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FEDERAL ENERGY REGULATORY COMMISSION Washington, D.C. 20426 November 9, 2023

OFFICE OF ENERGY PROJECTS

Project No. 1892-030 – Vermont/New Hampshire Project No. 1855-050 – Vermont/New Hampshire Project No. 1904-078 – Vermont/New Hampshire Great River Hydro, LLC

VIA FERC Service

Mr. John L. Ragonese FERC License Manager Great River Hydro, LLC 69 Milk Street, Suite 306 Westborough, MA 01581

Reference: Deficiency of License Application and Additional Information Request

Dear Mr. Ragonese:

Great River Hydro, LLC's (Great River) application for a new license for the Bellows Falls Hydroelectric Project No. 1855 (Bellows Falls Project), filed on May 1, 2017, amended on December 7, 2020, and revised on June 8, 2023, does not conform to the requirements of the Commission's regulations. A list of deficiencies is attached in Schedule A. Under section 5.20(a)(2) of the Commission's regulations, Great River has 60 days from the date of this letter to correct the deficiencies in the application.

In addition, staff has identified additional information, attached in Schedule B, that is needed to process the license applications for the Bellows Falls, Wilder (Project No. 1892), and Vernon (Project No. 1904) projects. Pursuant to section 5.21 of the Commission's regulations, please provide this information within 60 days from the date of this letter.

If the correction of any deficiency or requested information causes another part of the applications to be inaccurate, that part must be revised and refiled by the due date. Also, please be aware that further requests for additional information may be sent to Great River at any time before final action on the applications.

The Commission strongly encourages electronic filing. Please file the requested information using the Commission's eFiling system at https://ferconline.ferc.gov/eFiling.aspx. For assistance, please contact FERC Online Support at FERCOnlinesupport@ferc.gov; call toll-free at (866) 208-3676; or, for TTY,

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contact (202) 502-8659. In lieu of electronic filing, Great River may submit a paper copy. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, D.C. 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852. The first page of any filing should include the applicable docket numbers 1892-030, 1855-050 and 1904-078.

If Great River has any questions concerning this letter, please contact Steve Kartalia at (202) 502-6131, or via email at stephen.kartalia@ferc.gov.

Sincerely,

EMILY CARTER

Digitally signed by EMILY CARTER Date: 2023.11.09 14:35:05 -05'00'

Emily Carter, Chief New England Branch Division of Hydropower Licensing

Attachments: Schedule A – Deficiencies

Schedule B – Additional Information

Schedule A Project No. 1855-050

DEFICIENCIES

The following deficiencies have been identified in Great River Hydro, LLC's (Great River) license application for the Bellows Falls project. These deficiencies must be corrected within 60 days of the date of this letter.

Exhibit A

Section 4.51(b) of the Commission's regulations requires an Exhibit A that identifies the number, type, and capacities of the project's existing and proposed turbines and generators. The regulations also require that the Exhibit A identify the number, length, voltage, and interconnections of the project's existing and proposed transmission lines. Great River's revised Exhibit A, filed on June 8, 2023 with the proposal for a new minimum flow turbine-generator unit, does not include the required information for the project's proposed turbine, generator, and associated transmission line(s). For the proposed minimum flow unit, please provide the same information that is provided for the existing units in table A-2, *Turbines and Generators* (section A1.4 of the application, labeled *Powerhouse and Appurtenant Facilities*), of the June 8, 2023 Exhibit A. In addition, please identify the number, length, voltage, and interconnections of any additional transmission lines proposed to support the operation of the new minimum flow unit, and (if applicable) describe any associated modifications to the project's existing electrical facilities (section A1.5 of the application, labeled *Electrical Facilities*).

Exhibit B

Section 4.51(c) of the Commission's regulations requires a complete Exhibit B to be included with the license application. The revised Exhibit B, filed on June 8, 2023, includes cover pages for Attachments A and B, but is missing the associated content. Therefore, Exhibit B is incomplete and should be revised to include the contents of Attachments A and B.

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ADDITIONAL INFORMATION

The following additional information items have been identified for Great River Hydro, LLC's (Great River) license applications, and associated amendments, for the Wilder Hydroelectric Project No. 1892, Bellows Falls Hydroelectric Project No. 1855, and Vernon Hydroelectric Project No. 1904. Please file the requested information within 60 days of the date of this letter.

