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March 25, 2021

Via Electronic Filing

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

Re: FirstLight MA Hydro LLC, Turners Falls Hydroelectric Project (FERC No. 1889) Northfield Mountain LLC, Northfield Mountain Pumped Storage Project (FERC No. 2485). Response to Great River Hydro Filing of March 15, 2021

Dear Secretary Bose:

On March 15, 2021, FirstLight MA Hydro LLC, owners of the Turners Falls Hydroelectric Project (Turners Falls Project, FERC No. 1889) and Northfield Mountain LLC<sup>1</sup>, owners of the Northfield Mountain Pumped Storage Project (Northfield Mountain Project, FERC No. 2485) filed with the Federal Energy Regulatory Commission (FERC) responses to the FERC deficiencies and additional information requests (AIRs). Similarly, on March 15, 2021, Great River Hydro (GRH), owners of the Wilder (FERC No. 1892), Bellows Falls (FERC No. 1855) and Vernon (FERC No. 1904) Hydroelectric Projects filed with FERC its responses to deficiencies and AIRs.

## Background

In FirstLight's March 15 filing, it noted that several of its AIRs could not be addressed until it had GRH's proposed operations data. Specifically, FirstLight needed the Vernon Project discharge data under GRH's proposed operations for use as input to its operations model. Once the FirstLight operations model was run, model output would be used as input into its hydraulic models to provide water level and flow data as requested by FERC in several of its AIRs.

On February 12, 2021, FERC requested that GRH file hourly Wilder, Bellows Falls and Vernon Project discharges (spill and generation) for four years (2009, 2015, 2016 and 2017). GRH filed the required information as Excel files on March 15. In its filing, GRH provided hourly Vernon discharges under a) historic discharges, b) IEO<sup>2</sup> discharge and c) IEO/Flex Discharge<sup>3</sup>. In reviewing the data, we noticed that in 2009 the Vernon historic discharges do not appear to include spill, although spill does

<sup>&</sup>lt;sup>1</sup> Collectively, FirstLight MA Hydro LLC and Northfield Mountain LLC are collectively referred to as FirstLight in this document.

 $<sup>^{2}</sup>$ IEO= Inflow Equals Outflow.

<sup>&</sup>lt;sup>3</sup>IEO/Flex= Inflow Equals Outflow but permits GRH with flexible operations.

appear in the IEO/Flex discharges. In addition, we summed the Vernon historic discharges and IEO/Flex discharges in 2015, 2016 and 2017 to compare the volumes of water. The IEO/Flex annual volume of water was 4.5%, 3.8% and 4.9% higher in 2015, 2016 and 2017, respectively, than the Vernon historic discharge annual volume<sup>4</sup>. A 4-5% difference in annual volume is sizeable enough where it will have an impact on generation, flows and water levels in FirstLight's modeling efforts.

For FirstLight to evaluate these four years it would need to run a baseline model and a GRH/FirstLight proposed model to quantify the difference in generation, flows and water levels. The baseline model would rely on the Vernon historic discharges and the proposed model would rely on the Vernon IEO/Flex discharges. However, a 4-5% difference in the volume of water will have an impact on generation, flows and water levels. Thus, the differences in generation, flows and water levels between baseline and proposed operations would not be solely attributable to operational changes, but different fundamental volumes of water, making it extremely difficult, if not impossible, to discern operational differences only. Should FERC want FirstLight to simulate these four years of GRH data, it would need the annual discharge volumes corrected such that Vernon historic discharges and IEO/Flex discharges have the same annual discharge volume and the spill included in the 2009 Vernon discharges.

## Proposed Next Steps

In lieu of obtaining the corrected data above, FirstLight proposes to use its existing 1962-2003 operations model and simulate the Wilder, Bellows Falls and Vernon Projects as proposed by GRH. The proposed approach has the benefit of evaluating conditions over a 42-year period of record, versus four years, reflecting a wider range of hydrologic conditions. In addition, the same volume of water would be used under baseline and proposed operations, thus making it possible to compare generation, flows and water levels.

FirstLight proposes to conduct the 42-year period of record analysis described above and file responses to the outstanding AIRs within 90 days of this letter. If you have any questions regarding the enclosed, please do not hesitate to contact me at the telephone number on the cover sheet.

Respectfully,

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Nick Hollister Senior Operations Manager, North

<sup>&</sup>lt;sup>4</sup> For 2016, data was also missing for February 29.