

Applicant
[Puc 2505.02 (a)]

Public Service Company of New Hampshire
P.O. Box 330
Manchester, NH 03105-0330

Primary Contact

William H. Smagula
Director, PSNH Generation
Public Service Company of New Hampshire
P.O. Box 330
Manchester, NH 03105-0330
Phone: (603) 634-2851
Fax: (603) 634-2703
Email: smaguwh@psnh.com

Secondary Contact

Elizabeth H. Tillotson
Technical Business Manager, PSNH Generation
Public Service Company of New Hampshire
P.O. Box 330
Manchester, NH 03105-0330
Phone: (603) 634-2440
Fax: (603) 634-2703
Email: tilloeh@psnh.com

Location of Facility
[Puc 2505.02 (b)]

Location information is presented in Appendix A – Facility Information Table.

ISO-New England Asset Identification Number
[Puc 2505.02 (c)]

ISO-New England (ISO-NE) asset identification numbers are presented in Appendix A – Facility Information Table.

NEPOOL Generation Information System Facility Code
[Puc 2505.02 (d)]

New England Power Pool (NEPOOL) General Information System (GIS) facility codes are presented in Appendix A – Facility Information Table.

Description of Facility
[Puc 2505.02 (e)]

Federal Energy Regulatory Commission (FERC) commonly treats multiple hydraulically-similar generating facilities, even those located at different generating stations, under a single license. For example, The Merrimack River Project, which includes Amoskeag G-1, G-2, and G-3, Garvins Falls G-1, G-2, G-3, and G-4, and Hooksett G-1, operates under a single FERC license. Similarly, the regional grid operator, ISO-NE, commonly treats multiple generating facilities, even those located at different generating stations, under a single asset identification number. For instance, Garvins Falls G-1, G-2, G-3, and G-4 and Hooksett G-1 share a common ISO-NE asset identification number.

Amoskeag G-2, G-3

Amoskeag G-2 and G-3 are located at Amoskeag Station on the Merrimack River in Manchester, NH. Both constructed in 1922, Amoskeag G-2 and G-3 are each rated with a gross nameplate capacity of 5.0 MW and operate under the license for FERC Project No. 1893. FERC Project No. 1893 includes Garvins Falls Station and Hooksett Station, also on the Merrimack River and operated by PSNH. Amoskeag G-2 and G-3 operate on run-of-river bases and employ upstream and downstream diadromous fish passage. A copy of the license for FERC Project No. 1893 is included as Appendix B.1 – Merrimack River Project FERC License.

Ayers Island G-1, G-2, G-3

Ayers Island G-1, G-2, and G-3 are located at Ayers Island Station on the Pemigewasset River in Bristol, NH. All three facilities were constructed in 1924 and each is rated with a gross nameplate capacity of 2.8 MW. Ayers Island G-1, G-2, and G-3 operate under FERC Project No. 2456 and employ downstream diadromous fish passage. Upstream diadromous fish passage is not required by FERC. A copy of the license for FERC Project No. 2456 is included as Appendix B.2 – Ayers Island FERC License.

Canaan G-1

Canaan G-1 is a single-unit hydroelectric generating station located on the Connecticut River in Canaan, VT and West Stewartstown, NH. Constructed in 1927, Canaan G-1 is licensed as FERC Project No. 7528 with a gross nameplate capacity of 1.1 MW. Canaan G-1 operates on a run-of-river basis and is not required by FERC to employ diadromous fish passage. A copy of the license for FERC Project No. 7528 is included as Appendix B.3 – Canaan FERC License.

Eastman Falls G-1, G-2

Eastman Falls G-1 and G-2 are located at Eastman Falls Station on the Pemigewasset River in Franklin, NH. Originally constructed in 1901, PSNH purchased Eastman Falls Station in 1937 and constructed Eastman Falls G-1 in that year with a gross nameplate capacity of 1.8 MW; Eastman Falls G-2 was constructed in 1983 with a gross nameplate capacity of 4.6 MW. Both facilities operate on run-of-river bases under the terms of the FERC license for Project No. 2457 and employ downstream diadromous fish passage. Upstream diadromous fish passage is not required by FERC. A copy of the license for FERC Project No. 2457 is included as Appendix B.4 – Eastman Falls FERC License.

Garvins Falls G-1, G-2, G-3, G-4

Garvins Falls G-1, G-2, G-3, and G-4 are located at Garvins Falls Station on the Merrimack River in Bow, NH. Built in 1901, Garvins Falls Station was refurbished in 1925 with the construction of Garvins Falls G-3 and G-4 featuring gross nameplate capacities of 2.4 MW and 3.2 MW, respectively. Garvins Falls G-1 and G-2 were constructed in 1981 and each is rated with a gross nameplate capacity of 3.3 MW. Garvins Falls Station employs downstream diadromous fish passage. Upstream diadromous fish passage is not required by FERC. All Garvins Falls facilities operate under the license for FERC Project No. 1983. FERC Project No. 1893 also includes Amoskeag Station and Hooksett Station, also on the Merrimack River and operated by PSNH. Similarly, Garvins Falls Station and Hooksett Station share a common ISO-NE asset identification number. A copy of FERC License No. 1983 is included as Appendix B.1 – Merrimack River Project FERC License.