Exhibit A

1. Section A1.4 of the Bellows Falls application, labeled *Powerhouse and Appurtenant Facilities*, states that the nameplate generating capacity is 13.6 megawatts (MW) for each unit, and 40.8 MW in total. Table A-2, labeled *Turbines and Generators*, states that the existing turbines are rated at 18,000 horsepower (hp) and the existing generators are rated at 13.6 MW (17,000 kilovolt-amperes, 0.8 power factor). The turbine rating of 18,000 hp equates to 13.5 MW, so each turbine-generator unit would be turbine-limited at 13.5 MW and the overall installed capacity of the project would be 40.5 MW. Please clarify whether this discrepancy is the result of anything other than differences in hp-to-MW conversion factors.

Exhibit B

- 2. Section B1.1 of the Bellows Falls application, labeled *Existing Project Operations*, states that there is no minimum flow requirement through the dam into the bypassed reach, but leakage provides flows in the range of 125 to 300 cubic feet per second (cfs). Please clarify whether your proposed operation with the proposed new 300-cfs minimum flow turbine-generator unit would therefore result in flows in the range of 425 to 600 cfs in the bypassed reach.
- 3. Section B1.3 of the Bellows Falls application, labeled *Proposed Project Operations*, states that during maintenance or emergencies, when the proposed minimum flow unit is out of service, spill "over the dam crest or through gates" will provide the proposed minimum flow into the bypassed reach. Please describe your proposed procedure for maintaining the minimum flow releases during such events, including how Great River would decide whether the releases would be made from the dam crest or through the gates. Please also specify which gate(s) would be used to provide the flow. If there would be an interruption in the minimum flow releases, then provide an estimate of the duration of the disruption.

Exhibit E

4. Attachment 1 of the June 8, 2023 cover letter for the license application revisions provides Great River's responses to agency comments on the proposed revisions to the Bellows Falls application, which was amended on December 7, 2020. Great River's

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responses to New Hampshire Department of Environmental Services (DES) comments 3 and 4 state that text additions describing turbine injury to American eel and results of other evaluations of the Natel Restoration Hydro Turbine (RHT) effects on rainbow trout, bluegill, and channel catfish were added to section 3.6.2.10 of Exhibit E. However, neither the clean nor redlined versions of the revised Exhibit E contain the stated additions. In addition, Great River's response to New Hampshire DES comment 5 suggests a discussion of the proposed minimum flow unit's intake velocity was added to Exhibit E; however, that discussion appears to be missing, as well. Finally, Exhibit E states that Great River proposes to conduct a study to assess whether the RHT would provide a safe route of passage for American eels, as alluded to in Great River's response to New Hampshire DES comment 5 and U.S. Fish and Wildlife Service comment 6. Please file the missing information noted above. Also, please update table 5-1, labeled Average Annual Energy Based on Operations Model (section 5.1, labeled Environmental Measures), and the accompanying text to indicate the quantities of on-peak and off-peak energy in megawatt-hours for the Bellows Falls Project with the addition of the proposed minimum flow unit.

Cultural Resources

- 5. Table 3.11-1 of each license application states that historic architectural resources survey reports for the Wilder, Bellows Falls, and Vernon projects were submitted to the Commission, New Hampshire State Historic Preservation Officer (SHPO), and Vermont SHPO on May 28, 2015; however, there is no record of this filing with the Commission. Please file the three architectural reports referenced in Table 3.11-1.
- 6. Table 3.11-1 of each license application indicates that, by letter dated August 27, 2015, the New Hampshire SHPO concurred that Wilder Dam is eligible for listing on the National Register of Historic Places (National Register); however, that letter is not in the project record. Please file the letter.
- 7. Pages 3-647, 3-681, and 3-696 of the Bellows Falls application state that the Vermont SHPO has not concurred on the National Register-eligibility recommendations for the sites identified at the Wilder, Bellows Falls, and Vernon projects. These statements have remained unchanged since the license application was submitted for the projects on May 1, 2017 (pages 3-562, 3-594, 3-609 of the May 1, 2017 application). Please confirm that, to date, the Vermont SHPO has not concurred, or if appropriate, file any correspondence from the Vermont SHPO that has been received regarding the eligibility of sites identified at the projects.

Supporting Design Report

8. The proposed minimum flow turbine at the Bellows Falls Project could affect the stability of the spillway section where the proposed minimum flow unit would be

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installed. Specifically, this could change the stability analysis for this spillway section. Please update the stability analysis provided in the Supporting Design Report for this spillway section of the dam. If the proposed modifications would adversely affect the stability factors of safety, please explain what measures would be taken during construction of the new unit, such that the modified dam would meet stability criteria in accordance with the Commission's Engineering Guidelines (e.g., installing post-tensioned anchors).

Document Content(s)
P-1892-030 et alDeficiency and AIR.pdf