Gerald D. Reid, Commissioner
Department of Environmental Protection
17 State House Station
28 Tyson Drive
Augusta, Maine 04333-017

March 4, 2019

Subject: Proposed CMP New England Clean Energy Corridor (NECEC) Project is Not "Environmentally Clean" Energy

Dear Commissioner Reid,

I am writing to ask Maine's Department of Environmental Protection (DEP) to deny a permit for the 145 mile NECEC project proposed by Avangrid-CMP to carry hydroelectricity generated by freshwater stored long-term behind HYDRO-QUEBEC'S reservoir dams.

CMP'S CLAIM OF "CLEAN ENERGY" IS A FALSEHOOD BECAUSE IT IS NOT "ENVIRONMENTALLY CLEAN" ENERGY.

According to Maine law, the "purpose" of the DEP is to "prevent, abate, and control the pollution of **the air, water, and land** and preserve, improve, and **prevent diminution of the natural environment of the State**.

The term "clean energy" implies that it has minimal adverse impacts on the air, water, and land; in other words, it is "environmentally clean".

However, CMP advertises that it is better for the air because reservoir hydroelectricity facilities have lower carbon emissions compared to the burning of fossil fuels to generate electriciy.

Think of the absurdity of CMP's claim of "clean energy" if it only applies to the air. We would not allow fossil fuel advocates to use the words "clean energy" because fossil fuels have minimal impact on the water compared to reservoir hydroelectric generating facilities.

DEP has a mandate to protect the air, water, and land and should not approve the NECEC project because it will not be transmitting "environmentally clean" energy.

In 1987, CMP proposed a major power purchase of up to 900 megawatts (MW) from HYDRO-QUEBEC. At that time, "HYDRO-QUEBEC and CMP promoted HYDRO-QUEBEC's power as environmentally clean, cheap, and reliable" (The Legal Framework for HydroQuebec Imports by Pamela Prodan, Tulsa Law Review, Vol 28 (1992) Issue 3, Article 5)

In 1989, Maine PUC turned down CMP's proposal. Obviously, the PUC believed it was not "environmentally clean" energy.

The passage of time has proved that HYDRO-QUEBEC's reservoir hyrdroelectricity is not "environmentally clean" and I have documented in my February 14, 2019 letter to the DEP, via the necec.dep@maine.gov email protocol, many of these negative environmental impacts. As of March 4, 2019, DEP has failed to post this letter to the website with other public comments on the issue. I hope this will be done in the near future, as I have made many references to it here.

One of the most catastrophic of these negative environmental impacts is the long term storage or flooding by HYDRO-QUEBEC of more than 10 million acres of land in Quebec and Newfoundland/Labrador (NL). **These flooded areas are part of the Gulf of Maine's ecosystem and have been a major force in the diminution of its fisheries, increased acidity, and warming of its waters.**

Quebec has one of the world's largest reserves of fresh water, occupying 12% of its surface. It has 3% of the world's renewable fresh water. More than half a million lakes, including 30 with an area greater than 250 square kilometers (97 square miles) and 4500 rivers pour their torrents into the Atlantic Ocean, through the Gulf of St. Lawrence and the Arctic Ocean, by James, Hudson, and Ungava Bays. (Wikipedia – Quebec)

Twelve percent of the flooded ten million acres is surface water and means HYDRO-QUEBEC has flooded over a million acres of wetlands, streams, rivers, ponds, and lakes to generate so called "clean energy". **This never could have been done in Maine under DEP's jurisdiction.**

Inevitably, spring follows winter! Not anymore in the Gulf of Maine or its ecosystem, which includes the Gulf of St. Lawrence; James, Hudson, and Ungava Bays; and Churchill Falls in NL.

I assume the reader took note of the following in the above reference from Wikipedia: "and 4500 rivers pour their torrents into the Atlantic Ocean". Obviously, this is no longer true as HYDRO-QUEBEC has captured the torrents of the spring freshet behind its reservoir dams and reduced summer flows in order to increase historic and natural river flows in the winter by 300 to 400% on average!

"HydroQuebec's December 14, 2018 letter is in the Maine PUC's NECEC public record and a full copy is in Attachment #8 to my February 14, 2019 letter. There is not a debate over the capture and storage of the spring freshet as HydroQuebec wrote: "Excess water not used to generate electricity is stored in large reservoirs for use in later periods."

