

Hydro One Networks Inc.

7th Floor, South Tower
483 Bay Street
Toronto, Ontario M5G 2P5
www.HydroOne.com

Tel: (416) 345-5393
Cell: (416) 902-4326
Fax: (416) 345-6833
Joanne.Richardson@HydroOne.com



Joanne Richardson

Director, Major Projects and Partnerships
Regulatory Affairs

BY EMAIL AND RESS

March 19, 2021

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

Dear Ms. Long:

EB-2017-0194 – Hydro One Networks Inc.’s Section 92 – East West Tie Station Project – Quarterly Report

On December 20, 2018, Hydro One Networks Inc. (“Hydro One”) received approval from Ontario Energy Board (OEB) to construct the EWT Station Project to upgrade existing transmission station facilities in the Districts of Thunder Bay and Algoma. On July 29, 2019, the OEB issued reporting requirements to Hydro One to monitor the progress of Hydro One’s EWT Station Project. On October 11, 2019 and subsequently on January 5, 2021, the OEB sent letters to Hydro One outlining further reporting requirements.

In accordance with the aforementioned filing requirements, this Quarterly Report captures activities for the quarter ending February 2021.

An electronic copy of the complete Quarterly Report has been filed using the Board's Regulatory Electronic Submission System (RESS).

Sincerely,

A handwritten signature in dark ink, appearing to be "Joanne Richardson", written in a cursive style.

Joanne Richardson

Hydro One - East-West Tie Station Project

OEB File Number EB-2017-0194

Quarterly Report

Period Ending Feb 28, 2021

Introduction

On December 20, 2018, Hydro One Networks Inc. (Hydro One or HONI) received approval from the Ontario Energy Board (OEB) to construct the EWT Station Project. The EWT Station project involves upgrades to Hydro One's Wawa Transmission Station, Marathon Transmission Station, and Lakehead Transmission Station located near the cities of Wawa, Marathon and Thunder Bay and is required to connect a new 230 kV transmission line (EWT Line) being constructed by NextBridge. The combined EWT projects have been identified as a priority in both the Ontario government's 2010 and 2013 Long-Term Energy Plans and the 2016 Order-in-Council.

In order to complete the connections at the three stations, Hydro One needs to modify some station facilities and install required station upgrades. On July 29, 2019, the OEB issued reporting requirements to Hydro One to monitor the progress of Hydro One's EWT Station Project. On October 11, 2019, the OEB sent a letter to Hydro One outlining further reporting requirements. Specifically, the additional reporting requirements requested that Hydro One (a) provide a status update on co-ordination efforts with NextBridge, (b) enhance the level of detail provided in the summary of the Status Upgrades Project progress to date, and (c) make a modification to the Project Cost table. On September 24, 2020, in response to a delay to the NextBridge schedule to construct the EWT line, the OEB asked that an up-to-date estimate and detailed schedule for the stations upgrades be provided in Hydro One's next quarterly report to be filed in December 2020.

In Hydro One's last quarterly report, Hydro One informed the OEB that

"... the ongoing impact of COVID-19 and other costs, are and will have more of an impact than had been anticipated. An initial high level review of internal cost monitoring activities indicates that future spend will go beyond the use of contingency and will most likely go over budget. The final impact on costs is being assessed and identified for the various overruns."

Hydro One - East-West Tie Station Project
OEB File Number EB-2017-0194
Quarterly Report
Period Ending Feb 28, 2021

Introduction - continued

Consequently, on January 5, 2021, OEB Staff requested that Hydro One provide further specifics on the forecast cost increases referenced in the December Progress Report. This includes providing details on the quantum of the forecast cost increases due to COVID-19 and other costs, as well as clarifying what specifically comprises and is driving the other costs referenced in the December Progress Report. If the forecast cost increases are derived from high-level estimates, Hydro One should still provide such information, but indicate that the forecast costs are high-level estimates.

This report addresses all aforementioned reporting requirements.

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1. Summary of Quarterly Activities

Commissioning of all buildings are well underway. Control equipment are communicating directly to the OGCC (Ontario Grid Control Centre) in preparation for uploading information to, and receiving information from, the control Centre. Protection equipment are being programmed with settings provided by engineering to be able to receive status and also to control equipment in the yard. The PCT building at Wawa has all their protection racks installed with half of them being terminated and powered up for commissioning. The remaining racks will be installed in the next month.

