

Ministry of Energy

Office of the Minister

77 Grenville Street, 10th Floor
Toronto ON M7A 2C1
Tel.: 416-327-6758

Ministère de l'Énergie

Bureau du ministre

77, rue Grenville, 10^e étage
Toronto ON M7A 2C1
Tél. : 416-327-6758



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December 9, 2022

Ms Lesley Gallinger
President and Chief Executive Officer
Independent Electricity System Operator
1600—120 Adelaide Street West
Toronto ON M5H 1P1

Dear Ms Gallinger:

I would first like to thank you and your team at the Independent Electricity System Operator (IESO) for your ongoing work to maintain a reliable, flexible and innovative electricity grid in the province.

On April 7, 2022, the government released Ontario's Low-Carbon Hydrogen Strategy, which builds on the province's existing strengths and lays a path forward to drive innovation and encourage growth in the hydrogen economy. Ontario has one of the cleanest and most flexible electricity systems in North America. Producing low-carbon hydrogen from this clean electricity supply mix can further our province's efforts for the environment, while increasing innovation and creating jobs.

One of the immediate opportunities to pursue this strategy is a proposal from Atura Power, a wholly-owned subsidiary of Ontario Power Generation (OPG), to construct a low-carbon hydrogen production facility (Niagara Hydrogen Centre) adjacent to the Sir Adam Beck II generating station (SAB2) in the City of Niagara Falls. I understand that the hydrogen would be produced by an electrolyzer using renewable hydroelectricity generated by SAB2. I also understand that the hydrogen produced at the Niagara Hydrogen Centre could solidify the region as a prominent low-carbon hydrogen hub supplying hydrogen for heavy-duty trucking, municipal mobility and industrial consumers or for blending with natural gas to reduce its carbon impact.

As highlighted in Ontario's Low-Carbon Hydrogen Strategy, the government is supportive of innovative solutions like the Niagara Hydrogen Centre that maximize Ontario's low-carbon electricity resource utilization and kick-start the low-carbon hydrogen economy.

The IESO currently has a contract with OPG (Regulation Service Contract) for regulation capacity required to control power system frequency and maintain the balance between load and generation (Regulation Service), with a significant portion of such Regulation Service sourced from SAB2. The provision of Regulation Service at SAB2 sometimes requires turbine modulation that results in some of the water not being utilized by OPG for electricity production (Unutilized Water). The development of the Niagara Hydrogen Centre would create an opportunity for OPG to use some of the otherwise Unutilized Water to generate and supply electricity to Atura Power for use in producing low-carbon hydrogen.

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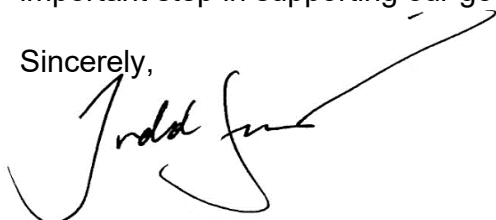
Given the opportunity to use this water in this way, I would encourage the IESO to work with OPG toward making a fair and reasonable new contract for Regulation Service that would commence upon the expiry of the existing Regulation Service Contract (i.e., January 1, 2024), having regard to the following objectives:

- Allow OPG to use Unutilized Water to generate electricity exclusively for use by the Niagara Hydrogen Centre for low-carbon hydrogen production (Unutilized Water Repurposing Arrangement). I understand that such an arrangement could supply some or all of the anticipated electricity needed for the 20-megawatt electrolyzer at the Niagara Hydrogen Centre.
- Establish a payment structure under which:
 - OPG would still be compensated for turbine modulation where Unutilized Water was repurposed under the Unutilized Water Repurposing Arrangement. I would anticipate this arrangement could necessitate reporting requirements for OPG related to electricity flows to Atura Power for use in hydrogen production, and
 - OPG's compensation for Regulation Service would be reduced having regard to the reduction in SAB2 maintenance costs resulting from increased operating efficiencies under the Unutilized Water Repurposing Arrangement, so that ratepayers would benefit. I understand from the IESO that OPG might agree to a reduction in compensation in the order of \$1 million per year under a new contract, taking into account the amount of time during which Unutilized Water would be used to generate electricity for the Niagara Hydrogen Centre.
- Establish a contract term that would address the anticipated need for the Regulation Service while lending support for the Unutilized Water Repurposing Arrangement.
- Establish performance and reporting requirements that would ensure that OPG's provision of Regulation Service under the new contract and the reliability of the electricity system were not adversely impacted by the Unutilized Water Repurposing Arrangement.

I would also encourage the IESO to work with OPG to execute any such new contract for Regulation Service by no later than January 13, 2023.

I want to thank the IESO in advance for considering my request. This would represent an important step in supporting our government on its path to a low-carbon hydrogen economy.

Sincerely,



Todd Smith
Minister

c: Ken Hartwick, President and Chief Executive Officer, Ontario Power Generation
David Donovan, Chief of Staff to the Minister of Energy
Jason Fitzsimmons, Deputy Minister of Energy