

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426  
October 31, 2022

OFFICE OF ENERGY PROJECTS

Project No. 2333-094 – Maine  
Rumford Falls Hydroelectric Project  
Rumford Falls Hydro LLC

VIA FERC Service

Mr. Luke Anderson  
Brookfield Renewable  
150 Main Street  
Lewiston, ME 04240

**Re: Staff Comments on License Application for the Rumford Falls Hydroelectric Project**

Dear Mr. Anderson,

On September 29, 2022, Rumford Falls Hydro LLC filed a final license application (FLA) with the Federal Energy Regulatory Commission for the 44.5-megawatt Rumford Falls Hydroelectric Project. The application does not conform to the Commission's regulations and we need additional information to continue processing the application. The application deficiencies and additional information are provided in the enclosed Schedule A and Schedule B, respectively. If you have any questions concerning this letter, please contact Ryan Hansen at (202) 502-8074 or [ryan.hansen@ferc.gov](mailto:ryan.hansen@ferc.gov).

Sincerely,

David Turner, Chief  
Northwest Branch  
Division of Hydropower Licensing

Enclosures: Schedule A  
Schedule B

## **Schedule A: Deficiencies in FLA**

### **Exhibit A**

1. Section 4.61(c) of the Commission's regulations requires that the Exhibit A include a detailed single-line electrical diagram. The single-line electrical diagram was filed as Critical Energy Infrastructure Information (CEII) in Exhibit F. The single-line diagram is not considered CEII and should be filed as public information as part of Exhibit A. Please revise Exhibit A to include the single-line electrical diagram, remove the single-line diagram (Exhibit F-9) from Exhibit F, and renumber Exhibit F-10 and F-11 and refile these drawings.

### **Exhibit F**

2. The Exhibit F drawings do not conform to section 4.39(a) of the Commission's regulations because they are not appropriately sized (i.e., between 22 by 34 inches and 24 by 36 inches) and do not include a space that is five inches high by seven inches wide in the lower right hand corner of each sheet. The upper half of this space must bear the title, numerical and graphical scale, and other pertinent information concerning the drawing; and the lower half of the space must be left clear. Please revise the drawings to meet these requirements. Additionally, Section 4.39(a) requires a numerical and graphical scale for all Exhibit F drawings. Exhibit F-10 and F-11 do not include numerical and graphical scales. Therefore, please revise Exhibit F-10 and F-11 to include numerical and graphical scales.

### **Exhibit G**

3. Section 4.41(h) of the Commission's regulations requires that all applications for licenses include the project boundary data in a georeferenced electronic file format and that Exhibit G maps must conform to the specifications of section 4.39 of the commission's regulations. You did not include the Exhibit G drawings in electronic format.

Georeferenced electronic file format include ArcView shape files, GeoMedia files, MapInfo files, or a similar GIS format. The filing shall include both polygon data and all reference points shown on the individual project boundary drawings. An electronic boundary polygon data file(s) is required for each project development. Depending on the electronic file format, the polygon and point data can be included in single files with multiple layers. The georeferenced electronic boundary data file must be positionally accurate to  $\pm 40$  feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. The file name(s) shall include: FERC Project Number, data description, date of this License, and file extension in the following format [P-1234, boundary polygon/or point data, MM-DD-YYYY.SHP]. The data must be accompanied

by a separate text file describing the spatial reference for the georeferenced data: map projection used (i.e., UTM, State Plane, Decimal Degrees, etc.), the map datum (i.e., North American 27, North American 83, etc.), and the units of measurement (i.e., feet, meters, miles, etc.). The text file name shall include: FERC Project Number, data description, date of this License, and file extension in the following format [P-1234, project boundary metadata, MM-DD-YYYY.TXT].

4. Section 4.41(h)(2) of the Commission's regulations requires that Exhibit G include a project boundary that encloses all project works and other features described in Exhibit A that are to be licensed. The project boundary in the Exhibit G-1 drawing does not encompass the entirety of transmission lines 2 and 3 and the Generator Set Up (GSU) substation. Also, the project boundary shown in Exhibit G-2 does not encompass the entire project impoundment, specifically around the Logan Brook tributary. Please revise your Exhibit G to include a corrected project boundary or explain why these features were not included.

