



For a thriving New England

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February 14, 2012

BY ELECTRONIC MAIL

Mr. Brian Mills
Office of Electricity Delivery and Energy Reliability (OE-20)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

**Re: Northern Pass Transmission, LLC, Presidential Permit Application
OE Docket No. PP-371
Third Supplemental Scoping Submission**

Dear Brian:

The Conservation Law Foundation (“CLF”) offers the enclosed technical reports for inclusion in the administrative record for the above-referenced docket to be considered as part of the U.S. Department of Energy’s (“DOE”) review of the Presidential Permit application of Northern Pass Transmission, LLC (“NPT”) for the Northern Pass transmission project under Executive Order 10,485, as amended by Executive Order 12,038, and pursuant to the National Environmental Policy Act (“NEPA”). This submission is intended to supplement, and hereby incorporates by reference, CLF’s prior submissions in the above-referenced docket.

Authored by Synapse Energy Economics, the enclosed technical reports address two important issues that must be addressed by DOE in its Environmental Impact Statement (“EIS”) on the Northern Pass project: (1) greenhouse gas emissions associated with hydroelectric power (“hydropower”), the primary source of electric power to be transmitted by the proposed project, and (2) the potential impacts of the project or similar hydropower imports on renewable energy projects in New England.

I. *Hydropower Greenhouse Gas Emissions: State of the Research*

The first report, entitled *Hydropower Greenhouse Gas Emissions: State of the Research* and attached hereto as **Exhibit A**, provides a summary of the scientific literature regarding the greenhouse gas emissions from hydroelectric power.

The report makes several key findings:

- Hydropower projects result in the emission of greenhouse gases, including carbon dioxide, both as a function of construction activities and from diffusion of greenhouse gases from decomposing organic matter in reservoirs into the atmosphere. These emissions should be

evaluated using the current best practice of lifecycle analysis for purposes of comparison with the emissions from other energy sources.

- Existing hydropower projects have net greenhouse gas emissions that are greater than other renewable sources but are less than fossil fuel-fired facilities per unit of power generated.
- Reservoirs at newly developed hydropower projects result in much higher greenhouse gas emissions than older reservoirs, with recent empirical research conducted at a Hydro-Québec project showing emissions on par with natural gas generation for several years.
- When emissions are projected over their lifetimes, newly flooded Canadian reservoirs may have nearly two-thirds of the greenhouse gas emissions of natural gas power plants. Reservoir greenhouse gas emissions are only about 20% of the emissions of typical coal-fired power plants.
- There are substantial uncertainties in estimating hydropower's emissions that must be acknowledged and factored into any accounting of imports' emission reduction benefits.
- There are further uncertainties in the reductions that may be credited to imports because fossil-fuel power could be ramped up to supplement Canada's energy portfolio to facilitate greater exports into the United States.

The report's findings regarding new reservoirs are especially significant to understanding the potential climate impacts of the Northern Pass project. As more fully discussed in CLF's prior comments and filings, Hydro-Québec is in the midst of a major hydropower project development initiative intended to increase its generating capacity to serve export markets, including through the Northern Pass project. *See, e.g.,* Scoping Comments of the Conservation Law Foundation, dated April 12, 2011 ("CLF Scoping Comments"), at 3; Motion to Stay and for Preparation of Comprehensive Regional Energy Assessment, dated April 28, 2011, at 3-5.

The Northern Pass project is driving or contributing to the development of new hydropower facilities in Canada. As a result, the research reflected in the report suggests that there may be relatively few emission reductions benefits from the Northern Pass project as currently proposed, especially in the near term, because the domestic power that new imports are expected to replace under the current proposal – natural gas-fired generation – has greenhouse gas emissions comparable to newly developed hydropower. The nature and extent of potential displacement of fossil fuel generation in New England, as well as the potential for increased utilization of fossil fuel generation in Canada and the overall effect on net emissions, are fundamental to the environmental impacts of the Northern Pass project. *See* CLF Scoping Comments at 18-21.

The report confirms that, as explained in CLF's Second Supplemental Scoping Submission, dated October 14, 2011, NPT's claims regarding the greenhouse gas emissions reductions associated with the Northern Pass project in public statements and agency submissions, including to DOE, are inaccurate. Today, CLF is providing a copy of the report to NPT with a request that NPT retract its

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emission reductions claims and refrain from further such claims unless substantiated by new and valid technical analysis.

Overall, the report underscores that DOE must conduct its own independent, scientifically sound evaluation of the greenhouse gas emissions associated with the Northern Pass project and the Canadian hydroelectric power that the project would deliver. Such an evaluation should be an essential component of the EIS and is fundamental to determining whether granting a Presidential Permit to the project is consistent with the public interest.

II. *Renewable Portfolio Standards and Requirements*

The second report, entitled *Renewable Portfolio Standards and Requirements* and attached hereto as **Exhibit B**, explains how the Renewable Portfolio Standards (“RPS”) of each New England state and New York address hydropower and then examines the potential effects of recent proposals to allow hydropower from large facilities in Canada to qualify for incentives by allowing such power to count toward states’ renewable energy goals under RPS programs. According to the report, such proposals would dramatically increase the effect of Northern Pass or similar projects on the regional market for renewable energy. As discussed in CLF’s initial scoping submission, the EIS must address the impacts of the current proposal and its alternatives on local renewable energy resources, including but not limited to their financial viability, their role in the regional energy portfolio, and the project’s potential effect on state renewable energy goals. See CLF Scoping Comments at 18.

* * *

The subjects of these technical reports are important considerations that must be fully and independently investigated and evaluated during DOE’s environmental review of the Northern Pass project under NEPA and DOE’s assessment of the consistency of the project with the public interest under Executive Order 10,485, as amended by Executive Order 12,038.

We appreciate DOE’s consideration of this supplemental scoping submission, which we provide without prejudice to any and all legal rights CLF may have, each of which is hereby expressly reserved.

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Respectfully submitted,

Conservation Law Foundation



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Enclosures