

FEDERAL ENERGY REGULATORY COMMISSION

Washington, DC 20426

September 18, 2019

OFFICE OF ENERGY PROJECTS

Project No. 2287-053 – New Hampshire  
J. Brodie Smith Hydroelectric Project  
Center Rivers Power, NH LLC

Project No. 2326-054 – New Hampshire  
Cross Power Hydroelectric Project  
Great Lakes Hydro America, LLC

Project No. 2288-057 – New Hampshire  
Gorham Hydroelectric Project  
Center Rivers Power, NH LLC

Project No. 2327-047 – New Hampshire  
Cascade Hydroelectric Project  
Great Lakes Hydro America, LLC

Project No. 2300-052 – New Hampshire  
Shelburne Hydroelectric Project  
Great Lakes Hydro America, LLC

Project No. 2422-058 – New Hampshire  
Sawmill Hydroelectric Project  
Great Lakes Hydro America, LLC

Project No. 2311-067 – New Hampshire  
Upper Gorham Hydroelectric Project  
Great Lakes Hydro America, LLC

Project No. 2423-031 – New Hampshire  
Riverside Hydroelectric Project  
Great Lakes Hydro America, LLC

VIA FERC Service

**Reference: Scoping Document 1 for the J. Brodie Smith (P-2287-053), Gorham (P-2288-057), Shelburne (P-2300-052), Upper Gorham (P-2311-067), Cross Power (P-2326-054), Cascade (P-2327-047), Sawmill (P-2422-058), and Riverside (P-2423-031) Hydroelectric Projects**

To the Parties Addressed:

The Federal Energy Regulatory Commission (Commission) is currently reviewing the Pre-Application Documents (PAD) submitted by Center Rivers Power, NH LLC (Center Rivers Power) for relicensing the J. Brodie Smith Hydroelectric Project (FERC No. 2287) and the Gorham Hydroelectric Project (FERC No. 2288) and the PADs filed. The Commission is also currently reviewing the PAD submitted by Great Lakes Hydro America, LLC (Great Lakes Hydro), a subsidiary of Brookfield Renewable, for relicensing the Shelburne Hydroelectric Project (FERC No. 2300), Upper Gorham Hydroelectric Project (FERC No. 2311), Cross Power Hydroelectric Project (FERC No.

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2326), Cascade Hydroelectric Project (FERC No. 2327), Sawmill Hydroelectric Project (FERC No. 2422) and Riverside Hydroelectric Project (FERC No. 2423). The projects are located on the Androscoggin River, in Coos County, New Hampshire.

Pursuant to the National Environmental Policy Act of 1969, as amended, Commission staff intends to prepare a multi-project environmental assessment (EA), which will be used by the Commission to determine whether, and under what conditions, to issue new licenses for the projects. To support and assist our environmental review, we are beginning the public scoping process to ensure that all pertinent issues are identified and analyzed, and that the EA is thorough and balanced.

We invite your participation in the scoping process and are circulating the attached Scoping Document 1 (SD1) to provide you with information on the projects. We are also soliciting your comments and suggestions on our preliminary list of issues and alternatives to be addressed in the EA. We are also requesting that you identify any studies that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the EA for the projects.

We will hold two scoping meetings for the projects to receive input on the scope of the EA. A daytime meeting will be held at 2 p.m. on October 22, 2019, at the Town and Country Inn in Shelburne, New Hampshire. An evening meeting will be held at 6 p.m. on October 22, 2019, at the same location. We will also visit the project facilities on October 23 and 24, 2019, starting at 9:00 a.m.

We invite all interested agencies, Indian tribes, non-governmental organizations, and individuals to attend one or all of these meetings. Further information on our environmental site review and scoping meetings is available in the enclosed SD1.

SD1 is being distributed to both Center Rivers Power's and Great Lakes Hydro's distribution list and the Commission's official mailing list (see section 10.0 of the attached SD1). If you wish to be added to or removed from the Commission's official mailing list, please send your request by email to [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written or emailed requests must specify your wish to be removed from or added to the mailing list and must clearly identify the following on the first page: **J. Brodie Smith No. 2287-053, Gorham No. 2288-057, Shelburne No. 2300-052, Upper Gorham No. 2311-067, Cross Power No. 2326-054, Cascade No. 2327-047, Sawmill No. 2422-058, and/or Riverside No. 2423-031) Hydroelectric Projects.**

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Please review the SD1 and, if you wish to provide comments, follow the instructions in section 6.0, *Request for Information and Studies*. If you have any questions about SD1, the scoping process, or how Commission staff will develop the EA for these projects, please contact Ryan Hansen at (202) 502-8074 or [ryan.hansen@ferc.gov](mailto:ryan.hansen@ferc.gov). Additional information about the Commission's licensing process and the projects may be obtained from our website, [www.ferc.gov](http://www.ferc.gov). The deadline for filing comments is **November 23, 2019**. The Commission strongly encourages electronic filings.

Enclosure: Scoping Document 1

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## **SCOPING DOCUMENT 1**

**J. BRODIE SMITH HYDROELECTRIC PROJECT  
(FERC NO. 2287-053)**

**GORHAM HYDROELECTRIC PROJECT  
(FERC NO. 2288-057)**

**SHELBURNE HYDROELECTRIC PROJECT  
(FERC NO. 2300-052)**

**UPPER GORHAM HYDROELECTRIC PROJECT  
(FERC NO. 2311-067)**

**CROSS POWER HYDROELECTRIC PROJECT  
(FERC NO. 2326-054)**

**CASCADE HYDROELECTRIC PROJECT  
(FERC NO. 2327-047)**

**SAWMILL HYDROELECTRIC PROJECT  
(FERC NO. 2422-058)**

**RIVERSIDE HYDROELECTRIC PROJECT  
(FERC NO. 2423-031)**

Federal Energy Regulatory Commission  
Office of Energy Projects  
Division of Hydropower Licensing  
Washington, DC

September 2019

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## SCOPING DOCUMENT 1

**J. Brodie Smith Hydroelectric Project (FERC No. 2287-053)**  
**Gorham Hydroelectric Project (FERC No. 2288-057)**  
**Shelburne Hydroelectric Project (FERC No. 2300-052)**  
**Upper Gorham Hydroelectric Project (FERC No. 2311-067)**  
**Cross Power Hydroelectric Project (FERC No. 2326-054)**  
**Cascade Hydroelectric Project (FERC No. 2327-047)**  
**Sawmill Hydroelectric Project (FERC No. 2422-058)**  
**Riverside Hydroelectric Project (FERC No. 2423-031)**

### 1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA),<sup>1</sup> may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On July 26, 2019, Central Rivers Power NH, LLC (Central Rivers Power), filed two notices of intent and a pre-application document (NOIs/PADs) for new licenses for the J. Brodie Smith Hydroelectric Project (FERC No. 2287-053) and the Gorham Hydroelectric Project (FERC No. 2288-057). On July 31, 2019, Great Lakes Hydro America, LLC (Great Lakes Hydro), a subsidiary of Brookfield Renewable, filed six NOIs and a PAD for new licenses for the Shelburne Hydroelectric Project (FERC No. 2300-052), Upper Gorham Hydroelectric Project (FERC No. 2311-067), Cross Power Hydroelectric Project (FERC No. 2326-054), Cascade Hydroelectric Project (FERC No. 2327-047), Sawmill Hydroelectric Project (FERC No. 2422-058), and the Riverside Hydroelectric Project (FERC No. 2423-031). These projects are collectively referred to as the Androscoggin River projects.

The projects are located on the Androscoggin River in Coos County, New Hampshire (figure 1). A detailed description of the projects is provided in section 3.0. The Androscoggin River projects do not occupy federal lands.

The National Environmental Policy Act (NEPA) of 1969,<sup>2</sup> the Commission's regulations, and other applicable laws require that we independently evaluate the

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<sup>1</sup> 16 U.S.C. § 791(a)-825(r) (2018).

<sup>2</sup> National Environmental Policy Act of 1969, 42. U.S.C. §§ 4321-4370(f) (2006).



environmental effects of re-licensing the Androscoggin River projects as proposed, and also consider reasonable alternatives to the licensees' proposed action. At this time, we intend to prepare a multi-project environmental assessment (EA) for the Androscoggin River projects that describes and evaluates the probable effects, including an assessment of the site-specific and cumulative effects, if any, of the licensees' proposed actions and alternatives.

Although our current intent is to prepare an EA, there is a possibility that an environmental impact statement (EIS) will be required. The scoping process will satisfy the NEPA scoping requirements, irrespective of whether the Commission issues an EA or an EIS.

