.'s ("Pioneer" or the "Applicant") for re-certification by the Rhode Island Public Utilities Commission (the "Commission") of 41% of its Ware River Hydro Project as a Rhode Island New Renewable Resource and of 59% of the same Facility as a Rhode Island Existing Renewable Resource.[1]

I. The name, address and contacts of the Applicant –

Primary Contact:

William P. Short III[2]
Consultant
44 West 62nd Street
P.O. Box 237173
New York, New York 10023-7173
(917) 206-0001 (office)
(917) 206-0001 (fax)
(201) 970-3707 (cell)

Secondary Contact:

Lucas W. Wright
President
Pioneer Hydro Electric Co., Inc.
48 Allen Drive, P.O. Box 512
Barre, Massachusetts 01005
(978) 355-4575 (office number)
(978) 355-4575 (fax)
(978) 852-6034 (cell)

[1] Originally, Pioneer filed an Application in June 2007 and received in late October 2007 a 50% Rhode Island New and a 50% Rhode Island Existing treatment for the Project.
[2] With this letter Pioneer Hydro Electric Co., Inc. appoints William P. Short III as its authorized agent.

w.shortiii@verizon.net wareriverpower@aol.com

II. Location of the Generation Facility –

Ware Mill Yard, Ware, Massachusetts

Latitude/Longitude – 42^0 15' 33.21"N / 72^0 14' 18.19"W

III. Description of the Generation Facility –

Pioneer is a special purpose entity formed for the sole purpose to own the Facility, a five unit, 1,760 KW hydro-electric generator,[3] located in Ware, Massachusetts. The Facility's energy, is presently sold to Reading Municipal Light and Water Plant ("Reading"). The Facility's capacity and ancillary services are presently sold to ISO-New England, Inc. ("ISO-NE"). The Facility is interconnected to National Grid d/b/a Massachusetts Electric Company ("Massachusetts Electric") distribution lines located along East Main Street.

The Facility is a run-of-river hydro-electric plant, consisting of two dams within a quarter mile of each other. The upper facility has a nameplate rating of 1,480 KW. The lower facility has a nameplate rating of 280 KW. The two dams were licensed under two FERC Exemptions from License with the same license number (FERC # P-3127) issued in early 1982. The Facility was re-engineered and re-licensed in 1981 and commenced commercial operations late in 1981. Other principal features of the Facility are a 37.5 acre impoundment with 746 acre-feet of storage, of which none is useable given its run-of-river mode of operations, and an average gross head of 42.23 feet.[4]

The Facility does not involve any new impoundment or diversion of water with an average salinity of twenty (20) parts per thousand or less.

IV. New and Existing Renewable Energy Resource –

The Project is presently both a New and Existing Renewable Energy Resource, having been certified on October 30, 2007 by the Commission.

Monthly generation records for the Project were obtained from the prior owner for the period of January 1991 through March 1995, the Applicant for the period of April 1995 through 2001 and from the NEPOOL GIS for the period from 2002 through December 2013. Generator records were adjusted after December 1994 for a change of mode of operations from store-and-release to run-of-river. This adjustment increased theoretical generation to account for decreased

[3] The FERC nameplate of the Upper Ware Dam is 1,480 KW while the FERC nameplate of the Lower Ware Dam is 280 KW.

[4] The gross operating head of the Upper Ware Dam is at least 47 feet while the gross operating head of the Lower Ware Dam is 17 feet. The weighted-average gross operating head is 42.23 feet.

generator efficiency by this change in mode of operations. The decreased generator efficiency was estimated to range from a 5% decrease in production in second quarter, to a 7.5% decrease in production in the first quarter, to a 10% decrease in production in fourth quarter and to a 50% decrease in production in the third quarter. All monthly production was further subjected to additional adjustment if monthly production exceeded 16.2 MWh per day for the Pre-Improvement Period[5] and 32.0 MWh per day for the Post Improvement Period.[6]

Monthly streamflow data of the Ware River at the USGS gage at Gibbs Crossing, Massachusetts was obtained from the USGS for the period of January 1991 through December 2013, a twenty-three year period. The streamflow data was then decreased by approximately 2.1% to account for the decrease in the net watershed between the gage and the Project.[7] Streamflow at the Project was also adjusted to account for any permanent decrease of flow away from the turbines. In April 1995 a minimum flow requirement of 20 cfs was implemented. In January 2011 the minimum flow was voluntarily increased from 20 cfs to 26.8 cfs as the result of a settlement agreement between the Massachusetts Division of Fisheries and Wildlife and the Applicant.

Pioneer is filing this application with the Commission after having completed a number of capital and efficiency improvements to increase the Project's electric production. In its earlier application for the Project, a narrative of improvements was included. Given that, the Commission is urged to review that prior application for a discussion of those improvements through 2006. Since the filing of that application, Pioneer has continued to make capital and efficiency improvement to the Facility. A confidential summary of these improvements, upon the issuance of a protective order, will be made available to the Commission.

Capital and efficiency improvements materially increased the annual production of the Facility, adjusting for changes in streamflow and mode of operation, from 3,859 MWh (January 1995 – December 1997) to 6,529 MWh now (January 2011 through December 2013).

Calculation of hydro-electric power plant efficiency (electric production in MWh divided by streamflow in cfs) of the Project for both the Pre- and Post Improvement Periods were made. Any monthly flow above 500 cfs (or 651 cfs for the Post Improvement Period) was discarded as were the results for those months when the Facility was out-of-service for lengthy repairs or maintenance or the installation of capital or efficiency improvements. On the former adjustment, the Project is undersized for monthly streamflows of greater than 500 cfs (or 651 cfs for the Post Improvement Period). On the latter adjustment, these results were discarded because low flow is not indicative of equipment performance while low generation might also not be.

Two sets of analysis were prepared – one with no outliers removed and one with outliers removed (1) during a pre-improvement period of January 1991 through December 1994 and (2) during a post improvement period of January 1998 to December 2010.[8] The Applicant believes

[5] The Pre-Improvement Period consists of the period from January 1995 until December 1997.
[6] The Post Improvement Period consists of the period from January 2011 until December 2013.
[7] The Project drains a net area of 92 square miles while the Ware River at the gage drains a net area of 94 square miles.
[8] Only production from August 1995 was excluded since the adjusted streamflow is negative.

that the latter analysis is the most representative of the increased production arising from the improvements since it disregards a pre-improvement period where the facility was not operating according to its Exemptions from License and a post-improvement period when only a portion of the capital and efficiency improvement were installed. Accordingly, the Applicant submits this Application using the period of January 1995 through December 1997 as the Pre-Improvement Period and the period of January 2011 to December 2013 as the Post Improvement Period.

The Pre-Improvement and Post Improvement Periods produce an average monthly hydro-electric power plant efficiency of 1.02 and 1.54, respectively. This analysis indicates that 41% of the Post Improvement electric production is attributed to capital and efficiency improvements that were in operation from January 2011 to December 2013 when compared to the Pre-Improvement Period.

