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**Implications of the Green Energy Act
for Ontario Energy Board (“OEB”)
Regulation of the Ontario Electricity Grid**

Access to the Grid for Renewable Generation

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The Nature of Economic Regulation and the Current Ontario Electricity System

- Transmission (transfer of electricity at high voltages, mainly 500, 230, 115), is conducted mainly by Hydro One, Transmission Division. Hydro One is regulated by the Ontario Energy Board.
- Distributors, for example, Toronto Hydro, are also regulated by the Ontario Energy Board. They also have a licence to conduct the distribution business in a particular municipality(ies) or part(s) thereof.
- Regulation consists of
 - profit regulation (“cost of service regulation”) or price regulation (“incentive regulation”) [“rate cases”].
 - permission required to construct large facilities.
 - their processes for connecting customers, both generators, and consumers, to their systems.
 - restriction on the businesses they may conduct/conflicts of interest/relationship with “related entities”.
 - Enabling Laws, Regulations, Board Orders, Board Codes.

1. Mandate of the OEB – Statutory Objectives (electricity)

- To protect the interests of consumers with respect to price and the reliability and quality of service.
- Promote economic efficiency and cost effectiveness.
- Maintain a financially viable industry.

What does the Green Energy Act mean for the Board?

- Three new objectives:
 1. To promote electricity conservation and demand management;
 2. To promote the use and generation of electricity from renewable energy resources, in a manner consistent with the policies of the Government of Ontario, including the timely expansion or reinforcement of transmission systems and distribution systems to accommodate the connection of renewable energy generation facilities (my emphasis).
 3. To facilitate implementation of a "smart grid".

2. Among the OEB's new duties: New Statute Law

Ensure transmitters and distributors are planning and building their systems to accommodate renewable generation.

Section 25.36 of Electricity Act

Transmitter and distributors shall connect renewable generation facilities to their systems in accordance with:

- the regulations
- the (IESO) market rules (relevant mainly to connection to transmission system)
- their OEB licences to transmit or distribute electricity
- provided that the generator has met:
- technical, economic, and other requirements prescribed by regulation (IESO) market rules, Ontario Energy Board orders, or codes; (in case of conflict, regulation prevails, Section 25.36(2) (my emphasis).

Section 26 of the Electricity Act is amended

The existing section 26(1) of the Act says "A transmitter or distributor shall provide generators, retailers, and consumers with non-discriminatory access to its transmission or distribution systems in Ontario in accordance with its licence."

The new Section 26(1.1) says "Despite subsection (1), A transmitter or distributor shall provide priority connection access to its system for renewable energy generation facility that meets requirements provided by regulation (my emphasis).

Priority in respect of whom; presumably to other form of generation, retailers, and loads.

Section 25.37(1) of the Electricity Act says that "A distributor, transmitter, the OPA, and the IESO, shall provide information, as may be required by regulations about the ability of the transmission and distribution systems to accommodate renewable energy generation, and that information shall be:

- current
- prospective in nature
- made available to the public".

25.37(2) The Board and the IESO must ensure that deadlines for completing the assessment of the requests from generators to distributors and transmitters for connections to the distribution and transmission systems, respectively, are met.

The IESO, transmitters, and distributors must file quarterly with the OEB, reports as required by regulation, on their success or otherwise in meeting the deadlines in the Distribution System Code and Market Rules.

3. Amendments to the Ontario Energy Board Act in respect of transmitters' and distributors' plans for connecting renewable generation:

- Section 28.6 - The minister has the power to issue a directive requiring the Board to take such steps as are specified in the directive relating to the connection of a renewable generation facility to the transmission or distribution system, including requiring the Board to include in the licence conditions of transmitters and distributors the requirement for them to enhance, reinforce or expand their systems. This means a separate set of rules for renewable energy generation, relative to all other forms of generation.
- Minister may set guidelines for the completion of the Board's own processes to ensure timely expansion of distribution and transmission facilities.
- Section 70(2.1) - Every licence issued to a transmitter or distributor shall be deemed to contain the following conditions:
 - Distributors and transmitters must give priority connection access to their systems to qualified renewable energy generation facilities.
 - Prepare plans as mandated by the Board or in regulations to expand and reinforce their systems to accommodate connection of renewable energy generation to the grid, and to implement a smart grid, and to implement those plans once approved by the Board, or in such other manner at such other time as approved by the Board or prescribed by regulations.

4. Hydro One's Role under the Green Energy Act

- In order to connect more renewable generation to the grid, the province needs to expand and enhance its transmission and distribution systems.
- Hydro One is owned by the Government of Ontario.
- Hydro One owns over 95% of the transmission assets in the province. It is the transmission grid, for all practical purposes.
- Ontario Power Authority identified new core transmission facilities and a number of transmission lines which would enable renewable energy generation in Ontario, in its Integrated Power System Plan ("IPSP"), filed with the Ontario Energy Board in Fall 2007, well before the enactment of the Green Energy Act. OEB commenced hearings on the plan in Spring 2008. It postponed these hearings upon receipt of the Minister of Energy's request to consider amendment to the Plan.

