



April 29, 2016

VIA ELECTRONIC FILING

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: FirstLight Hydro Generating Company, FERC Project Nos. 2485 and 1889;
Submission of Final License Application and Request for Waiver of Requirement to Include Draft
Biological Assessment in Final License Application

Dear Secretary Bose:

Pursuant to the regulations of the Federal Energy Regulatory Commission (Commission or FERC), 18 C.F.R. §§ 5.17 and 5.18 FirstLight Hydro Generating Company (FirstLight) hereby submits this Final License Application (FLA) as part of the Integrated Licensing Process (ILP) for the relicensing of the Turners Falls Hydroelectric Project (Turners Falls Project, FERC No. 1889) and Northfield Mountain Pumped Storage Project (Northfield Mountain Project, FERC No. 2485). The current licenses for both the Turners Falls and Northfield Mountain Projects expire on April 30, 2018.

FirstLight is seeking to combine the Turners Falls Project and Northfield Mountain Project into a single license, and requests that the single project be designated as the Northfield Project, comprised of two developments to be called the Turners Falls Development and Northfield Mountain Pumped Storage Development. The FLA refers to the two Developments and single Project.

Status of FERC-Approved Studies

On August 14, 2013, FirstLight filed with FERC its Revised Study Plan (RSP), which included a total of 38 studies (see [Table 1](#)). On August 27, 2013 Entergy Corporation announced that the Vermont Yankee Nuclear Power Plant (VY), located on the downstream end of the Vernon Impoundment on the Connecticut River and upstream of the FirstLight Projects, would be closing by December 29, 2014¹. With the closure of VY, certain environmental baseline conditions could have changed during the relicensing study period. On September 13, 2013, FERC issued its first Study Plan Determination (SPD) in which the revised plans for 20 studies were approved, or approved with FERC modifications. However, due to the impending closure of VY, FERC did not act on the remaining 18 aquatic related study plans. The SPD for these 18

¹ The decommissioning of VY began on December 29, 2014.

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studies was deferred until after FERC held a technical meeting with stakeholders on November 25, 2013 regarding any necessary adjustments to the proposed and requested study designs and/or schedules due to the impending VY closure. FERC issued its second SPD on the remaining 18 studies on February 21, 2014, approving the RSP with certain modifications. An additional ichthyoplankton study resolving a study dispute was added later bringing the total number of studies to 39.

On September 14, 2015, FirstLight filed its Updated Study Report in which only summary reports were provided for many of the aquatic resource studies started in 2015. On January 15, 2016, FERC issued its Determination on Requests for Study Modifications and New Studies, requiring that FirstLight file addendums on two reports previously filed. On March 1, 2016, FirstLight filed 13 study reports and the two addendums. Based on the ILP schedule, FERC will issue its Determination on Requests for Study Modifications and New Studies by June 29, 2016. As noted in its March 1, 2016 letter transmitting study reports, unless otherwise directed by FERC in a revised process plan and schedule, FirstLight is proposing to file an additional 10 reports on October 14, 2016². FirstLight proposes to undergo another study determination process—similar to the Initial Study Report, Updated Study Report, and the process initiated for the March 1, 2016 study reports—for those study reports to be filed on October 14, 2016. The dates for that process are set forth in [Table 2](#), which also includes the other aspects of the ILP process plan and schedule through April 30, 2017.

FirstLight proposes not to undergo another study determination process for the study reports to be filed March 1, 2017. Given the small number of studies, FirstLight does not believe it would be an efficient use of the Commission's or relicensing participants' resources to schedule further study report meetings or establish yet another study determination process. By March 1, 2017, FirstLight's FLA will have been pending before the Commission for almost one year. Relicensing participants will be free to comment on any remaining study reports. If the Commission believes further information is needed with respect to any of these studies, then the Commission can issue additional information requests.

FirstLight's Proposal in the FLA and Plan to File an Amended FLA

The FLA includes a section on Proposed Actions and Alternatives, which typically includes, at a minimum, the no-action alternative and applicant's proposal. Since many of the key FirstLight and TransCanada studies are not yet final, it would be premature for FirstLight to develop a complete licensing proposal for operating the Project in the new license term at this time. Therefore, FirstLight's proposal is limited at this time to minor modifications to the Project boundary, use of more Upper Reservoir storage capacity at the Northfield Mountain Pumped Storage Development, the support of public recreation at the Project through a Recreation Management Plan, and the management of historic properties through a Historic Properties Management Plan (HPMP).