Based upon the generation performance of the Facility for January 2011 through December 2013, Pioneer requests that 41% of the Project be certified as Rhode Island New and 59% of the Project be certified as Rhode Island Existing. Upon request and grant of confidential treatment, Pioneer will provide the Commission with a copy of its analysis.

V. Qualification for Comparable Renewable Portfolio Standard Requirement –

The Commission has previously certified 50% of the electric production of Ware Hydro as Rhode Island New and the balance of its production as Rhode Island Existing. Pioneer has self-certified the entire Facility as a Maine Class II renewable resource. The Massachusetts Department of Energy Resources ("DOER") has certified 33.88% of the production from the Facility as being from a Massachusetts Class I renewable generation unit while the balance of the production is certified as being from a Massachusetts Class II renewable generation unit. Pioneer intends to qualify in the future some or all of the production from the Project as being from a Connecticut Class I resource, a New Hampshire Class I resource or a Maine Class I renewable resource.

VI. Other Information –

The Facility's electrical output is read by National Grid d/b/a Massachusetts Electric Company. The output of the Facility is reported under MSS generator #1048 as Ware Hydro. This information is conveyed to ISO New England, Inc. ("ISO-NE"), which in turn conveys it directly to APX, Inc. ("APX"), the operator of the NEPOOL Generation Information System ("GIS").

The Applicant has authorized APX to disclose to the Commission the Facility's monthly generation production.

Upon review of the Application, if you have any questions or concerns, please do not hesitate to contact either of the aforementioned persons.

Sincerely yours,

Lucas W. Wright

enclosures

cc: William P. Short III (e-mail only)
Service List

List of Enclosures or Website Links

Rhode Island RES Application Form

Analysis of the Ware River Hydro Project's Hydro-electric Efficiency (1991-2013)[9]

Major Capital and Efficient Improvements to the Facility (2008 to the Present)[10]

Order Granting Exemption from Licensing of a Small Hydroelectric Project of Five Megawatts or Less (Issued February 12, 1982) (FERC # P-3127-003)[11]

Order Amending Exemption (Issued June 13, 1994) (FERC # P-3127-003)[12]

Order Modifying and Approving Monitoring and Recording Plan (Issued March 3, 1995)[13]

Aerial Photograph of Ware River Hydro Project

Map of Ware River Hydro Project Area

Other States' RPS Certification[14] –

Massachusetts

[9] Items marked in **Red and Bold** are considered confidential by the Applicant. Upon request from the Commission and the granting of confidential treatment, the Applicant will provide the Commission with a copy of these documents.

[10] Capital and Efficiency Improvement prior to 2008 were previously disclosed to the Commission in the Applicant's prior Application.

[11] This Order applies to the Ware Lower Project only.

[12] This Order applies to the Ware Upper Project only.

[13] This Order applies to the Ware Upper Project only.

[14] The MPUC does not issue orders confirming that a generation facility has been certified as Maine Class II renewable resource.

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

GIS Certification #:

MSS #1048

RENEWABLE ENERGY RESOURCES ELIGIBILITY FORM

The Standard Application Form
Required of all Applicants for Certification of Eligibility of Renewable Energy Resource
(Version 7 – June 11, 2010)

STATE OF RHODEISLAND 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
89 Jefferson Blvd
Warwick, RI02888
Attn: Renewable Energy Resources Eligibility

In addition to the paper copies, electronic/email submittals are required under Commission regulations. Such electronic submittals should be sent to: Luly E. Massaro, Commission Clerk at lmassaro@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 lmassaro@puc.state.ri.us

SECTION I: Identification Information

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

Ware River Hydro Project

1.2 Type of Certification being requested (check one):

X 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
- **X** 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 P. Short III, Consultant

1.5 Primary Contact Person address and contact information:

Address:
P.O. Box 237173
New York, New York 10023-7173
Phone: **(917) 206-0001** Fax: **(917) 206-0001**
Email: **w.shortiii@verizon.net**

1.6 Backup Contact Person name and title:

Lucas W. Wright, President

1.7 Backup Contact Person address and contact information:

Address: **Pioneer Hydro Electric Co., Inc.**
48 Allen Drive, P.O. Box 512
Barre, Massachusetts 01005
Phone: **(978) 355-4575** Fax: **(978) 355-4575**
Email: **wareriverpower@aol.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 P. Short III, Consultant

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

1.9 Authorized Representative address and contact information:
Address:
P.O. Box 237173
New York, New York 10023-7173
Phone: **(917) 206-0001** Fax: **(917) 206-0001**
Email: **w.shortiii@verizon.net**

1.10 Owner name and title:

Lucas W. Wright, President

1.11 Owner address and contact information:
Address: **Pioneer Hydro Electric Co., Inc.**
48 Allen Drive, P.O. Box 512
Barre, Massachusetts 01005
Phone: **(978) 355-4575** Fax: **(978) 355-4575**
Email: **wareriverpower@aol.com**

1.12 Owner business organization type (check one):
❑ Individual
❑ Partnership
X Corporation
❑ Other:

1.13 Operator name and title: **Lucas W. Wright, President**
Operator address and contact information:
Address: **Ware River Power, Inc.**
113 Bartlett Road
Plainfield, Vermont 05667
Phone: **(978) 355-4575** Fax: **(978) 355-4575**
Email: **wareriverpower@aol.com**

1.15 Operator business organization type (check one):
❑ Individual
❑ Partnership
X 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): **MSS #1048**

2.2 Generation Unit Nameplate Capacity: **1.760 MW**

2.3 Maximum Demonstrated Capacity: **1.610 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
- **X** 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*

X← 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*

X← 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?

X Yes ❑ No If yes, please attach a copy of that state's certifying order.

Copy of State's certifying order attached? ❑ Yes ❑ No X 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: **12 / 31 / 1981** at the site.

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?

X 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? X 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
X 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):

X 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 X N/A

SECTION V: Location

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

X 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: **The Facility is a five unit, 1.760 KW hydro-electric generator, located at the Ware Mill Yard, Ware, Massachusetts.**

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

A. Universal Transverse Mercator Coordinates: _____

B. Longitude/Latitude: **42^0 15' 33.21"N / 72^0 14' 18.19"W**

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

X 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 X 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 X N/A

Corporate Certification provided? X 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 X 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 X 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: William P Short III DATE: 3/12/14

Consultant
(Title)

SECRETARY'S CERTIFICATE

The undersigned Secretary of PIONEER HYDRO ELECTRIC CO., INC., a Massachusetts corporation (the *"Corporation"*) hereby certifies as follows:

(a) I am the duly elected Secretary of the Corporation authorized to execute and deliver this Certificate on its behalf,

(b) The following persons are duly elected, qualified and acting officers of the Corporation, serving in the offices set forth opposite their names and the respective signatures are true and genuine:

NAME	OFFICE	SIGNATURE
Lucas W. Wright	President and Treasurer	
Sarah Wright	Secretary	

(c) Lucas W. Wright, as President and Treasurer of the Corporation, is authorized for and on behalf of the Corporation to execute and deliver all agreements, contracts, commitment, promissory notes and other instruments which he deems to be in the best interests of the Corporation and such authority has not been limited in any way by vote of the Board of Directors of the Corporation, or its Articles of Organization or By-Laws.

