

September 16, 2011

VIA RESS AND COURIER

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON
M4P 1E4

Dear Ms. Walli:

**EB-2011-0056 – Ontario Power Generation – Section 92 Application
for Leave to Construct Transmission Line – Smoky Falls
Generation Station**

Please find attached OPG's Submission for its application for an order or orders granting leave to construct a new double circuit 230 kV transmission line in the Lower Mattagami region of Ontario.

Pursuant to the Board's Procedural Order No. 1, provided are two (2) hardcopies of OPG's responses and one electronic copy in searchable / unrestricted PDF format filed through the Board's Regulatory Electronic Submission System (RESS).

Please direct any comments or questions in this matter to the undersigned.

Yours truly,

[Original signed by]

Andrew Barrett

Attach

cc: Regulatory Affairs Records, OPG
Fred Cass, Aird & Berlis via e-mail
EB-2011-0056 Intervenors via e-mail
Robert Caputo, OEB via e-mail
Ljuba Djurdjevic, OEB via e-mail

IN THE MATTER OF section 92 of the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B:

AND IN THE MATTER OF an Application to the Ontario Energy Board by Ontario Power Generation Inc. for an Order or Orders Granting Leave to Construct a New Double Circuit 230 kV Transmission Line Approximately 3 km in Length in the Lower Mattagami Region of Ontario.

**Submission of
Ontario Power Generation Inc.**

September 16, 2011

This is the submission of Ontario Power Generation Inc. ("OPG"), filed in accordance with Procedural Order No. 1 issued by the Ontario Energy Board ("OEB" or "Board") on August 15, 2011.

Requirement for new transmission line

In this Application, OPG has applied to the OEB pursuant to section 92 of the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Schedule B (the "OEB Act") for an order or orders granting leave to construct a new double circuit 230 kV transmission line, approximately 3 km in length, in the Lower Mattagami region of Ontario. The new transmission line (the "Proposed Line") is required to accommodate increased electrical power output from OPG's Smoky Falls Generating Station ("Smoky Falls GS") following completion of the proposed redevelopment of the site. The Proposed Line is to be located adjacent to an existing 115 kV transmission corridor from Smoky Falls GS to an existing double circuit 230 kV transmission line owned by Hydro One Networks Inc. ("Hydro One"). The Proposed Line is part of a larger project, referred to as the Lower Mattagami River Project ("LMR Project") to increase the capacity of four generating stations owned by OPG located along the Lower Mattagami River ("LMR").

The existing LMR Hydroelectric Complex (as defined in Ex. A-T4-S1) is severely constrained at Smoky Falls GS due to its limited generation capacity and lack of water storage, which require it to pass a significant portion of the available water without generating electricity. The redevelopment of Smoky Falls GS will result in the retirement of the existing 52 MW powerhouse at Smoky Falls GS and the construction of a new powerhouse with a capacity of 267 MW that can use all of the available water efficiently. OPG is also planning to add a third unit to each of Little Long GS, Harmon GS and Kipling GS, increasing their capacities to 205 MW, 220 MW and 232 MW, respectively. Expansion of all four plants will result in a total of about 438 MW of additional power from the LMR Hydroelectric Complex.

The need for the Proposed Line follows directly from the expansion of Smoky Falls GS. The Proposed Line is required to provide additional transmission capacity and reliability for the additional 215 MW of generation at Smoky Falls GS (from the current 52 MW to the proposed 267 MW). This represents a significant increase in the capacity of the station. The existing Hydro One single circuit transmission lines connecting Smoky Falls GS to the Hydro One transmission system cannot accommodate the additional generation. The maximum capacity

that could be delivered from the expanded Smoky Falls GS using the existing lines would be approximately 104 MW, resulting in a bottling of the majority of the planned additional generation.

Approvals and other considerations

The Proposed Line requires leave to construct from the Board pursuant to Section 92 of the OEB Act which is reproduced below:

92. (1) No person shall construct, expand or reinforce an electricity transmission line or an electricity distribution line or make an interconnection without first obtaining from the Board an order granting leave to construct, expand or reinforce such line or interconnection.

(2) Subsection (1) does not apply to the relocation or reconstruction of an existing electricity transmission line or electricity distribution line or interconnection where no expansion or reinforcement is involved unless the acquisition of additional land or authority to use additional land is necessary.

