



DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 2790-074]

Boott Hydropower, LLC; Notice of Application Accepted for Filing, Soliciting Motions to Intervene and Protests, Ready for Environmental Analysis, and Soliciting Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Prescriptions

Take notice that the following hydroelectric application has been filed with the
Commission and is available for public inspection.

- a. Type of Application: New Major License
- b. Project No.: 2790
- c. Date Filed: April 30, 2021
- d. Applicant: Boott Hydropower, LLC (Boott)
- e. Name of Project: Lowell Hydroelectric Project (project)
- f. Location: The existing project is located on Merrimack River in Middlesex
County, Massachusetts and Hillsborough County, New Hampshire. The project does not
occupy any federal land but is located within the administrative boundary of the Lowell
National Historical Park.
- g. Filed Pursuant to: Federal Power Act, 16 U.S.C. 791(a) – 825(r)
- h. Applicant Contact: Jillian Lawrence, Boott Hydropower, LLC, 4747 Bethesda
Avenue, Suite 1220, Bethesda, MD 20814; (856) 906-0180 or
jlawrence@hullstreetenergy.com.
- i. FERC Contact: Bill Connelly at (202) 502-8597 or william.connelly@ferc.gov.

j. Deadline for filing motions to intervene and protests, comments, recommendations, terms and conditions, and prescriptions: on or before 5:00 p.m. Eastern Time on July 21, 2025; reply comments are due on or before 5:00 p.m. Eastern Time on September 2, 2025.

The Commission strongly encourages electronic filing. Please file motions to intervene and protests, comments, recommendations, terms and conditions, and prescriptions using the Commission's eFiling system at <https://ferconline.ferc.gov/FERCOOnline.aspx>. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at <https://ferconline.ferc.gov/QuickComment.aspx>. For assistance, please contact FERC Online Support at FERCOOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, you may submit a paper copy. Submissions sent via the U.S. Postal Service must be addressed to: Debbie-Anne A. Reese, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Debbie-Anne A. Reese, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852. All filings must clearly identify the project name and docket number on the first page: Lowell Hydroelectric Project (P-2790-074).

The Commission's Rules of Practice and Procedure require all intervenors filing documents with the Commission to serve a copy of that document on each person on the official service list for the project. Further, if an intervenor files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency.

k. This application has been accepted and is now ready for environmental analysis.

l. The Lowell Project consists of: (1) the 1,093-foot-long, 15-foot-high Pawtucket Dam and spillway, equipped with a 5-foot-high pneumatic crest gate with a crest elevation of 92.2 feet National Geodetic Vertical Datum of 1929 (NGVD 29) at the top of the gate; (2) a 1,236-acre impoundment with a normal maximum water surface elevation of 92.2 feet NGVD 29; (3) a 5.5-mile-long, two-tiered canal system that includes the 4,300 foot-long Northern Canal and the 9,000-foot-long Pawtucket Canal (canal system), along with a series of connected water ways, small dams, gatehouses, and generating facilities; (4) a 125-foot-long, 55-foot-high gatehouse that controls flow from the impoundment to the Northern Canal (Pawtucket Gatehouse); (5) a 70-foot-long, 20-foot-high, five-bay gatehouse that control flows from the impoundment to the Pawtucket Canal as part of the Guard Lock and Gates Facility, which also includes a boat navigation lock and a Francis Gate facility with a 25-foot-wide, 25-foot-high flood gate; (6) generating facilities, including: (a) the Eldred L. (E.L.) Field Power Station, which is located on the mainstem of the Merrimack River and consists of: (i) a 109-foot-long, 96-foot-wide concrete powerhouse with two turbine-generator units with a total installed capacity of 15,012 kilowatts (kW); (ii) a 200-foot-long, 80-foot-wide forebay; (iii) a 100-foot-long, 26-foot-wide, 22.25-foot-high canal control structure that maintains water levels in the forebay as part of a Hydro Locks Facility, which also includes a boat navigation lock; (iv) a 440-foot-long tailrace with a 10- to-16-foot high concrete training wall; (v) two 4.16-kilovolt (kV) generator leads; (vi) a 4.16/13.8-kV step-up transformer; and (vii) appurtenant facilities; (b) the Hamilton Power Station, which is located on the canal system and consists of: (i) five turbine-generator units with a total installed capacity of 1,180 kW; (ii) five 0.6-kV generator leads; and (iii) appurtenant facilities;

