Swift River Company

P.O. Box 149, Hamilton, MA 01936
Tel: (978) 468-3999, Fax: (978) 468-1210
pclark@swiftriverhydro.com

January 25, 2008

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

Via Certified Mail, Return Receipt Requested

Re: Applications of Pepperell Hydro Company, LLC and Woronoco Hydro, LLC

RECEIVED
2008 JAN 29 AM 8:44
PUBLIC UTILITIES COMMISSION

Dear Sirs:

Enclosed please find one original and three copies of the Renewable Energy Resources Eligibility Form for our affiliates, Pepperell Hydro Company, LLC and Woronoco Hydro, LLC.

Please note that this submission constitutes a resubmission, as the Applications had been sent in the past, but to date have not been processed. We assume that they had not reached your offices, and accordingly, we hereby resubmit the same.

Thank you for your attention to and consideration of these Applications. Should you have any questions or concerns regarding the enclosed, please contact Dr. Peter B. Clark at the address noted within the Applications and on the letterhead.

Very truly yours,

David B. Westebbe,
General Counsel

CC: Dr. Peter B. Clark
Nils Bolgen

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

GIS Certification #: MSS 948

RENEWABLE ENERGY RESOURCES ELIGIBILITY FORM

The Standard Application Form
Required of all Applicants for Certification of Eligibility of Renewable Energy Resource
(Version 3 – September 12, 2006)

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

2006 JAN 29 AM 8:14

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, RI 02888
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):
Pepperell 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: Peter B. Clark, Manager

1.5 Primary Contact Person address and contact information:
Address: P.O. Box 149, 823 Bay Road
Hamilton, MA 01936

Phone: (978) 468-3999 Fax: (978) 468-1210
Email: pclark@swiftriverhydro.com

1.6 Backup Contact Person name and title: David B. Westebbe
General Counsel

1.7 Backup Contact Person address and contact information:
Address: 468 Albemarle Road
Newton, MA 02460

Phone: (617) 527-3004 Fax: same
Email: swiftriver@westebbe.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):
Peter B. Clark, Manager

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

1.9 Authorized Representative address and contact information:
Address: P.O. Box 149
823 Bay Road
Hamilton, MA 01936
Phone: (978) 468-3999 Fax: (978) 468-1210
Email: pclark@swiftriverhydro.com

1.10 Owner name and title: Pepperell Hydro Company, LLC

1.11 Owner address and contact information:
Address: P.O. Box 149
823 Bay Road
Hamilton, MA 01936
Phone: (978) 468-3999 Fax: (978) 468-1210
Email: pclark@swiftriverhydro.com

1.12 Owner business organization type (check one):
☐ Individual
☐ Partnership
☐ Corporation
☑ Other: Limited Liability Company

1.13 Operator name and title: Swift River Hydro Operations Company, Inc

1.14 Operator address and contact information:
Address: 176 Cottage Ave. 3rd Floor
Wilbraham, MA 01095
Phone: (413) 599-1211 Fax: (413) 599-1291
Email: wdhobbs@swiftriverhydro.com

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): MSS 948

2.2 Generation Unit Nameplate Capacity: 1.92 MW

2.3 Maximum Demonstrated Capacity: 1.92 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 3.31*

☑ ← 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 3.31*

☑ ← 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 2.1 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

2.6 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: __ __ / __ 1 9 9 7 at the site.

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):

NA

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: 128 ½ Main Street, East Pepperell, MA 01437

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

A. Universal Transverse Mercator Coordinates: _____

B. Longitude/Latitude: 42° 40' 01.12" N 71° 34' 30.16" 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: Peter B. Clark DATE: 10/23/06

Manager
(Title)

GIS Certification #:
———

APPENDIX B
(Required When Owner or Operator is a Non-Corporate Entity Other Than An Individual)

STATE OF RHODE ISLAND
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

RESOLUTION OF AUTHORIZATION

Resolved: that Peter B. Clark, Manager, named in Section 1.8 of the Renewable Energy Resources Eligibility Form as Authorized Representative, is authorized to execute the Application on the behalf of Pepperell Hydro Company, LLC, the Owner or Operator of the Generation Unit named in section 1.1 of the Application.