## **Schedule B: Additional Information Requests**

### **Exhibit A**

1. Exhibits A, F, and G of the FLA provide elevations in U.S. Geological Survey Datum. However, it is not clear what specific datum they are based on (e.g. North American Datum of 1983 or National Geodetic Vertical Datum of 1929). Please revise your license application to consistently reference the elevation in one current state-of-practice datum.
2. Section 1.1 of Exhibit A describes the upper station development which includes a gatehouse with headgates, two for each of the four active penstocks. However, it does not include the dimension of the gates. Please revise exhibit A to provide this information.
3. Section 1.1 of Exhibit A states that there are four penstocks, three of which are 12 feet in diameter and one of 13 feet in diameter in the Upper Station development. This is consistent with the original license issued on October 18, 1994; however, HDR's Independent Consultant Safety Inspection Report filed on December 23, 2019, describes penstocks 1-3 as ranging from 9.5 feet to 12 feet in diameter. Section 1.2 of Exhibit A states that there are 16-inch flashboards on top of the Middle Dam structure. However, the original license order and HDR's report state that the flashboards are 12 inches high in the Middle Dam Structure. Please reconcile these discrepancies.

### **Exhibit D**

4. Section 4 of Exhibit D provides the estimated average annual operation and maintenance (O&M) cost, which includes local property and real state taxes. The Commission also considers insurance to be an annual operation and maintenance cost. This cost is sometimes spelled out separately, included in the O&M cost, or forgotten. Please state whether the annual operation and maintenance cost includes insurance.

### **Exhibit E**

#### **Recreation**

5. Section 5.10.1.3 of the license application states: "The number of annual visits to the recreation areas at the Rumford Falls Project was estimated to be 5,410 daytime and zero nighttime visits in 2014. The specific recreational areas used for this estimate were not specified in the form; however, the identified recreation amenities included a boat launch area, portage, interpretive display, and an access point." Rumford Falls Hydro collected this data for the FERC Form 80 in 2014, therefore, this information likely exists. Please identify which access point this statement is referring and the location of the portage in the above statement.

6. The FERC Form 80<sup>1</sup> referenced in Section 5.10.1.3 defines the summer recreation season from May through September and the winter recreation season from December through April. Please provide how many of the 5,410 visits in 2014 were conducted in the winter season, as compared with the summer.

### **Whitewater Boating**

7. Rumford Falls Hydro proposes to, “build and maintain access and/or steps from behind the Rumford Public Library for river access, in consultation with the Town of Rumford.” Table 4.6-1 lists \$75,000 for capital costs and \$2,500 for annual costs to construct and maintain the access. However, the application provides no details about these improvements to allow staff to evaluate the adequacy of the proposed measures or their costs. What will the steps and/or access consist of? How steep is the proposed access area? Will there be stairs with a handrail or will it be a natural trail access? How will users access the shoreline from the parking area? Please describe the improvements in greater detail and provide a conceptual design drawing and photos that illustrate the access route and site improvements.

8. Figure 5.10-3 in the license application depicts where the proposed Class IV/V put-in, the Class IV/V take-out, and the Class I/III put-in will be located but there is no information about where boaters will park to access these facilities. Please include descriptions of parking areas, how users would access the river from the parking areas (including distance), and parking capacity limits for the Class IV/V put-in, the Class IV/V take-out, the Class I/III put-in, and the take-out at the Mexico boat launch.

9. Rumford Falls Hydro proposes to install a take-out/access location above the Class V rapid, upstream from the Portland Street bridge. Can users who take out at this location then safely access the play area/Class I/III rapid put-in off Rumford Road? If so, please describe the proposed route between the two access points.

10. Rumford Falls Hydro proposes to, “provide target flows of 1,200 to 1,500 cfs in the Middle Dam bypass reach during three days (total) in June through August from 10 am – 3 pm, to be determined based on consultation with the Town of Rumford and American Whitewater.” A table in Appendix D.1 states that Rumford Falls Hydro’s proposal for whitewater boating flow is 1,500 cfs in the Middle Dam bypass reach. Please indicate which flow proposal is correct for whitewater boating (1,200 to 1,500 cfs or 1,500 cfs). If you are proposing a flow range of 1,200 to 1,500 cfs for whitewater boating, please explain why you chose a range in flow and what criteria you would use to determine the exact release from within this range. Additionally, Table 4.6-1 lists the

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<sup>1</sup> The most recent FERC Form 80 was filed with the Commission on April 1, 2015.

cost for this measure as \$3,000. Does this cost represent the cost of all three flow releases of 1,500 cfs, a cost for each release, or some other flow amount? Please provide the basis for this cost.

