



DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 2790-074]

Boott Hydropower, LLC

Notice of Material Amendment of License Application, Soliciting Comments

On April 30, 2021, Boott Hydropower, LLC (Boott) filed, pursuant to sections 4(e) and 15 of the Federal Power Act, an application for a new major license to continue operating the Lowell Hydroelectric Project No. 2790 (Lowell Project) 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. On May 13, 2021, Commission staff issued a Notice of Application Tendered for Filing with the Commission and Establishing Procedural Schedule for Licensing and Deadline for Submission of Final Amendments. On May 20, 2025, Commission staff issued a Notice of Application Ready for Environmental Analysis and Soliciting Comments, Recommendations, Terms and Conditions, and Prescriptions. On June 20, 2025, Boott filed an amendment to the license application.

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 (vi) 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.

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

In its final license application, Boott proposed to decommission the four power stations in the canal system and remove most of the canal system from the project boundary. In its amended license application, Boott proposes to decommission the Assets Power Station but continue to operate the other three canal power stations and retain the canal system in the project boundary. In addition, Boott proposes to:¹

(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

¹ Items in *Italics* are new measures proposed in the amended final license application.

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) *suspend generation and operation of the canal system power stations during the downstream migration period for alosines (May through July) and American eel (August through November)*; (4) continue to implement the Crest Gate Operation Plan;² (5) develop an operation and compliance monitoring plan; (6) 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; (7) cease operation of the fish elevator after the installation of the proposed tailrace fish ladder; (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) implement nightly shutdowns of the E.L. Field Powerhouse from August 15 through November 15 until the proposed “fish exclusion facility” is installed; (14) develop an upstream American eel passage assessment study plan; (15) develop a fishway operation and management plan; (16) develop an historic properties management plan; (17) maintain an operating agreement with the National Park Service to allow tour boat operations to navigate the canal system; (18) develop a recreation access and

² The Commission approved the Crest Gate Operation Plan on March 30, 2015.

facilities management plan; (19) *within 1 year of license issuance, file with the Commission a decommissioning plan for the Assets Power Station*; (20) *implement a canal operation and management plan to describe the management of canal water elevations, flows, trash management, and vegetation management*; and (21) modify the current project boundary to remove a 7.4-mile section from the upstream extent of the impoundment.

In the amended final license application, Boott is no longer proposing the following measures: (1) continue to maintain and monitor a water surface elevation of 86.7 feet NGVD29 in the upper canal system and 71.8 feet NGVD29 in the lower canal system;³ (2) decommission the Hamilton, John Street, and Bridge Street power stations; (3) develop a decommissioning plan for the canals and the Hamilton, John Street, and Bridge Street power stations; and (4) modify the current project boundary to: (i) remove all except the first 2,200-foot-long section from the Northern Canal between the Pawtucket Dam and the Pawtucket Gatehouse; and (ii) remove all except the first 1,600-foot-long section of the Pawtucket Canal between the impoundment and the Guard Lock and Gates Facility.

Pursuant to 18 CFR 4.35(f)(1), the license application as amended constitutes a material amendment. Due to the material amendment, the application is no longer ready for environmental analysis at this time. With this notice, we are soliciting comments on

³ Boott is now proposing to collaborate with stakeholders to finalize a canal operation and maintenance plan, which would address water surface elevations in the canals.

Boott's amended application. **The deadline for filing comments is on or before 5:00 p.m. Eastern Time on September 12, 2025.**

The Commission strongly encourages electronic filing. Please file comments and study requests using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp>. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the Comment 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 Reese, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852. The first page of any filing should include docket number P-2790-074.

Copies of the application may be viewed on the Commission's website at <http://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. For assistance, contact FERC at FERCOOnlineSupport@ferc.gov or call toll-free, (866) 208-3676 or (202) 502-8659 (TTY). You may also register online at <http://www.ferc.gov/docs-filing/esubscription.asp> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, contact FERC Online Support.

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.

Applicant Contact: Jillian Lawrence, Boott Hydropower, LLC, 4747 Bethesda Avenue, Suite 1220, Bethesda, MD 20814; (856) 906-0180 or jlawrence@hullstreetenergy.com.

FERC Contact: Bill Connelly, the Commission's project coordinator for relicensing the Lowell Project, at (202) 502-8587 or william.connelly@ferc.gov.

The amended application will be processed according to the following preliminary schedule. Revisions to the schedule will be made as appropriate.

<u>MILESTONE</u>	<u>TARGET DATE</u>
FERC Issues Acceptance or Deficiency Letter (if necessary)	October 2025
FERC Requests Additional Information (if necessary)	October 2025
FERC Issues Notice that Application is Ready for Environmental Analysis	March 2026

Dated: July 14, 2025.

Debbie-Anne A. Reese,
Secretary.

[FR Doc. 2025-13443 Filed: 7/16/2025 8:45 am; Publication Date: 7/17/2025]