SIGNATURE: Peter B Clark DATE: 10/23/06

State: MA

County: Essex

(TO BE COMPLETED BY NOTARY) I, David Westebbe as a notary public, certify that I witnessed the signature of the above named Peter B Clark and that said person stated that he/she is authorized to execute this resolution, and the individual verified his/her identity to me, on this date: 10/23/06.

SIGNATURE: DBW DATE: 10/23/06

My commission expires on: _____ NOTARY SEAL:

DAVID B. WESTEBBE
Notary Public
Commonwealth of Massachusetts
My Commission Expires
April 30, 2010

GIS Certification #:
_____

APPENDIX C
(Required of all Applicants with Generation Units at the Site of Existing Renewable Energy Resources)

STATE OF RHODE ISLAND
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 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? T-1 new generator, T-2 new turbine/generator, T-3 new runner → >10% output increase ☑ Yes ☐ No

C.2 Is the Generation Unit a Repowered Generation Unit (as defined in Section 3.28 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.3 If you checked "Yes" to question C.2 above, please provide documentation to support that the entire output of the Repowered Generation Unit first entered commercial operation after December 31, 1997.

C.4 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.5 If you checked "Yes" to question C.4 above, please provide documentation to support that the renewable energy fraction of the energy output first occurred after December 31, 1997.

C.6 Is the Generation Unit an Existing Renewable Energy Resource other than an Intermittent Resource (as defined in Section 3.9 and 3.14 of the RES Regulations)? ☐ Yes ☑ No

C.7 If you checked "Yes" to question C.6 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 3.22.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.

C.8 Is the Generating Unit an Existing Renewable Energy Resource that is an Intermittent Resource? ☑ 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 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 3.22.vi of the RES Regulations for further guidance.

C.10 If you checked "Yes" to C.8, 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 provide backup information sufficient for the Commission to make a determination of this incremental production percentage.

C.11 If you checked "no" to both C.1 and C.2 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.

Attachments

Pepperell Hydro Company, LLC
Application for Certification of Eligibility

C.9

Pepperell Hydro Company, LLC ("Pepperell Hydro") acquired the Project in 2004. At the time of acquisition, only one of the three turbine/generator sets was fully operational. Another unit was partially dismantled, with generator parts requiring rewinding stored on-site awaiting repair and refurbishment. The third t/g set was operating, but at greatly reduced efficiency due to bent blades on its runner. The Project was utilizing antique switchgear, governors and exciters, none of which can match the efficiency of modern designs.

Attached is a Balance Sheet dated as of June 30, 2004, shortly after acquisition of the Project. Also attached is a Balance Sheet dated as of December 31, 2006, the close of the current fiscal year. A comparison of the two demonstrates that significant capital investments have been made to increase project output.

Most notably, since acquisition of the Project, we have completely disassembled and rebuilt all three turbine/generator sets, have installed new trashracks and automatic trash rake system, and have replaced all of the antique, slate mounted switchgear with state of the art, computer controlled switchgear. These investments ensure that the three generating units operate at maximum efficiency, while also ensuring that the project as a whole operates in a strict run-of-river mode. The rebuilding of the t/g sets involved replacement of worn parts and bearings, adjustment of all tolerances for maximum efficiency, and installation of state-of-the-art sensor systems. The new trash racks and automatic trash rake systems ensure that the effective head will remain optimized at all times, allowing the Project to produce maximal output, given constantly varying river flows and conditions. Finally, the computer controlled switchgear automatically adjusts the three t/g sets, depending upon instantaneous river flow information, ensuring that the most efficient combination of units is operating, with all internal adjustments continuously optimized.

C.10

The rehabilitation of the Project, including the repairs and the repowering of the three t/g sets and the installation of PLC-controlled trash rake and switchgear with remote sensing of oil levels, temperature, vibration and auto start and new relays has increased efficiency and production significantly if compared with the historical baseline period.