Cable pulling from the yard equipment to the PCT buildings, continue to make up a majority of the electrical work. Approximately 50% of the cables have been pulled at Lakehead while 65% of them have been pulled at Marathon. With all the foundations in place at Marathon, the remaining structures have been installed. Most of the switches and breakers have been setup for proper operation.

For the past quarter, civil activities have been limited during the winter months. Heating and hoarding of the ground has been utilized to allow for excavating, grading and foundation installation. Capacitor bank footing installation at Lakehead has begun.

A raised level of risk has developed on this Project, specific to obtaining outages to perform the work that is required during the remaining stages of this Project. New constraints set by the IESO of attaining outages, along with low water levels in the region affecting OPG's capacity for generation, are contributors to this risk.

The IESO has extended the Northwest Matrix to cover from the Manitoba border all the way to Sudbury that restricts the number of outages for 230kV circuits to only 2 elements allowed out at any given time. This makes it even more challenging to have work done on 230kV circuits. Getting large enough outage windows for the work at Marathon and Lakehead at the same time is an added challenge where most of the circuits are in conflict with one another.

OPG has indicated the NW region is in an extremely "low water" condition due to little snow melt this year and low fresh water levels (lower decile levels). This is causing problems in obtaining outages due to this unforeseen event in which OPG are not able to support Hydro One outages due to lack of available generation in the electrical area. Because the watersheds (Nipigon/Winnipeg/English watersheds) are so huge, it will take time to "refill" the watersheds from either spring rains or whatever is left in available snow melt.

1. Summary of Quarterly Activities (continued)

There are issues with high voltage reactive capability in the electrical area to suppress the voltage as a post contingency for planned outage events and OPG is not under contract with the IESO to provide these services.

Hydro One's Outage Planning team is actively working with the IESO in planning outages and creating backup plans when advance notice of IESO outage changes is received. Existing outages are now being "re-worked" to maintain the EWT project timelines. Although keeping the plan up to date has been a challenge, especially with the Staging Plan in constant flux, to date the Project remains on schedule.

Monthly meetings with NextBridge have been beneficial in keeping everyone on the same page and resolving issues. Action items are being addressed with the list becoming smaller with only seven items left. The likelihood of outage cancellation and/or delays to NextBridge's activities are low with no impact foreseen at this time. The commissioning schedule provided by Hydro One which outlines the placement of towers and availability of conductor & fiber cables outside of each of the Hydro One stations, is in the final stages of being reviewed by NextBridge. This will be the basis for the connection and commissioning of the entire system.

As was mentioned before, outage cancellations pose the biggest threat to the station portion of the Project. Although outage cancellations due to COVID-19 could still occur, it is less likely with the introduction of the vaccine. All other impacts related to COVID-19 has the same rationale. Hydro One has been working with NextBridge in regards to standards and line parameters so the risk of NextBridge's system not matching Hydro One's, remains low.

A. Lakehead TS - Construction Activities

i. Summary of Activities from last Reporting Period to Next Reporting Period

• Work completed between Dec 01, 2020 – Feb 28, 2021

○ Civil Construction

- Excavation/grading/backfill/stoning
 - Completed section 13 excavation and section 18 backfilling
- Footings/Piers & Foundations
 - Completed section 13 CVT's piers
- Cable trench & road crossings
 - Completed hand digging in 115kV yard

○ Electrical Construction

- Grid grounding
 - Remaining around capacitor bank not completed due to weather
- Structures - install
 - Both reactor structures not completed due to weather
 - Lightning spike not completed due to outage cancellation
- Bus – rigid/strain
 - Completed drops in Bays 9 & 10, completed Prep work for future Completed M37L & M38L switches strain bus drops
 - Completed installation of road crossing rigid bus in Bays 9 & 10

○ Equipment

- Station Service/ATS – install/wire
 - Completed panel 16 & 17 for powering up

○ Buildings

- New PCT building
 - Continuing with cable pulling inside and wiring of racks
- Existing Control building –work performed
 - Continued with pulling cables and wiring racks

○ Commissioning

- Completed direct SCADA cutover to new communications network
- Testing at remote sites via the new SCADA completed
- Overall 40% of protections have been commissioned but not in-service yet

