

**Ontario Energy
Board**
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4
Telephone: 416- 481-1967
Facsimile: 416- 440-7656
Toll free: 1-888-632-6273

**Commission de l'énergie
de l'Ontario**
C.P. 2319
27e étage
2300, rue Yonge
Toronto ON M4P 1E4
Téléphone: 416- 481-1967
Télécopieur: 416- 440-7656
Numéro sans frais: 1-888-632-6273



BY E-MAIL

January 30, 2019

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4
BoardSec@oeb.ca

Dear Ms. Walli:

**Re: OEB Staff Submission
Hydro One Networks Inc.
Côté Lake Mine Connection Project
OEB File No. EB-2018-0257**

In accordance with Procedural Order No. 1, please find attached the OEB staff submission in the above proceeding. This document is being forwarded to the applicant and to all other registered parties to this proceeding.

Yours truly,

Original signed by

Ritchie Murray
Project Advisor

Cc (by email): all other registered parties to this proceeding

Introduction

Hydro One Networks Inc. (HONI) has applied to the OEB for permission to upgrade T2R, an idle 115 kV electricity transmission circuit that runs for 115 km between the City of Timmins and Shining Tree Junction in the District of Sudbury, and associated facilities (Project). The upgrades are necessary to supply IAMGOLD Corporation's (IAMGOLD) Côté Lake gold mine facility (Mine) located approximately 200 km northwest of Sudbury. The Mine will require approximately 72 MW of power, and there are no electricity transmission or distribution facilities near the Mine with sufficient capacity to meet its requirements.

Specifically, HONI has applied under section 92 of the *Ontario Energy Board Act, S.O. 1998* (the Act) for leave to construct (LTC) approval to:

1. Reconductor the idle 115 km 115 kV T2R transmission line from Timmins Transformer Station to Shining Tree Junction
2. Install new 115 kV station facilities at Timmins Transformer Station to energize the T2R circuit and supply the Mine

HONI has also applied under section 97 for approval of its forms of land use agreements that it has or will offer to affected landowners.

At the same time that the Project is being constructed, HONI intends to refurbish the adjacent transmission circuit, T61S, which has reached end-of-life. Circuit T61S provides supply to local HONI distribution customers as well as several other mines and industrial customers in the area. Circuits T2R and T61S are situated on the same tower structures for the entire 115 km distance. HONI is not seeking leave of the OEB to refurbish T61S. Section 92(2) of the Act provides that no LTC is required for the "reconstruction of an existing electricity transmission line [...] where no expansion or reinforcement is involved" unless there are new land use requirements. The total estimated cost of the combined T2R/T61S project is \$71.8 million (see Table 1 for a breakdown of this cost).

T61S was built in 1931 and contains 336 KCMIL ACSR conductor. This conductor has been verified through laboratory testing to have neared end-of-life condition. HONI proposes to replace the existing conductor with its current minimum standard transmission conductor size, 411 kcmil ACSR. Although there will be a thermal rating increase on the T61S circuit as a result, this is a consequence of the customer's connection (i.e. because of the T2R upgrade) and not the intended result of the

refurbishment.¹ OEB staff submits that the T61S refurbishment work is as close as to “like-for-like” as practicable. Furthermore, it does not require any rights that are not already a necessity of the T2R upgrade (see Land section below). OEB staff agrees that leave of the OEB is not required for the refurbishment of T61S.²

In a separate proceeding, the OEB granted IAMGOLD leave to construct approximately 44 km of 115 kV line and associated facilities needed to connect the Mine at Shining Tree Junction to the HONI transmission circuit (T2R) that is to be upgraded.³ IAMGOLD will own and operate this new 44km line, and will finance 100% of its construction, operation and decommissioning costs. Construction of this line is scheduled for summer 2019.

HONI’s prefiled evidence includes a letter from IAMGOLD stating its “full support” for HONI’s leave to construct application.

HONI is requesting a written hearing and a decision no later than March 1, 2019. The OEB issued a Notice of Hearing on November 12, 2018; no one sought intervenor status.

OEB staff submits that the OEB should grant HONI leave to construct the Project.

OEB’s Jurisdiction in Section 92 Applications

Section 92 of the Act requires leave of the OEB for the construction, expansion or reinforcement of electricity transmission lines. In considering whether to grant leave, the OEB is restricted to the criteria set out in section 96(2) of the Act:

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.

¹ Exhibit B, Tab 6, Schedule 1, page 2

² *Ontario Energy Board Act, 1998*, subsection 92 (2) states that subsection 92 (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.” The like-for-like refurbishment (reconstruction) of T61S is not an expansion or reinforcement, and HONI has confirmed that no additional land is required (beyond that required for the T2R upgrade).

³ EB-2018-0191 Decision and Order issued December 6, 2018

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.