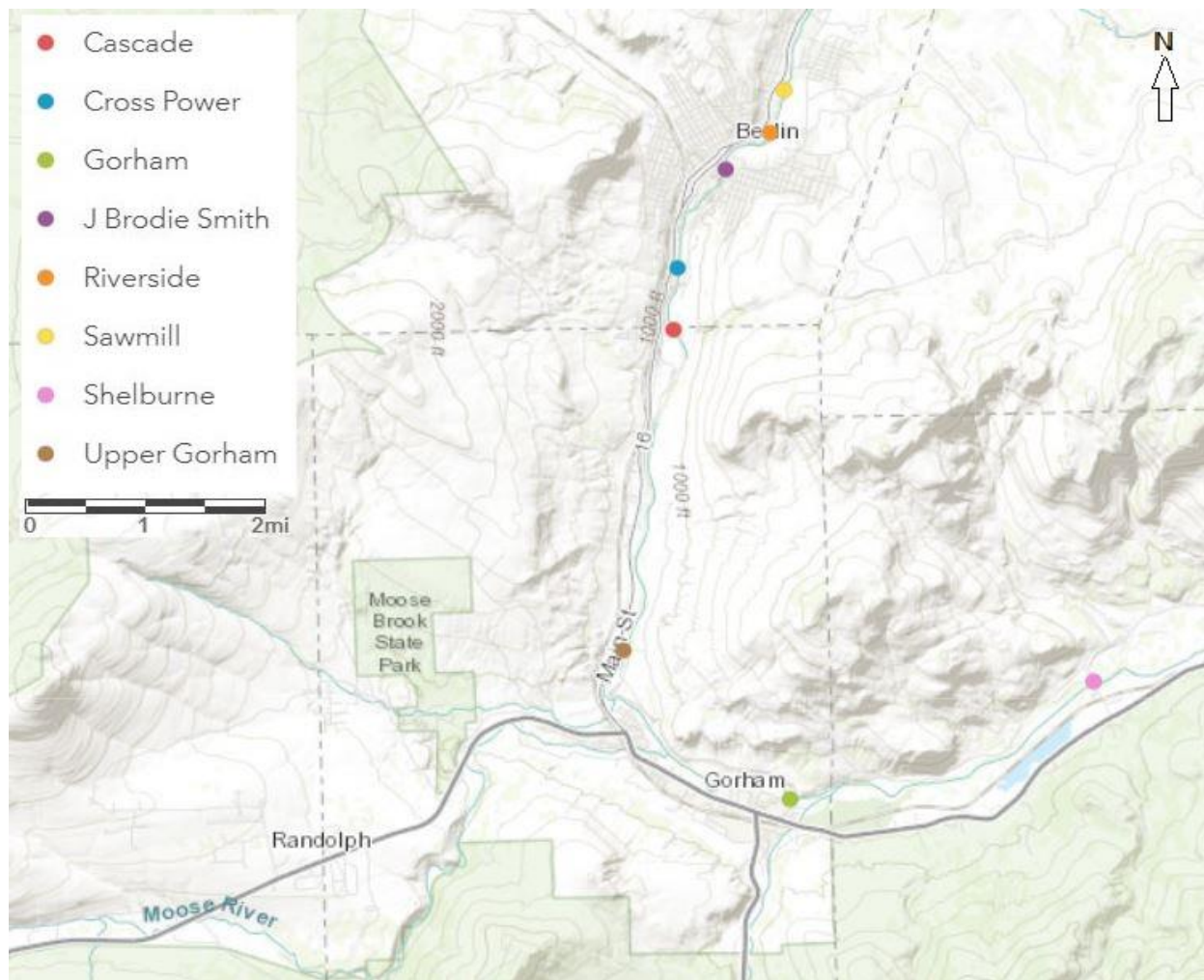


Figure 1: Location of the Androscoggin projects (source: Esri, as modified by staff).

## **2.0 SCOPING**

This Scoping Document 1 (SD1) is intended to advise all participants as to the proposed scope of the EA and to seek additional information pertinent to this analysis. This document contains: (1) a description of the scoping process and schedule for the development of the EA; (2) a description of the licensees' proposed actions and alternatives; (3) a preliminary identification of environmental issues; (4) a proposed EA outline; and (5) a preliminary list of comprehensive plans that are applicable to the projects.

### **2.1 PURPOSES OF SCOPING**

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with a proposed action. According to NEPA, the process should be conducted early in the planning stage of the project. The purposes of the scoping process are as follows:

- invite participation of federal, state and local resource agencies, Indian tribes, non-governmental organizations (NGOs), and the public to identify significant environmental and socioeconomic issues related to the proposed project;
- determine the resource issues, depth of analysis, and significance of issues to be addressed in the EA;
- identify how the project would or would not contribute to cumulative effects in the project area;
- identify reasonable alternatives to the proposed action that should be evaluated in the EA;
- solicit, from participants, available information on the resources at issue; and
- determine the resource areas and potential issues that do not require detailed analysis during review of the project.

## **2.2 COMMENTS, SCOPING MEETINGS, AND ENVIRONMENTAL SITE REVIEWS**

During preparation of the EA, there will be several opportunities for the resource agencies, Indian tribes, NGOs, and the public to provide input. These opportunities occur:

- during the public scoping process and study plan meetings, when we solicit oral and written comments regarding the scope of issues and analysis for the EA;
- in response to the Commission's notice that the project is ready for environmental analysis; and
- after issuance of the EA when we solicit written comments on the EA.

In addition to written comments solicited by this SD1, we will hold two public scoping meetings and an environmental site review in the vicinity of the project. A daytime meeting will focus on concerns of the resource agencies, NGOs, and Indian tribes, and an evening meeting will focus on receiving input from the public. We invite all interested agencies, Indian tribes, NGOs, and individuals to attend one or both of the meetings to assist us in identifying the scope of environmental issues that should be analyzed in the EA. All interested parties are also invited to participate in the environmental site review. The times and locations of the meetings and environmental site review are as follows:

### **Daytime Scoping Meeting**

Date: Tuesday, October 22, 2019  
Time: 2 p.m.  
Location: Town and Country Inn  
1033 20, US-2  
Shelburne, NH 03581  
Phone: (603) 466-3315

### **Evening Scoping Meeting**

Date: Tuesday, October 22, 2019  
Time: 6 p.m.  
Location: Town and Country Inn  
1033 20, US-2  
Shelburne, NH 03581  
Phone: (603) 466-3315

### **Environmental Site Reviews**

Date: October 22, 2019  
Time: 10:00 a.m.  
Location: J. Brodie Smith Hydroelectric Project  
99 Glen Avenue  
Berlin, New Hampshire 03570  
Projects: J. Brodie Smith (P-2287), Gorham (P-2288)

Date: October 23, 2019  
Time: 9 a.m.  
Location: Sawmill Hydroelectric Project  
972 Main Street  
Berlin, New Hampshire 03570  
Projects: Sawmill (P-2422), Riverside (P-2423), Cross Power (P-2326), Upper  
Gorham (P-2311), Cascade (P-2327), Shelburne (P-2300)

Please notify Mr. Curtis Mooney of Center Rivers Power at (603) 744-0846 or Mr. Randy Dorman of Great Lakes Hydro America at (207) 755- 5605 on or before October 18, 2019, if you plan to attend the environmental site reviews.

The scoping meetings will be recorded by a court reporter, and all statements (verbal and written) will become part of the Commission's public record for the projects. Before each meeting, all individuals who attend, especially those who intend to make statements, will be asked to sign in and clearly identify themselves for the record. Interested parties who choose not to speak or who are unable to attend the scoping meetings may provide written comments and information to the Commission as described in section 6.0. These meetings are posted on the Commission's calendar located on the internet at [www.ferc.gov/EventCalendar/EventsList.aspx](http://www.ferc.gov/EventCalendar/EventsList.aspx), along with other related information.

Meeting participants should come prepared to discuss their issues and/or concerns as they pertain to the relicensing of the Androscoggin River projects. It is advised that participants review the PADs in preparation for the scoping meetings. Copies of the PADs are available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website ([www.ferc.gov](http://www.ferc.gov)), using the "eLibrary" link. Enter the docket numbers, P-2287, P-2288, P-2300, P-2311, P-2326, P-2327, P-2422, and/or P-2423, to access the documents. For assistance, contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or toll free at 1-866-208-3676, or for TTY, (202) 502-8659.

Following the scoping meetings and comment period, all issues raised will be reviewed and decisions made as to the level of analysis needed. If preliminary analysis indicates that any issues presented in this scoping document have little potential for causing significant effects, the issue(s) will be identified and the reasons for not providing a more detailed analysis will be given in the EA.

If we receive no substantive comments on SD1, then we will not prepare a Scoping Document 2 (SD2). Otherwise, we will issue SD2 to address any substantive comments received. The SD2 will be issued for informational purposes only; no response will be required. The EA will address recommendations and input received during the scoping process.

### **3.0 PROPOSED ACTION AND ALTERNATIVES**

In accordance with NEPA, the environmental analysis will consider the following alternatives, at a minimum: (1) the no-action alternative, (2) the applicant's proposed action, and (3) alternatives to the proposed action.