Gorham G-1, G-2, G-3, G-4

Gorham G-1, G-2, G-3, and G-4 are located at Gorham Station on the Androscoggin River in Gorham, NH. Each of Gorham G-1 and G-2, installed in 1917, is rated with a gross nameplate

capacity of 0.4 MW, while the 1923 additions of G-3 and G-4 are each rated with a gross nameplate capacity of 0.675 MW. PSNH purchased Gorham Station in 1943 and operates the four hydroelectric facilities under the FERC license for Project No. 2288. Gorham G-1, G-2, G-3, and G-4 operate on run-of-river bases and are not required by FERC to employ diadromous fish passage. A copy of the FERC license for Project No. 2288 is included as Appendix B.5 – Gorham FERC License.

Hooksett G-1

Hooksett G-1 is a single-unit hydroelectric generating station located on the Merrimack River in Hooksett, NH. Hooksett G-1 entered commercial service in 1927 with a gross nameplate capacity of 1.6 MW. Diadromous fish passage is discussed in Additional Information. PSNH operates Hooksett G-1 on a run-of-river basis under the FERC license for Project No. 1893. The FERC license for Project No. 1893 also includes Garvins Falls Station in Bow and Amoskeag Station in Manchester, also on the Merrimack River and operated by PSNH. Similarly, Hooksett Station and Garvins Falls Station share a common ISO-NE asset identification number. A copy of the FERC license for Project No. 1893 is included as Appendix B.1 – Merrimack River Project FERC License.

Jackman G-1

Jackman G-1 is a single-unit hydroelectric generating station located on the North Branch Contoocook River in Hillsborough, NH. Entered into commercial service in 1926, Jackman G-1 has a gross nameplate capacity of 3.2 MW and is not FERC jurisdictional. Diadromous fish passage is not required by FERC or New Hampshire Department of Environmental Services (NHDES). A copy of the FERC order finding no jurisdiction over Jackman Station is included as Appendix B.6 – Jackman FERC Order.

Demonstration of Necessary Regulatory Approvals [Puc 2505.02 (g)]

As discussed above, FERC commonly treats multiple hydraulically-similar facilities, even those located at different generating stations, under a single license. For example, The Merrimack River Project, which includes Amoskeag G-1, G-2, and G-3, Garvins Falls G-1, G-2, G-3, and G-4, and Hooksett G-1, operates under a single FERC license. Similarly, the regional grid operator, ISO-NE, commonly treats multiple generating facilities, even those located at different generating stations, under a single asset identification number. For instance, Garvins Falls G-1, G-2, G-3, and G-4 and Hooksett G-1 share a common ISO-NE asset identification number.

To summarily demonstrate completion of the necessary regulatory approval processes for each facility, Appendix B includes copies of the FERC licenses under which PSNH operates its eligible Class IV sources.

Amoskeag, Garvins Falls, and Hooksett stations are licensed as FERC Project No. 1893. Ayers Island, Canaan, Eastman Falls, and Gorham stations are licensed as FERC Project Nos. 2456, 7528, 2457, and 2288, respectively.

FERC has no jurisdiction over Jackman G-1, as demonstrated in Appendix B.6 – Jackman FERC Order. The dam serving Jackman Station is registered with NHDES Dam Bureau under dam registration number 116.04.

Proof of Approved Interconnection Study
[Puc 2505.02 (h)]

No modifications to the existing approved electrical interconnection systems have been recently completed or planned at any of the eligible Class IV facilities listed in this application.

[Puc 2505.02 (f), (i)]

Not applicable.

Additional Information
[Puc 2505.02 (j)]

Class IV sources are defined by Puc 2502.09 as “hydroelectric generation facilities that began operation on or before January 1, 2006 and have a gross nameplate capacity of 5 megawatts or less, have installed FERC-required and approved upstream and downstream diadromous fish passages and, when required, have met state water quality certification, to the extent such resources are not used to satisfy certificate purchase obligations pursuant to RSA 362-F:4, I(j).”

Amoskeag G-2, G-3

As outlined above and in agreement with Puc 2502.09, Amoskeag G-2 and G-3 each entered commercial service in 1922 and each is rated with a gross nameplate capacity of 5.0 MW. As required and approved by FERC, Amoskeag G-2 and G-3 operate on run-of-river bases and employ upstream and downstream diadromous fish passage.

