

Ministry of Energy

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December 14, 2015

Mr. Bruce Campbell
President and Chief Executive Officer
Independent Electricity System Operator
1600–120 Adelaide Street West
Toronto ON M5H 1T1

Dear Mr. Campbell:

RE: Non-Utility Generator Projects, Combined Heat and Power Standard Offer Program 2.0, Chaudière Falls Hydroelectric Generation and Whitesand First Nation Biomass Cogeneration

I write in my capacity as the Minister of Energy, in order to exercise the statutory power of ministerial direction I have in respect of the Independent Electricity System Operator (IESO) under the *Electricity Act, 1998*, as amended (the "Act").

Background

Non-Utility Generator Projects

In a direction dated November 23, 2010 (the "2010 NUG Direction"), the former Ontario Power Authority (OPA) was directed to seek to negotiate new contracts (the "New Contracts") with the non-utility generator facilities listed in Appendix A to that 2010 NUG Direction (the "NUGs") where these facilities would have cost and reliability benefits to Ontario electricity customers.

On December 16, 2013, the former OPA was directed (the "2013 Biomass Direction") to seek to negotiate New Contracts for Biomass NUGs (as defined in that 2013 Biomass Direction).

On December 19, 2014, following the progress made on negotiating New Contracts, the former OPA was directed (the "2014 NUG Direction") to assess the framework for NUG contracting in Ontario in the context of the current process for contracting NUGs under the terms of the 2010 NUG Direction, IESO's development of a capacity auction, and changing supply conditions and projected demand levels in the system, and to report back no later than July 1, 2015.

Under the 2014 NUG Direction, any negotiations for New Contracts for NUGs that were not already under a contract, or the subject of an OPA board of directors approved New Contract offer at the time of the direction, were suspended pending IESO's assessment of the framework for NUG contracting in the province and further ministerial direction.

On April 22, 2015, IESO was directed (the "2015 Procurements Direction") to report back on the assessment of the framework for NUG contracting by September 1, 2015. Due to the province's positive supply outlook, IESO has had the opportunity to review the outcomes of recent procurements in order to incorporate lessons learned, as well as re-evaluate system needs, prior to making decisions regarding additional procurements.

On September 1, 2015, IESO submitted its report, *NUG Framework Assessment* (the "NUG Report"), to the Ministry of Energy. In developing recommendations, IESO was guided by the principles of ensuring system reliability while minimizing ratepayer costs over the long-term.

The NUG Report contains the following recommendations:

- i. Continue the current pause in the re-contracting of NUGs;
- ii. Actively monitor evolving sector conditions and impacts on system need; and
- iii. Continue the development of the capacity auction and capacity export markets with consideration given to facilitating broad participation, including that of NUG representatives.

On November 24, 2015, the Ministry of the Environment and Climate Change released *Ontario's Climate Change Strategy*, which lays out the Government's vision for securing a healthy, clean and prosperous low-carbon future. The province must consider emissions when making decisions regarding Ontario's electricity supply mix.

Going forward, Ontario electricity consumers can expect to benefit from IESO's transition to a market-based approach to procuring resources through the implementation of an Ontario capacity auction as well as protocols for allowing Ontario electricity generators to export capacity to other jurisdictions. The new approach is expected to secure incremental capacity resources in a flexible, cost-effective manner while allowing all resources to compete on an even footing in the marketplace. Our government welcomes the input from NUG representatives in the development of IESO's work in this area.

Combined Heat and Power Standard Offer Program 2.0

On March 31, 2014, the former OPA was directed (the “2014 CHP Direction”) to implement a new standard offer procurement program – the Combined Heat and Power Standard Offer Program 2.0 (CHPSOP 2.0) – to procure 150 megawatts (“MW”) of Combined Heat and Power (CHP) from the agricultural industry and district energy sectors.

On January 9, 2015, the first CHPSOP 2.0 application window closed. On June 26, 2015, IESO published a list of the 15 executed contracts from the first application window.

In the context of the province’s positive supply outlook the 2015 Procurements Direction also directed IESO to review results and provide lessons learned from the first CHPSOP 2.0 application window, and to provide recommendations regarding a second CHPSOP 2.0 application window. The 2015 Procurements Direction postponed any further application windows for CHPSOP 2.0 until such time as the Minister issued a further direction in that regard.

On September 1, 2015, IESO published its report, *CHPSOP 2.0 Procurement, Lessons Learned from the First Application Window and Recommendations for a Second Application Window* (the “CHPSOP 2.0 Report”), which included IESO’s recommendations to the Ministry regarding a second CHPSOP 2.0 application window, and future CHP procurement in Ontario.

The CHPSOP 2.0 Report includes the following recommendations:

- i. Not to implement a second CHPSOP 2.0 application window; and
- ii. Explore how small CHP can competitively participate in IESO’s anticipated capacity auction or other competitive procurements by recognizing local benefits of small CHP through new funding opportunities enabled by policy and regulatory changes or tax-based economic development grants.