#### **3.1 NO-ACTION ALTERNATIVE**

Under the no-action alternative, the Androscoggin River projects would continue to operate as required by the current project licenses (i.e., there would be no change to the existing environment). No new environmental protection, mitigation, or enhancement measures would be implemented. We use this alternative to establish baseline environmental conditions for comparison with other alternatives.

##### **3.1.1 Project Facilities**

The Androscoggin River projects are located on an 11 mile stretch of the Androscoggin River in Coos County, New Hampshire. Moving downstream, they consist

of the Sawmill Hydroelectric project at river mile (RM) 138.2; the Riverside Hydroelectric project located at RM 137.8; the J. Brodie Smith Hydroelectric project located at RM 137.2; the Cross Power Hydroelectric project located at RM 136.1; the Cascade Hydroelectric project located at RM 135.6; the Upper Gorham Hydroelectric project located at RM 132.6; the Gorham Hydroelectric project located at RM 132; and the Shelburne Hydroelectric project located at RM 128.4.

### **3.1.1.1 Sawmill**

The Sawmill Hydroelectric project consists of a dam, impoundment, gatehouse, powerhouse, and water conveyance, generation, transmission, and appurtenant facilities. The dam extends approximately 332 feet from the eastern riverbank of the Androscoggin River until it meets an island, where it extends an additional 388 feet until it meets the project powerhouse which is integral with the dam for a total length of 720 feet. The dam consists of six sections:: (1) a 169-foot-long spillway section ranging from 6- to 14-foot high with a crest elevation of 1094.1 feet USGS,<sup>3</sup>; (2) a 134-foot-long, 22-foot-wide wastegate section with a sill elevation of 1081.5 feet, topped with five 18-foot-wide, 13-foot-high wooden gates; (3) a 99.4-foot-long, 2-foot-high spillway section with a crest elevation of 1094.2 feet; (4) a 145-foot-long, 11-foot-high spillway section topped with permanent 21-inch-high steel flashboards and a crest elevation of 1093.2 feet; (5) a 36-foot-long, 2-foot-high spillway section with crest elevation of 1094.2 feet; and (6) a 137-foot-long spillway section topped with hinged 7.5-foot-high flashboards and a crest elevation of 1087.0 feet USGS.

The dam impounds a reservoir that is approximately 72.5 acres and 1.67 miles long at a normal full pond elevation of 1094.5 feet. At full pond, the reservoir provides approximately 620 acre-feet of gross storage. Four 9.5-foot-wide, 12-foot-high steel wheeled gates conveys flow from the impoundment to the powerhouse. Each intake bay is fitted with 14-foot-wide, 19.8-foot-long trashracks with 3-inch clear spacing.

The generating equipment for the project is housed in a 115-foot-long, 65-foot-wide, 27-foot-high powerhouse consisting of brick and block structure built on steel framing located on the western side of the Androscoggin River. The powerhouse is integral to the dam and contains four horizontal shaft synchronous generators connected through speed increasers to four tube type, horizontal shaft turbines. Two of the turbines,

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<sup>3</sup> The pre-application documents for both Central Rivers Power and Great Lakes Hydro report elevations utilizing the USGS datum. Typically, this datum is locally established in reference to a nearby U.S. Geological Survey (USGS) gage. Neither applicant explicitly states to which gage the elevations are referenced.

designated Units 1 and 3, are fixed blade propeller units with a hydraulic capacity of 590 cfs and a power rating of 1,083 horsepower (hp). The other two turbines, designated Units 2 and 4, are adjustable blade propeller units with a hydraulic capacity of 652 cfs each. The total installed capacity of the generators is 3.174 megawatts (MW). The combined hydraulic capacity of the turbines is 2,484 cfs.

A 120-foot-long tailrace at an elevation of 1077.3 feet conveys flow from the powerhouse back to the Androscoggin River, creating a bypassed reach that is 550 feet long. The Sawmill project substation is located approximately 25 feet west of the powerhouse. Power from the substation is transmitted to the grid through an 1,800-foot-long, 22-kilovolt (kV) transmission line.

### **3.1.1.2 Riverside**

The Riverside Hydroelectric project consists of a dam, impoundment, gatehouse, powerhouse, and water conveyance, generation, transmission, and appurtenant facilities. The dam is an approximately 846-foot-long, 21-foot-high rock-filled timber and concrete structure. It includes a 660-foot-long spillway consisting of a 248-foot-long concrete gravity section with 30-inch-high flashboards and a crest elevation of 1076.8 feet; a 235-foot-long concrete gravity section with a maximum height of 20 feet and a crest elevation of 1076.6 feet; and a 177-foot-long timber crib section with 29-inch-high flashboards and a crest elevation of 1076.9 feet USGS. The dam also includes an integral gatehouse measuring 91 feet long and 33 feet wide with a height of 54 feet. Within the gatehouse, two 9-foot-high, 16-foot-wide headgates control flow into two penstocks, which are fitted with trashracks with 2.5 inch spacing.

The dam impounds a reservoir that is approximately 7 acres and a length of 1,600 feet at a normal full pond elevation of 1076.8 feet. At full pond, the reservoir provides approximately 60 acre-feet of gross storage. Two 1,400-foot-long, 11-foot-diameter steel penstocks convey flow from the gatehouse into the powerhouse.

Two vertical Francis turbines and accompanying generators are housed within the 104-foot-long, 51-foot-wide, 80-foot-tall concrete and brick powerhouse. The powerhouse is located on the western bank of the Androscoggin River approximately 1,400 feet downstream of the gatehouse. The turbines have a hydraulic capacity of 910 and 970 cfs for a total hydraulic capacity of 1,880 cfs. The generators are rated at 3.8 and 4.1 MW for a total installed capacity of 7.9 MW.

Flow from the powerhouse is conveyed to the Androscoggin River via 40-foot-long tailrace at an elevation of 1011.0 feet USGS. The total length of the bypassed reach is 2,350 feet.

A 400-foot-long, 22-kV transmission line transmits power generated by the project.

### **3.1.1.3 J. Brodie Smith**

The J. Brodie Smith Hydroelectric project consists of a dam, impoundment, power canal, powerhouse, and water conveyance, generation, transmission, and appurtenant facilities. The 500-foot-long masonry and concrete U-shaped gravity dam has a maximum height of 24 feet. The dam has two spillways, the first of which is 170-foot-long with a crest elevation of 1003 feet (USGS) and topped with 6.7-foot-high hinged steel flashboards and two 17-foot-high, 25-foot-wide steel roller-type sluice gates with a sill elevation of 993 feet. The second spillway measures 256 feet long with a crest elevation of 1006.7 feet and topped with 3-foot-high pin supported wooden flashboards. Two waste gates are located immediately to the west of an opening in the flashboards.

The dam impounds a surface area of 8 acres at a normal headwater elevation of 1009.7 feet USGS. Water is conveyed to the powerhouse through an intake structure consisting of a 500-foot-long by 100-foot-wide power canal; a 1,440-foot-long, 18-foot-diameter steel penstock; a 1.15 million gallon steel surge tank, measuring 70 feet in diameter and 40 feet high; and another penstock leading to the powerhouse. The intake is fitted with 5/16-inch bar trashracks with 3-inch clear span between bars.

The 65-foot-long, 53-foot-wide steel and brick powerhouse houses one generating unit with a rated capacity of 15 MW and a hydraulic capacity of 3,200 cfs at a normal operating head of 88 feet. A 1,500-foot-long, 3115-kV transmission line conveys power from the powerhouse.

### **3.1.1.4 Cross Power**

The Cross Power Hydroelectric project consists of a dam, impoundment, gatehouse, powerhouse, and water conveyance, generation, transmission, and appurtenant facilities. The approximately 467-foot-long dam consists of two concrete non-overflow sections, separated by an outcropping ledge; a stoplog opening; a 276-foot-long, 25-foot-high spillway, an integral gatehouse, and a concrete retaining wall. The stoplog opening is used to pass debris. The spillway has a crest elevation that ranges from 918.2 feet to 921.7 feet and topped with 42-inch-high flashboards. The 19-foot-wide, 124-foot-long



gatehouse is integral with the dam and equipped with a 21.6-foot-wide, 18.4-foot-high trashrack with 3-inch clear spacing trashrack in each bay. A concrete retaining wall is located adjacent to the gatehouse and extends to the eastern embankment.

The project reservoir has a surface area of 22 acres and a length of 3,100 feet at a normal full pond elevation of 921.7 feet USGS. The impoundment has a gross storage capacity of 120 acre-feet at an average gross head of 20.2 feet.

The powerhouse is located approximately 44 feet downstream of the gatehouse on the eastern bank of the Androscoggin River. The original 47-foot-wide, 146-foot-long concrete and brick powerhouse has a 47-foot-wide, 50-foot-long addition on the downstream shore side that contains five propeller turbines and five horizontal generators. Three of the turbine units, designated Units 1, 3, and 4, have a hydraulic capacity of 550 cfs each. The other two units, designated Units 2 and 5, have a capacity of 600 and 640 cfs, respectively. Generating Units 1 through 3 have a power rating of 750 kVA, Unit 4 has a power rating of 700 kVA, and Unit 5 has a power rating of 900 kVA. The turbine units have a combined hydraulic capacity of 2,890 cfs and the generating units have a combined installed capacity of 3.22 MW.