A. Lakehead TS - Construction Activities - continued

i. Summary of Activities from last Reporting Period to Next Reporting Period

• Anticipated work to be completed between Mar 2021 - May 2021

○ Civil Construction

- Excavation/grading/backfill/stoning
 - Section 14 excavation, section 15 backfilling (north end of yard)
- Footings/Piers & Foundations
 - Section 14 & 15 CVT piers
 - Section 19 capacitor bank piers
- Cable trench & road crossings
 - Hand digging in section 8 in 230kV yard

○ Electrical Construction

- Grid grounding
 - Complete grounding around capacitor bank, PT & switches for stage 2
- Structures - install
 - Install both reactor structures, 3 lightning spikes around reactor
- Cable Pulling
 - Ongoing from outdoor equipment to PCT building

○ Equipment

- Install reactor with associated breaker and switches

○ Buildings

- New PCT building
 - Ongoing cable pulling and terminating to racks
- Existing Control building –work performed
 - Ongoing cable pulling and terminating to racks

○ Commissioning

- Continue with programming, testing & commissioning of protection IED (Intelligent Electronic Device) modules in racks
- Continue with field testing and commissioning of breakers, CVTs, and line switches

ii. Life-to-Date Status of Major Items

Lakehead TS

Approvals	Rec'd	% Comp
ECA drainage	Yes	100

Civil / Electrical Installation	Project Total	Unit of Measure	Installed	% Comp
Civil / Electrical Installation - On Track				
Foundations	2	ea	2	100.0%
Footings - Piers	223	ea	205	91.9%
Cable Trench	1500	m	1302	86.8%
Grounding Grid	3330	m	2467	74.1%
Structures	101	ea	67	66.3%
Rigid bus	390	m	194	49.7%
Strain bus	2210	m	850	38.5%

Equipment Installation	Project Total	Unit of Measure	Rec'd/ Built	Installed	Wired	Comm'd	% Comp
Equipment Installation - On Track							
Breakers	8	ea	8	4	4	0	35.0%
Reactors/Cap Banks	2	ea	1	0	0	0	5.0%
Switches - Line, Disc & Grnd	20	ea	20	12	12	12	64.0%
CVT (Current Voltage Transformer)	25	ea	25	15	15	15	64.0%
AC Station Service	4	ea	4	2	2	2	55.0%
DC Station Service	2	ea	2	2	2	2	100.0%
Protection racks	116	ea	116	116	60	0	45.5%
Control equipment	13	ea	13	13	5	0	41.5%
Telecom/Teleproton racks	71	ea	56	56	22	0	33.0%

Definition of terms used:

Rec'd/Built - represents either inventory delivered and sitting at site/warehouse or racks built for building

Installed - represents equipment being installed on a structure, foundation, floor or in a rack

Wired - represents having all wiring and terminations completed to the equipment

Comm'd - represents 'Commissioned' being able to function as designed, for it's intended purpose

% Compl - represents % complete weighting: 10% for rec;d, 20% for Installed, 30% for wired, 40% for commissioned

Building Installation	Project Total	Unit of Measure	Found'n	Walls /Roof	Mech/ Elect	Comm'd	% Comp
Building Installation - On Track							
PCT (Protection/Control/Telecom) Building	1	%	100.0%	100.0%	100.0%	100.0%	100.0%

Definition of terms used:

Found'n - represents the concrete foundation slab

Walls/Roof - represents the pre-cast walls and roof being erected

Mech/Elect - represents having all HVAC, fire alarm, lighting and distribution panels completed in building

Comm'd - represents 'Commissioned' being substantially complete as designed, for it's intended purpose

% Compl - represents % complete weighting: 20% for foundations, 40% for Walls/Roof, 30% for Mech/Elect, 10% for commissioned

