



Greening Greenfield 30 Spring Terrace, Greenfield, MA 01301

March 8, 2021

Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street, NE
Washington, DC 20426

Re: Northfield Mountain Pumped Storage Project No. 2485

Greening Greenfield requests that FERC ask for additional information beyond that currently submitted by FirstLight: Please request that FirstLight submit:

1. **Alternative designs for the Northfield Mountain Pumped Storage (NFM) facility**
2. **Additional information on how they plan to achieve their zero-carbon emissions claim.**
3. **A plan to repair damage done to the Connecticut River**

Dear Secretary Bose,

We are writing to you today because of our concerns for the Connecticut River in anticipation of First Light's application for a 50 year contract. For the past 50 years, the Northfield Mountain Pumped Storage (NFM) has both caused huge damage to the Connecticut River habitat due to the fact that they use the Connecticut River as if it were a reservoir, and has contributed to the climate crisis by using grid electricity to pump water to the upper reservoir.

As you know, renewing their license offers a once-in-a lifetime opportunity to get it right.

NFM facility has the opportunity to support our nation's shift to zero-carbon emitting sources of electricity by becoming a carbon-neutral energy storage system, something their proposed plan does not achieve. FirstLight also needs to repair repairs damage done over the past 50 years and operate in the future without harming the river and surrounding habitat.

As you know, we need both zero-carbon electricity and a healthy ecosystem to address the climate crisis. As Hansjorg Wyss, Swiss philanthropist, and creator of 30x30 Wyss Campaign for Nature clearly articulates: ***"The climate emergency and the crisis facing nature and wildlife are two sides of the same coin."*** Nature is currently the only tool we have to take carbon out of the atmosphere.

About Greening Greenfield:

Greening Greenfield was founded in 2007 by a group of concerned citizens working with residents, businesses and town government to ensure that the concept of "Greening" is used as an economic and inspirational guiding force to build a more sustainable Greenfield, so present and future generations can enjoy life in our beautiful abundant valley. We are now over 1700-people strong, and represent people of all walks of life, including those who have worked on energy and climate change issues for over 40 years.

We are requesting that FERC require FirstLight to submit the following information:

1. **Alternative designs for the Northfield Mountain Pumped Storage (NFM) facility that do not use the Connecticut River as its "lower reservoir," which caused unacceptable damage to the river.**

- This request has been made numerous times over the past 10-years by numerous groups during the relicensing process, and yet alternatives were not included in the permit request.
- Riverbank erosion has been a huge issue since NFM was brought online in 1970. Farmland has been lost, the area downstream has silted in, and the creatures living in and around the river have been compromised.
- Most recently, the Connecticut River Conservancy made a 15-minute video that includes images of the river prior to the building of NFM system and images of the riverbanks today with trees and shrubs undermined and washed away exposing the rich soil to additional erosion, and interviews with farmers who have seen the riverbanks deteriorate over the past 50 years.

<https://youtu.be/l1yiOY7SeUk>

The Power of Water, Power of Words: Hydropower and River Erosion, 2020

- As you know, the NFM facility was licensed in 1968, and brought online in 1972. It is one of the early pumped storage hydroelectric (PSH) facilities built in the nation, and it uses the Connecticut River as its lower reservoir. Most pumped storage facilities built more recently have been “closed loop” systems that use a conventional reservoir, not a river, as its source of water, thus avoiding damage to a river ecosystem.
- The past owners of the facility accepted the fact that the NFM facility was causing unacceptable riverbank erosion. Accepting their responsibility for this damage, they attempted to remedy the situation, but it was not successful.
- By contrast, FirstLight’s proposal cited a study that claims motorboats, not NFM’s operations are responsible for riverbank erosion, and therefore their proposal offers no suggestions as to how to mitigate the situation.
- Consider these facts: NFM’s permit allows them to change the elevation of the river by up to 9’ whenever they release or pump water, which could be daily. When generating, the facility adds 20,000 cfs. When pumping water to the upper reservoir at the allowable rate of 15,000 cfs, it is common for the river to flow upstream – i.e. backwards! **Summer flows**, however, typically are only between 6,000 and 7,500 cfs, well below the figures noted above
- **Conclusion:** This situation canNOT continue for 50 years, as requested by FirstLight’s proposal. The fish, insects, microorganisms, and wildlife that live in and around the river, and the people who live on its banks, want their river back and repaired, so that it can continue to heal itself.
- **Request:** FirstLight submit alternative operational designs. If FirstLight cannot find an alternative, the permit should be denied.

2. Additional information on how they plan to achieve their zero-carbon emissions claim.

They claim that the Northfield Mountain Pumped Storage (NFM) facility displaces “fossil-fuel emitting energy sources” and provides “emissions-free energy production,” and is thereby “moving the Commonwealth of Massachusetts closer to its goal of zero-carbon emissions by 2050.”

- Their claim that the NFM facility displaces “fossil-fuel emitting energy sources” **Is FALSE.**
- **FACT:** Every kwh of electricity generated by releasing water emits 25% MORE CO2, than a kwh generated by the Northeast grid. This is because NFM uses **grid electricity** to pump water to the upper reservoir. As with all energy storage facilities, the amount of energy they generate is less than what is put into the storage facility.
- Their claim must be **eliminated** from their proposal immediately.
- **Opportunity:** We recognize the need for energy storage systems to enable the increased use of zero-carbon emitting electricity sources such as wind and solar. If configured so that habitat is not

destroyed, their facility could be a very valuable tool to achieve our nation's goal of cutting climate change emissions to zero by 2050

- **Requests:**

- A) Please request that FirstLight submit additional information about how they plan to operate NFM as a zero-climate change emissions facility, as claimed, and support our nation's effort to achieve zero carbon emissions today and for the life of the permit.
- B) Please request that FirstLight remove of the zero-emission claim from their proposal until it is updated with a plan that achieves that claim.

3. A plan to repair damage done to the Connecticut River over the past 50 years caused by the operation of the Northfield Mountain Pumped Storage system.

- As noted above, we need healthy habitats to combat climate change. The river banks near the NFM facility and down to the Turners Falls Dam must be stabilized and revegetated to aid the river in repairing the damage done, and re-establishing a vibrant, healthy habitat for the many creatures that call it home.
- **Request:** Please request that FirstLight submit additional information about how they plan repair damage done, and be good stewards of the section of the Connecticut River impacted by NFM facility

Other important concerns about historic and cultural issues; recreation; fish passage and habitat destruction for the many insects, micro-organisms, and wildlife that live in and around the river, we leave to those more knowledgeable about these topics.

We look forward to your response.

Submitted by:

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Cc.

Neil Cunningham, PSP Investments, President &
CEO

Alicea Barton, CEO, FirstLight

Stephan Rupert, Chair, Board of Directors,
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Martin Suuberg, Commissioner, MA DEP

Katie Theoharides, Secretary, EOEAA

MA Congressional delegation:

Representative Jim McGovern

Senator Elizabeth Warren

Senator Ed Markey

*MA Legislators whose districts touch the
Connecticut River*

Sen. Jo Comerford

Sen. Anne Gobi

Sen. Adam Hinds

Rep. Paul Mark

Rep. Natalie Blais

Rep. Susannah Whipps

Rep. Mindy Domb

Rep. Daniel Care

Non-profits:

Andy Fisk, Executive Director, Connecticut River
Conservancy

Andea Donlon, River Steward, Connecticut River
Conservancy

Kimberley Noanke MacPhee, Franklin Regional
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Peggy Sloan, Franklin Regional Council of
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