Section 96 (1) of the Act obligates the Board to grant leave to construct where the Board finds the proposed work is in the public interest. Section 96(2) prescribes what the Board shall consider in determining the public interest: (i) the interest of consumers in respect of prices; reliability and quality of electricity service or (ii) being consistent with the policies of the Government of Ontario in the promotion of renewable energy.

96. (1) If, after considering an application under section 90, 91 or 92 the Board is of the opinion that the construction, expansion or reinforcement of the proposed work is in the public interest, it shall make an order granting leave to carry out the work.

(2) In an application under section 92, the Board shall only consider the following when, under subsection (1), it considers whether the construction, expansion or reinforcement of the electricity transmission line or electricity distribution line, or the making of the interconnection, is in the public interest:

1. The interests of consumers with respect to prices and the reliability and quality of electricity service.

2. Where applicable and in a manner consistent with the policies of the Government of Ontario, the promotion of the use of renewable energy sources.

The Proposed Line is in the public interest because it will enable OPG to make more efficient use of the available water flows along the Lower Mattagami River, a renewable resource and satisfies Paragraph 96(2)2. A Notice of Approval to Proceed, and an Order-in-Council providing

approval to proceed with the LMR Project, including conditions, was issued by the Ontario Minister of the Environment in 1994. The LMR Project also has the support of the Ontario Government and is specifically included in Ontario's goal of achieving 9,000 MW of hydroelectric capacity by 2018.

Further, the Proposed Line is consistent with the requirements of Paragraph 96(2)1 as discussed below. The Proposed Line will not have a material impact on the price of electricity. OPG will pay for all costs of the Proposed Line as part of the overall cost of the LMR Project. As described in OPG's response to Board staff interrogatory IR-5, the output from OPG's Lower Mattagami River Hydroelectric Complex is sold to the OPA through a supply contract between OPG and the OPA. The Proposed Line, as part of the cost of the redeveloped Smoky Falls GS, will therefore be recovered through this contract. The Proposed Line, with an estimated cost of \$6.6M, represents about 0.26 percent of the cost of the LMR Project, and the impact on consumers is therefore not material in the context of the overall cost for the LMR Project.

The Independent Electricity System Operator ("IESO") completed a System Impact Assessment ("SIA") of the Proposed Line in accordance with the Grid Connection Requirements of the Market Rules. The SIA confirms that the LMR Project, including the Proposed Line, will not adversely impact the reliability of the IESO-controlled grid. In addition, Hydro One completed a Customer Impact Assessment ("CIA") in accordance with its Customer Connection Procedures, and the results confirm that the LMR Project, including the Proposed Line, will not adversely impact customers in the study area.

As described in the Application, significant public, First Nations and government agency consultation has been done, including that conducted as part of the federal environmental assessment. There is broad support for the LMR Project in the First Nations communities and the community at large. OPG notes that no First Nations, community or government agencies chose to intervene in this proceeding, to object or express concerns about any aspect of OPG's Application.

Approval of the federal environmental assessment was received in March 2010. OPG will apply to the Ontario Ministry of Natural Resources ("MNR") for the required easement from the Crown along the corridor from the boundary of OPG Water Power Lease No. 121 to the connection point with the Hydro One L20D/H22D 230 kV line, and an Easement Agreement will be

developed as part of the application process. OPG's contractor, KAP, will complete the MNR Application for Work Permit prior to commencing any work in the area of the transmission line corridor. Requirements for temporary access rights and tree cutting approval will be identified in the construction planning stage, and will be included in the MNR Work Permit as required. OPG will apply for a Land Use Permit when the construction of the Proposed Line is nearing completion.

Conclusion

In conclusion, OPG respectfully submits that the Proposed Line is in the public interest in consideration of the provisions of Section 96 of the OEB Act and should be approved under Section 92 of the OEB Act. Accordingly, OPG requests an Order from the OEB pursuant to section 92 of the OEB Act by January 2012, granting leave to construct the Proposed Line. Construction of the Proposed Line is scheduled to begin in spring 2012, assuming the leave sought in this Application is granted. To accommodate any unforeseen events, OPG requests that the conditions of the approval include authorization for leave to construct to remain valid provided construction commences no later than December 31, 2012. The planned in-service date for the Proposed Line is February 1, 2013.