A 50-foot-long tailrace at an elevation of 901.7 feet returns flow from the powerhouse to the Androscoggin River. A 20-foot-long transmission line transmits power from the powerhouse to a 3,750 kVA transformer located adjacent to the eastern side of the powerhouse.

### **3.1.1.5 Cascade**

The Cascade Hydroelectric project consists of a dam, forebay and gate structure, powerhouse, and generation, water conveyance, transmission, and appurtenant facilities. The 583-foot-long concrete gravity dam has a maximum height of 53 feet and consists of two sections: a spillway section located to the east and a forebay gate structure located to the west. The 313-foot-long spillway section has a crest elevation of 898.4 feet and is fitted with 3-foot-high flashboards for a total elevation of 901.4 feet. Three non-overflow abutment sections are located between the spillway and forebay gate structure and on each side of the dam. The 15-foot-wide concrete abutment on the east bank of the river is adjacent to the spillway and extends approximately 20 feet upstream and 30 feet downstream and has an elevation of 908.6 feet. The western dam abutment consists of two 3-foot-wide concrete with earth fill retaining walls in parallel. The retaining walls extend westward for approximately 88 feet.

The dam impounds a reservoir that is approximately 28 acres and 3,000 feet long at a normal full pond elevation of 901.4 feet. At full pond, the reservoir provides approximately 200 acre-feet of gross storage

Water for generation is diverted from the impoundment into the forebay. The forebay gate structure is approximately 168 feet long and 15 feet wide. The 14 9-foot-wide, 11-foot-high forebay gates are constructed from wood. Of the 14 gates, 7 are currently operational. The gates control river flows into the project forebay, which measures 300 feet in length and approximately 240 feet in width at a normal water surface elevation of 901.2 feet USGS. A 326-foot-long concrete gravity wall extending downstream from the western dam abutment contains the forebay. The forebay wall has a maximum height of 41 feet and a 4-foot-long, 11-inch-wide crest at an elevation of 901.5 feet and includes a deep gate located approximately 90 feet from the downstream face of the west abutment. A 4-foot-wide, 2-inch-long, 6-inch-high sluiceway is located approximately 193 feet from the west abutment. A 19-foot-wide by 24-foot-long concrete platform sits atop the southern end of the forebay wall and supports transmission facilities for the Cascade Mill.

The 135-foot-long, 43-foot-wide, 67-foot-high steel framed brick and block powerhouse is located approximately 300 feet downstream of the forebay gate structure on the western shore of the Androscoggin River and includes a 41-foot-long, 16-foot-wide addition. The powerhouse contains three Francis turbines and three generators. Two of the turbines, designated Units 1 and 2, each have a hydraulic capacity of 950 cfs. The third turbine, designated Unit 3, has a hydraulic capacity of 1050 cfs for a combined total hydraulic capacity of 2950 cfs. The generators have a combined installed capacity of 7.92 MW.

A 40-foot-long tailrace at an elevation of 854.4 feet conveys flow from the powerhouse to the Androscoggin River. The project bypassed reach is 350 feet in length. A 430-foot-long, 22-kV transmission line transmits power from the powerhouse.

### **3.1.1.6 Upper Gorham**

The Upper Gorham Hydroelectric project consists of a dam, impoundment, power canal, powerhouse, and water conveyance, generation, transmission, and appurtenant facilities. The 775-foot-long timber crib and earthen dam consists of four sections: (1) a western 133-foot-long, earthen dike with concrete core wall and a crest elevation of 820.0 feet; (2) a 300-foot-long, 18-foot-high rock-filled timber crib spillway section with crest elevation of 807.3 feet and mounted with 5-foot-high flashboards; (3) a 122-foot-long headgate section that regulates flow into the power canal, with a 113-foot-long by 16-foot-wide gatehouse integral with dam and having a sill elevation of 795.0 feet; and eastern 220-foot-long earthen dike with concrete core wall and a crest elevation of 820.0 feet. The headgate section contains ten 7.5-foot-wide stoplog gates, seven of which are operating. The gates are fitted with trashracks with 3 1/8-inch clear spacing.

The dam impounds a reservoir that is approximately 45 acres and 4,700 feet long at a normal full pond elevation of 812.3 feet. At full pond, the reservoir provides 370 acre-feet of gross storage.

A 3,350-foot-long, 220-foot-wide, 18-foot-deep excavated earthen power canal with riprap lining conveys flow from the gatehouse. The gatehouse is located upstream of the powerhouse regulates flow for generation and consists of a 126-foot-long by 18-foot-wide steel-framed wood structure with 14 operable gates and trashracks with 3-inch clear spacing.

The 127-foot-long, 74-foot-wide, 26-foot-high brick and steel powerhouse contains four horizontal shaft Francis turbines and four generators. Each of the turbines has a hydraulic capacity of 550 cfs, for a total of 2,200 cfs. The generators each have an installed capacity of 1.2 MW at a design head of 29 feet for a total installed capacity of 4.8 MW.

A 370-foot-long tailrace at an elevation of 781.6 feet conveys flow from the powerhouse to the Androscoggin River. The project bypasses 1 mile of the river. A 22-kV, 50-foot-long transmission line transmits power from the powerhouse to three 2500 kVA transformers sitting on a 46-foot long by 20-foot-wide transformer pad.

### **3.1.1.7 Gorham**

The Gorham Hydroelectric project consists of a dam, impoundment, power canal, powerhouse, and transmission and appurtenant facilities. The 417-foot-long, 20-foot-high timber crib, L-shaped dam consists of three sections: a 90-foot-long spillway with steel sheet pile facing topped with a 12-inch-long, 12-inch-wide wooden flashboard? and having a crest elevation of 772.2 feet; a 252-foot-long spillway with a layer of 3-inch wooden plank facing and a crest elevation of 768.12 feet and topped with 5.4-foot-high hinged wooden flashboards; and a 75-foot-long reinforced concrete sluiceway with a crest elevation of 768.2 feet USGS and topped with 5.33 foot-high hinged wooden flashboards. Flow into the sluiceway is regulated by one 15-foot-wide sluice gate.

The dam impounds a surface area of approximately 32 acres at a water surface elevation of 773.5 feet USGS. A 415-foot-long, 60-foot-wide, 20-foot-deep earthen power canal conveys flow from the impoundment to the powerhouse. The 37.8-foot-long, 27.1-foot-wide powerhouse contains two vertical Francis turbines with a total maximum hydraulic capacity of 2,800 cfs and two generators with a total installed capacity of 2.15 MW at an operating head of 18 feet. The project has a 200-foot-long, 33-kV transmission line that transmits power from the powerhouse to a nearby substation.

### **3.1.1.8 Shelburne**

The Shelburne Hydroelectric project consists of a dam, impoundment, powerhouse, and water conveyance, generation, transmission, and appurtenant facilities. The 551-foot-long concrete gravity dam consists of: (1) a 70-foot-long, 3-foot-wide concrete retaining wall along the northern shore of the Androscoggin River; (2) a 171-foot-long gated spillway section comprised of an 83-foot-long section with 9-foot-high hinged steel and wood flashboards at an elevation of 724.5 feet and an 88-foot-long section containing three 25-foot-long, 10-foot-high wastegates separated by 5-foot-wide concrete piers; (3) a 143-foot-long, 27-foot-wide sluiceway controlled by a 19-foot-wide screw stem operated sluice gate with a sill elevation of 722.5 feet and non-overflow structure extending to an island located midstream of the river; (4) a 150-foot-long integral powerhouse extending to the south river bank; and (5) 259 feet of dikes along the south shore of the impoundment. A 17-foot-long by 14-foot-wide building located on the island adjacent to the sluiceway houses the controllers for the gates. A 95-foot-long concrete retaining wall separates the sluiceway from the powerhouse. A riprap-lined emergency spillway channel used to convey excess flow away from the powerhouse is located along the south bank of the Androscoggin River.

The dam impounds a reservoir that is approximately 250 acres and a 7,200-foot-long at the normal full pond elevation of 734.2 feet. The reservoir provides a negligible amount of storage. A 15-foot-long by 112-foot-high intake conveys flow from the impoundment to the powerhouse. The intake is fitted with a steel bar trashrack with 3-inch clear spacing.

The 110-foot-long, 48.6-foot-wide brick and steel powerhouse is integral with the dam. Located inside of the powerhouse are three turbines and three generators. Two of the turbines, designated Units 1 and 2, are vertical Francis turbines with a hydraulic capacity of 800 cfs. The third turbine, designated Unit 3, is a vertical Kaplan turbine with a hydraulic capacity of 1,800 cfs. The corresponding generators for Units 1 and 2 have an installed capacity of 960 kW. The generator for Unit 3 has an installed capacity of 1,800 kW for a total installed capacity of 3.72 MW.