Attached are the production records for the period of 1998 through 2005, demonstrating that average annual production for the Project was 3.7 million kWh during the historical baseline period. This was largely due to the deteriorated condition of the

Project, including bent and broken equipment and deferred repairs, and the use of outmoded switching ad control technology, all of which all adversely affected the efficiency of the Project. We chose this period as the historical baseline because it is the only period of time for which historical production records exist. All older records have been lost due to the bankruptcy of the former paper company which originally operated the Project. However, given that this period immediately precedes commencement of our rehabilitation and modernization of the Project, we feel that it fairly represents the average historical output of the Project.

While we are currently completing final tests of our refurbishment of T-2, our engineering reports indicate that the refurbished Project can be expected to generate 7.1 GWh annually, based upon simulated output over 40 years using daily average river flows. We have attached the following tables, which demonstrate this expected output.

Accordingly, as shown in the tables, incremental production is 47.8 % of total production.

Baseline Monthly Output from Pepperell Hydro Company Hydroelectric Plant
Actual Production 1998 to 2005 and 8-Year Average Monthly Output

	1998	1999	2000	2001	2002	2003	2004	2005	1998 - 2005 Average Production
Jan	719,312	537,285	353,904	262,000	102,855	388,982	334,934	439,822	392,387
Feb	618,003	619,097	83,797	311,000	251,145	308,573	253,661	326,018	346,412
Mar	265,537	724,349	831,161	527,339	475,363	505,922	395,260	424,988	518,740
Apr	779,480	485,125	745,397	398,659	496,169	439,385	554,795	399,990	537,375
May	627,225	267,081	648,491	251,891	580,999	439,892	559,020	428,058	475,332
Jun	504,689	24,859	591,125	276,364	447,618	588,411	349,104	370,266	394,055
Jul	337,565	6,501	200,666	104,283	75,809	296,127	188,091	246,427	181,934
Aug	55,840	11,016	248,380	7,227	22,175	315,803	268,231	64,797	124,184
Sep	44,397	120,975	103,510	29,556	28,793	274,390	242,071	3,234	105,866
Oct	256,081	255,880	129,006	33,321	135,480	235,262	305,686	38,163	173,610
Nov	184,318	157,490	277,308	55,048	348,301	261,102	301,975	-	198,193
Dec	226,230	432,371	339,538	148,950	300,000	378,430	311,899	-	267,177
Total:	4,618,677	3,642,029	4,552,283	2,405,638	3,264,707	4,432,279	4,064,727	2,741,763	3,715,263

Comparison of Baseline Production with Simulated Output Due to Efficiency Improvements, Restoration of Damaged Equipment and Repowering the Project

Months	Baseline Average Monthly Output	Projected Average Monthly Output	Percent Improvement Due to Capacity/Efficiency
January	392,387	684,648	42.7%
February	346,412	688,152	49.7%
March	518,740	971,564	46.6%
April	537,375	957,301	43.9%
May	475,332	811,328	41.4%
June	394,055	528,735	25.5%
July	181,934	307,843	40.9%
August	124,184	264,199	53.0%
September	105,866	232,626	54.5%
October	173,610	410,451	57.7%
November	198,193	565,972	65.0%
December	267,177	700,424	61.9%
Total	3,715,263	7,123,242	47.8%

STATE OF CONNECTICUT

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

DOCKET NO. 04-06-29RE01 **APPLICATION OF PEPPERELL HYDRO COMPANY LLC FOR QUALIFICATION AS A CLASS I RENEWABLE ENERGY SOURCE - REOPENING - CONVERSION TO RUN OF RIVER OPERATION**

February 1, 2006

By the following Commissioners:

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

DECISION

I. INTRODUCTION

A. SUMMARY

In this Decision, the Department of Public Utility Control determines that the Pepperell Hydro Company LLC generating facility located on the Nashua River in Massachusetts qualifies as a Class I renewable energy source.

B. BACKGROUND OF THE PROCEEDING

Pepperell Hydro Facility is a hydroelectric facility owned by Pepperell Hydro Company LLC (Pepperell Hydro). Pepperell Hydro Facility is located on the Nashua River in Middlesex County, Massachusetts. Pepperell Hydro Facility began commercial operation in 1920, and has a nameplate capacity of 1.92 megawatts.

By Decision dated February 9, 2004 in this proceeding (Initial Decision), the Department determined that the Pepperell Hydroelectric facility (Pepperell Hydro Facility) would qualify as a Class I renewable energy source if it converted its operation from store-and-release to full time run-of-river operation.