HydroQuebec's long term storage of "excess water" has starved the fisheries in downstream waters of nutrients and changed the thermohaline circulation, not only in the Gulf of St. Lawrence, but also the Labrador Current. Subsequently, this has changed the thermohaline current in the Gulf of Maine as the St. Lawrence waters and the Labrador Current mix together over the Scotia Shelf, which is offshore of Nova Scotia, and then flow into the Gulf of Maine.

The strength of the thermohaline current and thus the transport of deep nutrient enriched ocean water into the St. Lawrence Estuary, Grand Banks, and Gulf of Maine depends on the amount of fresh water flowing in to these water bodies. Reduced spring and summer outflows from these reservoir hydroelectric dams have created a chokehold on the delivery of the annual budget of dissolved silica and other nutrients via both the rivers and the upwelling ocean waters. The cumulative impact of these stored waters have starved the fisheries to depletion.

Dr. Neu was quoted as follows in The Sherbrooke Record (2/9/1977):

"In their natural state, rivers carry smaller flows during the winter when precipitation is frozen as snow, and sharply increased flows after the spring thaw. This coincides with the life cycle of marine organisms, increasing food supplies as they come out of their winter hibernation and

decreasing supplies when winter returns.

But hydro-electric dams tend to level out the cycles, storing much of the spring and summer runoff in the reservoirs until winter, when consumer demand for power is greater. This means that fresh-water nutrients reach the ocean in the winter, when the fish don't need them, and are lost into the barren depths beyond the continental shelf. In the spring and summer, the nutrient supply fails to increase as rapidly as needed."

SINCE CMP'S PROPOSAL IN 1989 TO PURCHASE HYDRO-QUEBEC'S HYDROELECTRICITY, THE POLITICIANS AND REGULATORS OF MAINE HAVE FAILED TO COME TO GRIP WITH THE FACT THAT HYDRO-QUEBEC'S HYDROELECTRICITY IS NOT "ENVIRONMENTALLY CLEAN".

"Canadian hydroelectric power is viewed in the United States as an **environmentally clean resource**, because water, the source of the power, is considered clean, and because the generating facilities are in Canada. In reality, large scale hydroelectric generation has devastating ecological consequences. Further, the environmental effects of electric power generation are of no different magnitude or seriousness because the site of the generation is north of the border. Yet, projects that would not be considered in the United States are proposed to be constructed over the next decade across northern Canada."

And

"In addition, more emphasis is needed on the importance of giving citizens full access to information which can facilitate their undertanding of the connection between individual consumption decisions and the global impacts of those decisions. **Then, even if we cannot prevent another nation from carrying out a policy contrary to the principles of sustainable development, at least we can make an informed decision not to encourage such destruction by participating in the making of its profit**." (Pamela Prodan 1992) (Emphasis added by me)

HYDRO-QUEBEC's hydroelectricity was not "environmentally clean" in 1989 and the passage of time has proven that it is still not "environmentally clean", all of which I have documented in my February 14, 2019 letter to DEP.

In this February 14, 2019 letter, I asked that CMP's application be found incomplete because the list of components does not include HYDRO-QUEBEC's reservoir hydroelectric facilities.

I have been told verbally by DEP that the NECEC project has been defined by DEP with its starting point at the Canadian border and ending in Lewiston and these reservoir facilities are not part of the project.

In January 1989 the Maine PUC denied CMP's proposal to purchase HYDRO-QUEBEC power, but "the PUC did not acknowledge that the importation of HYDRO-QUEBEC power would necessitate critical developments having environmental and social impacts. Further, the PUC expressly left the door open for future HYDRO-QUEBEC purchase." (Pamela Prodan 1992)

Thirty years later and the regulators are still trying to keep the door open while they hide the negative environmental and social impacts of HYDRO-QUEBEC's reservoir hydroelectric facilities by not including them as a component in the proposed NECEC project.

MAINE'S CITIZENS EXPECT ITS POLITICIANS AND REGULATORS TO TAKE INTO ACCOUNT THE NEGATIVE SOCIAL IMPACT AND DISCRIMINATION AGAINST THE INDIGENOUS PEOPLE OF QUEBEC AND NL BY HYDRO-QUEBEC.