11. You are proposing to release between 1,200 and 1,500 cfs on three days between June and August for whitewater boating. Page E-117 of the application states, “focus group participants suggested that weekends in June through August, specifically between 10:00 am – 3:00 pm, would be an optimal release timeframe.” How did you determine that three days (total) of flow releases between June through August would be sufficient for providing whitewater boating flows at the project? How and when would you consult with the town of Rumford and American Whitewater to set the flow releases?

### **Aesthetics**

12. Rumford Falls Hydro proposes to, “provide target flows of 1,200 to 1,500 cfs in the Upper Dam bypass reach during three days (total) in June through August from 10 am – 4 pm, to be determined based on consultation with the Town of Rumford,” for aesthetic purposes. A table in Appendix D.1 states that the proposal for aesthetic flow is 1,500 cfs in the Upper Dam bypass reach. Please indicate which flow proposal is correct for aesthetic purposes (1,200 to 1,500 cfs or 1,500 cfs). If you are proposing a flow range of 1,200 to 1,500 cfs for aesthetic purposes, please explain the basis for this range of flows, and what criteria you would use to determine the exact release from within this range. Additionally, Table 4.6-1 lists the cost for this measure as \$3,000. Does this cost represent the cost of all three flow releases of 1,500 cfs, a cost for each release, or some other flow amount? Please provide the basis for this cost.

13. Page E-126 of the FLA states, “all study participants indicated they would like aesthetic flows provided in July and August. There was also a preference for flow releases in June, September, and October with slightly less interest in April and May and little interest in the other months of the year. Generally, participants indicated they would like to have aesthetic releases on the weekend (i.e., Friday, Saturday, Sunday) and from midday, afternoon, and evening.” You are proposing to release between 1,200 and 1,500 cfs on three days between June and August for aesthetic purposes. Why did you choose three days of flow releases? How and when would you consult with the town of Rumford to set the flow releases?

14. You currently operate five spotlights which are installed along the banister of the West Viewing Area overlook. The spotlights are turned on at flows of 7,500 cfs and greater between 8PM and 12AM. Are you proposing to continue this measure as part of a new license? If so, is there a specific cost involved or is it covered under operation and maintenance? What is the purpose of this current lighting?

15. Rumford Falls Hydro documented the observed flows reviewed by the aesthetic study focus group using photos and videos (with sound). In order to fully analyze the aesthetic flows, please file these videos with the Commission.

16. Rumford Falls Hydro proposes to, “provide flood lighting of the falls at the upper station at river flows greater than 6,000 cfs between 8PM – 12AM year round. What is the purpose of this proposed lighting? Where would the flood lights be installed and how many flood lights would be installed? How did you determine that 6,000 cfs would be the target flow to trigger the provision of lighting?”

### **Exhibit G**

17. Section 4.1 of Exhibit A states that there are two energized transmission lines, lines 2 and 3, which are approximately 4,500-feet and 4,200-feet in length respectively from the upper station development to the GSU. Also, section 4.2 of same exhibit states that there is a 600-foot long transmission line (line 5) from the lower station development to the GSU. However, based on the scale provided in Exhibit G-1, the distance from the upper development powerhouse to the GSU generator (lines 2 and 3) and the distance from the lower development powerhouse to the same generator (line 5) appear to be shorter in length than stated in Exhibit A. Please either revise the exhibit A or G to provide the correct length of the transmission lines or explain the discrepancy.

18. Your Exhibit G does not show the location of the proposed battery storage system. The Commission order amending the current license to include the battery system, issued on June 3, 2021, stated that because the battery system is used and useful in connection with the project, the licensee must revise the Exhibit G drawings to include the entire battery system within the project boundary. Please revise your Exhibit G to show the location of the battery system and to include it in the project boundary.