STATE OF NEW HAMPSHIRE

Inter-Department Communication

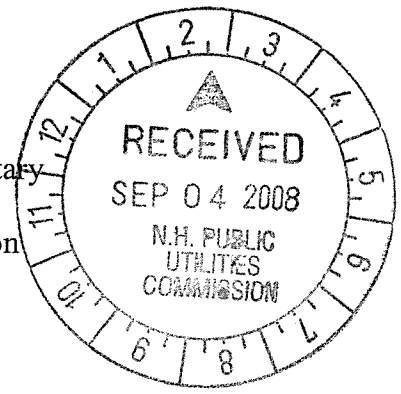
DATE: September 4, 2008
AT (OFFICE): NHPUC

FROM: Henry J. Bergeron, Utility Analyst III
Steven E. Mullen, Assistant Director - Electric Division

SUBJECT: DE 08-053, PSNH Small Hydroelectric Facilities
Application for Class IV Certification Pursuant to RSA 362-F
Staff recommendation for approval in part and denial in part of application

TO: Chairman Thomas B. Getz
Commissioner Graham J. Morrison
Commissioner Clifton C. Below
Debra A. Howland, Executive Director and Secretary

CC: Thomas C. Frantz, Director of the Electric Division
Suzanne Amidon, Staff Attorney



Summary

On April 2, 2008, Public Service Company of New Hampshire (PSNH) submitted an application requesting the Commission grant approval of eight small hydroelectric facilities in Bow, Bristol, Franklin, Gorham, Hillsborough, Hooksett, Manchester and West Stewartstown (small hydroelectric facilities) to produce Class IV renewable energy certificates (RECs) pursuant to RSA 362-F, New Hampshire's Renewable Portfolio Standard Legislation. Pursuant to RSA 362-F:4, IV, Class IV eligibility requires that a facility: 1) began operation prior to January 1, 2006; 2) has a gross nameplate capacity of 5 MWs or less; 3) has installed upstream and downstream diadromous fish passages that have been required and approved under the terms of its Federal Energy Regulatory Commission (FERC) license or exemption; and 4) when required, has documented applicable state water quality certification pursuant to section 401 of the Clean Water Act.

On May 7, 2008, Granite State Hydropower Association (GSHA) filed a motion to intervene in this docket. According to GSHA, most of the hydroelectric facilities for which PSNH seeks certification fail to qualify for Class IV RECs as they exceed the nameplate capacity size limits and/or do not meet the fish passage requirements of RSA 362-F. On July 11, 2008, PSNH responded to GSHA's motion to intervene. While

having no objection to the motion, PSNH did respectfully disagree with the arguments regarding two of the four eligibility criteria for certification as eligible Class IV source. Those criteria are the nameplate capacity size limits and the fish passage requirements.

In a memo dated June 27, 2008, Staff recommended that the applications of four of the eight small hydroelectric facilities be denied because they violated the 5 MW gross nameplate capacity requirement pursuant to RSA 362-F. These four were the Amoskeag, Ayers Island, Eastman Falls and Garvins Falls facilities. Staff also indicated its disagreement with the position taken by GSHA regarding fish passage requirements.

On July 21, 2008, GSHA filed a petition to commence an adjudicative proceeding or, in the alternative, to accept its motion to intervene as a petition for declaratory ruling. On July 30, 2008, PSNH responded to GSHA's petition by saying that in accordance with RSA 363-F:11-1,[1] applications for certification are to be addressed in a non-adjudicatory process. Further, PSNH believed GSHA's filing was premature and that it should await the Commission's decision on the application, after which the Commission could commence an adjudicatory process.

On August 11, 2008, Ashuelot River Hydro, Inc., the owner of two hydroelectric projects on the Ashuelot River in the Town of Winchester, NH, filed a letter stating its concern that PSNH was seeking Class IV eligibility for hydro projects that do not have fish passage when, in its view, fish passage is required by the RPS statute and PUC rules.