iii. Progress Photos – Civil & Electrical



Lakehead – section 19 Cap Bank work



Lakehead – newly installed strain bus drops to P bus CVT's in bay 9



Lakehead – newly installed rigid/strain bus over road crossing in Bay 9,10

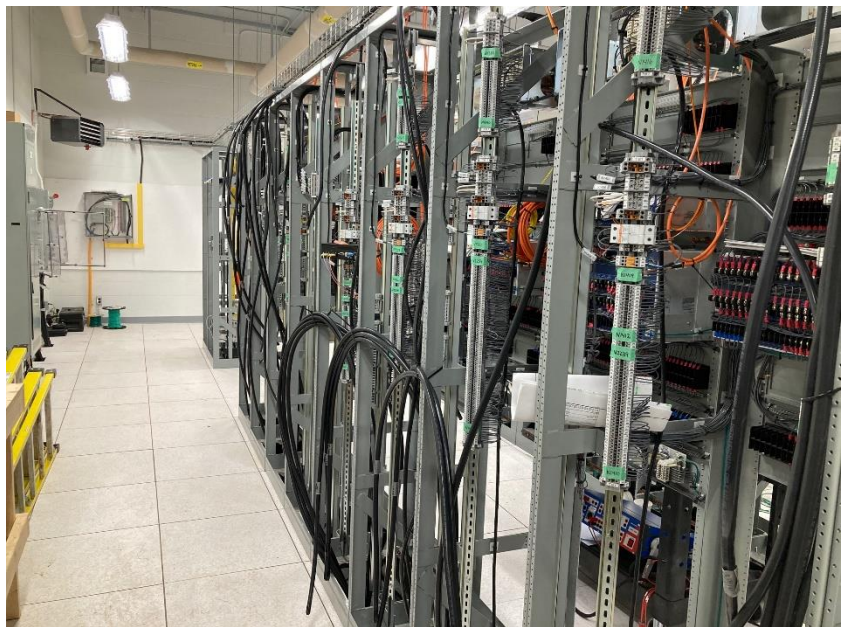


Lakehead – heating & hoarding of rock anchor install at section 14

iv. Progress Photos – Equipment & Building



Lakehead – ongoing protection cable pulling in the A building



Lakehead - ongoing protection cable pulls in B building

B. Marathon TS - Construction Activities

i. Summary of Activities from last Reporting Period to Next Reporting Period

• Work Completed between Dec 01, 2020 – Feb 28, 2021

○ Civil Construction

- Excavation/grading/backfill/stoning
 - Completed area 10
- Footings/Piers & Foundations
 - Completed ground Interrupter switches 1-3,16-18
- Cable trench & road crossings
 - Completed 50% of Area G

○ Electrical Construction

- Grid grounding
 - 8 sections of sky wire has been installed
- Structures - install
 - Lattice structures from grid line A to grid line C have been installed
- Bus – rigid/strain
 - Install L35, L36, W1 & W2 strain bus installed
 - Install Jitney bus bays V-VI installed
 - Install Jitney bus bays VII-VIII installed

○ Equipment

- All major yard equipment have been installed, and most wired.
- All racks and panels in buildings have been installed.

○ Buildings

- New PCT building
 - Ongoing cable pulling and terminating to racks
- Existing Control building –work performed
 - Ongoing cable pulling and terminating to racks

○ Commissioning

- Direct SCADA cutover to new communications network complete and communicating to the OGCC
- Ongoing testing - 70% breaker fail testing complete, overall protections are at 30% complete based on overall plan

B. Marathon TS - Construction Activities - continued

i. Summary of Activities from last Reporting Period to Next Reporting Period

- **Anticipated work to be completed between Mar 2021 - May 2021**
 - **Civil Construction**
 - Excavation/grading/backfill/stoning
 - Begun activities at Oil Water Separator (OWS)
 - Footings/Piers & Foundations
 - Start the Oil Water Separator foundation
 - Cable trench & road crossings
 - Complete remaining 50% of Area G
 - Heating & Hoarding (Winter work)
 - Support reactor and circuit breaker commissioning activities
 - **Electrical Construction**
 - Grid grounding
 - Area G for cable trench and reactor foundation
 - Structures - install
 - installation remainder of switch and bus support structures
 - Bus – rigid/strain
 - Installation of all remaining rigid bus
 - **Equipment**
 - Installed remaining 6 breakers and switches in yard
 - Commissioning of R3 and R4 reactors
 - **Buildings**
 - New PCT building
 - Continue with external cable pulling from yard equipment
 - Continue with terminating cables from external equipment
 - Existing Control building –work performed
 - Complete remaining fiber splicing
 - **Commissioning**
 - Continue testing based on schedule, partially commission bus & transformer protections as well as breaker & reactor commissioning
 - Continue with programming, testing & commissioning of protection IED (Intelligent Electronic Device) modules in racks

ii. Life-to-Date Status of Major Items

Marathon TS

Approvals	Rec'd	% Comp
EA approvals	Yes	100.0%
ECA drainage	Yes	100.0%

Civil / Electrical Installation	Project Total	Unit of Measure	Installed	% Comp
Civil / Electrical Installation - On Track				
Foundations	3	ea	2	66.7%
Footings - Piers	376	ea	376	100.0%
Cable Trench	1663	m	1531	92.1%
Grounding Grid	4220	m	3185	75.5%
Structures	97	ea	64	66.0%
Rigid bus	1247	m	433	34.7%
Strain bus	3090	m	2163	70.0%