(d) Lucas W. Wright has named William P. Short, III as its Authorized Representative and has authorized him to execute the Renewable Energy Resources Eligibility Form for the 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.

Witness my hand and seal this 17 day of March, 2014.

Sarah Wright, Secretary

I, Lucas W. Wright, President and Treasurer of the Corporation, hereby certify that Sarah Wright is the duly elected Secretary of the Corporation and that the signature set forth above is her true and genuine signature.

Lucas W. Wright, President and Treasurer

GIS Certification #:
MSS #1048

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

STATE OF RHODEISLAND
PUBLIC UTILITIES COMMISION

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? X 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 X 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 X 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 X 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 **X** 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? **X** 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? **X** 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.

18 FERC ¶62,212

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Pioneer Hydropower Incorporated) Project No. 3127-003

ORDER GRANTING EXEMPTION FROM LICENSING OF A SMALL HYDROELECTRIC PROJECT OF 5 MEGAWATTS OR LESS

(Issued February 12, 1982)

The Applicant 1/ filed an application for exemption from all or part of Part I of the Federal Power Act pursuant to 18 C.F.R. Part 4 SUBPART K (1980) implementing in part Section 408 of the Energy Security Act (Act) of 1980 for a project as described in the attached public notice. 2/ 3/

Notice of the application was published in accordance with Section 408 of the Act and the Commission's regulations and comments were requested from interested Federal and State agencies including the U. S. Fish and Wildlife Service and the State Fish and Wildlife Agency. All comments, protests and petitions to intervene that were filed have been considered. No agency has any objection relevant to issuance of this exemption.

Standard Article 2 included in this exemption, requires compliance with any terms and conditions that Federal or State fish and wildlife agencies have determined appropriate to prevent loss of, or damage to, fish and wildlife resources. The terms and conditions referred to in Article 2 are contained in any letters of comment by these agencies which have been forwarded to the Applicant in conjunction with this exemption.

Should the Applicant contest any terms or conditions that were proposed by Federal or State agencies in their letters of comment as being outside the scope of Article 2, the Commission shall determine whether the disputed terms or conditions are outside the scope of Article 2.

1/ Pioneer Hydropower Incorporated, Project No. 3127-003, filed on October 22, 1981.

2/ Pub. Law 96-294, 94 Stat. 611. Section 408 of the ESA amends inter alia, Sections 405 and 408 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. §§2705 and 2708).

3/ Authority to act on this matter is delegated to the Deputy Director, Office of Electric Power Regulation under §375.308 of the Commission's regulations 45 Fed. Reg. 21216 (1980), as amended by Order No. 112 in Docket No. RM81-5, issued November 21, 1980, (45 Fed. Reg. 79024).

The Ware Lower Dam is classified as a significant hazard dam. A failure of the dam could result in property damage and loss of life downstream. Article 6, included in this exemption requires that an Emergency Action Plan for the project be filed. In addition, Article 6 reserves to the Commission the right to make periodic inspections.

It is ordered that:

(A) Ware Lower Project No. 3127-003 as described and designated in Pioneer Hydropower Incorporated's application filed on October 22, 1981, is exempted from all of the requirements of Part I of the Federal Power Act, including licensing, subject to the standard articles in §4.106 of the Commission's regulations, 18 C.F.R. §4.106 45 Fed. Reg. 76115 (November 18, 1980), and the following Special Article.

Article 6. This exemption is subject to the following provisions of 18 C.F.R., Part 12:

(1) Section 12.4(b)(2)(1),(ii),(iii)(B)(iv), and (v);

(2) Section 12.4(c); and

(3) Subpart C

(B) This order is final unless a petition appealing it to the Commission is filed within 30 days from the date of its issuance, as provided in Section 1.7(d) of the Commission's regulations, 18 C.F.R. 1.7(d)(1979), as amended, 44 Fed. Reg. 46449 (1979). The filing of a petition appealing this order to the Commission or an application for rehearing as provided in Section 313(a) of the Act does not operate as a stay of the effective date of this order, except as specifically ordered by the Commission.

Robert E. Cackowski
Deputy Director, Office of
Electric Power Regulation

UNITED STATES OF AMERICA 68 FERC 62,037
FEDERAL ENERGY REGULATORY COMMISSION

Pioneer Hydropower, Inc. Project No. 3127-008
Massachusetts

ORDER AMENDING EXEMPTION
issued july 13, 1994

On January 18, 1994, and supplemented on June 2, 1994, on behalf of the Pioneer Hydropower Inc., Mr. Wayne Nelson of the Consolidated Hydro, Inc., filed an application for an amendment of exemption for Upper Ware Hydroelectric Project, FERC No. 3127, to correct the installed and hydraulic capacities of the project. The filing was made as a follow-up to a September 17, 1993, operation inspection by the Commission's New York Regional Office.

The project was authorized on October 15, 19811, with three turbine-generator units with a total rated capacity of 1,100 kW and a total hydraulic capacity of 500 cfs. In the filing, the exemptee stated that the project contains four turbine-generator units. The nameplate capacity of each turbine-generator unit is shown in Table 1. The hydraulic capacity of the project has changed from 500 cfs to 550 cfs. In addition, the exemptee explained that adding the fourth generating unit is necessary in order to bring the project's annual generation closer to its exempted annual generation of 4,000,000 kWh. Further, the exemptee indicated that there have been no other changes to the project's facilities and/or operations.

Table 1

Unit No.	Nameplate Capacity	
	Turbine (kW)	Generator (kW)
1	395	450
2	500	450
4	345	300
5	315	280

1 17 FERC 62,046, Order Granting Exemption from Licensing of a Small Hydroelectric Project of 5 Megawatts or Less.

The Massachusetts Division of Fisheries and Wildlife, and the Massachusetts Department of Environmental Protection, by letters dated May 2, 1994, and May 19, 1994, respectively had no objections to the project's capacity changes and the addition of the fourth turbine generator unit. The United States Fish and Wildlife Service by a letter dated May 17, 1994, expressed some concerns regarding minimum hydraulic capacity and minimum bypass flow release. However, the exemptee stated that the minimum capacity and bypass flow release does not change from what was originally exempted.

The changes in generator nameplate capacity and hydraulic capacity will not result in any impacts to the environmental resources other than those identified during the original project review. The issuance of this order is necessary to revise the project's description. The exemptee must report to the Commission any future proposed changes to the project prior to implementing them.

The Director orders:

(A) The exemption for the Upper Ware Hydroelectric Project, FERC No. 3127, is amended as provided by this order, effective the first day of the month in which this order is issued.

(B) The total generator nameplate capacity and the total hydraulic capacity of the project are 1,480 kW and 550 cfs, respectively.