On August 20, 2008, the New Hampshire Department of Environmental Services (DES) filed a letter in which it provided its legislative testimony during discussion of the then-proposed House Bill 873 (the precursor to the now-enacted RSA 362-F). According to DES, that testimony provides DES' position that Class IV hydroelectric facilities were intended to be "small hydroelectric facilities that had both upstream and downstream fish ladders." On August 21, 2008, Representative Suzanne Harvey, Vice Chair of the Science, Technology & Energy Committee, filed comments essentially echoing DES' comments on the subject of fish passage requirements.

Finally, on August 27, 2008, in response to a query from Staff, PSNH submitted a January 9, 2003 FERC order concerning its Gorham hydroelectric plant clarifying the status of fish passage requirements at that facility.

Pursuant to RSA 362-F, the Commission, in a non-adjudicative process, shall issue a determination of whether a facility meets a particular classification within 45 days of a completed application. Of the eight hydroelectric facilities for which PSNH sought Class IV certification, Staff recommends, as in its earlier memo, that the Commission deny Class IV certification for the Amoskeag, Ayers Island, Eastman Falls and Garvins Falls facilities as they exceed the 5 MW gross nameplate capacity limitation. As for the remaining projects, namely Canaan, Gorham, Hooksett and Jackman, the application was completed on August 27, 2008 with the receipt of additional information from PSNH. These latter four facilities meet the eligibility requirements under RSA 362-F:4, IV as

[1] Staff believes PSNH intended to cite RSA 362-F:11, I.

Class IV facilities and comply with the N.H. Admin. Code Rule Puc 2500. Based on Staff's review of PSNH's application for the Canaan, Gorham, Hooksett and Jackman facilities, Staff recommends that the Commission certify those four hydroelectric plants as Class IV facilities effective August 27, 2008.

As mentioned above, in its June 27, 2008 memo Staff discussed the issues of size limitation and fish passage requirements. Staff has additional comments on these issues including discussion of some of the arguments raised in subsequent filings in this proceeding.

Analysis

For ease of reference, Staff presents again the general description contained in its June 27, 2008 memo:

PSNH's small hydroelectric facilities are run-of-river hydroelectric facilities located in New Hampshire, with the exception of Canaan which is located in Vermont and New Hampshire. The details for each facility are listed in the table below.

Facility	**Date In Service**	**Total Gross Nameplate Capacity**	**NEPOOL GIS Facility Code**	**FERC License**	**River**	**Station Address**
Amoskeag (G-2, G-3)	1924, 1922	10.00 MW	MSS 327	1893	Merrimack	15 Fletcher St Manchester, NH
Ayers Island (G-1, G-2, G-3)	1924	8.40 MW	MSS 330	2456	Pemigewasset	59 Ayers Island Rd Bristol, NH
Canaan	1927	1.10 MW	MSS 861	7528	Connecticut	344 Powerhouse Rd Canaan, VT
Eastman Falls (G-1, G-2)	1937, 1983	6.40 MW	MSS 401	2457	Pemigewasset	215 North Main St Franklin, NH
Garvins Falls (G-1, G-2, G-3, G-4)	1981, 1981, 1925, 1925	12.20 MW	MSS 768	1893	Merrimack	5 Garvins Falls Rd Bow, NH
Gorham (G-1, G-2, G-3, G-4)	1917, 1917, 1923, 1923	2.15 MW	MSS 427	2288	Androscoggin	1 Station Rd Gorham, NH
Hooksett	1927	1.60 MW	MSS 768	1893	Merrimack	73 Merrimack St Hooksett, NH
Jackman	1926	3.20 MW	MSS 449	None	North Branch Contoocook	8 Sawmill Rd Hillsborough, NH

On July 29, 2008, PSNH replied to Staff's latest requests for additional information. In addition to providing clarification regarding the nameplate capacity of several facilities, PSNH also addressed the following requirements for submitting a completed application:

Puc 2505.02 (b) (8) requires an application to include "[P]roof that the applicant either has an approved interconnection study on file with the commission, is a party to a currently effective interconnection agreement, or is otherwise not required to undertake an interconnection study."