(c) the Assets Power Station, which is located on the canal system and consists of: (i) three turbine-generator units with a total installed capacity of 792 kW; (ii) three 0.6-kV generator leads; and (iii) appurtenant facilities; (d) the Bridge Street Power Station, which is located on the canal system and consists of: (i) three turbine-generator units with a total installed capacity of 1,080 kW; (ii) three 0.6-kV generator leads; and (iii) appurtenant facilities; and (e) the John Street Power Station, which is located on the canal system and consists of: (i) four turbine-generator units with a total installed capacity of 2,100 kW; (ii) four 0.6-kV generator leads; and (iii) appurtenant facilities; (7) a 4.5-mile-long, 13.8-kV submarine cable that connects the project generating facilities to the regional electric grid; (8) upstream and downstream fish passage facilities; and (9) a visitor center.

The project bypasses approximately 2 miles of the Merrimack River, including a 0.7-mile-long bypassed reach from the Pawtucket Dam to the E.L. Field Powerhouse tailrace and an approximately 1.3-mile-long bypassed reach from the E.L. Field Powerhouse tailrace to the confluence of the Merrimack and Concord Rivers.

The current license requires Boott to operate in run-of-river mode.

Fish passage facilities include a fish elevator and downstream fish bypass at the E.L. Field Powerhouse, and a fish ladder at the Pawtucket Dam.

The fish elevator at the E.L. Field Powerhouse has a design discharge capacity of 200 cubic feet per second (cfs). Fish migrating upstream through the tailrace channel enter a collection gallery, where they are attracted to a crowding pool and then into the elevator. Once in the elevator, fish are lifted in a hopper to the exit channel. Fish then pass from the exit channel to the Northern Canal, where they swim upstream until they rejoin the Merrimack River upstream of Pawtucket Dam. The fish elevator system

includes areas where fish can be counted or trapped before swimming from the exit channel to the Northern Canal.

The downstream fishway at the E.L. Field Powerhouse consists of an adjustable-flow sluiceway and bypass adjacent to the powerhouse intake. Downstream migrating fish entering the bypass are sluiced into a plunge pool located in the bypassed reach, next to the powerhouse.

The fish ladder at the Pawtucket Dam is designed for river flows up to 25,000 cfs and has an operating flow of 500 cfs (including fish attraction flow). The fish ladder is a vertical-slot design with 13-foot-wide by 10-foot-long pools. A counting station and fish trap area are also provided at the fish ladder.

Recreation facilities at the project consist of a visitor center at the E.L. Field Powerhouse. The visitor center offers a view of the turbines and an interpretive display providing information about the project and the area.

The minimum and maximum hydraulic capacities of the project are 500 cfs and 8,600 cfs, respectively. The average annual generation of the project was approximately 84,501 megawatt-hours from 2008 through 2017.

Boott proposes to: (1) continue to operate the project in a run-of-river mode; (2) release 500 cfs into the bypassed reach from the existing Pawtucket Dam fish ladder during the upstream migratory fish passage season, defined annually in consultation with the Merrimack River Technical Committee, and release 100 cfs, or inflow, whichever is less, to the bypassed reach from Pawtucket Dam during the rest of the year; (3) continue to implement the Crest Gate Operation Plan;¹ (4) continue to maintain and monitor a

¹ The Commission approved the Crest Gate Operation Plan on March 30, 2015.