Equipment Installation	Project Total	Unit of Measure	Rec'd/ Built	Installed	Wired	Comm'd	% Comp
Equipment Installation - On Track							
Breakers	12	ea	12	6	6	6	55.0%
Reactors	2	ea	2	2	0	0	30.0%
Switches - Line, Disc & Grnd	36	ea	36	20	20	17	56.7%
CVT (Current Voltage Transformer)	24	ea	24	12	12	12	55.0%
AC Station Service	2	ea	2	2	2	2	100.0%
DC Station Service	2	ea	2	2	2	2	100.0%
Protection racks	132	ea	132	132	132	0	60.0%
Control equipment	15	ea	15	15	15	5	73.3%
Telecom/Teleprotection racks	83	ea	83	83	20	0	37.2%

Definition of terms used:

Rec'd/Built - represents either inventory delivered and sitting at site/warehouse or racks built for building

Installed - represents equipment being installed on a structure, foundation, floor or in a rack

Wired - represents having all wiring and terminations completed to the equipment

Comm'd - represents 'Commissioned' being able to function as designed, for its intended purpose

% Compl - represents % complete weighting: 10% for rec;d, 20% for Installed, 30% for wired, 40% for commissioned

Building Installation	Project Total	Unit of Measure	Found'n	Walls /Roof	Mech/ Elect	Comm'd	% Comp
Building Installation - On Track							
PCT (Protection/Control/Telecom) Building	1	%	100.0%	100.0%	100.0%	100.0%	100.0%

Definition of terms used:

Found'n - represents the concrete foundation slab

Walls/Roof - represents the pre-cast walls and roof being erected

Mech/Elect - represents having all HVAC, fire alarm, lighting and distribution panels completed in building

Comm'd - represents 'Commissioned' being substantially complete as designed, for its intended purpose

% Compl - represents % complete weighting: 20% for foundations, 40% for Walls/Roof, 30% for Mech/Elect, 10% for commissioned

iii. Progress Photos – Civil & Electrical



Marathon – 11 remaining switches for station expansion assembled and grounded awaiting installation



Marathon – newly installed switches on East side of yard



Marathon – newly installed L35.L36,W1,W2 strain bus



Marathon – Various CVT's wired

iv. Progress Photos – Equipment & Building



Marathon – breakers completed



Marathon – Various CVT's wired



Marathon – Racks wired and powered up containing various protections and control IED (Intelligent Electronic Devices) modules to monitor lines and yard equipment as well as control of breakers and switches

C. Wawa TS - Construction Activities

i. Summary of Activities from last Reporting Period to Next Reporting Period

• Work Completed between Dec 01, 2020 – Feb 28, 2021

○ Civil Construction

- Excavation/grading/backfill/stoning
 - Completed minor excavating and backfilling for electrical support, waiting for better weather to complete remaining

○ Electrical Construction

- Grid Grounding
 - 250m of grounding around line entrance BPE structures as BPE structures did get done due to weather
- Structures - install
 - Install line entrance BPE structures not complete – delayed to better weather
- Bus – rigid/strain
 - Strain bus from to line entrance structure complete

○ Equipment

- Breakers – install/wire
 - Completed wiring up of 3 breakers
- CVT's – install/wire
 - Completed wiring of 2 sets of CVT's
- Station Service/ATS – install/wire
 - TSS22 and associated equipment have been installed

○ Buildings

- New PCT building
 - All racks in 'A' and 'B' room in building have been installed
 - All 'A' room cables installed, Have a majority of internal cables pulled and terminated
- Existing Control building
 - All equipment in PCT building has been installed
 - Temporarily terminate racks – free standing racks