(C) The project description in the Appendix A of the exemption order issued October 15, 1981, is amended to read as follows:

...; (7) a powerhouse containing four turbine-generator units with a total rated capacity of 1,480 kW;...

(D) 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.

J. Mark Robinson
Director, Division of Project
Compliance and Administration

UNITED STATES OF AMERICA 70 FERC 62,147
FEDERAL ENERGY REGULATORY COMMISSION

Pioneer Hydropower, Inc. Project No. 3127-014
Massachusetts

ORDER MODIFYING AND APPROVING MONITORING AND RECORDING PLAN

(Issued March 3, 1995)

On November 23, 1994, the Commission issued a compliance order concluding that Pioneer Hydropower Inc., exemptee for the Ware Upper Project, FERC No. 3127, was in violation of Article 2 of its exemption and section 12.4 of the Commission's regulations.1 The November 23, 1994 compliance order2 directed the exemptee to:

1. immediately modify project operations in a manner that will ensure the release of the following minimum flows: an instantaneous flow of 83 cubic feet per second (cfs) below the project, or inflow to the project, whichever is less, and an instantaneous flow of 20 cfs in the section of the Ware River between the dam and the tailrace, as required by article 2 of the project's exemption.

2. file within 15 days from the date of the order, a report identifying the steps taken to bring the project into immediate compliance with requirements of the project's exemption;

3. file within 15 days of the date of the order, records of project inflows, outflows and flows into the bypass reach from July 1 through November 1, 1994.3

4. file, after consultation with the U.S. Fish and Wildlife Service (USFWS), the U.S. Geological Survey (USGS), and the Massachusetts Division of Fisheries and Wildlife

1 See Order Granting Exemption from Licensing of a Small Hydroelectric Project of 5 Megawatts or Less, 17 FERC 62,046 (1981).

2 69 FERC 62,162 (1994).

3 On January 12, 1995, Consolidated Hydro Inc., acting as agent for the exemptee, filed in response to the requirements of ordering paragraphs A and B of the compliance order (items two and three outlined above), records of project inflows, outflows in the bypass reach from July 1 through November 1, 1994, and a report identifying actions taken to comply with article 2 of the project's exemption.

(MDFW), a plan, for Commission approval, that ensures monitoring and recording of instantaneous inflows and outflows to the project, and the maintenance of the instantaneous minimum flow requirement of 20 cfs in the bypass reach. The plan is to include: (a) a copy of the manufacturer's specifications for the installed equipment; (b) a rating and maintenance schedule; (c) a provision to provide copies of flow records to resource agencies or the Commission upon request; and (d) a schedule for the installation of the equipment by February 23, 1995.

On January 24, 1995, and supplemented February 22, 1995, Consolidated Hydro, Inc., acting as agent for the exemptee, filed a monitoring and recording plan for the Ware Upper Project. The exemptee filed the plan in response to the requirements of ordering paragraph C (item four outlined above) of the Commission's Compliance Order, issued November 23, 1994.

Proposed Plan

The monitoring and recording plan submitted by the exemptee contains all of the items required by ordering paragraph C of the compliance order and includes comments on the plan from the USGS, USFWS, and MDFW.

In its plan, the exemptee proposes to use two scenarios to pass the required minimum flow. Under normal flow conditions, when flashboards are in place at the project, the exemptee will remove an 11.4-foot-long section of the 1-foot-high wooden flashboards on the main spillway crest of the dam, to form a weir to continuously pass the required 20 cfs minimum flow to the bypass reach. According to a standard weir formula provided in the plan (using a C value of 3.0), maintaining the headpond at or above 0.7 foot (8-3/8 inches) above the crest of the dam will ensure the release of the required minimum flow.

Alternatively, when the flashboards are down or off the dam,

during periods of high runoff or flashboard failure, a minimum headpond level of 0.15 foot (1-7/8 inches) over the 115-foot-long spillway crest of the dam will be maintained to continuously pass the required 20 cfs to the bypass reach. Both scenarios are designed to ensure minimum flows are passed to the bypass reach through the spillage of flows over the dam or through the flashboards.

Headpond elevation will be measured with a water level transducer in a stilling well between the main spillway at the dam and the gatehouse to the canal. A staff gauge between the main spillway at the dam and the gatehouse to the canal will be used to periodically verify the accuracy of the headpond level transducer. A "Chatterbox" (a data acquisition and communications device) will be installed in the canal's gatehouse

or in the powerhouse to signal the operating turbine-generator unit(s) to shut down, when the headpond drops to the minimum elevation necessary to ensure passage of the 20 cfs bypass reach minimum flow. A data logger will be installed in the canal's gatehouse or in the powerhouse temporarily, during the first 6 months of the plan's operation, to record headpond elevations at 15-minute intervals in order to provide independent verification of compliance with the project's minimum flow requirement.

The operator will manually record the real-time headpond elevations from the data logger on a minimum flow log form. On a permanent basis, the operator will manually record the real-time headpond elevations from the staff gauge in the headpond and/or from an electronic display of the headpond's level at the powerhouse (based on the signal from the headpond level transducer). At a minimum, headpond elevations will be recorded on the log form at the beginning and end of each operating shift and at every manual change in turbine operations. The operators will only be at or near the project during a single daily 8-hour shift, 5 days per week, performing maintenance.

The real-time headpond level display (for an interim 6-month period) and the operator's headpond elevation and minimum flow compliance log form will be available for on-site viewing by FERC and resource agency personnel. Copies of the data logger's output and the operator's permanent minimum flow log form (the former for an interim 6-month period, only) will be available to the FERC and the resource agencies, upon request.

The exemptee installed and implemented the monitoring and

recording plan on or before February 23, 1995. On February 23, 1995, the Commission's New York Regional Office visited the project and verified that the monitoring and recording equipment was installed.

Agency Comments

The exemptee sought and received comments from the USGS, USFWS, and MDFW. The exemptee incorporated the agencies' comments and recommendations into the plan; the agencies' comments and recommendations are summarized below.

By letter dated February 1, 1995, the USGS recommended that the exemptee's stage discharge measurements, used to verify the theoretical ratings for the weir and spillway, be done using USGS techniques and equipment. By letter dated February 6, 1995, the MDFW recommended the exemptee's plan include an assurance that the minimum flow weir crest is clear of debris and the opening is unobstructed, and that the stilling well, water level transducer and staff gauge be placed near the gatehouse structure. The exemptee's proposed plan, as filed with the Commission,

incorporates the USGS's and MDFW's recommendations.4

By letter dated February 9, 1995, the USFWS provided comments and recommendations on the exemptee's proposed plan. Some of the USFWS's comments and recommendations relate to the location of the stilling well, water level transducer and staff gauge, and to the development of a plan and schedule for the maintenance of the bypass opening. The exemptee agreed to and incorporated these recommendations into the proposed plan. In addition, the USFWS provided comments and recommendations that the exemptee objected to, discussed herein.