In addition, Ontario’s next Long-Term Energy Plan (LTEP) will provide an opportunity to reassess how CHP may contribute to meeting the needs of the electricity system.

Going forward, Ontario electricity consumers can expect to benefit from IESO’s transition to a market-based approach to procuring resources through the implementation of an Ontario capacity auction as well as protocols for allowing Ontario generators to export capacity to other jurisdictions. The new approach is expected to secure incremental capacity resources in a flexible, cost-effective manner while allowing all resources to compete on an even footing in the marketplace. Our government welcomes the input of representatives from proposed and existing CHP projects in the development of IESO’s work in this area and in the development of the next LTEP.

Chaudière Falls Hydroelectric Generation

Hydroelectric power is a central pillar of the Government's renewable electricity portfolio. The Province's 2013 Long-Term Energy Plan (the "2013 LTEP") established Ontario's targets for clean and renewable energy, including 9,300 MW of installed capacity from hydroelectric projects by 2025.

Over the next 10 years, electricity demand in downtown Ottawa is forecast to experience significant growth, to the point where that demand is expected to exceed the capacity of the existing distribution system by about 2018. There exist opportunities to help meet this demand by bringing power to downtown Ottawa from generation facilities in Québec that could directly connect to the Hydro Ottawa distribution system, where that power could be obtained on terms that would benefit and align with Ontario's electricity system needs.

Whitesand First Nation Biomass Cogeneration

There are currently 25 remote First Nation communities in Ontario's northwest that are not connected to the Ontario transmission grid and rely on diesel fuel for electricity. The use and transport of diesel fuel is both expensive and harmful for the environment.

IESO has developed a draft technical report which shows an economic case for connecting up to 21 remote First Nation communities with new transmission and distribution lines.

The 2013 LTEP commits to exploring opportunities to reduce diesel use in the four remote First Nations identified as uneconomic to connect to the grid. On December 16, 2013, the former OPA was directed to support solutions for on-site renewable generation projects for the remote First Nation communities where transmission connection is not identified as economic. The 2013 LTEP also commits to exploring opportunities to reduce diesel use for the communities where transmission connection is uneconomic.

Whitesand First Nation is one of the four remote communities identified as uneconomic to connect to the grid. Whitesand First Nation is implementing a Community Sustainability Initiative and a major component of the initiative is the development of a 3.6 MW biomass cogeneration facility (the "Biomass Facility") as well as a wood pellet plant. It is recognized that a price for the Biomass Facility should reflect avoided diesel cost in 2017 and ensure that the benefits of not burning diesel are adequately captured at prevailing diesel prices during the life of the contract.

Due to the size of the existing diesel generators that service Whitesand First Nation, new homes and infrastructure are not able to connect, limiting economic development opportunities. The project, which is currently in the feasibility stages, will supply both the community electricity demand as well as the electricity required for the operation of the pellet facility. Once developed, the project will support Ontario's goal of encouraging Aboriginal community participation in the energy sector. The project will also have a number of benefits including local job creation and reduced diesel use leading to reduced greenhouse gas emissions.

Direction

Therefore, pursuant to my authority under section 25.32 of the Act, I hereby direct IESO as follows:

1. Non-Utility Generator Projects

- 1.1 Discontinue negotiations for New Contracts for NUGs.
- 1.2 Continue engaging stakeholders, including NUG representatives as relevant, in IESO's development of an Ontario capacity auction, and rules and protocols for Ontario-based capacity exports.
- 1.3 Continue to consider NUGs as options to maintain regional reliability.

2. Combined Heat and Power Standard Offer Program 2.0

- 2.1 Do not proceed with the second CHPSOP 2.0 application window.
- 2.2 Continue engaging stakeholders, including CHP proponents as relevant, in IESO's development of an Ontario capacity auction.

3. Chaudière Falls Hydroelectric Generation

- 3.1 Enter into negotiations with Hydro Ottawa Holding Inc. or a subsidiary or affiliate of Hydro Ottawa Holding Inc. (HOHI) for:
 - 3.1.1 a power purchase agreement (PPA) for the supply of electricity from HOHI's Gatineau No. 1 hydroelectric generating station (Gatineau Facility); and
 - 3.1.2 a PPA for the supply of electricity from HOHI's Hull No. 2 hydroelectric generating station (Hull Facility),

subject to the conditions and requirements set out below:

