Attachment 1: Project Definition for Designation for the East-West Tie Line

The East-West Tie Expansion

The OPA has conducted a preliminary assessment of the supply needs of Northwest Ontario (the "OPA Report[1]") and has concluded that expansion of the East-West Tie is the preferred alternative for ensuring adequate supply.

The project, as defined by the Ontario Power Authority, is for new transmission facilities between Northeast and Northwest Ontario (see Figure 1) that, in conjunction with the existing tie[2], will provide total eastbound and westbound capabilities on the order of 650 MW[3], while respecting all North American Electric Reliability Corporation, North East Power Coordinating Council and Independent Electricity System Operator reliability standards. The East-West Tie expansion should be designed to have a lifetime of at least 50 years[4]. The East-West Tie expansion target in-service date is 2017[5].

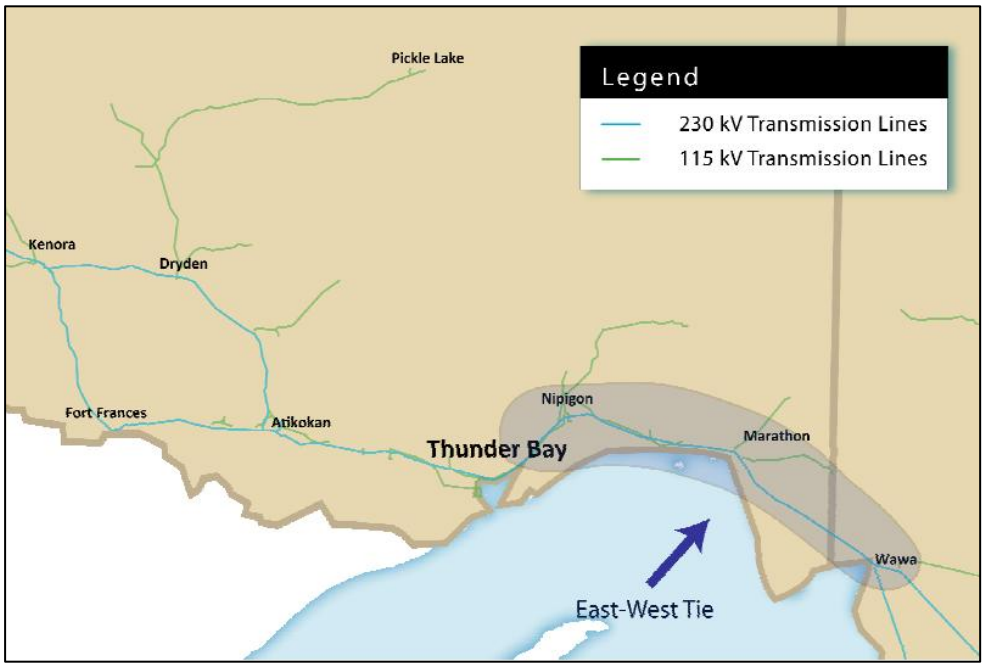

Figure 1: Existing transmission in the Northwest – Northeast corridor.

A complete East-West Tie expansion will include three parts:

[1] "Long Term Electricity Outlook for the Northwest and Context for the East-West Tie Expansion", Ontario Power Authority, June 30, 2011.
[2] The existing connection between Lakehead TS and Wawa TS consists of a 230kV double circuit line with each circuit having ratings of 365 MVA continuous (at 93ºC) and and 465 MVA limited-time emergency (at 27ºC).
[3] The OPA Report, p. 20.
[4] The OPA Report, p, 20.
[5] The OPA Report, p. 20.

1. The line consisting of conductors, structures and protection systems running from point to point (the "East-West Tie Line");
2. Upgrades to existing transformer stations to supply reactive facilities that are dependent on the specifications for the East-West Tie Line, such as have been identified by the IESO in its Feasibility Study; and
3. Interconnection of the line to the existing system at existing transformer stations including line disconnect switches.