By Application dated October 5, 2005 (Application), Pepperell Hydro states that it has accomplished the successful conversion of the Pepperell Hydro Facility to run-of-river operation, and provided supporting documentation of the conversion.

C. CONDUCT OF THE PROCEEDING

By Decision dated November 18, 2005 the Department reopened the above captioned proceeding for the limited purpose to consider whether the Pepperell Hydro Facility has converted to run-of-river operation, thereby qualifying as a Class I renewable energy source.

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 Pepperell Hydro Company LLC, P.O. Box 149, Hamilton, MA 01936, and the Office of Consumer Counsel, Ten Franklin Square, New Britain, Connecticut 06051, as participants in this proceeding.

II. DEPARTMENT ANALYSIS

A. LEGAL STANDARDS

Pursuant to the General Statutes of Connecticut (C.G.S.) §16-1(a)(26), as amended by Public Act 03-135, An Act Concerning Revisions to the Electric Restructuring Legislation, and 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[1] 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] "Run-of-the-river" and "run-of-river" are used interchangeably in the energy industry.

(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).

In its Decision dated August 31, 2005 in Docket No. 04-05-16, Application of Connecticut Municipal Electric Energy Cooperative for Qualification of Occum Dam as a Class II Renewable Energy Source, the Department expanded the definition of run-of-river facility to include those facilities that voluntarily operate in run-of-river mode and that can demonstrate that their operation does not cause an appreciable change in river flow.

B. DEPARTMENT DETERMINATION

Pepperell Hydro Facility is a hydroelectric facility located on the Nashua River in Middlesex County, Massachusetts. Pepperell Hydro Facility is currently owned by Pepperell Hydro. According to Pepperell Hydro, there are 3 turbine generators at this facility, with a total combined nameplate capacity of 1.92 megawatts. Initial Decision, p. 3.

Pepperell Hydro Facility proposes to operate as a voluntary run-of-river facility with no FERC license or exemption. In the Initial Decision, the Department determined that the Pepperell Hydro Facility would qualify as a Class I renewable energy source if it provided documentation showing the successful conversion of the facility from store and release to run-of-river. The Department also noted that it would require Pepperell Hydro

to file an affirmation with the Department each quarter that the Pepperell Hydro Facility has operated in run-of-river mode for the prior calendar quarter, and providing the Department with any infractions that were noted by the Massachusetts Department of Environmental Protection (MADEP). That report would be required to be filed within 30 days following the end of each calendar quarter. Finally, the Department noted that, at any time, it may request operating data from Pepperell Hydro that demonstrates its operation as a run-of-river facility, including, but not limited to, pond level, generator output, and flow rates. Initial Decision, p. 5.

In this proceeding, Pepperell Hydro provided the following documentation supporting conversion to run-of-river operation:

- A copy of the Recurring Maintenance Plan (RMP) dated March 23, 2005 and corrected on June 8, 2005, which sets forth the obligation of Pepperell Hydro to operate in run-of-river mode;

- A copy of the Order of Conditions (Order) issued by the Pepperell Conservation Commission (Commission) on June 16, 2005, acting as local permitting authority for the MADEP, which, in part, orders Pepperell Hydro to operate the facility in run-of-river mode;

- A copy of a letter dated September 27, 2005 from the Commission that confirms the obligation of Pepperell Hydro to inform the Commission each time the facility deviates from run-of-river operation, and requiring Pepperell Hydro to file quarterly pond level reports. This letter also provides for enforcement actions by the Commission, and documents the Commission's awareness that Pepperell Hydro is required to notify the Department of any infractions of the Order within 30 days of each calendar quarter;

- A copy of a letter dated September 25, 2005 from Olson Electric Development Company, Inc., the contractor that installed the pond level control system, evidencing the installation of the system and other equipment required for establishing and maintaining run-of-river operations.

Application, pp. 1-2.