Flow from the powerhouse is returned to the Androscoggin River via a 130-foot-long tailrace at an elevation of 717.9 feet USGS. A 5.5-mile-long, 22-kV transmission line conveys power from the powerhouse.

### **3.1.2 Project Operation**

The Androscoggin River projects generally operate as run-of-river facilities. Inflow to the Androscoggin River projects is regulated by six large storage reservoirs at the headwaters of the Androscoggin River system that include Lake Umbagog, Rangeley Lake, Mooselookmeguntic Lake, Upper Richardson Lake, Lower Richardson Lake, and Aziscohos Lake. The Errol Hydroelectric Project (FERC No. P-3133) impounds Lake Umbagog and serves as the release point for the upper storage reservoir system. The Errol project is operated in accordance with the 1983 Androscoggin River Headwaters Agreement. Central Rivers Power and Great Lake Hydro propose to continue to operate and maintain the Androscoggin River projects as required in the existing licenses.

#### **3.1.2.1 Sawmill**

The Sawmill project operates in a run-of-river mode, such that the water surface elevation within the project impoundment is maintained at the normal full pond elevation of 1094.5 feet USGS. Great Lake Hydro provides a minimum flow of 12 cfs or inflow, whichever is less, into the bypassed reach through a notch in the dam crest and leakage.

The project had an average annual energy production value of approximately 15,900 megawatt-hours (MWh) from 2014 to 2018.

### **3.1.2.2 Riverside**

The Riverside project operates in a run-of-river mode, such that the water surface elevation within the project impoundment is maintained at the normal full pond elevation of 1076.8 feet USGS. Great Lake Hydro provides a minimum daily average flow of 35 cfs and an instantaneous flow of at least 20 cfs, whichever is less, into the bypassed reach through a permanent opening in the dam flashboards and leakage. The project had an average annual energy production value of approximately 48,000 MWh from 2014 to 2018.

### **3.1.2.3 J. Brodie Smith**

The J. Brodie Smith project operates in a run-of-river mode, such that the impoundment experiences minimal fluctuations in level. Central Rivers Power provides a minimum flow of 20 cfs or inflow, whichever is less, into the bypassed reach through a 15-square-inch opening in the dam waste gates, so that the minimum flow release would remain unaffected by a drop in pond level. The generating unit is typically operated remotely by Customized Energy Solutions (CES) but is capable of local operation. The project has an average annual energy production value of approximately 101,932 MWh.

### **3.1.2.4 Cross Power**

The Cross Power project operates in a run-of-river mode, such that the water surface elevations within the project impoundment is maintained at the normal full pond elevation of 921.7 feet USGS. The project does not have a minimum flow requirement for the bypassed reach. The project had an average annual energy production value of approximately 15,000 MWh from 2014 to 2018.

### **3.1.2.5 Cascade**

The Cascade project operates in a run-of-river mode, such that the water surface elevations within the project impoundment is maintained within 0.25 feet of the normal full pond elevation of 901.4 feet. Great Lake Hydro provides a minimum flow of 6 cfs or inflow, whichever is less, into the bypassed reach through a rectangular orifice in the spillway flashboards and leakage. When river flow exceeds the hydraulic capacity of the

generating facilities, excess flow is passed over the dam. The project had an average annual energy production value of approximately 48,000 MWh from 2014 to 2018.

### **3.1.2.6 Upper Gorham**

The Upper Gorham project operates in a run-of-river mode, such that the water surface elevations within the project impoundment is maintained at the normal full pond elevation of 812.3 feet USGS. Great Lake Hydro provides a minimum flow of 400 cfs or inflow, whichever is less, into the bypassed reach from March 1 through June 15 and 200 cfs or inflow, whichever is less, from June 16 to February 28 through a minimum flow structure of the west side of the power canal. The project had an average annual energy production value of approximately 14,900 MWh from 2014 to 2018.

### **3.1.2.7 Gorham**

The Gorham project operates in a run-of-river mode, such that the impoundment is maintained within 2 inches of the normal full pond level. Central Rivers Power provides a minimum flow of 200 cfs or inflow, whichever is less, into the bypassed reach through a lowered flashboard near the middle of the dam. The generating unit is typically operated remotely by CES but is capable of local operation. The project has an average annual energy production value of approximately 10,727 MWh.

### **3.1.2.8 Shelburne**

The Shelburne project operates in a run-of-river mode, such that the water surface elevations within the project impoundment is maintained at the normal full pond elevation of 734.2 feet USGS. Great Lake Hydro releases a minimum flow 2 cfs or inflow to the project reservoir, whichever is less, via existing leakage into the bypassed reach. The project had an average annual energy production value of approximately 14,300 MWh from 2014 to 2017.

## **3.1.3 Proposed Environmental Measures**

Central Rivers Power and Great Lake Hydro propose to continue to operate the Androscoggin River projects with the environmental protection, mitigation and enhancement (PM&E) measures described below.

### **Aquatic Resources**

- Continue to provide 12 cfs or inflow, whichever is less, to the project bypassed reach at the Sawmill project.
- Continue to provide 20 cfs (instantaneous) and 35 cfs (daily average) or inflow, whichever is less, to the project bypassed reach at the Riverside project.
- Continue to provide 20 cfs or inflow, whichever is less, to the project bypassed reach at the J. Brodie Smith project.
- Continue to provide 6 cfs or inflow, whichever is less, to the project bypassed reach at the Cascade project.
- Continue to provide 400 cfs or inflow, whichever is less, from March 1 to June 15 annually, and 200 cfs or inflow, whichever is less, the rest of the year to the project bypassed reach at the Upper Gorham project.
- Continue to provide 200 cfs or inflow, whichever is less, to the project bypassed reach at the Gorham project.

### **Terrestrial**

- Continue to implement the Shoreland Protection Plans at the J. Brodie Smith project, the Gorham project, and the Cascade, Upper Gorham, and Shelburne projects.

### **Recreation**

- Continue to provide existing public access to project reaches
- Continue to operate and maintain all project recreational facilities

## **3.2 DAM SAFETY**

It is important to note that dam safety constraints may exist and should be taken into consideration in the development of proposals and alternatives considered in the pending proceeding. For example, proposed modifications to the dam structure, such as the addition of flashboards or fish passage facilities, could impact the integrity of the dam structure. As the proposal and alternatives are developed, the applicant must evaluate the effects and ensure that the project would meet the Commission's dam safety criteria found in Part 12 of the Commission's regulations and the Engineering Guidelines (<http://www.ferc.gov/industries/hydropower/safety/guidelines/eng-guide.asp>).



### **3.3 ALTERNATIVES TO THE PROPOSED ACTION**

Commission staff will consider and assess all alternative recommendations for operational or facility modifications, as well as protection, mitigation, and enhancement measures identified by the Commission, the agencies, Indian tribes, NGOs, and the public.

### **3.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY**

At present, we propose to eliminate the following alternatives from detailed study in the EA.

#### **3.4.1 Federal Government Takeover**

In accordance with § 16.14 of the Commission's regulations, a federal department or agency may file a recommendation that the United States exercise its right to take over a hydroelectric power project with a license that is subject to sections 14 and 15 of the FPA.<sup>4</sup> We do not consider federal takeover to be a reasonable alternative. Federal takeover of the project would require congressional approval. While that fact alone would not preclude further consideration of this alternative, there is currently no evidence showing that federal takeover should be recommended to Congress. No party has suggested that federal takeover would be appropriate, and no federal agency has expressed interest in operating the project.

#### **3.4.2 Non-power License**

A non-power license is a temporary license the Commission would terminate whenever it determines that another governmental agency is authorized and willing to assume regulatory authority and supervision over the lands and facilities covered by the non-power license. At this time, no governmental agency has suggested a willingness or ability to take over the project. No party has sought a non-power license, and we have no basis for concluding that the Bear Swamp Project should no longer be used to produce power. Thus, we do not consider a non-power license a reasonable alternative to relicensing the project.

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<sup>4</sup> 16 U.S.C. §§ 791(a)-825(r).

### **3.4.3 Project Decommissioning**

Decommissioning of the project could be accomplished with or without dam removal. Either alternative would require denying the relicense application and surrender or termination of the existing license with appropriate conditions. There would be significant costs involved with decommissioning the project and/or removing any project facilities. The project provides a viable, safe, and clean renewable source of power to the region. With decommissioning, the project would no longer be authorized to generate power.

No party has suggested project decommissioning would be appropriate in this case, and we have no basis for recommending it. Thus, we do not consider project decommissioning a reasonable alternative to relicensing the project with appropriate environmental measures.

## **4.0 SCOPE OF CUMULATIVE EFFECTS AND SITE-SPECIFIC RESOURCE ISSUES**

### **4.1 CUMULATIVE EFFECTS**

According to the Council on Environmental Quality's regulations for implementing NEPA (50 C.F.R. 1508.7), a cumulative effect is the effect on the environment that results from the incremental effect of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

#### **4.1.1 Resources That Could Be Cumulatively Affected**

Based on our review of the license applications and preliminary staff analysis, we have not identified any resources that may be cumulatively affected by the proposed operation and maintenance of the Androscoggin River projects.