Discussion

Minimum Flow Calculations

The USFWS stated that the project's minimum flow of 20 cfs may not be maintained by the current design of the bypass weir since the design was based on the use of a C value of 3.0. The USFWS contends a C value of 2.8 or less is needed to calculate the proper weir design needed to release the required minimum flow of 20 cfs in the bypass reach. The changed C value would require either the minimum operating reservoir elevation or the length of the bypass weir to be adjusted to meet the minimum flow

requirement. The exemptee objects to any adjustment in the C value or in the width of the weir in the flashboards or the headpond levels necessary for minimum flow compliance. The exemptee prefers to wait until the streamflow discharge measurements have been made to verify the effectiveness of the project's monitoring equipment. If the equipment is determined not to meet the theoretical ratings required to ensure compliance with the project's minimum flow requirement, the exemptee states they will make the necessary adjustments to the equipment to ensure compliance.

Our analysis shows that a C value of 2.68 is needed to calculate the design specifications of the proposed bypass weir and spillway.5 The corrected C value requires the bypass weir

4 In a letter filed February 22, 1995, the exemptee accepted and incorporated the comments provided by the USGS and MDFW into the monitoring and recording plan.

5 The C value is used in the standard weir formula to calculate the flows produced by a specific weir design. The C value is determined by the breadth of the weir. The weir breadth for the Upper Ware Project is 3.6 feet (the width of the project's spillway crest), establishing a set C value of 2.68. A weir breadth of less than 1 foot would be needed to establish the exemptee's recommended C value of 3.0. The proposed bypass weir and use of the spillway as a weir, when the flashboards are down,

and spillway design specifications be modified to ensure the required minimum flow of 20 cfs is released into the bypass reach. The exemptee is required: (i) when the flashboards are in place, to increase the pond elevation to 0.76 foot (9.1 inches) above the spillway crest, maintaining the proposed width of the bypass weir at 11.4 feet, to ensure the required minimum flow of 20 cfs is released in the bypass reach; and (ii) when the flashboards are down, to set the pond elevation to 0.17 foot (2.0 inches) above the spillway crest, to ensure the required minimum flow of 20 cfs is released in the bypass reach.

To ensure compliance with the project's minimum flow requirement of 20 cfs in the bypass reach, the exemptee should file the stage discharge measurements taken to verify ratings for the spillway and bypass weir by May 15, 1995. If the exemptee finds the stage discharge measurements demonstrate that the proposed bypass weir will release the required minimum flow of 20

cfs in the bypass reach, the exemptee can request the design specifications of the bypass weir and spillway be modified back to originally proposed.

Flow Monitoring System

The USFWS also recommends that either a data logger be permanently incorporated into the monitoring plan, or an operator manually record pond levels hourly, due to the fine level of accuracy required of the monitoring system when the flashboards are down. When the flashboards are down the proposed plan calls for a continuous flow of 0.15 foot of water over the project's spillway to ensure compliance with the project's minimum flow requirement.

The exemptee objects to the permanent placement of a data logger at the project and with the hourly recording of pond levels by a project operator. The exemptee states the project's flashboards will always be in place; only during periods of high runoff or flashboard failure will the flashboards be down. During high runoff periods, flows would be beyond the project's control, with flows well above the required minimum flow of 20 cfs in the bypass reach. In order to initiate replacement of failed or missing flashboards, during high flow periods, the exemptee needs to lower the headpond level to within 0.15 foot above the crest of the spillway, to ensure the safety of the workers during flashboard repair and replacement. A headpond level of 0.15 foot over the spillway crest of the dam allows for the continuous flow of 20 cfs into the bypass reach. The exemptee alleges that the headpond will only be lowered to within 0.15 foot above the crest of the spillway during flashboard

should yield a flow of 17.9 cfs (calculated from the standard weir formula), 2.1 cfs less than the minimum required.

repair and does not warrant a concern by the USFWS that the continual flow of 0.15 foot of water over the spillway crest is too narrow a margin to ensure compliance when the headpond level will only be lowered for very short periods of time (hours).

In addition, the exemptee stated that the operators of the project are not available to record pond levels hourly because they are only at or near the project during a single daily 8-hour shift, 5 days per week, performing maintenance. The operators are on call and available for changes in project operations based

on river flows and unit availability, and for project emergencies (the project is not staffed 24 hours a day).

Since the project will not be staffed 24 hours a day, the exemptee will be unable to provide compliance records during the periods when no operators will be on the project site. Further, given the compliance problems that have led to this order as well as the poor compliance records maintained to date, the permanent installation of a data collection system is fully warranted. To ensure that we are able to monitor the exemptee's compliance with minimum flows, the exemptee shall incorporate into the monitoring plan the permanent placement of a data logger at the project. The data logger should record headpond elevations at 15-minute intervals and provide independent verification of compliance with the project's minimum flow requirements.

Reporting Requirements

In addition, the exemptee should incorporate the following measures into the plan:

First, the exemptee should file monthly reports with the Commission that contain the previous month's elevation and power production records, to ensure compliance with article 2. These reports should be filed by the 15th of each succeeding month, and contain the data for the previous month. These reports should be filed for one year. The first monthly report, for March, should be filed no later than April 15, 1995. Based upon the Commission's evaluation of these reports, the Commission should reserve the right to require modifications to the monitoring and recording plan installed at the project in order to ensure future compliance related to operation at the project.

Second, as mentioned above, the exemptee's proposed plan incorporates the USGS's recommendation concerning the verification of flow through the weir and over the spillway, and the MDFW's recommendation for a maintenance schedule for the bypass weir opening. In response to the agencies' request, the exemptee should further file: (i) the results of the flow verification through the weir and over the spillway, to ensure the instantaneous minimum flow of 20 cfs is being released in the bypass reach; and (ii) a plan and schedule for the maintenance of

the weir opening to minimize the chance of it becoming clogged with ice or debris. The verification results, stage discharge measurements, and the maintenance plan and schedule for the

bypass weir should be filed with the Commission no later than May 15, 1995.

Conclusion

The exemptee's proposed plan, with the modifications specified above, should ensure compliance with the exemption's instantaneous minimum flow requirements and provide documentation of the exemptee's compliance.

The Director orders:

(A) The exemptee's monitoring and recording plan, filed January 24, 1995, and supplemented February 22, 1995, as modified by paragraphs B, C, D, E, and F, is approved.

(B) The exemptee shall incorporate a data logger permanently into the monitoring and recording plan. The logger shall record headpond elevations at 15-minute intervals and provide independent verification of compliance with the project's minimum flow requirements.

(C) The exemptee, within 5 days from the issuance date of this order, shall: (i) set the pond elevation to 0.76 foot (9.1 inches) above the spillway crest, maintaining the width of the bypass weir at 11.4 feet, when the flashboards are in place; and (ii) set the pond elevation to 0.17 foot (2.0 inches) above the crest of the spillway, when the flashboards are down.