Given the jurisdiction of the OEB, OEB staff's submission focusses on price, reliability, quality of electricity service, and land matters. OEB staff notes that the promotion of renewable energy sources in a manner consistent with the policies of the Government of Ontario has not been raised as an issue or benefit of this application.

Price

Project Need and Alternatives

OEB staff accepts that the Project is needed. OEB staff has no issue with how the preferred option was selected from among the alternatives.

In its application, HONI states that the Project is a non-discretionary development project driven by a customer-initiated load connection.

HONI considered building a new 115 kV transmission line adjacent to the existing T2R and T61S circuit, but this alternative was rejected as it would require greenfield construction.

HONI considered two options with respect to upgrading circuit T2R – one in which the T61S refurbishment was completed concurrently, and the other in which it was not. Prior to receiving IAMGOLD's request for service, HONI had planned to complete the refurbishment of T61S in 2024. By completing the refurbishment concurrently, HONI estimates the total cost of both projects to be approximately \$2.2 million less than they would be if done separately. Doing the work concurrently also reduces customer interruptions that would otherwise occur.

Economics and Feasibility

OEB staff submits that HONI's financial assessment was conducted appropriately and that it has demonstrated that the Project will have no material impacts on the prices it charges electricity consumers.

Although not seeking LTC for the T61S work, for completeness, HONI included the costs of both the Project and T61S refurbishment in its financial assessment.

With respect to the line pool, the total expected value of the proposed line assets is approximately \$69.1 million and would be split \$31.7 million for IAMGOLD (for the Project) and \$37.4 million for HONI (for the T61S refurbishment).

In accordance with the Economic Evaluation Procedure in HONI's OEB-approved Transmission Connection Procedures,⁴ IAMGOLD will provide a capital contribution toward the Project pursuant to a connection cost recovery agreement. HONI assigned the customer a medium-high risk classification based on the customer's bond rating from Moody's, a known bond rating agency.⁵ HONI performed a 10-year discounted cash flow (DCF) analysis that accounted for IAMGOLD's \$31.7 million share and found that IAMGOLD must provide a capital contribution of \$27.7 million. The balance of \$4.0 million is that portion of the Project cost that can be supported by the transmission rate HONI charges IAMGOLD; it would be rate-based and recovered through new Line Connection revenues collected from IAMGOLD as a result of its incremental load. As a result of IAMGOLD's capital contribution, the Project will have no adverse impact on other ratepayers.

With respect to the network pool, the estimated capital cost of the station work associated with the Project is \$2.7 million. HONI performed a similar DCF analysis and determined that no capital contribution is required. All capital expenditures would be rated-based and fully recovered via the incremental Network revenues collected from IAMGOLD as a result of its incremental load.

Table 1 summarizes the cost responsibility for the combined T2R/T61S work described above.

Table 1: Cost Responsibility for Combined T2R/T61S Work (\$million)

Facilities	Capital Cost	Cost Responsibility		Capital Contribution
		IAMGOLD	Pool	
Transmission Line	\$69.1	\$31.7	\$37.4	\$27.7
Station	\$2.7	\$2.7	--	--
Total	\$71.8	\$34.4	\$37.4	\$27.7

OEB staff notes that HONI did not provide independent cost estimates for the Project and T61S work; rather the estimated costs provided are for the combined T2R/T61S project. In this particular case, the independent cost estimate of the Project may be approximated by adding half of the \$2.2 million in efficiency savings to IAMGOLD's \$34.4 million share of the combined T2R/T61S work for a total of \$35.5 million. While

⁴ EB-2006-0189

⁵ OEB Staff Interrogatory # 8

OEB staff believe this is a reasonable approximation of the estimated Project costs, it is only an approximation. The independent cost estimates are important because without them OEB staff cannot determine with certainty the true cost of the Project that alone is the subject of this application. OEB staff submits that HONI's application would have been more helpful had it reported the independent cost estimates of the T2R and T61S projects in addition to their combined costs, given that HONI has positioned doing the work independently as an alternative.

HONI estimates the impact on the network connection pool to be approximately a reduction of \$0.01/kW/month and on the line connection pool to be approximately an increase of \$0.01/kW/month such that the net result is approximately neutral.⁶

In its application, HONI assumed an American Association of Cost Engineers (AACE) Class 4 level of accuracy for its Project cost estimate (-30% / +50%) in its pre-filed evidence. HONI indicated that, until it has completed detailed line inspections, studies and surveys, there is a risk of scope changes that could impact cost and schedule.⁷ Since filing its application, HONI completed detailed line inspections and a number of studies and surveys, including a geotechnical study and a LiDAR1 survey, and HONI does not foresee any material scope changes at this time.⁸

HONI provided costs for three comparable transmission line projects.⁹ A comparison of the total cost / circuit km for the combined T2R/T61S project and comparator projects is provided in Table 2. OEB staff notes that the total cost / circuit km of two of the three comparator projects is greater than that of the combined T2R/T61S project.