The RMP provides extensive information on the Pepperell Hydro Facility site, the facilities, and the operation of the facilities. Pepperell Hydro has installed controls to automatically adjust flow going into the turbines so that the rate of discharge from the turbines plus the spill into the bypass reach equals the rate of inflow into the pond above the dam.[2] Pond level will generally be maintained one-half inch below the top of the flashboards. Pepperell Hydro will be automatically recording pond levels every 15 minutes and will report deviations to the Commission. Additionally, the company has set up a telephone line to enable the public to report variations in pond levels, to facilitate its awareness of equipment malfunctions that could result in pond level

[2] Operating with inflows equal to outflows, resulting in a constant impoundment level, is the generally accepted definition of run-of-river operation. Decision in Docket No. 04-02-07, p. 7.

deviations. RMP, pp. 8-9. The Order requires Pepperell Hydro to operate in accordance with the RMP.

The supporting documentation demonstrates that Pepperell Hydro has installed the equipment necessary to support run-of-river operations, including an automatic pond level control system that ensures inflow and outflow are equalized. Further, the documentation demonstrates that Pepperell Hydro has established an operating plan for maintaining run-of-river operations, is required to operate in run-of-river mode by order of the Commission, and has shown that the facility will be monitored by the Commission acting on behalf of the MADEP. The Pepperell Hydro Facility has therefore established the necessary equipment and operating practices to establish and maintain run-of-river operations. The Department therefore determines that the Pepperell Hydro Facility has converted to a run-of-river facility, and qualifies as a Class I Renewable Energy Source.

III. FINDINGS OF FACT

1. Pepperell Hydro Facility is a hydroelectric facility owned by Pepperell Hydro. Pepperell Hydro Facility is located on the Nashua River in Middlesex County, Massachusetts.

2. The facility began commercial operation in 1920, and has a nameplate capacity of 1.92 megawatts.

3. Pepperell Hydro Facility proposes to operate as a voluntary run-of-river facility with no FERC license or exemption.

4. In the Initial Decision, the Department determined that the Pepperell Hydro Facility would qualify as a Class I renewable energy source if it provided documentation showing the successful conversion of the facility from store and release to run-of-river.

5. Pepperell Hydro has installed the equipment necessary to support run-of-river operations, including an automatic pond level control system.

6. The Pepperell Conservation Commission, acting as local permitting authority for the MADEP, requires Pepperell Hydro to operate the facility in run-of-river mode.

7. Pepperell Hydro must inform the Pepperell Conservation Commission each time the facility deviates from run-of-river operation, and must file quarterly pond level reports with the Commission.

IV. CONCLUSION AND ORDER

A. CONCLUSION

Based on the evidence submitted, the Department finds that Pepperell Hydro Facility qualifies as a Class I renewable generation facility 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 Pepperell Hydro Facility's Connecticut RPS registration number is CT00137-04.

Since the Pepperell Hydro Facility will be operated as a voluntary run-of-river facility with no FERC license or exemption, the Department believes that there is insufficient oversight from other regulatory agencies to monitor Pepperell Hydro Facility's ongoing operations for run-of-river compliance. Therefore, the Department requires periodic reports from Pepperell Hydro in Section IV.B below. Additionally, the Department notes that, at any time, it may request operating data from Pepperell Hydro that demonstrates its operation as a run-of-river facility, including, but not limited to, pond level, generator output, and flow rates.

The Department's determination in this docket is based on the information submitted by Pepperell Hydro. The Department may reverse its ruling if any material information provided by the Applicant proves to be false or misleading. The Department reminds Pepperell Hydro 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. ORDER

1. Pepperell Hydro will file an affirmation with the Department each quarter that the Pepperell Hydro Facility has operated in run-of-river mode for the prior calendar quarter, and providing the Department with any infractions that were reported to the Pepperell Conservation Commission during that quarter. The report is to be filed within 30 days following the end of each calendar quarter: January 30, April 30, July 30 and October 30.

DOCKET NO. 04-06-29RE01 APPLICATION OF PEPPERELL HYDRO COMPANY LLC FOR QUALIFICATION AS A CLASS I RENEWABLE ENERGY SOURCE - REOPENING - CONVERSION TO RUN OF RIVER OPERATION

This Decision is adopted by the following Commissioners:

Anne C. George

John W. Betkoski, III

Donald W. Downes

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

February 6, 2006
Date