- In a letter dated September 21st, 2009, for which he sought and obtained concurrence of the Ontario Hydro Board Chairman (appointed by the Ontario Premier), he directed Hydro One to immediately begin the development work for, and implementation of, some 20 transmission projects and 10 distribution projects at least in part to enable renewable energy projects to proceed in different parts of the province, and meet a specified series of in service dates.
- The Notice for Environmental Assessment Proceedings for some of those projects has already appeared in the newspapers, eg. the Thunder Bay – Pickle Lake line, which will enable renewable generation, connect future loads, and increase reliability in Northwestern Ontario.
- Many of the proposed lines are also required for reliability and load growth reasons.

5. Implications of Green Energy Act for OEB Regulation

- OEB electricity regulation was established for a market context where investment driven by markets and generators competed with each other.
- Under Green Energy Act, investment is driven by green generators applying for FIT contracts. Generators don't compete.
- Board must ensure transmitters and distributors:
 - Make available existing connection capacity and manage it fairly;
 - Plan and build out their systems to connect generators; and
 - Ensure load customers pay for prudently incurred costs associated with these upgrades.

OEB is changing policies and codes to address this legislation

The changes fall into five broad categories:

1. More rational and efficient connection processes for all generators;
2. Simpler settlement processes for FIT (role of distributors, in settlement);
3. Shift costs from renewable generators and share fairly among ratepayers (Section 79.1);
4. Deal with distributor-owned generation; and
5. Encourage rational network planning and investment (Amendments to the IPSP).

6. Proposed Transmission System Code changes – enabler lines

- IPSP identified a problem with getting remote clusters of renewable resources connected to the grid:
 - under the existing Transmission System Code, connection facilities are the generator's responsibility.
 - Coordination among several generators in the same region may be difficult to arrange.

- Board has proposed changes to address situation where a group or "cluster" of renewable projects is being developed in one region by different generators:
 - Designate a transmitter to develop and build the required connection lines and stations, through licensing an entity to do so;
 - Generators share the capital cost of the line on pro-rata basis as and when they connect, while ratepayers pay for any unused capacity.
 - Transmitter continues to own the line and may be responsible for maintenance, upgrades, replacements, etc. into the future.

7. Conditions under which transmission facilities can be designated as enabler facilities

- The cluster must consist of two or more generation projects approved by the Board (or the Minister) in one of the following ways:
 - Identified in an approved IPSP;
 - Identified in a Ministerial directive to OPA;
 - Identified in a transmitter's transmission plan, approved by the Board; or
 - Identified by the OPA in the FIT process.
- Board expects the OPA will screen projects it nominates to ensure enablers are:
 - At least 10 km in length (when a line is required), although Board could designate a shorter enabler facility if the OPA demonstrates that the enabler facility approach is a superior option; and
 - For at least 100 MW of generation.

8. Change in Leave to Construct Process

- "No person shall construct, expand or reinforce an electricity transmission line (greater than 2 km in length) without first obtaining from the Board an order granting leave to construct, expand or reinforce such line or interconnection" (s. 92, OEB Act).
- The Board considers whether the construction, expansion or reinforcement of the proposed work is in the public interest; if so, it must approve the application and issue an order permitting the work.
- Section 92 of the OEB Act applies to all transmission facilities including connection facilities, but not transformer stations unless they are interconnections.
- Project proponent with leave to construct may apply to the Board for expropriation, so some parties that may not have to obtain leave to construct will do so in order to utilize the expropriation power, for example, to build a distribution level voltage connection line.
- Old Test (in deciding whether a proposed work is in the public interest), "the Board shall consider only the interests of consumers with respect to price, reliability and quality of service." (my emphasis).
- Green Energy Act modifies approval criteria by adding: "where applicable, in a manner consistent with the policies of the Government of Ontario, the promotion of renewable energy sources".
- Inclusion of project in ratebase considered in rate application.

9. What the enabler process will "enable"

- Gets transmitter working on developing the transmission facilities, including route planning, consultation, detailed engineering, environmental approvals at an early stage, overcoming "chicken and egg" problem. Transmission often takes longer to permit and build than generation.
- Provides comfort to transmitter that they will be able to recover development costs (my emphasis).
- Provides comfort to generation project developers (and OPA) that the enabler facilities are being developed, encouraging more projects.
- More projects means more likely to proceed.

10. Distribution System Code Changes

- Many generation projects will connect to a distribution system. The original Distribution System Code ("DSC") provided that the generator was responsible for the connection line and for enhancements or expansions to the distribution grid triggered by the generator's connection to it.
- The Revised DSC, now in force, divides distribution system investments related to the renewable generation facilities into three categories – connection assets, expansions, and a new category, renewable enabling investments.
- Connection Assets continue to be paid for by generators. Expansion of system assets, which are defined in Section 1.2(b) of the DSC as "a modification or addition to the main distribution system in response to one or more requests for one or more additional customer connections that otherwise could not be made, but in respect of a renewable energy generation facility, excludes a renewable enabling improvement", which are provided in a Board approved distributor's plan or otherwise approved or mandated by the Board, the distributor would be responsible for all of the costs of the expansion. For all other system expansions to accommodate an incremental renewable generation, the distributor is responsible for the costs of the expansion up to the renewable energy expansion cost cap (\$90,000 per MW of capacity of the connecting generator) and the generator(s) would be responsible for expansion costs in excess of that. Examples of system expansions are provided in the DSC.
- The Distributor pays all the costs of those renewable enabling improvements, that are listed and defined as such in the Code (not to be confused with an "enabling line" from the transmission system to a cluster of generators).

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