

**Natural Resources Council of Maine Response to
March 28, 2019 Memo of Thorn Dickinson to Members of the
Environmental and Natural Resources Committee**

April 8, 2019

(Supplemental Evidence)



To: Members of the Environment and Natural Resources Committee
From: Nick Bennett, Staff Scientist, Natural Resources Council of Maine (NRCM)
Re: Response to March 28, 2019 memo of Thorn Dickenson on Central Maine Power's (CMP) proposed transmission corridor
Date: April 8, 2019

Dear Senator Carson, Representative Tucker, and distinguished members of the ENR Committee:

I am writing in response to Thorn Dickenson's memo of March 28, 2019 about LD 640, "Resolve, To Require a Study of Greenhouse Gas Emissions Reductions from the Proposed Central Maine Power (CMP) Transmission Corridor."

Mr. Dickenson's memo actually justifies why LD 640 is necessary. In the second paragraph, he cites several studies backing CMP's claim that its proposed transmission corridor would "reduce carbon dioxide emissions in New England by at least 3 million tons per year." **Reducing greenhouse gas emissions in New England is irrelevant if they increase by a corresponding amount in other jurisdictions. Greenhouse gases are a global pollutant, and we must reduce them globally to have an impact on climate change.**

Maine needs LD 640 precisely because CMP and Hydro-Quebec have not provided the information necessary for policymakers and the public to know whether the transmission corridor would reduce *global* carbon emissions, not just *New England* carbon emissions. When asked about the global greenhouse gas impacts of this project, CMP invariably responds with a statement about emissions reductions in New England.

None of the studies that Mr. Dickenson cites in his March 28, 2019 memo examined the impacts of shifting electricity sales from Hydro-Quebec's current customers to Massachusetts. If Hydro-Quebec shifts sales of electricity from current customers, and those customers then need to increase fossil fuel generation in response, there will be no overall reduction in carbon emissions and no benefit to the climate from CMP's transmission corridor.

The expert witness for the Massachusetts Attorney General stated in his testimony in ongoing Massachusetts Department of Public Utilities (DPU) hearings on the contracts for CMP's transmission corridor that CMP and Hydro-Quebec could meet the requirements of the proposed contracts through:

resource shuffling—reassignment of a fixed amount of clean energy so as to increase the clean energy delivered to a particular destination without increasing the total amount of clean energy overall. For instance, with the new NECEC transmission link, if HQ [Hydro-Quebec] increased deliveries into New England by the contracts' 9.55 TWh relative to historical New England deliveries, this would achieve full incrementality as defined in the RFP. ***But if HQ accomplished this by reducing its exports to other neighboring regions rather than by increasing clean energy generation overall, then global GHG emissions would not necessarily be reduced. Diverting clean energy from other regions to New England would enable a***

reduction in fossil generation and emissions within New England, but the reduced deliveries to other regions may need to be replaced by additional fossil generation in those regions. This would effectively substitute fossil generation in other regions for fossil generation in New England, shifting emissions from one region to another, without causing a material decrease...¹ (emphasis added)

The Maine Public Utilities Commission (PUC) has not examined whether there will be global greenhouse gas reductions from the corridor project. Its expert, London Economics International, stated in its report to the PUC (which Mr. Dickenson attached to his March 28, 2019 memo) that:

For this analysis, LEI did not monetize the social benefits of the CO2 emissions reduction, ***nor did it analyze the emissions changes in other jurisdictions as a result of NECEC.*** (emphasis added)

Mr. Dickenson also asserts in his memo, with no evidence other than a translated video of a statement from Hydro-Quebec's president, that Hydro-Quebec is spilling water because of a lack of transmission capacity. There is solid evidence that this claim is false. For example, in an op-ed to the *Portland Press Herald*, Massachusetts Institute of Technology professor Bradford Hager stated:

Hydro-Quebec's assertion that it has "wasted" enough water to provide 10 terawatt hours of electricity because it lacks transmission capacity is not backed by documentation. In contrast, a 2017 study of Hydro-Quebec's export capacity found that the limiting factor for total energy output is generation, not transmission capacity.² This makes sense – why would Hydro-Quebec pay the high cost of building dams and installing generators and not also provide adequate transmission capability?

Like any hydropower operation, Hydro-Quebec must deal with large variations in rainfall. It is expensive to build enough generation to handle peak flows, and then let the generators stand idle during years that are either dry or have normal rainfall. During unusually wet times, the water is "wasted" because it is more economical to spill water occasionally than to waste generation capacity most of the time. While it may be true that enough water to generate 10 terawatt hours of electricity has been spilled during times of unusually high water, that in no way shows that the rate and timing of this spillage could have been used to fulfill a contract for a more steady supply of power.³

Moreover, we know that Hydro-Quebec will provide no additional generation to supply electricity through the CMP corridor to Massachusetts. Hydro-Quebec stated specifically in its response to the Massachusetts Request for Proposal for the CMP contract that:

¹ Testimony of Dean W. Murphy (Brattle Group), Witness for the Massachusetts Attorney General. Petition for approval by the Department of Public Utilities of a long-term contract for procurement of Clean Energy Generation, pursuant to Section 83D of An Act Relative to Green Communities, St. 2008, c.169, as amended by St. 2016, c. 188, § 12, p. 15 of 27, Dec. 21, 2018. Accessed at <https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/10195907>

² ESAI. 2017. Analysis of Greenhouse Gas Emissions Impacts: New Class I Resources vs. Existing Large Hydro. P.1. September. Accessed at <https://granitestatepowerlink.com/wp-content/uploads/2017/10/ESAI-GSPL-CO2-Analysis-9-13-17-FINAL.pdf>.

³ Bradford M. Hager. 2019. Commentary: Hydro-Quebec offers misleading claims about power's climate impact. *Portland Press Herald*. January 5. Accessed at <https://www.pressherald.com/2019/01/05/commentary-hydro-quebec-offers-misleading-claims-about-their-powers-climate-impact/>

This Proposal offers a viable, low cost Clean Energy Generation delivery project with limited risk, because (i) there is no construction risk related to the generation resources which are already in service... ***Because no new hydroelectric generation projects will be required, there will be no incremental environmental impacts from hydroelectric generation as a result of this Proposal.***⁴ (emphasis added)

Hydro-Quebec and CMP have provided no information to the PUC that changes this fact and have offered no evidence, plan, or commitment to ensure that the power that goes through CMP's transmission corridor will come from new generation.

The goal of LD 640 is to ensure that an independent analysis is conducted to determine what the greenhouse gas impacts of the CMP corridor would be. The PUC has not verified whether the project will provide net greenhouse gas benefits. A thorough and independent study can be completed in a timely fashion that will not introduce any delay for CMP. In a recent *Bangor Daily News* article, Maine Department of Environmental Protection spokesperson David Madore stated that DEP will not issue a permit until late October or early November.⁵ That means that there will be plenty of time for a consultant to conduct the study that LD 640 would require.

Please feel free to contact me with any questions at (207) 430-0116 or nbennett@nrcm.org.

Sincerely,



Nick Bennett
Staff Scientist

⁴ HRE Section 83D Request for Proposal Application Form. Pp. 4, 56. Accessible at <https://www.nrcm.org/wp-content/uploads/2019/01/HRERequestforProposal.pdf>.

⁵ Lori Viligra. 2019. How and when Maine will decide whether to approve permits for CMP's \$1B transmission line. *Bangor Daily News*. April 5. Accessible at: <https://bangordailynews.com/2019/04/05/business/how-and-when-maine-will-decide-whether-to-approve-permits-for-cmps-1b-transmission-line/>.