(D) The exemptee shall file monthly reports, of the project's previous month's headpond elevation records and power production records. These reports shall be filed by the 15th of each succeeding month, beginning April 15, 1995, and contain the reservoir level and power production data for the previous month. These reports shall be filed with the Commission for a period of one year. Based upon the data contained in these reports, the Commission reserves the right to require modifications to the reservoir level monitoring system installed at the project, to ensure continued compliance.

(E) The exemptee shall file: (i) the stage discharge measurements and flow verifications through the weir and over the spillway, in order to ensure the instantaneous minimum flow of 20 cfs is being released in the bypass reach; and (ii) a plan and schedule for the maintenance of the weir opening to minimize the chance of it becoming clogged with ice or debris. The verification results, stage discharge measurements, and the maintenance plan and schedule for the bypass weir shall be filed with the Commission no later than May 15, 1995.

(F) Unless otherwise directed in this order, the exemptee shall file an original and eight copies of any filing required by this order with:

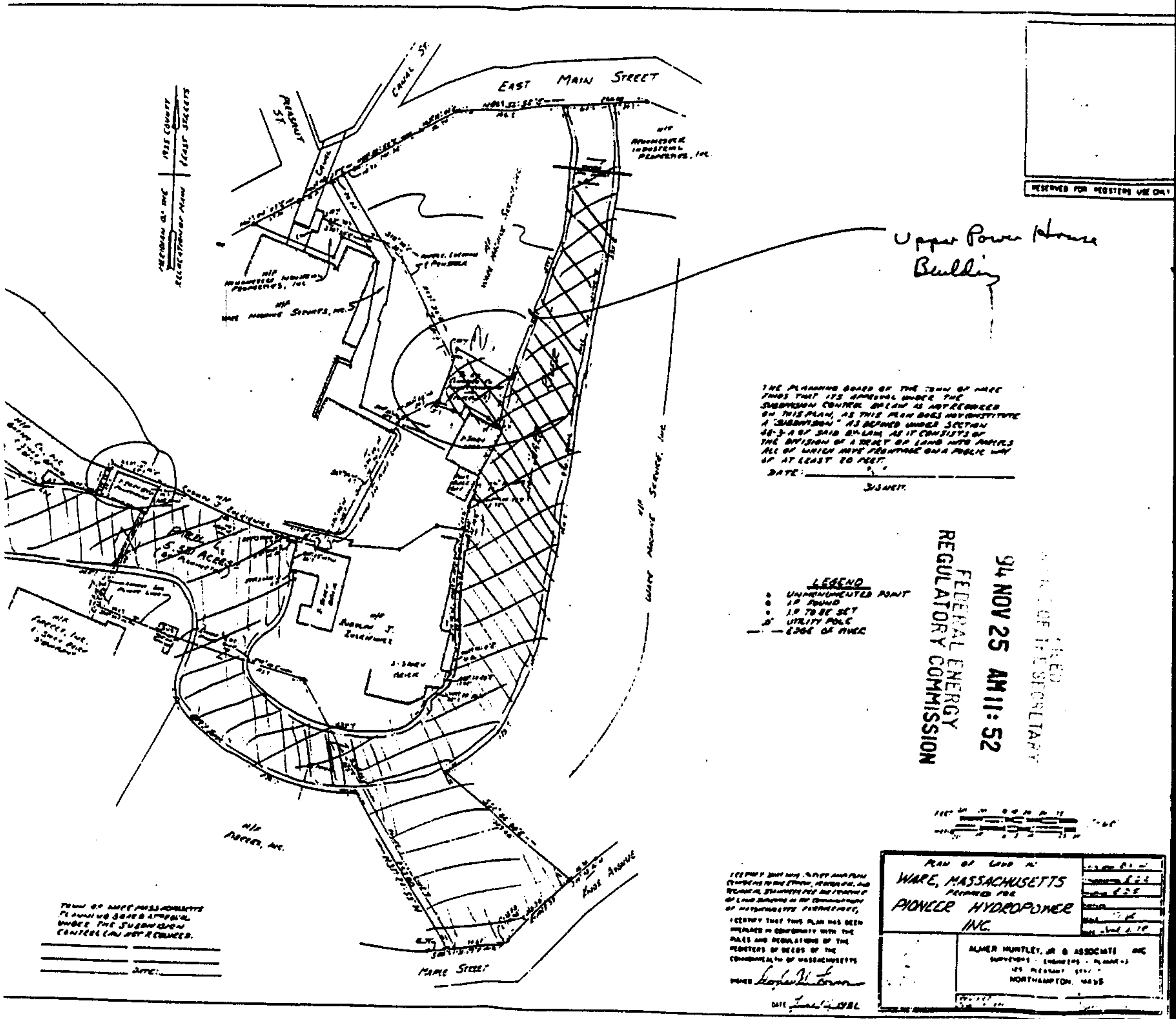
The Secretary
Federal Energy Regulatory Commission
Mail code: DPCA, HL-21.1
825 North Capitol Street, N.E.
Washington, DC 20426

In addition, the exemptee must serve copies of these filings with any entity specified in this order to be consulted on matters relating to these filings. Proof of service on these entities must accompany the filings with the Commission.

(G) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant to 18 CFR 385.713.

J. Mark Robinson
Director, Division of Project
Compliance and Administration


Ware River Reservoir
Gate House
Upper Dam
Power Canal
Penstock In-Take
Ware
re, MA
Ware
Upper Powerhouse
Lower Powerhouse
Lower Dam
© 2013 Google
Google earth
Imagery Date: 9/20/2010
1997
42°15'39.29" N 72°14'06.83" W elev 137 m
Eye alt 874 m



EAST MAIN STREET
CANAL ST.
PLEASANT ST.
N/F ANNAMESSEX INDUSTRIAL PROPERTIES, INC.
N/F WARE MACHINE SERVICE, INC.
N/F AUBURN T. SUSANWEI
Upper Power House Building
THE PLANNING BOARD OF THE TOWN OF WARE FINDS THAT ITS APPROVAL UNDER THE SUBDIVISION CONTROL BY-LAW IS NOT REQUIRED ON THIS PLAN, AS THIS PLAN DOES NOT CONSTITUTE A "SUBDIVISION" AS DEFINED UNDER SECTION 46-3-A OF SAID BY-LAW, AS IT CONSISTS OF THE DIVISION OF A TRACT OF LAND INTO PARCELS ALL OF WHICH HAVE FRONTAGE ON A PUBLIC WAY OF AT LEAST 20 FEET.
DATE:
SIGNED
LEGEND
UNMONUMENTED POINT
I.P. FOUND
I.P. TO BE SET
UTILITY POLE
EDGE OF RIVER
94 NOV 25 AM 11:52
FEDERAL ENERGY REGULATORY COMMISSION
N/F PARCEL, INC.
MAPLE STREET
TOWN OF WARE MASSACHUSETTS PLANNING BOARD APPROVAL UNDER THE SUBDIVISION CONTROL LAW NOT REQUIRED.
DATE:
I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS
PLAN OF LAND IN
WARE, MASSACHUSETTS
PREPARED FOR
PIONEER HYDROPOWER INC.
NORTHAMPTON, MASS
RESERVED FOR REGISTERS USE ONLY