Pursuant to Clean Water Act (CWA) Section 401, NHDES issued Water Quality Certification 2003-006 for Amoskeag G-2 and G-3 in 2004. Similarly to the license for FERC Project No. 1893, this water quality certification includes Garvins Falls Station and Hooksett Station. A copy of the most recent certificate, modified in 2005 and renumbered 2003-006.1, is included as Appendix C.1 – Merrimack River Project Water Quality Certificate.

Ayers Island G-1, G-2, G-3

As outlined above and in agreement with Puc 2502.09, Ayers Island G-1, G-2, and G-3 entered commercial service in 1924 and each is rated with a gross nameplate capacity of 2.8 MW. As required and approved by FERC, Ayers Island G-1, G-2, and G-3 operate on run-of-river bases and employ downstream diadromous fish passage. Upstream diadromous fish passage is not required by FERC.

Pursuant to Clean Water Act (CWA) Section 401, NHDES issued a Water Quality Certificate for Ayers Island Station in 1991. A copy of the certificate is included as Appendix C.2 – Ayers Island Water Quality Certificate.

Canaan G-1

As outlined above and in agreement with Puc 2502.09, Canaan G-1 entered commercial service in 1927, has a gross nameplate capacity of 1.1 MW, and is not required by FERC to employ diadromous fish passages.

The New Hampshire Water Supply and Pollution Control Commission and the Vermont Department of Water Resources and Environmental Engineering issued water quality certificates for the project on August 2, 1983, and May 10, 1984, respectively.

Eastman Falls G-1, G-2

As outlined above and in agreement with Puc 2502.09, Eastman Falls G-1 and G-2 entered commercial operation in 1937 and 1983 with gross nameplate capacities of 1.8 MW and 4.6 MW, respectively. As required and approved by FERC, both facilities employ downstream diadromous fish passage. Upstream diadromous fish passage is not required by FERC. Water quality certification is not required by NHDES for Eastman Falls Station.

Garvins Falls G-1, G-2, G-3, G-4

As outlined above and in agreement with Puc 2502.09, Garvins Falls G-3 and G-4 entered commercial service in 1925 with gross nameplate capacities of 2.4 MW and 3.2 MW, respectively. Garvins Falls G-1 and G-2 entered commercial service in 1981 and each is rated with a gross nameplate capacity of 3.25 MW. As required and approved by FERC, Garvins Falls Station employs downstream diadromous fish passage. Upstream diadromous fish passage is not required by FERC.

Pursuant to Clean Water Act (CWA) Section 401, NHDES issued Water Quality Certification 2003-006 for Garvins Falls Station in 2004. Similarly to the FERC license for Project No. 1893, this water quality certification includes Amoskeag Station and Hooksett Station. A copy of the most recent certificate, modified in 2005 and renumbered 2003-006.1, is included as Appendix C.1 – Merrimack River Project Water Quality Certificate.

Gorham G-1, G-2, G-3, G-4

As outlined above and in agreement with Puc 2502.09, Gorham G-1 and G-2 entered commercial service in 1917 and each is rated with a gross nameplate capacity of 0.4 MW. Gorham G-3 and G-4 entered commercial service in 1923 and each is rated with a gross nameplate capacity of 0.65 MW and 0.6 MW, respectively. Gorham Station is not required by FERC to employ diadromous fish passage.

Pursuant to Clean Water Act (CWA) Section 401, NHDES issued a Water Quality Certificate for Gorham Station in 1991. A copy of the certificate is included as Appendix C.4 – Gorham Water Quality Certificate.

Hooksett G-1

As outlined above and in agreement with Puc 2502.09, Hooksett G-1 entered commercial service in 1927 and has a nameplate capacity of 1.6 MW. 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 by FERC to employ upstream diadromous fish passages.

Pursuant to Clean Water Act (CWA) Section 401, New Hampshire Department of Environmental Services (NHDES) issued Water Quality Certification 2003-006 for Hooksett Station in 2004. A copy of the most recent certificate, modified in 2005 and renumbered 2003-006.1, is included as Appendix C.1 – Merrimack River Project Water Quality Certificate.

Jackman G-1

As outlined above and in agreement with Puc 2502.09, Jackman Station entered commercial service in 1926 and has a nameplate capacity of 3.2 MW. Jackman Station is not required by FERC to employ diadromous fish passages because this site is not FERC jurisdictional, as demonstrated in Appendix B.6 – Jackman FERC Order. Additionally, water quality monitoring pursuant to Clean Water Act (CWA) Section 401 certification is not required by NHDES for Jackman Station, as discussed in Appendix C.5 – Jackman Water Quality Certificate Letter.

All Facilities

Finally, in further agreement with Puc 2502.09, PSNH requests that the facilities described herein be determined to be eligible to produce only Class IV renewable energy certificates for generation. These facilities shall not qualify as Class I sources as defined by RSA 362-F:4, I(j).