"The assessment of United States utilities that Canadian hydropower is clean can only have come about because its primary effects are far removed from the experience of the United States citizens and regulators. The lack of a legal requirement in the United States that a government authority examine and justify the effects in Canada of the importation of electricity has allowed this claim to go virtually unchecked by utilities." (Pamela Prodan 1992).

I believe the DEP has both a fiduciary and statutory obligation to educate the public as mandated in the Maine Law. "The department shall protect and enhance the public's right to use and enjoy the State's natural resources **and may educate the public on natural resource use, requirements and issues**." (Emphasis by me)

The following are the first two footnotes of Pamela Prodan's paper, and after reading them and the documents referenced; it should be obvious to everyone that HYDRO-QUEBEC has perpetuated social injustice against the indigenous people of Quebec and NL in the pursuit of "clean energy".

1. The Cree of Quebec have employed both public pressure and litigation to oppose further James Bay developments. In the litigation arena, the Cree have intervened in United States proceedings and in Canadian National Energy Board proceedings and have brought a number of legal actions in the Canadian courts. For a short narrative of the implications of the James Bay hydropower projects, see Harry Thurston, Power in a Land of Rememberence, AUDUBON, at 52 (Nov.-Dec.1991); Sam Howe Verhovek, Power Struggle, N.Y. TIMES, Jan. 12, 1992, (Magazine) at 16; infrapart III. For an extensive look at the people and their resistance to the projects, see BOYCE RICHARDSON, STRANGERS DEVOUR THE LAND (1991).

2. Discrimination Against Indigenous Peoples Transnational Investments and Operations on the Lands of Indigenous Peoples, U.N. ESCOR, Commission on Human Rights, 43d Sess., Agenda Item 15, at 14, U.N. Doc. E/CN.4/Sub.2/1991/49 (1991) [hereinafter REPORT ON TRANSNATIONAL INVESTMENTS AND OPERATIONS]. To illustrate the magnitude of the problem, the planned projects at James Bay alone require three times as much total storage, and inundate more than five times as much land as the 50-year-old Bonneville Power system on the Columbia River in the United States, which includes Grand Coulee Dam. Hydro-Qu6bec also wants to build a hydroelectric megaproject with Newfoundland, Canada's poorest province, on Labrador's Churchill River. Fred Langan, Canadians Negotiate Power Project, CHRISTIAN SCIENCE MONITOR, Sept. 18, 1991, at 7. In the late 1960s, Hydro-Quebec built a 5,428 MW project at Churchill Falls in Labrador, at a time when oil was about $1 per barrel, in a deal that turns out less than favorable to Newfoundland: Hydro-Quebec bought all of the power from Newfoundland at 2.2 cents per kilowatt hour (kwh) for electricity until 2020, thereafter 1.6 cents per kwh until 2040. Id. The two proposed Labrador dams would produce 3,088 MW of electricity, compared to the proposed James Bay Great Whale's 3,060 MW. Id. The Innu people in the affected, yet unceded, territory have protested the existing and proposed hydroelectric projects by refusing to pay electric

bills and by removing electric power meters from residences. Peter Penashue, President of Innu Nation, Address at St. John's, Newfoundland (Nov. 5, 1992). See infra notes 21-24 and accompanying text for description of other projects.

HydroQuebec's reservoir hydroelectricity facilities are not "environmentally clean" and they have flooded and polluted the lands and waterbodies which are part of the Gulf of Maine's ecosystem.

Pamela Prodan wrote the following in 1992 and I believe it is still true today.

> "Unfortunately the current framework for dealing with the environment and development is inadequate. **The United States and Canadian legal systems are structured so as to promote wasteful and environmentally destructive energy development. Indeed, these energy policies threaten the existence of a healthy global ecosystem if they are not challenged and changed**." (Emphasis by me)

DEP is mandated by state statute to protect the land, air, and water of the Gulf of Maine's ecosystem even if it lies in Canada. Denying CMP's proposed NECEC project would be a great first step in carrying out their mandate and it is long overdue.

Sincerely Yours,

Stephen Kasprzak

Stephen M. Kasprzak

CC:
Governor Janet Mills
NECEC Service List
Maine Committee on Environmental and Natural Resources
Maine Committee on Marine Resources
Maine Committee on Inland Fisheries and Wildlife
Say NO to NECEC