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF
ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENERGY RESOURCES
100 CAMBRIDGE ST., SUITE 1020
BOSTON, MA 02114
Telephone: 617-626-7300
Facsimile: 617-727-0030

Deval L. Patrick
Governor

Timothy P. Murray
Lieutenant Governor

Richard K. Sullivan, Jr.
Secretary

Mark D. Sylvia
Commissioner

April 20, 2012

Lucas W. Wright
Chief Executive Officer
Pioneer Hydro Electric Company, Inc.
P.O. Box 512
Allen Drive
Ware, MA 01005

RE: RPS Class I and RPS Class II Amended Statements of Qualification
Pioneer Hydropower (Ware River Hydro) – 1.46 MW in Ware, MA
HY-1139-10 and HY-4014-10

Dear Mr. Wright,

On behalf of the Department of Energy Resources (the Department), I am writing to inform you that the Statements of Qualification (SQs) for the referenced Generation Unit, pursuant to the Massachusetts Renewable Energy Portfolio Standard (RPS) – Class I and Class II Regulations, were amended on July 1, 2010, as explained in email messages from me to you and to the NEPOOL GIS Administrator on June 30 and July 1, 2010.

As explained in those messages, the portion of the Unit's electrical energy output that would qualify for RPS Class I and for RPS Class II was incorrectly calculated by your engineer (Kenneth M. Smith, PE, of Smith Alternative Energy Service) in his letter of March 20, 2010. Mr. Smith calculated the percentage by which the output of the Unit increased as a result of post-1997 improvements (51.23%), rather than calculating the percentage of the post-improvement output attributable to the improvements (33.88%). The NEPOOL GIS Administrator made the corrections for your GIS Generation Asset, MSS 489, effective as of the Unit's electricity production on January 1, 2010, for which GIS Certificates were minted on July 15, 2010. (The Certificates minted on April 15, 2010, for the Unit's production during the fourth quarter of 2009 already had been divided among Class I and Class II in accordance with Mr. Smith's calculations [51.23% & 48.77% for Class I & Class II respectively], and those Certificates remained unaffected by these Statement of Qualification amendments.)

The Department determined in June of 2010 and has expressed in the enclosed, amended SQs that, effective on January 1, 2011, **33.88%** of the Unit's annual electrical generation qualifies as RPS Class I Renewable Generation, based on DOER re-analysis of your submitted data. That percentage is used in calculating the quantity of the Unit's Certificates that are encoded as RPS Class I qualified for each reporting period at the NEPOOL GIS. At the same time, the balance of the Unit's Certificates for each reporting period, namely **66.12%**, are encoded as RPS Class II qualified.

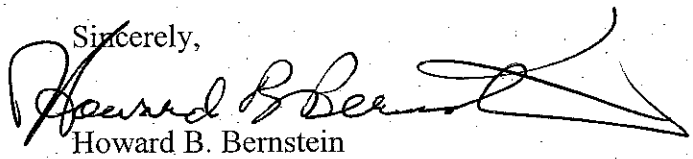
I apologize that we have failed to formally provide before now these written SQs, as amended, even though the Unit has been validly and appropriately generating Class I and Class II Renewable Energy Certificates at the NEPOLL GIS for Pioneer Hydropower since the RPS Effective Date of October 1, 2009, and at the amended rates since January 1, 2010.

The Department reminds you at this time of the following:

- The Unit's continued certification by LIHI is a critical condition of continued RPS Class I and II qualification under 225 CMR 14.05(1)(a)6.d and 15.05(1)(a)6.d, and you are obligated to notify the Department of any change in that status within thirty days of such change. See additional details in the two SQs
- The amount of generation capacity whose electrical energy output is claimed as RPS Class I and Class II Renewable Generation may not be committed to any Control Area other than the ISO-NE Control Area, per the Capacity Commitment provisions in 225 CMR 14.05(1)(e)1 and 15.05(1)(e)1.
- You have notification requirements for changes in eligibility status contained in 225 CMR 14.06(3) and 15.06(3), including any change in the LIHI Certification of the Unit, and for changes in the Unit's name, capacity, contact information, and identity of the Owner or Operator contained in 225 CMR 14.06(6) and 15.06(6). The Owner or Operator of the Generation Unit shall submit notification of such changes to the Department no later than five days following the end of the month during the changes are implemented.
- Be cognizant of the Operating Rules and the reporting requirements of the NEPOOL GIS, which may be amended from time to time, and compliance with which may affect the RPS qualification of your Generation Unit's GIS Certificates.

If you have any questions or concerns about the above changes, the Statements of Qualification, or any aspect of the RPS program, please contact me at the Department's address, or (617) 626-7355, or howard.bernstein@state.ma.us.

Sincerely,



Howard B. Bernstein
RPS Program Manager

Encl: two Statements of Qualification

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
DEPARTMENT OF ENERGY RESOURCES

STATEMENT OF QUALIFICATION – AMENDED

Pursuant to the Renewable Energy Portfolio Standard – Class I
225 CMR 14.00

This Statement of Qualification (SQ) amends an SQ granted by the Massachusetts Department of Energy Resources (DOER or the Department) and effective on April 7, 2010. The latter SQ signified that the Generation Unit identified below, as described in a Statement of Qualification Application (SQA) dated January 5, 2010, met the requirements for eligibility as an RPS Class I Renewable Generation Unit, pursuant to the Renewable Energy Portfolio Standard – Class I, 225 CMR 14.05, and, therefore, was duly qualified as an RPS Class I Renewable Generation Unit. This amended SQ, granted and effective on July 1, 2010, provides that the RPS Class I qualification is subject to corrected provisions described herein. The amended provisions of this SQ have an RPS Effective Date of January 1, 2010.

Generation Unit Name, Capacity, and Location:	**Pioneer Hydropower (Ware River Hydro)** **1.46 MW** **Ware, MA**
Authorized Representative's Name and Address:	**Lucas W. Wright** **Chief Executive Officer** **Pioneer Hydro Electric Company, Inc.** **P.O. Box 512** **Allen Drive** **Ware, MA 01005**

This RPS Class I Renewable Generation Unit is assigned a unique Massachusetts RPS Identification Number, listed below. Please include the ID number on all correspondence with DOER.

MA RPS Class I ID #: HY-1139-10

This Unit's NEPOOL GIS Generation Unit Asset Identification Number is:

MSS 599

The amount of the Unit's electrical energy output each year that qualifies as RPS Class I Renewable Generation is the portion attributable to the increased production of electricity resulting from the replacement of two turbines with one refurbished turbine of identical type and one turbine of a more efficient type, as well as other physical improvements in 2009, as described in the Unit's SQA and supplementary documents. That portion was erroneously calculated and qualified in the original SQ for this Unit as 51.23% of each year's output, pursuant to 225 CMR 14.05(2)(b). However, pursuant to this amended SQ, **33.88%** of the electrical energy output qualifies as RPS Class I Renewable Generation, commencing with the output on January 1, 2010, for which NEPOOL GIS Certificates are created on July 15, 2010. The NEPOOL GIS administrator shall calculate the qualified amount for each month and mark as RPS Class I Renewable Generation the resulting quantity of Certificates for the Unit's GIS Asset Identification Number by the start of each GIS Certificate trading period.