In order to focus the designation process, the Board will limit the scope of applications to the East-West Tie Line as defined above. Therefore the definition of the East-West Tie Line for the purposes of designation is:

- A new line that, in conjunction with the existing line, will provide total eastbound and westbound capabilities in the East-West corridor on the order of 650 MW[6], while respecting all North American Electric Reliability Corporation, North East Power Coordinating Council and Independent Electricity System Operator reliability standards.
- The East-West Tie Line should be designed to have a lifetime of at least 50 years[7].
- The East-West Tie Line target in-service date is 2017[8].
- The East-West Tie Line is to be considered 2 segments: one running from Wawa TS to Marathon TS and one running from Marathon TS to Lakehead TS.
- The demarcation points of each segment of the East-West Tie Line are the first transmission line structures outside the fence of the Wawa TS, Marathon TS and Lakehead TS, but within 250 metres of that fence.
- The East-West Tie Line segments will dead-end on the structures that are the demarcation points with a mid-span opener for non-compensated lines.
- If the proposal involves series compensated AC line or DC lines, the East-West Tie Line will include the protection system, associated communications, and line isolation breaker(s).
- The project definition for the purposes of designation assumes that the East-West Tie Line between the demarcation points will be owned and operated by the designated transmitter.

The Reference Option

The OPA Report identifies a specific solution[9] as its preferred option but acknowledges that other options could be proposed provided they meet the other project scope criteria. The IESO has studied the feasibility of the OPA's preferred option, which it called the reference case, and an alternative case. The Board considers the OPA's preferred solution together with the IESO's reference case as the "Reference Option". The Reference Option is one possible, specific solution for the East-West Tie Line.

The Reference Option can be summarized as follows:

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[6] The OPA Report, p. 20.
[7] The OPA Report, p, 20.
[8] The OPA Report, p. 20.
[9] The OPA Report, p. 20.

- The East-West Tie Line will be a new double-circuit 230 kV overhead transmission line[10] with a continuous capacity of approximately 465 MVA and an emergency capacity of approximately 600 MVA (per circuit)[11];
- The East-West Tie Line will be switched at Marathon TS[12].

The Board, with the help of a consultant, has developed a document detailing the minimum technical requirements for the Reference Option that forms part of this information package. It will also be available on the Board's website. Applicants should develop proposals with costs that reflect these minimum technical requirements. Any planned deviations from them must be documented and the onus will be on the transmitter proposing the deviation to prove equivalency.

Alternative Solutions for the Defined Project

The Board welcomes technical innovation in the solution for the East-West Tie Line. Transmitters may propose alternatives to the Reference Option that meet the need as contained in the Project Description section above. A transmitter proposing an alternative to the Reference Option will bear the onus of proving that the alternative solution is the equivalent or superior to the Reference Option and the Board's minimum technical requirements in terms of performance, reliability, cost, etc. This analysis must include a feasibility study prepared by the IESO or prepared by the transmitter to the IESO's requirements.

A transmitter choosing to submit an alternative to the Reference Option should contact Mike Falvo at the IESO at (905)855-6209 or mike.falvo@ieso.ca as soon as possible regarding scheduling and process for feasibility studies.

After Designation

For clarity, the designated transmitter, once selected, will be responsible for preparing a leave to construct application for a complete, functional East-West Tie. To this end, the designated transmitter must liaise with the OPA regarding the need for the project, with the IESO for a system impact assessment, and with Hydro One Networks Inc. regarding connection of the demarcation points to the existing system.

In addition, the designated transmitter will be expected to carry out the procedural aspects of the Crown's duty to consult with affected aboriginal peoples.

The designated transmitter will be required to ensure compliance with the requirements of provincial legislation and of agencies other than the Board.

Please note that the Board has no statutory authority to procure transmission and, as such, this transmitter designation process will not create, and should not be construed

[10] The OPA Report, p. 20.
[11] The IESO Feasibility Study, p. 11.
[12] The OPA Report, p. 20.

as intended to create, contractual relations between the Board and the designated transmitter. At any time, the Board may in its sole discretion decide to not approve any plans or to terminate this transmitter designation process.

Attachment 2: Minimum Technical Requirements for the Reference Option of the East-West Tie Line