Given the status of the relicensing studies due to circumstances beyond FirstLight's control, portions of the FLA are not complete at this time. See 18 C.F.R. § 5.20(a)(1). However, once FirstLight's studies and TransCanada's studies are complete pursuant to FERC's revised process plan and schedule and FirstLight has had an opportunity to discuss the study results with resource agencies and other stakeholders, FirstLight will be in a better position to develop a comprehensive proposal for relicensing the Project. FirstLight proposes to file an amended FLA on April 30, 2017 to coincide with the deadline for TransCanada to file its FLA. The amended FLA will include analysis of final study results and a more complete proposal for future Project operations and protection, mitigation, and enhancement measures. FirstLight fully

² Note that on April 25, 2016 FirstLight agreed to conduct a second year of Study No. 3.3.20 *Ichthyoplankton Entrainment Assessment at the Northfield Mountain Project* and are proposing to file a second year report or supplement the existing report on October 14, 2016 (this would bring the total number of studies to be filed on October 14, 2016 to 11).

anticipates that FERC's revised process plan and schedule will include an opportunity for stakeholders to comment on the amended FLA.

Request for Waiver of Draft Biological Assessment in Final License Application

FirstLight has been designated as the Commission's non-federal representative for purposes of information consultation under Section 7 of the Endangered Species Act (ESA), and would therefore typically file a draft biological assessment (DBA) with its FLA, pursuant to section § 5.18(b)(3)(ii) of the Commission's regulations. However, FirstLight cannot conduct a meaningful assessment of potential impacts of relicensing on ESA-listed species when several key relicensing studies are not yet complete. FirstLight therefore intends to develop a DBA once it completes its instream flow assessment (Study No. 3.3.1), and requests a waiver of the requirement to file a DBA with the FLA. FirstLight will include the DBA in its amended FLA.

Availability of FLA

Some information in the FLA is Critical Energy Infrastructure Information (CEII), which has been removed from the public version of the FLA. In accordance with the Commission's filing guidelines, all CEII is included in a separate volume and has been clearly marked as CEII, as it contains detailed Project facility diagrams and other information relating to the "production, generation, transportation, transmission, or distribution of energy." 18 C.F.R. § 388.113(c).

In addition, as part of the National Historic Preservation Act Section 106 consultation process and in accordance with 18 C.F.R. § 5.18(b)(3)(v), FirstLight is filing with the Commission a draft HPMP. The draft HPMP contains sensitive information regarding the specific location of cultural resources and historic properties which is not to be disclosed to the public under 18 § C.F.R. 5.6(d)(3)(x)(C) and 36 § C.F.R. 800.11(c). Accordingly, pursuant to 18 C.F.R. § 388.112(b), FirstLight requests that the HPMP be accorded privileged treatment and placed within the Commission's non-public file. The draft HPMP is being provided to the State Historic Preservation Offices for Vermont, New Hampshire, and Massachusetts, representatives of area Native American Tribes, local historical commissions, and FERC. FirstLight has requested that those stakeholders provide comments on the draft HPMP directly to FirstLight.

FirstLight is filing the FLA with the Commission electronically. To access the FLA on the Commission's website (<http://www.ferc.gov>), go to the "eLibrary" link, and enter the docket number, P-1889 or P-2485. FirstLight is also making the FLA available for download at the following website <http://www.northfieldrelicensing.com> (click on "Documents", and then "2015 Documents"), and is making a hard copy of the FLA, with the exception of the CEII and privileged information, available to the public at the Northfield Mountain Visitor's Center at 99 Millers Falls Road, Northfield, MA during regular business hours.

If you have any questions, or need additional information, please feel free to contact me.

Sincerely,



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Table 1: Study Report Status Update