The cost of the Martin River to Crystal Falls project was lower than the combined T2R/T61S project due to fewer required steel tower modifications. The Beamsville to Hamilton Beach project required tower height extensions for 23% of the structures, compared to the T2R/T61S project, where approximately only 2% of the towers require height extensions. Although HONI did not provide an explanation for cost differences between the T2R/T61S project and the DeCew to Glendale project, OEB staff submits that, compared to the comparison projects provided, the T2R/T61S project costs appear reasonable.

⁶ Exhibit B, Tab 1, Schedule 1, page 4

⁷ Ibid., page 3

⁸ OEB Staff Interrogatory # 7

⁹ Exhibit B, Tab 7, Schedule 1, page 4

Table 2: Comparison of Total Cost per Circuit km*

Project	\$/km (\$000)	\$ Delta (\$000)	% Delta
Martin River to Crystal Falls	\$557	\$(44)	-7%
DeCew to Glendale	\$773	\$172	29%
Beamsville to Hamilton Beach	\$738	\$137	23%
Average Comparator Project	\$689	\$88	15%
Combined T2R/T61S Project	\$601	--	--

* Total cost per circuit km for comparator projects have been increased by a 2%/yr adjustment factor to better reflect their costs in today's dollars.

Reliability and Quality of Service

OEB staff submits that HONI has demonstrated that the Project will have no negative impacts on the reliability and quality of service experienced by other electricity consumers.

The IESO concluded in its Final System Impact Assessment that, “the proposed connection of the project is expected to have no material adverse impact on the reliability of the integrated power system, provided that all requirements in this report are implemented.”¹⁰ The requirements are not unusual, and include the installation of switches and other equipment, and the development of a Load Shedding Scheme.

HONI concluded in its Final Customer Impact Assessment that the “Hydro One system and customers will not be adversely impacted by the connection of the Cote Lake Mine.”¹¹

OEB staff notes that the OEB typically includes a standard condition that requires the applicant to fulfill the requirements of the SIA and CIA and all other necessary approvals, permits, licences, certificates and rights required to construct, operate and maintain the proposed facilities (see the section on Standard Conditions of Approval, below).

Land Matters

OEB staff has no concerns with respect to the form of land use agreements that HONI has offered or will offer to landowners.

¹⁰ Exhibit F, Tab 1, Schedule 1, page 1

¹¹ Exhibit G, Tab 1, Schedule 1, page 5

The Project is to be constructed almost exclusively in an existing HONI right-of-way. The connection tap for the transmission line being constructed by IAMGOLD is located on Crown land for which HONI will be applying for an addition to its MNRF master Land Use Permit in Q1 2019.

HONI confirmed in an interrogatory that the T61S refurbishment work does not require any rights that are not a necessity of the T2R upgrade.¹²

Temporary construction rights for staging areas may be required. HONI filed into evidence the forms of land use agreements it has or will offer to affected landowners. These forms of agreement have been approved by the OEB for use in previous HONI proceedings.¹³ OEB staff has confirmed the forms of agreement conform to the OEB's Filing Requirements.¹⁴

Conditions of Approval

The OEB Act permits the OEB, when making an order, to impose such conditions as it considers proper. OEB staff proposes that the following standard conditions of approval, be placed on HONI:

1. Leave pursuant to section 92 of the OEB Act shall be subject to the fulfillment of the requirements of the SIA and CIA and all other necessary approvals, permits, licences and certificates required to construct, operate and maintain the proposed facilities.
2. Unless otherwise ordered by the OEB, authorization for leave to construct shall terminate 12 months from the date of the Decision and Order, unless construction has commenced prior to that date.
3. The Applicant shall advise the OEB of any proposed material change in the project, including but not limited to changes in: the proposed route, construction schedule or the necessary environmental assessment approvals, and all other approvals, permits, licences, certificates and rights required to construct the proposed facilities.

¹² OEB Staff Interrogatory # 10

¹³ Exhibit B, Tab 1, Schedule 1, page 4

¹⁴ Filing Requirements for Electricity Transmission Applications, Chapter 4 Applications under Section 92 of the Ontario Energy Board Act, July 31, 2014

Conclusion

OEB staff submits that the OEB should grant HONI's request for leave to construct the Project and approve the forms of land use agreements. OEB staff submits that HONI has established that the Project is needed and will have no material impacts on the prices, reliability and quality of service experienced by other electricity consumers. OEB staff observes that the form of easement agreement is consistent with the OEB's requirements.

All of which is respectfully submitted.