PSNH stated that "[S]ince passage of the Public Utility Regulatory Policies Act (PURPA) in 1978, interconnection studies have become required for non-utility generators seeking to connect with utility transmission and distribution systems. As outlined in the original application, each PSNH existing small hydroelectric generating facility entered into commercial service prior to passage of PURPA and was connected to PSNH-owned electrical transmission and distribution infrastructure. As such, no interconnection studies were required for PSNH's eligible Class IV facilities at the times of construction."[2]

Puc 2505.02 (b) (8) requires an application to include "[A] statement as to whether the facility has been certified under another non-federal jurisdiction's renewable portfolio standard and proof thereof."

PSNH stated that it has not applied for qualification to any other states' renewable portfolio standards even though the existing small hydroelectric facilities would qualify.

In its June 27, 2008 memo, Staff stated that it did not agree with PSNH's position that a "facility" for purposes of the RPS law means individual generators at a generating station. Under PSNH's interpretation, individual generating units at a plant could qualify for Class IV status as long as they each have a less than 5 MW gross nameplate capacity, even if the gross nameplate capacity of the entire generating station exceeds 5 MW. In addition to its earlier comments on this issue, Staff notes, that if PSNH were correct, then each of the so-called "facilities" (i.e., individual generators at a plant) that would be eligible for Class IV would also seem to need to meet the fish passage and Clean Water Act requirements. No such separate information has been submitted by PSNH to support its position. Staff, therefore, affirms its prior recommendation that Class IV certification be denied for the Amoskeag, Ayers Island, Eastman Falls and Garvins Falls facilities.

Discussion Regarding Fish Passage Requirements and Submittals by Other Parties

As noted above, GSHA, Ashuelot River Hydro, Inc., DES and Rep. Harvey have all submitted comments, motions, etc. discussing the fish passage requirements for Class IV certification. The collective view of these parties is that RSA 362-F and N.H. Admin Code Rule Puc 2500 both require that in order to be eligible for Class IV status, hydro facilities must have installed both upstream and downstream fish passages. While Staff views these filings as premature and more appropriately considered if an adjudicative proceeding is opened in accordance with Puc 2505.13, given the arguments in the filings, Staff feels compelled to discuss the fish passage requirements in detail and clarify some of the underlying issues.

[2] PSNH response dated July 29, 2008 to Staff set #1, question #1, dated 5/13/2008.

The fish passage requirements for Class IV facilities pursuant to RSA 362-F and N.H. Admin Code Rule Puc 2500 are as follows:

> RSA 362-F:4, IV - "...has installed upstream and downstream diadromous fish passages that have been required and approved under the terms of its license or exemption from the Federal Energy Regulatory Commission..."
>
> 2502.10 – "...has installed FERC-required and approved upstream and downstream diadromous fish passages..."

The first question that arises in light of the above citations is "What is meant by a FERC exemption?" The following information was obtained from FERC's web site (see http://www.ferc.gov/industries/hydropower/gen-info/licensing/exemptions.asp):

> **Exemptions from Licensing**
>
> In certain cases, projects may qualify for an exemption from licensing. Those receiving an exemption are exempt from the requirements of Part I of the Federal Power Act. However, the exempted project is subject to mandatory terms and conditions set by federal and state fish and wildlife agencies and by the Commission, and do not convey the right of eminent domain. Getting an exemption can be a more simplified process than applying for a license. Exemptions are issued in perpetuity.

There are two types of exemptions. (The details are not necessary for this discussion, but can be found at the link provided above. A copy of the web page is attached for convenience purposes.) Discussion with FERC personnel revealed that although a facility may receive an exemption, it is an exemption from licensing, not from fish passage requirements, and the terms of such exemption may still require the installation of fish passages. The point here is that one must look to the details of the site-specific FERC license or FERC exemption to determine what types of fish passage requirements were required by FERC. GSHA, Ashuelot River Hydro, Inc., DES and Rep. Harvey have all seemed to ignore the "FERC-required" language and instead have opined that all Class IV facilities must have installed both upstream and downstream fish passages. Those four parties all appear to support a position that would mandate installation of both downstream and upstream fish passages at a hydroelectric facility, regardless of whether or not it was specifically required by FERC, before that facility would be eligible for Class IV certification. Such a position would require hydro facility owners to invest significant dollars to install the facilities even though FERC may not have required them. While there may have been testimony during legislative hearings that may support that position, the law appears to read differently and, in fact, relies specifically on actual FERC requirements.