water surface elevation of 86.7 feet NVGD29 in the upper canal system and 71.8 feet NGVD29 in the lower canal system; (5) continue to operate the gates of the Guard Lock and Gates Facility to manage water levels in the canal system; (6) develop an operation and compliance monitoring plan; (7) replace the existing fish elevator with a short fish ladder to pass migratory fish from the E.L. Field Powerhouse tailrace upstream to the bypassed reach within three years of license issuance; (8) conduct a 1-year “shakedown” period of the proposed fish ladder after installation; (9) evaluate the effectiveness of the proposed tailrace fish ladder after installation; (10) modify the existing Pawtucket Dam fish ladder to enhance upstream fish passage; (11) modify the bypassed reach to enhance upstream fish passage; (12) install a new “fish exclusion facility” at the E.L. Field Powerhouse that would consist of a 0.75-inch clear-spaced trashrack overlay, modifications to the existing downstream fish bypass, and an American eel sampling device; (13) develop an interim nighttime shutdown plan to protect eels from turbine entrainment and impingement; (14) develop an upstream American eel passage assessment study plan; (15) develop a fishway operation and management plan; (16) decommission the Assets, Hamilton, John Street, and Bridge Street powerhouses; (17) develop a decommissioning plan; (18) develop an historic properties management plan; (19) prior to any construction activities, consult with the Massachusetts State Historic Preservation Office and the National Park Service to develop a mitigation plan for avoiding or minimizing adverse effects on the Locks and Canals Historic District and the Lowell National Historical Park; (20) develop a recreation access and facilities management plan; and (21) modify the current project boundary to: (i) remove a 7.4-mile section from the upstream extent of the impoundment; (ii) remove all except the first 2,200-foot-long section from the Northern Canal between the Pawtucket Dam and

the Pawtucket Gatehouse; and (iii) remove all except the first 1,600-foot-long section of the Pawtucket Canal between the impoundment and the Guard Lock and Gates Facility.

m. A copy of the application can be viewed on the Commission's website at <https://www.ferc.gov> using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document (P-2790). For assistance, contact FERC Online Support (see item j above).

n. Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, and .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

All filings must: (1) bear in all capital letters the title "PROTEST," "MOTION TO INTERVENE," "COMMENTS," "REPLY COMMENTS," "RECOMMENDATIONS," "PRELIMINARY TERMS AND CONDITIONS," or "PRELIMINARY FISHWAY PRESCRIPTIONS;" (2) set forth in the heading the name of the applicant and the project number of the application to which the filing responds; (3) furnish the name, address, and telephone number of the person protesting or intervening; and (4) otherwise comply with the requirements of 18 CFR 385.2001 through 385.2005. All comments, recommendations, terms and conditions, or prescriptions must set forth their evidentiary basis and otherwise comply with the requirements of 18 CFR 4.34(b). Agencies may obtain copies of the application directly from the applicant. A copy of any protest or motion to intervene must be served upon

each representative of the applicant specified in the particular application. A copy of all other filings in reference to this application must be accompanied by proof of service on all persons listed on the service list prepared by the Commission in this proceeding, in accordance with 18 CFR 4.34(b) and 385.2010.

The Commission's Office of Public Participation (OPP) supports meaningful public engagement and participation in Commission proceedings. OPP can help members of the public, including landowners, community organizations, Tribal members and others, access publicly available information and navigate Commission processes. For public inquiries and assistance with making filings such as interventions, comments, or requests for rehearing, the public is encouraged to contact OPP at (202) 502-6595 or OPP@ferc.gov.

You may also register online at <https://www.ferc.gov/ferc-online/overview> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, contact FERC Online Support.

o. The applicant must file the following on or before 5:00 p.m. Eastern Time on July 21, 2025: (1) a copy of the water quality certification; (2) a copy of the request for certification, including proof of the date on which the certifying agency received the request; or (3) evidence of waiver of water quality certification.

p. Final amendments to the application must be filed with the Commission on or before 5:00 p.m. Eastern Time on June 19, 2025.

Dated: May 20, 2025.

Debbie-Anne A. Reese,

Secretary.

