



IPPNY SUMMARY

Understanding the True Impacts of the Champlain Hudson Power Express

Transmission Developers Inc. (“TDI”) is actively marketing the Champlain Hudson Power Express (“CHPE”) transmission line as a conduit to deliver hydroelectricity from Hydro-Québec to New York City. Potential purchasers of the power include the City of New York and building owners who would use the power to comply with New York City Local Law 97, which requires building owners to meet stringent emissions reduction requirements in the coming years. Local Law 97 provides building owners with an option to purchase renewable energy credits (“RECs”) or carbon offsets as an alternative to directly reducing emissions at their properties via investments in building efficiency improvements.

The results of the Energyzt study show that the purchase of power over CHPE will *not* result in reduced global emissions of carbon dioxide (referred to as “carbon” in this report) – and may even *increase* overall carbon emissions. Therefore, any long-term contracts to purchase power over CHPE will fail to meet the spirit and underlying goals of Local Law 97, which is expressly intended to reduce greenhouse gas emissions. A rigorous assessment of available data shows that Hydro-Québec is already selling all of the energy from its existing hydroelectric facilities and is not planning on building any additional hydro capacity in the foreseeable future to meet CHPE obligations if the project were to proceed. Without new power generation, the purchase of electricity over CHPE by building owners, or the City of New York, will result in no measurable reduction in carbon emissions.

The only way for Hydro-Québec to export electricity to New York City via CHPE to meet contractual obligations would be to divert electricity that it is already selling into its neighboring markets and upstate New York, and/or increase imports into Quebec from other markets, which would then be sold at above-market prices via CHPE into New York City. Importantly, there exists no tracking system that could be used to confirm the actual impact of the energy delivered over CHPE, whether it is incremental to what Hydro-Québec otherwise would sell, and whether such energy actually does reduce carbon emissions from what otherwise would occur. It is probable that Hydro-Québec would reduce existing sales of electricity into upstate New York, which is a lower-priced market, and simply provide that same electricity to New York City at a higher price - a shell game where Hydro-Québec receives higher revenues from New York City ratepayers by no longer selling into upstate New York.

Greenhouse gas emissions are global in nature. Therefore, if emission reductions achieved in New York City are offset by emissions increases in upstate New York or in parts of Canada or New England, New Yorkers will have paid a premium to achieve no environmental benefit. While New York City can claim it is receiving emissions-free electricity, such a claim would omit the fact

that fossil-fueled power generation very likely replaced the loss of Hydro-Québec sales of electricity to other regions.

Any contracts with CHPE will delay investments in renewables and building efficiency improvements in-state, making more difficult achievement of the goals under New York's Climate Leadership and Community Protection Act. A better strategy would incent investments in new in-state power generation and building efficiency improvements that will directly reduce carbon emissions and spur local economic opportunities.

Key Findings

- **No Excess Energy to Sell:** With the ability to sell more than 50 TWh of energy into other markets, Hydro-Québec exports more than US\$1 billion of energy each year. However, even though Hydro-Québec claims that it will have 40 TWh to export, its own assumptions and forecasts imply that it will not have more than 30 TWh of energy available to export into other markets per year under expected future conditions without drawing down on its reservoir reserves. Therefore, there is plenty of existing transmission capacity for Hydro-Québec to export its projected surpluses. With the combination of extensive interconnections, available transmission capacity, and the incentive to maximize its profits, energy flowing into CHPE will be a diversion of sales that Hydro-Québec otherwise would sell into export markets such as upstate New York. CHPE merely allows Hydro-Québec to access a higher-priced, long-term contract with New York City instead of selling into competitive spot markets at lower, more uncertain prices.
- **No Carbon Emissions Reduction:** Purchasing Hydro-Québec energy through CHPE does not reduce carbon emissions regionally, and, by squeezing out investments in energy efficiency and in-state renewables that do reduce carbon, results in higher emissions than otherwise would occur. Redirection of energy from one part of New York to another would simply be shuffling energy around and failing to reduce carbon emissions regionally.
- **Energy Shuffling Increases Emissions, Offsetting Environmental Benefits:** Any reduction in carbon emissions in New York City would be offset by increased emissions elsewhere. Under average or high-water conditions, most of the energy flowing into New York City through CHPE would be a redirection of energy that otherwise would flow into other markets. Some energy would come from exports that currently displace power generation in New Brunswick, which is comprised of 50 percent oil and coal generators that produce more carbon emissions than New York City's fleet of natural gas generators.
- **Upstate Power Sold at Higher Prices to New York City:** Hydro-Québec would divert energy from the lowest-priced markets first, most of which would come from New York. In 2018, Québec flowed 10.5 TWh of energy into upstate New York. Using 2018 power flows and pricing as an example, more than 50 percent of the energy sold through CHPE to New York City would be energy that would otherwise flow into upstate or western New York. This redirection shuffles around energy that New York already receives.
- **Higher Ratepayer Costs:** A large part of the energy from Hydro-Québec does not help the City or New Yorkers meet the renewable energy requirements set by the State because Hydro-Québec energy that flows into the City will be withdrawn from other parts of New York, making no net addition of renewable energy into the state. New York City

consumers will be burdened with even greater costs because they will have to make up the difference to achieve New York's renewable energy goals by 2030.

- **New York City squanders an opportunity to reduce carbon emissions if it were to contract for Hydro-Québec energy:** None of the 8.3 TWh of energy that would be procured via CHPE would count toward meeting New York State Tier 1 renewable energy goals. By spending \$2 to \$3 billion on an environmentally ineffective transmission line, and even more for above-market energy that does not generate Tier 1 RECs, New York City squanders an opportunity to realize its environmental objectives and fails to help the State to effectively achieve its clean energy goals.
- **Wasteful Investment in Congestion Relief:** To the extent the purpose of CHPE is to relieve transmission congestion, there are less expensive ways to achieve that outcome, including transmission system investments that increase reliability, resiliency, and enable transportation of *in-state* renewables to load centers, which CHPE does not. Such investments have been proposed to the New York Public Service Commission as part of the 2018-2019 Public Policy Transmission Planning Process (Case 18-E-0623).

Conclusion – It's a Shell Game

Allowing the purchase of energy from Hydro-Québec through CHPE as a means of reducing New York City emissions or complying with Local Law 97 instead of requiring investments in new renewable power generation or in energy efficiency upgrades or programs is a misguided policy that does not benefit the environment and adversely impacts New Yorkers. Though it may appear as if New York City is reducing greenhouse gas emissions by importing Canadian hydroelectricity, it is simply facilitating the redirection of carbon-free electricity that would otherwise be sold into New York and other markets where it is already displacing fossil generation. Hydro-Québec is hiding the truth under the shell that is CHPE – they have no excess carbon-free power to sell, but they would be happy to receive a higher price for existing sales.

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