### **4.2 RESOURCE ISSUES**

In this section, we present a preliminary list of environmental issues to be addressed in the EA. We identified these issues, which are listed by resource area, by reviewing the PADs and the Commission's record for the Androscoggin River projects. This list is not intended to be exhaustive or final, but contains those issues raised to date that could have substantial effects. We have not identified any issues affecting geologic or soil resources. Because these projects are all operated as run-of-river facilities and located close to each other, all of the issues identified for each project are similar and would be discussed in the EA collectively. After the scoping process is complete, we will review the list and determine the appropriate level of analysis needed to address each issue in the EA.

#### **4.2.1 Aquatic Resources**

##### *Water Quantity and Quality*

- Effects of project operation on water quality, especially dissolved oxygen concentration and temperature, in the project area.

##### *Fisheries*

- Effects of project operation on aquatic habitat, including habitat distribution and suitability in the project-affected areas.
- Effects of project operation on fish impingement, entrainment, and survival in the Androscoggin River.

#### **4.2.2 Terrestrial Resources**

- Effects of continued project operation and maintenance on riparian, littoral, and wetland habitats and associated wildlife.
- Effects of continued project operation and maintenance on nesting bald eagles.

#### **4.2.3 Threatened and Endangered Species**

- Effects of project operation and maintenance on threatened or endangered species or their habitat in the vicinity of the proposed projects, including the federally threatened Canada lynx and northern long-eared bat.

#### **4.2.4 Recreation and Land Use**

- Effects of continued project operation on recreational use in the project area, including the adequacy of existing recreational access and facilities.
- Effects of continued operation and maintenance on aesthetic resources and public access within shoreline protection zones.

#### **4.2.5 Cultural Resources**

- Effects of continued project operation and maintenance activities on properties that are included in or eligible for inclusion in the National Register of Historic Places.

#### 4.2.6 Aesthetic Resources

- Effects of continued project operation on aesthetic resources in the project area.

#### 4.2.7 Developmental Resources

- Effects of proposed or recommended environmental measures on project generation and economics.

### 5.0 PROPOSED STUDIES

Depending upon the findings of studies completed by Central Rivers Power and Great Lake Hydro and the recommendations of the consulted entities, Central Rivers Power and Great Lake Hydro will consider, and may propose certain other measures to enhance environmental resources affected by the projects as part of the proposed action. Central Rivers Power and Great Lake Hydro's initial study proposals are identified by resource area in table 1. Detailed information on Central Rivers Power and Great Lake Hydro's initial study proposals can be found in the PADs. Further studies may need to be added to this list based on comments provided to the Commission, Central Rivers Power, and Great Lake Hydro interested participants, including Indian tribes.

Table 1. Central Rivers Power and Great Lake Hydro's initial study proposals for the Androscoggin projects. (Source: PADs)

<b>Resource Area</b>	<b>Proposed Study</b>
<b>Aquatic Resources</b>	
Water quality	Conduct baseline water quality sampling in the impoundment and tailrace at all eight projects.
<b>Terrestrial Resources</b>	
Botanical Resources	Survey and document the botanical resources within the project boundaries, including any T&E species, invasive species, and any observations of project-induced erosion.

<b>Resource Area</b>	<b>Proposed Study</b>
<b>Cultural Resources</b>	
	Consult with the Maine State Historic Preservation Officer (Maine SHPO) to determine the need for further archaeological surveys.

## **6.0 REQUEST FOR INFORMATION AND STUDIES**

We are asking federal, state, and local resource agencies, Indian tribes, NGOs, and the public to forward to the Commission any information that will assist us in conducting an accurate and thorough analysis of the project-specific and cumulative effects associated with relicensing the Androscoggin River projects. The types of information requested include, but are not limited to:

- information, quantitative data, or professional opinions that may help define the geographic and temporal scope of the analysis (both site-specific and cumulative effects), and that helps identify significant environmental issues;
- identification of, and information from, any other EA, EIS, or similar environmental study (previous, on-going, or planned) relevant to the proposed relicensing of the Androscoggin River projects;
- existing information and any data that would help to describe the past and present actions and effects of the project and other developmental activities on environmental and socioeconomic resources;
- information that would help characterize the existing environmental conditions and habitats;
- the identification of any federal, state, or local resource plans, and any future project proposals in the affected resource area (e.g., proposals to construct or operate water treatment facilities, recreation areas, water diversions, timber harvest activities, or fish management programs), along with any implementation schedules);

- documentation that the proposed project would or would not contribute to cumulative adverse or beneficial effects on any resources. Documentation can include, but need not be limited to, how the project would interact with other projects in the area and other developmental activities; study results; resource management policies; and reports from federal and state agencies, local agencies, Indian tribes, NGOs, and the public;
- documentation showing why any resources should be excluded from further study or consideration; and
- study requests by federal and state agencies, local agencies, Indian tribes, NGOs, and the public that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the EA/EIS for the project.

All requests for studies filed with the Commission must meet the criteria found in Appendix A, *Study Plan Criteria*.

The requested information, comments, and study requests should be submitted to the Commission no later than November 23, 2019. All filings must clearly identify the following on the first page: **J. Brodie Smith (P-2287-053), Gorham (P-2288-057), Shelburne (P-2300-052), Upper Gorham (P-2311-067), Cross Power (P-2326-054), Cascade (P-2327-047), Sawmill (P-2422-058), and/or Riverside (P-2423-031) Hydroelectric Projects**. Scoping comments may be filed electronically via the Internet. See 18 C.F.R. 385.2001(a)(1)(iii) and the instructions on the Commission's website <http://www.ferc.gov/docs-filing/efiling.asp>. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at <http://www.ferc.gov/docs-filing/ecomment.asp>. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. Although the Commission strongly encourages electronic filing, documents may also be paper-filed. To paper-file, please send a paper copy to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426.

Register online at <http://www.ferc.gov/esubscription.asp> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support. <mailto:ferconlinesupport@ferc.gov>.

Any questions concerning the scoping meetings, site visits, or how to file written comments with the Commission should be directed to Ryan Hansen at (202) 502-8074 or [ryan.hansen@ferc.gov](mailto:ryan.hansen@ferc.gov). Additional information about the Commission's licensing process and the Androscoggin River projects may be obtained from the Commission's website, [www.ferc.gov](http://www.ferc.gov).

## 7.0 EA PREPARATION SCHEDULE

At this time, we anticipate the need to prepare a draft and final EA. The draft EA will be sent to all persons and entities on the Commission's service and mailing lists for each of the eight Androscoggin River projects. The EA will include our recommendations for operating procedures, as well as environmental protection and enhancement measures that should be part of any licenses issued by the Commission. All recipients will then have 30 days to review the draft EA and file comments with the Commission. All comments on the draft EA filed with the Commission will be considered in preparation of the final EA.

The major milestones, with pre-filing target dates are as follows:

<u>Major Milestone</u>	<u>Target Date</u>
Scoping Meetings	October 2019
License Application Filed	July 2022

A copy of Central River Power and Great Lakes Hydro's process plan, which has a complete list of relicensing milestones for the Androscoggin projects, including those for developing the license application, is attached as Appendix B to this SD1.

## 8.0 PROPOSED EA OUTLINE

The preliminary outline for the multi-project EA for the Androscoggin River projects is as follows:

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Section 10(a)(2) of the FPA, 16 U.S.C. section 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The staff has preliminarily identified and reviewed the plans listed below that may be relevant to the Androscoggin River projects. Agencies are requested to review this list and inform the Commission staff of any changes. If there are other comprehensive plans that should be considered for this list that are not on file with the Commission, or if there are more recent versions of the plans already listed, they can be filed for consideration with the Commission according to 18 CFR 2.19 of the Commission's regulations. Please follow the instructions for filing a plan at <http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf>.

The following is a list of comprehensive plans currently on file with the Commission that may be relevant to the Androscoggin River projects:

Atlantic States Marine Fisheries Commission. 1998. Amendment 1 to the Interstate

Fishery Management Plan for Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*). (Report No. 31). July 1998.

Atlantic States Marine Fisheries Commission. 1998. Interstate Fishery Management Plan for Atlantic Striped Bass. (Report No. 34). January 1998.

Atlantic States Marine Fisheries Commission. 1999. Amendment 1 to the Interstate Fishery Management Plan for Shad and River Herring. (Report No. 35). April 1999.

Atlantic States Marine Fisheries Commission. 2000. Interstate Fishery Management Plan for American Eel (*Anguilla rostrata*). (Report No. 36). April 2000.

Atlantic States Marine Fisheries Commission. 2000. Technical Addendum 1 to Amendment 1 of the Interstate Fishery Management Plan for Shad and River Herring. February 9, 2000.