Taking this issue to the next step, it is important to know, for each of the four facilities for which Staff is recommending approval of Class IV certification, whether a)

it has a FERC license or exemption, and b) what the FERC required in terms of fish passage for each facility. Below is the specific information for each of the facilities:

Canaan – Holds a FERC license. In its application, PSNH stated that Canaan is not required by FERC to employ diadromous fish passage. In the order issuing the license, FERC stated,

> License Article 11 provides for construction of such facilities and modifications to project operation to facilitate fish passage *in the future as may be ordered by the Commission* upon its own motion or upon the recommendation of the Secretary of the Interior, after notice and opportunity for hearing.[3] (emphasis added)

Gorham – Holds a FERC license. In its application, PSNH stated that Gorham is not required by FERC to employ diadromous fish passage. In the August 1, 1994 order issuing the license, FERC stated,

> Article 406. The Licensee, within six months from the effective date of this license, shall file, for Commission approval, functional design drawings of a trashrack and downstream fish bypass facility to reduce the entrainment of resident fish, together with a schedule to construct /install the facilities before operation of the project.[4]

On its face, the FERC order clearly is at odds with PSNH's statement that it is not required by FERC to install diadromous fish passage. PSNH was asked to explain this apparent discrepancy and to provide additional information supporting its position. In response, on August 27, 2008 PSNH stated that regarding required fish passage, "the condition was released several years after the license was issued" and provided a January 9, 2003 FERC order which stated,

> In the order issuing the license for the Public Service Gorham Project, the Commission determined that the levelized net annual economic benefit of the project, accounting for all enhancement measures except the fish passage facilities, would be $910,000, and that the fish passage facilities would reduce this benefit by $167,000. These benefits and costs were based on projected power values that certainly exceed those actually prevailing today, while the costs of installing and operating fish passage facilities are not likely to have decreased. Therefore, the ratio of fish passage costs to project benefits would almost certainly be higher now than the ratio produced by the 1994 calculations. Given the questionable benefit to the fishery of installing these facilities, we find that recommendation is inconsistent with our obligations under Section 10(a)(1) of the F[ederal] P[ower] A[ct] to ensure that the project adopted

[3] PSNH application, Appendix B.3, page 8.
[4] Ibid, Appendix B.5, page 12.

> is best adapted to a variety of power and non-power uses. Therefore, we will amend the licenses[5] to delete Article 406.[6]

With this additional information, PSNH has supported its position that the FERC does not require diadromous fish passage at the Gorham facility.

Hooksett – Holds a FERC license (included as part of the Amoskeag Project). In its application, PSNH stated that,

> As required and approved by FERC, a downstream fish passage sluice was installed at Hooksett Station in 1988. The FERC license for Project No. 1893 requires PSNH to develop a plan for upstream passage at Hooksett Station and to install means of passage within three years after 9,500 shad or 22,500 river herring pass Amoskeag Station. As these numbers of shad or river herring have yet to be observed at Amoskeag Station, Hooksett Station is currently not required to employ upstream diadromous fish passages.[7]

The information provided by PSNH is consistent with the applicable FERC order which, while acknowledging the existing downstream fish bypass facility, further stated,

> The license[e] shall install upstream passage facilities for anadromous fish at the Hooksett Dam, to be operational within three years after passage of either 9,500 or more shad or 22,500 or more river herring in any given year at the Amoskeag development.[8]

Jackman – Holds neither a FERC license nor a FERC exemption. In its application, PSNH stated that Jackman does not fall under FERC jurisdiction, so there are no FERC requirements regarding fish passage facilities. Staff's review of the relevant FERC order confirms PSNH's statement that Jackman does not fall under FERC jurisdiction. Further, Staff had a discussion with FERC personnel to understand what it meant for a project to have neither a FERC license nor a FERC exemption. Based on that discussion, Staff understands that Jackman would be subject to applicable state regulations. Neither RSA 362-F nor N.H. Admin Code Rule Puc 2500 have any requirements regarding fish passages pursuant to state regulations.

