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**Joanne Richardson**  
Director – Major Projects and Partnerships  
Regulatory Affairs

BY EMAIL AND RESS

March 18, 2021

Ms. Christine E. Long  
Registrar  
Ontario Energy Board  
Suite 2700, 2300 Yonge Street  
P.O. Box 2319  
Toronto, ON M4P 1E4

Dear Ms. Long:

**EB-2020-0265 – Hydro One Networks Inc. Leave to Construct Application – Hawthorne to Merivale Reconductoring Project – Technical Conference Undertakings and Presentation Materials**

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On March 16, 2021, the Ontario Energy Board held a technical conference pertaining to Hydro One Networks Inc.'s (Hydro One) Hawthorne to Merivale Reconductoring Project. Hydro One is submitting written undertaking responses JT 1.1 and JT 1.2 along with the appropriate attachment to those undertakings. Additionally a copy of the presentation materials Hydro One referred to at the Technical Conference, and marked as evidence KT 1.2, is also attached to this submission.

This filing has been submitted electronically using the Board's Regulatory Electronic Submission System

Sincerely,

A handwritten signature in black ink, appearing to read "Joanne Richardson".

Joanne Richardson

c/ EB-2020-0265 Intervenors (Electronic only)

## UNDERTAKING - JT 1.1

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**Reference:**

Technical Conference Transcript Pg. 121.

**Undertaking:**

To provide a reference to a rate filing section 92 application for the D6V/D7V project upgrade line.

**Response:**

The reference for the location of the Table, as referenced by Hydro One's witness at the Technical conference, in the D6V/D7V transmission line project s.92 Application, can be found at the following location:

- EB-2019-0165, Exhibit B, Tab 5, Schedule 1, Table 2.



# Project Definition Report (PDR)

## AR 23621 – M30A M31A Reconductoring

### Revision 1

Filed: 2021-03-18  
 EB-2020-0265  
 Exhibit JT 1.2  
 Attachment 1  
 Page 1 of 1

	Name	Title	Date
Prepared by	[REDACTED]	Planner, Project Services	07-26-2016
Reviewed by	[REDACTED]	Sr. Planner, Project Services	07-26-2016
Approved by	[REDACTED]	Planning Manager, Project Services	07-26-2016

#### **Revision History**

Rev. #	Revision Date	Revision Summary
0	06-15-2016	First issued in response to RFE revision 1 of planning specification received from Investment Administrator

#### **Project Breakdown (Sub-Projects /Work Breakdown Structures)**

WBS	Description	Remarks
700025767	M30A/M31A Conductor Upgrade	

#### **Key Information**

Estimated total cost (excluding HST)	<b>\$17.672M</b>
Proposed in-service date	<b>06-30-2019</b>
In-service rain date	<b>11-30-2019</b>
Accuracy class of estimate	+/- 10 %
Validity	3 months from date of submission

**The PDR is a summary of the project plan which includes the AFUDC and Project Estimate. The supporting documentation used to produce this PDR is located in the project SharePoint site:**

<https://teams.hydroone.com/sites/777/test/SitePages/23621DETLTemplateKBvDETL07.aspx>

Project Services  
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**NOTE:**

**1.** The names of the Hydro One Employees have been removed for the purposes of filing this information.

**EB-2020-0265**

**Hydro One Networks Inc. Leave to Construct  
Application – Hawthorne to Merivale  
Reconductoring Project**

**HONI Presentation – Technical Conference**

**KT1.2**

**March 16, 2021**



# Hawthorne to Merivale Reconductoring Project

Technical Conference

Presented by: Hydro One

Date: March 16, 2021



# Summary

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HMR Project is required to relieve the bottleneck identified by IESO on the existing NERC Bulk Electric System between Hawthorne TS and Merivale TS and to meet mandatory reliability standards.

- Reconductoring is the preferred alternative to provide increased capacity.
- Alt. # 3 – Recommended alternative, meets capacity requirements, reducing losses by 38%\* at a cost of \$21.3M.
- Alt. # 4 – Largest conductor, meets capacity requirements, reducing losses by 48%\* at a cost of \$25.8M.
- Both Hydro One and ED results show that loss savings are not enough to cover additional costs for Alt. # 4 and as a result it will result in net cost to ratepayers.
- ED state that Alt. # 4 unlocks additional capacity resulting in energy savings of about \$2.85M annually and perhaps these savings can be used to justify the bigger conductor.

# Conclusions

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HON maintains that Alt. # 3 is more than sufficient to enable imports from Hydro Quebec (“HQ”) from all existing interconnections operating at their maximum capacity.

- Alt. # 4 does not unlock any additional available import capacity.
- Additional imports from HQ will require significant station upgrades in excess of \$50 million (in addition to the \$25.8M Alt. # 4 cost), and based on previous interconnection costs will require over \$1 billion for new interconnection infrastructure.
- The revenue requirement for station upgrades alone will be far greater than the savings of \$2.85M outlined in ED’s evidence.
- New future interconnection may in fact not necessarily occur at the interconnection in the vicinity of the HMR Project and as such the additional capacity afforded by Alt. # 4 may never be utilized.

# Circuit Capacity

<b>Existing Situation</b>	<b>Situation Following Conductor Upgrade</b>
Conductor: 648 MW ( <u>limiting factor now</u> )	Alt # 3 Conductor: 1102 MW Alt # 4 Conductor: 1224 MW
Station: 1080 MW ( <i>limiting factor</i> )	Station: 1080 MW ( <u>limiting factor future</u> )
Limit Now: 648 MW (Conductor)	Limit Future: 1080 MW (Station)

- Both Alt. # 3 and Alt. # 4 are limited by the station ratings of 1080 MW.
- There is no additional benefit for Alt. # 4 and import capacity remains the same unless station is upgraded and new interconnection infrastructure provided.
- Station upgrade cost is estimated to be in excess of \$50M.
- Revenue requirement for station upgrades will be far greater than \$2.85M

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