Atlantic States Marine Fisheries Commission. 2008. Amendment 2 to the Interstate Fishery Management Plan for American Eel. Arlington, Virginia. October 2008.

Atlantic States Marine Fisheries Commission. 2009. Amendment 2 to the Interstate Fishery Management Plan for Shad and River Herring, Arlington, Virginia. May 2009.

Atlantic States Marine Fisheries Commission. 2010. Amendment 3 to the Interstate Fishery Management Plan for Shad and River Herring, Arlington, Virginia. February 2010.

Atlantic States Marine Fisheries Commission. 2013. Amendment 3 to the Interstate Fishery Management Plan for American Eel. Arlington, Virginia. August 2013.

Atlantic States Marine Fisheries Commission. 2014. Amendment 4 to the Interstate Fishery Management Plan for American Eel. Arlington, Virginia. October 2014.

National Marine Fisheries Service. 1998. Final Amendment #11 to the Northeast Multi-species Fishery Management Plan; Amendment #9 to the Atlantic Sea Scallop Fishery Management Plan; Amendment #1 to the Monkfish Fishery Management Plan; Amendment #1 to the Atlantic Salmon Fishery Management Plan; and Components of the proposed Atlantic Herring Fishery Management Plan for Essential Fish Habitat. Volume 1. October 7, 1998.

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- New Hampshire Office of Energy and Planning. New Hampshire Statewide Comprehensive Outdoor Recreation Plan (SCORP): 2008-2013. Concord, New Hampshire. December 2007.
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## **10.0 MAILING LISTS**

The list below is the Commission's official mailing list for the Androscoggin River projects included in this scoping document. If you want to receive future mailings for these proceedings and are not included in the list below, please send your request by email to [efiling@ferc.gov](mailto:efiling@ferc.gov) or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written and emailed requests to be added to the mailing lists must clearly identify the

following on the first page, as appropriate: **J. Brodie Smith (P-2287-053), Gorham (P-2288-057), Shelburne (P-2300-052), Upper Gorham (P-2311-067), Cross Power (P-2326-054), Cascade (P-2327-047), Sawmill (P-2422-058), and/or Riverside (P-2423-031) Hydroelectric Projects.** You may use the same method if requesting removal from the mailing list below.

Register online at <http://www.ferc.gov/docs-filing/esubscription.asp> to be notified via email of new filings and issuances related to these projects or other pending projects. For assistance, please contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or toll free at 1-866-208-3676, or for TTY, (202) 502-8659.

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
American Rivers Margaret Bowman Director 1101 14 St. NW Ste. 1400 Washington, DC 20005-5637		X						
American Tissue New Hampshire Electric, Inc. Michael Golde Vice President Kugman Associates, Inc. 21 South Clark St. Chicago, IL 60603							X	
American Whitewater Kevin Richard Colburn National Stewardship Director 1035 Van Buren Street Missoula, Montana 59802	X	X	X	X		X	X	
Appalachian Mountain Club Kenneth D. Kimball Director of Research PO Box 296 Gorham, New Hampshire 03581-0296	X	X	X	X	X	X	X	
City of Berlin Mitchell A Berkowitz City Manager City Building 168 Main St Berlin, New Hampshire 03570-2420	X	X	X	X	X	X	X	X

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
City of Berlin Eric Maher Attorney 225 Water Street P.O. Box 630 Exeter, New Hampshire 03833	X	X						
Brookfield Renewable Energy Group Randy Dorman Licensing Specialist 150 Main St. Lewiston, ME 04240			X	X	X	X	X	
Brookfield Renewable Energy Group Clare Kirk Licensing and Compliance Specialist 200 Donald Lynch Blvd., Ste 300 Marlborough, MA 01752								X
Brookfield Renewable Energy Group Kyle J. Murphy Compliance Specialist 150 Main St. Lewiston, ME 04240			X	X	X	X	X	
Cascade Flats Neighborhood Organization Dennis J. McCarthy 34 Cascade Flt Gorham, New Hampshire 03581-1013		X	X		X	X		
Connecticut River Valley Flood Commission PO Box 511 Greenfield, Massachusetts 01302-0511	X	X	X	X	X	X	X	X
Coos County Conservation District PO Box 165 Lancaster, New Hampshire 03584-0165	X							

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
Coos County PO Box 10 West Stewartstown, New Hampshire 03597-0010	X	X	X	X	X	X	X	X
Crown Vantage New Hampshire Electric Jon Christensen Kleinschmidt Associate P.O. Box 650 Pittsfield, ME 04967-0650								X
Crown Vantage New Hampshire Electric James K. Kearns 650 Main St. Berlin, New Hampshire 03570-2431	X	X						
Crown Vantage New Hampshire Electric John Whittaker Winston and Strawn, LLP Washington, DC 20006-3817			X					
Crown Vantage New Hampshire Electric McGuire Woods LP P.O. Box 9346 McLean, VA 22102-0346					X	X		
Dummer, Town of Dummer, New Hampshire 03588	X	X	X	X	X	X	X	



<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
Eversource Energy Brent Sowle Hydro Manager HSE Hydro AC, LLC 15 Fletcher Street Manchester, New Hampshire 03102	X							
Gilead, Town of Gilead, Maine 04217	X							
GNE, LLC Amy Koch Principal Patton Boggs, LLP 27 Fisherman's Cove Ponte Verde Beach, FL 32082			X					X
Gorham, Town of Kelly A Goddard Town Manager 20 Park St Gorham, New Hampshire 03581-1607	X	X	X	X	X	X	X	X
Great Lakes Hydro America, LLC Kevin Bernier 1024 Central St. Millinocket, ME 04462								X
Great Lakes Hydro America, LLC Clare Kirk Licensing and Compliance Specialist 100 International Dr. Ste. 350 Portsmouth, NH 03801								X
Great Lakes Hydro America, LLC Kelly Maloney Manager, Licensing and Compliance 150 Main St. Lewiston, ME 04240			X	X	X	X		X

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
HSE Hydro NH AC, LLC Curtis Mooney Manager, Regulatory Affairs 59 Ayers Island Road Bristol, New Hampshire 03222	X	X						
James River Corporation George W Hill, Jr	X	X						
Jefferson, Town of Jefferson, New Hampshire 03583	X							
Kleinschmidt Associate Jon M Christensen PO Box 650 Pittsfield, Maine 04967-0650	X	X						
Lancaster, Town of Lancaster, New Hampshire 03584	X							
New England Flow Thomas J Christopher Principal 252 Fort Pond Inn Rd Lancaster, Massachusetts 01523-3230	X	X	X		X	X	X	
New Hampshire Department of Environmental Service Thomas S. Burack Commissioner 29 Hazel Dr. Concord, New Hampshire 03301			X					
New Hampshire Department of Fish and Game Gabriel Gries Fish Biologist USFWS, WSRF 300 Westgate Center Drive Hadley, Massachusetts 01035	X	X	X	X	X	X	X	X

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
New Hampshire Department of Fish and Game Glen Normandeau Executive Dir. 11 Hazen Dr Concord, New Hampshire 03301-6500	X	X	X	X	X	X	X	X
New Hampshire Department of Historical Resources Christina St. Louis Review & Compliance Program Specialist 19 Pillsbury Street Concord, New Hampshire 03301	X	X	X	X	X	X	X	X
New Hampshire Department of Justice Jennifer Patterson 33 Capitol St. Concord, NH 03301-6310				X		X		
New Hampshire Department of Justice Jeffrey R. Howard Attorney General 33 Capitol St. Concord, NH 03301-6310				X		X		
New Hampshire Public Utilities Commission Secretary 21 S Fruit St Ste 10 Concord, New Hampshire 03301-2428	X	X	X	X	X	X	X	X
New Hampshire Water Resources Board James W Gallagher, Jr. Chief Engineer New Hampshire Water Resources Board NHDES P.O. Box 95 29 Hazen Drive Concord, New Hampshire 03302-0095	X	X	X	X	X	X	X	X

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
New Hampshire Water Supply & Pollution Edward J. Schmidt Director PO Box 95 Concord, New Hampshire 03302-0095	X	X	X	X	X	X		
Newry, Town of Newry, Maine 04261	X							
NOAA National Marine Fisheries Service Kathy Middleton Northeast Regional Office- DOC/NOAA 55 Great Republic Dr. Gloucester, Massachusetts 01930-2298	X	X	X	X	X	X	X	
Northeast Utilities Service Company Ronald G Chevalier Vice President PO Box 270 Hartford, Connecticut 06141-0270	X							
Office of Environmental Policy and Compliance (USDOJ) Andrew Raddant Regional Environmental Officer 15 State Street, Ste 400 Boston, Massachusetts 02109	X	X	X	X	X	X	X	X
Pierce Atwood LLP Matthew D Manahan, ESQ Attorney Merrill's Wharf 254 Commercial Street Portland, Maine 04101	X	X						