Study No.	Title	Study is Complete	Report filed on March 1, 2016	Date Report will be filed with FERC	Date FL is targeting to upload report to website	Comments
3.1.1	2013 Full River Reconnaissance	X				
3.1.2	Northfield Mountain/Turners Falls Operations Impact on Existing Erosion and Potential Bank Instability			10/14/2016	6/30/2016	
3.1.3	Sediment Monitoring Study			10/14/2016	9/15/2016	
3.2.1	Water Quality Monitoring Study		X			
3.2.2	Hydraulic Study of Turners Falls Impoundment, Bypass Reach and below Cabot	X (addendum required)				Addendum filed on 3/1/2016
3.3.1	Conduct Instream Flow Habitat Assessments in the Bypass Reach and below Cabot Station			10/14/2016	9/15/2016	
3.3.2	Evaluate Upstream and Downstream Passage of Adult American Shad			10/14/2016	9/15/2016	
3.3.3	Evaluate Downstream Passage of Juvenile American Shad			10/14/2016	9/15/2016	
3.3.4	Evaluate Upstream Passage of American Eel at the Turners Falls		X			
3.3.5	Evaluate Downstream Passage of American Eel			3/1/2017		
3.3.6	Impact of Project Operations on Shad Spawning, Spawning Habitat and Egg Deposition in the Area of the Northfield Mountain and Turners Falls Projects		X			
3.3.7	Fish Entrainment and Turbine Passage Mortality Study			10/14/2016		
3.3.8	Computational Fluid Dynamics Modeling in the Vicinity of the Fishway Entrances and Powerhouse Forebays		X			
3.3.9	Two-Dimensional Modeling of the Northfield Mountain Pumped Storage Project Intake/Tailrace Channel and Connecticut River Upstream and Downstream of the Intake/Tailrace		X			
3.3.10	Assess Operational Impacts on Emergence of State-Listed Odonates in the Connecticut River		X			
3.3.11	Fish Assemblage Assessment		X			
3.3.12	Evaluate Frequency and Impact of Emergency Water Control Gate Discharge Events and Bypass Flume Events on Shortnose Sturgeon Spawning and Rearing Habitat in the Tailrace and Downstream from Cabot Station		X			
3.3.13	Impacts of the Turners Falls Project and Northfield Mountain Project on Littoral Zone Fish Habitat and Spawning Habitat			10/14/2016	06/30/2016	
3.3.14	Aquatic Habitat Mapping of Turners Falls Impoundment	X				

Study No.	Title	Study is Complete	Report filed on March 1, 2016	Date Report will be filed with FERC	Date FL is targeting to upload report to website	Comments
3.3.15	Assessment of Adult Sea Lamprey Spawning within the Turners Falls Project and Northfield Mountain Project Area			10/14/2016	06/30/2016	
3.3.16	Habitat Assessment, Surveys, and Modeling of Suitable Habitat for State-listed Mussel Species in the CT River below Cabot Station			10/14/2016	09/15/2016	
3.3.17	Assess the Impacts of Project Operations of the Turners Falls Project and Northfield Mountain Project on Tributary and Backwater Area Access and Habitat	X				
3.3.18	Impacts of the Turners Falls Canal Drawdown on Fish Migration and Aquatic Organisms	X (addendum required)				Addendum filed on 3/1/2016
3.3.19	Evaluate the Use of an Ultrasound Array to Facilitate Upstream Movement to Turners Falls Dam by Avoiding Cabot Station Tailrace			3/1/2017		
3.3.20	Ichthyoplankton Entrainment Assessment at the Northfield Mountain Project		X	10/14/2016		Second year (2016) study is being conducted
3.4.1	Baseline Study of Terrestrial Wildlife and Botanical Resources		X			
3.4.2	Effects of Northfield Mountain Project-related Land Management Practices and Recreation Use on Terrestrial Habitats	X				
3.5.1	Baseline Inventory of Wetland, Riparian and Littoral Habitat in the Turners Falls Impoundment, and Assessment of Operational Impacts on Special-Status Species		X			
3.6.1	Recreation Use/User Contact Survey		X			
3.6.2	Recreation Facilities Inventory and Assessment	X				
3.6.3	Whitewater Boating Evaluation	X				
3.6.4	Assessment of Day Use and Overnight Facilities Associated with Non-Motorized Boats	X				
3.6.5	Land Use Inventory		X			
3.6.6	Assessment of Effects of Project Operation on Recreation and Land Use			10/14/2016	09/15/2016	
3.6.7	Recreation Study at Northfield Mountain, including Assessment of Sufficiency of Trails for Shared Use	X				

Study No.	Title	Study is Complete	Report filed on March 1, 2016	Date Report will be filed with FERC	Date FL is targeting to upload report to website	Comments
3.7.1	Phase IA, IB, and Phase II Archaeological Surveys			TBD	NA (When complete, in accordance with FERC regulations, report will be filed with FERC as “privileged.”)	Phase IA report was filed in Dec 2014. A modified report was filed in May 2015. In its Phase IA report, FL stated that it would complete Phase IB and Phase II, if needed, in the event that it is determined that observed erosion is Project-induced, or that there are other Project-related effects.
3.7.2	Historic Structures Inventory and National Register Evaluation	X				
3.7.3	Traditional Cultural Properties Study	X				
3.8.1	Evaluate the Impact of Current and Proposed Future Modes of Operation on Flow, Water Elevation and Hydropower Generation			3/1/2017		

Table 2 includes the major steps in the relicensing schedule starting in September 2015 through March 1, 2017.