The RPS Effective Date for this Unit is deemed to be October 1, 2009, pursuant to 225 CMR 14.06(4), that date being the earliest date for which electrical energy output could reasonably have resulted in the creation of RPS Class I Certificates following DOER's receipt of the SQA on January 11, 2010, and DOER's subsequent review of the SQA.

Qualification of this Generation Unit as an RPS Class I Renewable Generation Unit is subject to all applicable provisions in 225 CMR 14.00, including but not limited to the following.

Pursuant to 225 CMR 15.05(1)(a)6.d, the RPS Class II qualification of the Unit is contingent on the Unit remaining certified by the Low Impact Hydropower Institute (LIHI). The entire electrical energy output of the Unit for any month during any portion of which the Unit is under suspension or revocation of its LIHI certification shall not qualify as RPS Class II Renewable Generation, and the Department will instruct the NEPOOL GIS Administrator to not encode the Unit's certificates for such month as RPS Class II Renewable Generation qualified. The Unit Owner, Operator, or Authorized Agent shall inform DOER within 30 calendar days of its notification by LIHI of any suspension or revocation of the Unit's LIHI, as well as of any restoration of such certification, any denial of an application to renew its LIHI certification, or any decision to not apply for such renewal.

Pursuant to 225 CMR 14.05(1)(e)1, the amount of the generation capacity of the Unit whose electrical energy output is claimed as RPS Class I Renewable Generation shall not be committed to any Control Area other than the ISO-NE Control Area.

Pursuant to 225 CMR 14.06(5) and (6), the Unit's Owner or Operator is obligated to notify DOER of any changes in the characteristics of the Unit that could affect its eligibility status, as well as any changes in the Unit's ownership, generation capacity, or contact information.

Pursuant to 225 CMR 14.11, DOER may conduct site visits, as well as audits and inspections of documents related to the Unit's compliance with 225 CMR 14.00, including the provisions of this Statement of Qualification.

DOER may suspend or revoke this Statement of Qualification if the Owner or Operator fails to comply with 225 CMR 14.00, including the provisions of this Statement of Qualification.

Date: April 20, 2012

Mark D. Sylvia
Commissioner
Department of Energy Resources

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
DEPARTMENT OF ENERGY RESOURCES

STATEMENT OF QUALIFICATION – AMENDED

Pursuant to the Renewable Energy Portfolio Standard – Class II
225 CMR 15.00

This Statement of Qualification (SQ) amends an SQ granted by the Massachusetts Department of Energy Resources (DOER or the Department) and effective on April 7, 2010. The original SQ signified that the Generation Unit identified below, as described in a Statement of Qualification Application (SQA) dated January 5, 2010, met the requirements for eligibility as an RPS Class I Renewable Generation Unit, pursuant to the Renewable Energy Portfolio Standard – Class II, 225 CMR 15.05, and, therefore, was duly qualified as an RPS Class II Renewable Generation Unit. This amended SQ, granted and effective on July 1, 2010, provides that the RPS Class II qualification is subject to corrected provisions described herein. The original RPS Effective Date was October 1, 2009, while the amended provisions of this SQ have an RPS Effective Date of January 1, 2010.

Generation Unit Name, Capacity, and Location:	**Pioneer Hydropower (Ware River Hydro)** **1.46 MW** **Ware, MA**
Authorized Representative's Name and Address:	**Lucas W. Wright** **Chief Executive Officer** **Pioneer Hydro Electric Company, Inc.** **P.O. Box 512** **Allen Drive** **Ware, MA 01005**

This RPS Class II Renewable Generation Unit is assigned a unique Massachusetts RPS Identification Number, listed below, which is to be included on all correspondence with DOER.

MA RPS Class II ID #: HY-4014-10

This Unit's NEPOOL GIS Generation Unit Asset Identification Number is:

MSS 599

The amount of the Unit's electrical energy output each year that qualifies as RPS Class II Renewable Generation is the difference between 100% and the Unit's RPS Class I percentage attributable to the increased production of electricity resulting from 2009 physical improvements in the Unit, as described in the Unit's RPS Class I SQA and supplementary documents. The originally, but erroneously, calculated and qualified Class I percentage was 51.23% of each year's output, pursuant to 225 CMR 14.05(2)(b), as recorded in an identically dated SQ with an RPS ID# of HY-1139-10, with the remaining 48.77% qualified for RPS Class II. However, pursuant to the amended SQ for HY-1139-10, 33.88% of the electrical energy output qualifies as RPS Class I Renewable Generation. Accordingly, the percentage correctly qualified as RPS Class II Renewable Generation is **62.12%**, commencing with the output on January 1, 2010, for which NEPOOL GIS Certificates were created on July 15, 2010. The NEPOOL GIS administrator shall calculate the

qualified amount for each month and mark as RPS Class II Renewable Generation the resulting quantity of Certificates for the Unit's GIS Asset Identification Number by the start of each GIS Certificate trading period.

Qualification of this Generation Unit as an RPS Class II Renewable Generation Unit is subject to all applicable provisions in 225 CMR 15.00, including but not limited to the following.

Pursuant to 225 CMR 15.05(1)(a)6.d, the RPS Class II qualification of the Unit is contingent on the Unit remaining certified by the Low Impact Hydropower Institute (LIHI). The entire electrical energy output of the Unit for any month during any portion of which the Unit is under suspension or revocation of its LIHI certification shall not qualify as RPS Class II Renewable Generation, and the Department will instruct the NEPOOL GIS Administrator to not encode the Unit's certificates for such month as RPS Class II Renewable Generation qualified. The Unit Owner, Operator, or Authorized Agent shall inform DOER within 30 calendar days of its notification by LIHI of any suspension or revocation of the Unit's LIHI, as well as of any restoration of such certification, any denial of an application to renew its LIHI certification, or any decision to not apply for such renewal.

Pursuant to 225 CMR 15.06(5) and (6), the Unit's Owner or Operator is obligated to notify DOER of any changes in the characteristics of the Unit that could affect its eligibility status, as well as any changes in the Unit's ownership, generation capacity, or contact information.

Pursuant to 225 CMR 15.11, DOER may conduct site visits, as well as audits and inspections of documents related to the Unit's compliance with 225 CMR 15.00, including the provisions of this Statement of Qualification.

DOER may suspend or revoke this Statement of Qualification if the Owner or Operator fails to comply with 225 CMR 15.00, including the provisions of this Statement of Qualification.

Date: April 20, 2012

Mark D. Sylvia
Commissioner
Department of Energy Resources