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
Public Service Company of New Hampshire Charles M Worcester Senior Engineer PO Box 330 Manchester, New Hampshire 03105-0330	X	X						
Public Service Company of New Hampshire R. G. Chevalier Vice President PO Box 330 Manchester, New Hampshire 03105-0330	X							
Public Service Company of New Hampshire William Smagula Vice President-Generation 780 North Commercial Street Manchester, New Hampshire 03101	X							
Public Service Company of New Hampshire Richard R Morin Hydro Production Manager 1000 Elm St Manchester, New Hampshire 03101-1730	X							
Public Service Company of New Hampshire John M MacDonald Vice President-Operations PO Box 330 Manchester, New Hampshire 03105-0330		X						
Ronald & Dean Rose PO Box 15366 Brooksville, Florida 34604-0117	X							

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
Shelburne, Town of Town Hall 51 Bridge St Shelburne Falls, Massachusetts 01370-1102	X	X	X	X	X	X	X	
Stark, Town of Stark, New Hampshire 03582	X							
U.S. Army Corps of Engineers Jennifer L McCarthy Chief, Regulatory Div. New England District 696 Virginia Rd Concord, Massachusetts 01742-2751	X	X	X	X	X	X	X	X
U.S. Army Corps of Engineers Joseph Ignazio Chief New England District/Regulatory Branch 696 Virginia Rd Concord, Massachusetts 017422718	X	X	X	X	X	X	X	
U.S. Bureau of Indian Affairs Office of the Solicitor 1849 C Street, NW, MS 6557 Washington, DC 20240	X	X	X	X	X	X	X	X
U.S. Bureau of Indian Affairs Keith S. Bluecloud Natural Resources Branch Manager 545 Marriott Drive Suite 700 Nashville, Tennessee 37214	X	X	X	X	X	X	X	X

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
U.S. Department of Interior Andrew Tittler Attorney-Advisor 15 State St. 8th Floor Boston, Massachusetts 02109-3502	X	X	X	X	X	X	X	X
U.S. Department of Interior Virginia Reddick Office of Environmental Affairs 1849 C St. NW, Room 2340 MIB Washington, DC 20240	X	X	X	X	X	X	X	X
U.S. Department of Interior Regional Environmental Officer 408 Atlantic Ave Ste 142 Boston, Massachusetts	X	X	X	X	X	X	X	X
U.S. Department of Interior Anthony R. Conte 300 Westgate Center Dr Hadley, Massachusetts 01035-9587	X	X	X	X	X	X	X	
U.S. Department of Interior Michael C. Connor Esq. Comm. U.S. Bureau Reclamation 1849 C Street NW Washington, DC 20240-0001	X	X	X	X	X	X	X	
U.S. Department of Interior James Epstein 300 Westgate Center Dr Hadley, Massachusetts 01035-9587		X					X	
U.S. Department of Interior Harold Peterson Natural Resources Officer 545 Marriott Dr., Ste 700 Nashville, TN 37214					X			

<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
U.S. Environmental Protection Agency Director Office of Ecosystem Protection; Water Quality Branch 5 Post Office Sq., Ste 100 Boston, Massachusetts 02109-3912	X	X	X	X	X	X	X	X
U.S. Environmental Protection Agency Ralph Abele 5 Post Office Square, Ste. 100 Mail Code OEP06-02 Boston, Massachusetts 02109	X	X	X	X	X	X	X	X
U.S. Environmental Protection Agency R1 Mark Kern 5 Post Office Square, Ste. 100 Boston, Massachusetts 02109-3912	X	X	X	X	X	X	X	X
U.S. Environmental Protection Agency Ronald G. Manfredonia Water Quality Branch 5 Post Office Square, Ste. 100 Boston, Massachusetts 02109-3912				X				
U.S. Fish & Wildlife Service Regional Director 300 Westgate Center Dr Northeast Regional Office Hadley, Massachusetts 01035-9587	X	X	X	X	X	X	X	X
U.S. Fish & Wildlife Service Tom Chapman 70 Commercial Street Suite 300 Concord, New Hampshire 03301	X	X	X	X	X	X	X	



<b>Mailing List Contact Information</b>	<b>J. Brodie Smith</b>	<b>Gorham</b>	<b>Shelburne</b>	<b>Upper Gorham</b>	<b>Cross Power</b>	<b>Cascade</b>	<b>Sawmill</b>	<b>Riverside</b>
U.S. National Park Service North Atlantic Region 15 State St Boston, Massachusetts 02109-3502	X	X	X	X	X	X	X	X
U.S. National Park Service Kevin Mendik, Esq. NPS Hydro Program Coordinator 15 State Street, 10th floor Boston, Massachusetts 02109	X	X	X	X	X	X	X	X
U.S. Senate Margaret Wood-Hassan Senator 330 Hart Senate Office Building Washington, DC 20510	X	X	X	X	X	X	X	X
White Mountain National Forest Mark Prout 71 White Mountain Dr U.S. Forest Service Campton, New Hampshire 03223	X	X	X	X	X	X	X	X

**APPENDIX A**  
**STUDY PLAN CRITERIA**  
**18 CFR Section 5.9(b)**

Any information or study request must contain the following:

1. Describe the goals and objectives of each study proposal and the information to be obtained;
2. If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;
3. If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study;
4. Describe existing information concerning the subject of the study proposal, and the need for additional information;
5. Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements;
6. Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate filed season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge; and
7. Describe considerations of level of effort and cost, as applicable, and why proposed alternative studies would not be sufficient to meet the stated information needs.

**APPENDIX B**  
**ANDROSCOGGIN RIVER PROJECTS PROCESS PLAN AND SCHEDULE**

Shaded milestones are unnecessary if there are no study disputes. If the due date falls on a weekend or holiday, the due date is the following business day. Early filings or issuances will not result in changes to these deadlines.

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
Licensees	Issue Public Notice for NOI/PAD	7/26/19	5.3(d)(2)
Licensees	File NOI/PAD	7/26/19	5.5, 5.6
FERC	Tribal Meetings, if needed	TBD	5.7
FERC	Issue Notice of Commencement of Proceeding and Scoping Document 1	9/24/19	5.8
FERC	Scoping Meetings and Project Site Visit	10/22/19 10/23/19	5.8(b)(viii)
All Stakeholders	File Comments on PAD/Scoping Document 1 and Study Requests	11/23/19	5.9
FERC	Issue Scoping Document 2 (if necessary)	1/7/20	5.10
Licensees	File Proposed Study Plan	1/7/20	5.11(a)
All Stakeholders	Proposed Study Plan Meeting	2/6/20	5.11(e)
All Stakeholders	File Comments on Proposed Study Plan	4/6/20	5.12
Licensees	File Revised Study Plan	5/6/20	5.13(a)
All Stakeholders	File Comments on Revised Study Plan	5/21/20	5.13(b)
FERC	Issue Director's Study Plan Determination	6/5/20	5.13(c)
Mandatory Conditioning Agencies	File Any Study Disputes	6/25/20	5.14(a)
Dispute Panel	Select Third Dispute Resolution Panel Member	7/10/20	5.14(d)
Dispute Panel	Convene Dispute Resolution Panel	7/15/20	5.14(d)(3)

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
Licensees	File Comments on Study Disputes	7/20/20	5.14(i)
Dispute Panel	Dispute Resolution Panel Technical Conference	7/25/20	5.14(j)
Dispute Panel	Issue Dispute Resolution Panel Findings	8/14/20	5.14(k)
FERC	Issue Director's Study Dispute Determination	9/3/20	5.14(l)
Licensees	First Study Season		5.15(a)
Licensees	File Initial Study Report	6/5/21	5.15(c)(1)
All Stakeholders	Initial Study Report Meeting	6/20/21	5.15(c)(2)
Licensees	File Initial Study Report Meeting Summary	7/5/21	5.15(c)(3)
All Stakeholders	File Disagreements/Requests to Amend Study Plan	8/4/21	5.15(c)(4)
All Stakeholders	File Responses to Disagreements/Amendment Requests	9/3/21	5.15(c)(5)
FERC	Issue Director's Determination on Disagreements/Amendments	10/3/21	5.15(c)(6)
Licensees	Second Study Season		5.15(a)
Licensees	File Updated Study Report	6/5/22	5.15(f)
All Stakeholders	Updated Study Report Meeting	6/20/22	5.15(f)
Licensees	File Updated Study Report Meeting Summary	7/5/22	5.15(f)
All Stakeholders	File Disagreements/Requests to Amend Study Plan	8/4/22	5.15(f)
All Stakeholders	File Responses to Disagreements/Amendment Requests	9/3/22	5.15(f)
FERC	Issue Director's Determination on Disagreements/Amendments	10/3/22	5.15(f)
Licensees	File Preliminary Licensing Proposal (or Draft License Application)	3/3/22	5.16(a)-(c)

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
All Stakeholders	File Comments on Preliminary Licensing Proposal (or Draft License Application)	6/1/22	5.16(e)
Licensees	File Final License Application	7/31/22	5.17
Licensees	Issue Public Notice of Final License Application Filing	8/14/22	5.17(d)(2)

Document Content(s)

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