- (a) The negotiations between IESO and HOHI in respect of the Hull Facility shall commence only once IESO is satisfied that the Hull Facility is owned by HOHI.
- (b) The negotiations between IESO and HOHI shall only commence once IESO is satisfied that the Gatineau Facility or Hull Facility (as applicable) is not the subject of any existing agreement(s) for any part of the electricity generation output from that facility, or alternatively that the counterparties to any such existing agreement(s) have consented in writing to HOHI entering into negotiations with IESO for a PPA in respect of that facility.
- (c) IESO will only enter into a PPA with HOHI in respect of the Gatineau Facility or the Hull Facility (as applicable) after it is satisfied that any existing agreement(s) referred to in paragraph (a) above have been terminated by mutual agreement of the parties to such agreement(s).
- (d) The terms of any such PPA shall include the following requirements:
 - (i) The Gatineau Facility or Hull Facility (as applicable) must connect to Hydro Ottawa's distribution system at connection point(s) acceptable to IESO;
 - (ii) The Gatineau Facility or Hull Facility (as applicable) must pass a waterpower connection availability screening process, as determined by IESO in relation to the facility connecting to Hydro Ottawa's distribution system; and
 - (iii) The Gatineau Facility or Hull Facility (as applicable) must not adversely impact the electricity grid in the Ottawa area in a material way.
- (e) Any PPA(s) resulting from any negotiations contemplated above shall be on terms that reflect a reasonable cost to Ontario electricity ratepayers and a reasonable balancing of risk and reward, taking into account the specific operating characteristics of the facility in question, and shall include a price that is consistent with other IESO hydroelectric procurement initiatives for similar facilities.

3.2 IESO shall report back on the status of the negotiations contemplated above by no later than six (6) months from the date of this direction.

4. Whitesand First Nation Biomass Cogeneration

4.1 Enter into a Power Purchase Agreement ("PPA") with a legal entity that shall be owned and controlled by Whitesand First Nation for the entire term of the contract, for the electricity produced by the Biomass Facility. The PPA shall include the following terms:

- (a) A contract term of twenty (20) years from the date of commercial operation;

- (b) A contract capacity of up to 4 MW.
 - (c) A base rate starting at \$257/MWh in year one of commercial operation (the "Base Rate"), to be paid for all of the electricity generated by the Biomass Facility to service community demand;
 - (d) The prevailing Base Rate shall escalate at 0.80 per cent annually on the previous year's rate, in each year of the contract term;
 - (e) In addition to the prevailing Base Rate, the PPA shall provide for a fixed Economic Development Adder of \$184/MWh. Together, the Base Rate and the Economic Development Adder shall form the "Pellet Demand Rate" to be paid for all of the electricity generated by the Biomass Facility to service the pellet plant demand;
 - (f) The option for IESO and Whitesand First Nation to enter into discussions at the end of the contract term to renegotiate a revised PPA, including, but not limited to, the purchase of more electricity from the Biomass Facility and updated Base Rate and Pellet Demand Rate that reflect current economic and grid conditions;
 - (g) The option for IESO and Whitesand to renegotiate a revised PPA at or after the start of year 15 of the contract term for expansion of the Biomass Facility to meet community demand; and
 - (h) A requirement that the generation of electricity by the Biomass Facility shall be sourced exclusively from biomass as defined or provided for in the definitions provided for under the Act and its Regulations, as amended, and which meet any further requirements provided for under the PPA entered into by IESO and Whitesand First Nation or any guidelines established by IESO for that purpose.
- 4.2 It is expected that the pellet plant will purchase electricity at non-Standard "A" rates consistent with prevailing rates charged to similar sized off-reserve businesses in Northwestern Ontario. It is also expected that the PPA will include clear requirements aimed at ensuring that the contracted generation is consumed primarily for the benefit of serving the Whitesand First Nation community and pellet plant demand throughout the contract term. The waste steam generated by the Biomass Facility will be provided to the pellet plant at no cost.
- 4.3 Other specific PPA terms and contract conditions are to be negotiated between IESO and the legal entity owned and controlled by the Whitesand First Nation on such terms as are reasonable given the mandate provided for in this direction.
- 4.4 IESO will work with Hydro One Remote Communities Inc. to co-ordinate metering and account settlement services for the project.

4.5 I direct that IESO work collaboratively with the legal entity owned and controlled by Whitesand First Nation, recognizing the uniqueness and remoteness of both the project and the community, and make best efforts to execute a PPA within seven (7) months from the date of this Direction. IESO shall provide an update on the status of the PPA negotiations to the Ministry of Energy no later than three (3) months from the date of this Direction.

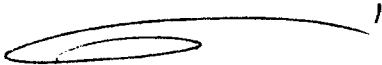
5. General

5.1 This direction supplements or amends directions previously issued to the former OPA or IESO only to the extent that previous directions are inconsistent with the provisions of this direction, and the provisions of this direction shall prevail to the extent of any conflict or inconsistency.

5.2 All other terms of any previous direction remain in full force and effect.

This direction takes effect on the date it is issued.

Sincerely,



Bob Chiarelli
Minister

c:

Serge Imbrogno, Deputy Minister, Ministry of Energy
Carolyn Calwell, Director, Legal Services Branch, Ministry of Energy, MEDEI/MRI