Tasks shown in blue are steps associated with the license application. Tasks in the other colors pertain to Integrated Licensing Process (ILP) process steps required by FERC.

- License Application
- Updated Study Report
- March 1, 2016 Study Reports
- October 14, 2016 Study Reports

Table 2: Relicensing Schedule – late 2015 and early 2017

FERC Reg	Lead	Activity	Timeframe	Due Date
§5.15(f)	FirstLight	File Updated Study Reports	No later than two years from Study Plan approval	09/14/2015
§5.15(c)(2)	FirstLight	Updated Study Results Meeting	Within 15 days of Updated Study Report	09/29-30/2015
§5.15(c)(3)	FirstLight	File Updated Study Results Meeting Summary	Within 15 days of Updated Study Results Meeting	10/14/2015
§5.15(c)(4)	Stakeholders/ FERC	File Updated Study Summary Disagreements/Modification to Study/Propose New Studies	Within 30 days of filing Meeting Summary	11/13/2015
§5.16(a)	FirstLight	File Draft License Application with the FERC and distribute to Stakeholders	Not later than 150 days before final application is due (final application is due 05/02/2016, 2 yrs prior to license expiration)	12/02/2015
§5.15(c)(5)	FirstLight	File Responses to Disagreements (if any)	Within 30 days of disputes	12/14/2015
§5.15(c)(6)	FERC	Resolution of Disagreements (if any)	Within 30 days of filing responses to disputes	01/13/2016
§5.15	FirstLight	Conduct 2016 Field Studies <ul style="list-style-type: none"> • Study 3.3.19 Ultrasonic Array • Study 3.3.20 Ichthyoplankton Entrainment (Year 2) 	Spring and Fall 2016	
§5.16(e)	Stakeholders/ FERC	Comments on Draft License Application, Additional Information Request (if necessary)	Within 90 day of filing Draft License Application	03/01/2016
§5.15(f)	FirstLight	File Study Reports		03/01/2016
§5.15(c)(2)	FirstLight	Study Report Meeting	Within 15 days of filing Study Reports	03/16/2016
§5.15(c)(3)	FirstLight	File Study Report Meeting Summary	Within 15 days of Study Report Meeting	03/31/2016
§5.16(a)	FirstLight	File Final License Application	Two years prior to license expiration	05/02/2016
§5.15(c)(4)	Stakeholders/ FERC	File Updated Study Summary Disagreements/Modification to Study/Propose New Studies	Within 30 days of filing Meeting Summary	05/02/2016
§5.15(c)(5)	FirstLight	File Responses to Disagreements (if any)	Within 30 days of disputes	05/30/2016
§5.15(c)(6)	FERC	Resolution of Disagreements (if any)	Within 30 days of filing responses to disputes	06/29/2016

FERC Reg	Lead	Activity	Timeframe	Due Date
§5.15	FirstLight	Conduct 2016 Field Studies • Study 3.3.5 Downstream Passage of American Eel (Year 2)	Summer and Fall 2016	
§5.15(f)	FirstLight	File Study Reports		10/14/2016
§5.15(c)(2)	FirstLight	Study Report Meeting	Within 15 days of filing Study Reports	10/18/2016
§5.15(c)(3)	FirstLight	File Study Report Meeting Summary	Within 15 days of Study Report Meeting	10/23/2016
§5.15(c)(4)	Stakeholders/ FERC	File Updated Study Summary Disagreements/Modification to Study/Propose New Studies	Within 30 days of filing Meeting Summary	11/22/2016
§5.15(c)(5)	FirstLight	File Responses to Disagreements (if any)	Within 30 days of disputes	12/22/2017
§5.15(c)(6)	FERC	Resolution of Disagreements (if any)	Within 30 days of filing responses to disputes	01/23/2017
§5.15(f)	FirstLight	File Study Reports		03/01/2017
		File Amended Final License Application		04/30/2017