Based on all the above information, PSNH has demonstrated that it has installed whatever fish passage facilities were required by FERC at the Canaan, Gorham and Hooksett hydroelectric facilities. As for the Jackman facility, as stated above, FERC regulation does not apply.

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[5] The January 9, 2003 FERC order also pertained to another hydroelectric project located on the Androscoggin River in Gorham, NH and owned by James River-New Hampshire Electric, Inc. (and later successor owners).

[6] 102 F.E.R.C. P61,018; 2003 FERC LEXIS 46, p. 15, provided by PSNH in response to Staff set #2, question #1.

[7] PSNH application, page 5 of 6.

[8] Ibid, Appendix B.1, page 72.

As a final note on this issue, Staff's June 27, 2008 memo included statements about certain of PSNH's hydroelectric facilities not having downstream and/or upstream fish passages, "as they are exempted by FERC."[9] In hindsight, the word "required" would have been preferable to use rather than "exempted" as "exempted" could cause confusion with the FERC license "exemption" described above.

Recommendation

Staff has reviewed the PSNH small hydroelectric facilities application and recommends the following:

a) Consistent with its June 27, 2008 memo, that PSNH's application for Class IV certification for the Amoskeag, Ayers Island, Eastman Falls and Garvins Falls facilities be denied as they exceed the 5 MW gross nameplate capacity size limit, and
b) That the Canaan, Gorham, Hooksett and Jackman facilities be certified as eligible to produce Class IV RECs effective August 27, 2008, the date the final information to complete the application was received from PSNH.

[9] Staff's June 27, 2008 memo, page 3.

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Industries

Hydropower - Licensing

Exemptions from Licensing

In certain cases, projects may qualify for an exemption from licensing. Those receiving an exemption are exempt from the requirements of Part I of the Federal Power Act. However, the exempted project is subject to mandatory terms and conditions set by federal and state fish and wildlife agencies and by the Commission, and do not convey the right of eminent domain. Getting an exemption can be a more simplified process than applying for a license. Exemptions are issued in perpetuity.

» Issued Exemptions **updated 8/5/2008**

The Commission issues two types of exemptions:

1. Small hydropower projects, which are 5 megawatts or less, that will be built at an existing dam, or projects that utilize a natural water feature for head or an existing project that has a capacity of 5 megawatts or less and proposes to increase capacity.

   (Note: Following links are to external sites and you will be leaving FERC's website).

   - Definition [section 4.30(29)]
   - Who may file [section 4.31(c)]
   - Applicability [section 4.101]
   - General provisions for case-specific exemption [section 4.103]
   - Standard terms and conditions of case-specific exemption from licensing [section 4.106]
   - Contents of application from licensing [section 4.107]

   Conduit exemption that would be issued for constructing a hydropower project on an existing conduit (for example irrigation canal).

2. Conduit exemptions are authorized for generating capacities 15 megawatts or less for non-municipal and 40 megawatts or less for a municipal project. The conduit has to have been constructed primarily for purposes other than power production and be located entirely on non-federal lands.

   - Definition [section 4.30(28)]
   - Who may file [section 4.31(b)]
   - Applicability and purpose [section 4.90]
   - Contents of exemption applications [section 4.92]
   - Standard terms and conditions of case-specific exemption from licensing [section 4.94]

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Additional Information
» Preliminary Permits
» Applications for Original Licenses
» Applications for New Licenses (Relicenses)
» Exemptions from Licensing
» Issued Licenses since 2007
Small/Low-Impact Hydropower Projects

Updated: August 5, 2008