C. Wawa TS - Construction Activities - continued

i. Summary of Activities from last Reporting Period to Next Reporting Period

- **Anticipated work to be completed between Mar 2021 - May 2021**
 - **Civil Construction**
 - Excavation/grading/backfill/stoning
 - General excavating and backfilling to support ground grid activities as weather improves
 - Cable trench & road crossings
 - Cable trench rework due to interferences
 - **Electrical Construction**
 - Grid Grounding
 - Install 250m of grounding around line entrance BPE structures if BPE's are installed by then
 - Cable trench & road crossings
 - Cable trench and equipment in Bay 1 & 3
 - Bus – rigid/strain
 - Rigid and Strain bus in Bay 1 & 3 from equipment to PCT building
 - Cable Pulling
 - Cables from Bay 1 & 3 to PCT building
 - **Equipment**
 - Breakers – install/wire
 - Wire up remaining 3 breakers
 - CVT's – install/wire
 - Wire 2 sets of CVT's
 - Station Service/ATS – install/wire
 - Pull cables and terminate for TSS21 & TSS22 equipment
 - **Buildings**
 - New PCT building
 - Continue with 'B' room cable pulling, Wire and commission DC switchgear
 - Existing Control building
 - Install telecom cabinets and fiber patch panels
 - Install temporarily terminal racks (for testing, to be removed later)

ii. Life-to-Date Status of Major Items

Wawa TS

Approvals	Rec'd	% Comp
EA approvals	Yes	100.0%

Civil / Electrical Installation	Project Total	Unit of Measure	Installed	% Comp
Civil / Electrical Installation - On Track				
Foundations	n/a	n/a	n/a	n/a
Footings - Piers	163	ea	163	100.0%
Cable Trench	962	m	810	84.2%
Grounding Grid	2320	m	1612	69.5%
Structures	88	ea	88	100.0%
Rigid bus	384	m	335	87.2%
Strain bus	1310	m	1205	92.0%
Lines intermediate structures	3	ea	0	0.0%

Equipment Installation	Project Total	Unit of Measure	Rec'd/ Built	Installed	Wired	Comm'd	% Comp
Equipment Installation - On Track							
Breakers	6	ea	6	6	3	0	45.0%
Reactors/Cap Banks	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Switches - Line, Disc & Grnd	19	ea	19	16	4	0	33.2%
CVT (Current Voltage Transformer)	15	ea	15	12	4	0	34.0%
AC Station Service	2	ea	2	2	0	0	30.0%
DC Station Service	2	ea	2	2	0	0	30.0%
Protection racks	64	ea	64	64	32	0	45.0%
Control equipment	15	ea	15	7	7	0	33.3%
Telecom/Teleprotection racks	64	ea	63	32	32	0	34.8%

Definition of terms used:

Rec'd/Built - represents either inventory delivered and sitting at site/warehouse or racks built for building

Installed - represents equipment being installed on a structure, foundation, floor or in a rack

Wired - represents having all wiring and terminations completed to the equipment

Comm'd - represents 'Commissioned' being able to function as designed, for its intended purpose

% Compl - represents % complete weighting: 10% for rec'd, 20% for Installed, 30% for wired, 40% for commissioned

Building Installation	Project Total	Unit of Measure	Found'n	Walls /Roof	Mech/ Elect	Comm'd	% Comp
Building Installation - On Track							
PCT (Protection/Control/Telecom) Building	1	%	100.0%	100.0%	100.0%	100.0%	100.0%

Definition of terms used:

Found'n - represents the concrete foundation slab

Walls/Roof - represents the pre-cast walls and roof being erected

Mech/Elect - represents having all HVAC, fire alarm, lighting and distribution panels completed in building

Comm'd - represents 'Commissioned' being substantially complete as designed, for its intended purpose

% Compl - represents % complete weighting: 20% for foundations, 40% for Walls/Roof, 30% for Mech/Elect, 10% for commissioned

iii. Progress Photos – Civil & Electrical



Wawa – L21L35 breaker wired



**Wawa – Bay 4 breaker
mechanical box wired**



Wawa – new PCT building room 'A' protection and control panels

iv. Progress Photos – Equipment & Building



Wawa – new PCT building DC monitoring cabinets



Wawa – new PCT building room A' batteries

2. Co-ordination efforts with Upper Canada Transmission Inc., operating as NextBridge Infrastructure, LP (NextBridge)

A. Station Connection:

- i. Hydro One and NextBridge project teams continue to hold monthly meetings (conference calls) to discuss the project status, review and update schedules, as well as engineering, construction and outage issues related to connection of the NextBridge lines to Hydro One stations.
- ii. Hydro One and NextBridge continue to develop a Construction Cost Recovery Agreement which describes the tasks and milestones/schedules for completing the connection of the NextBridge lines to Hydro One stations. It is being reviewed by both parties.

B. Occupancy of Hydro One Property

- i. The Easement Agreements for the EWT line on Bill 58 lands for Wawa TS station has been agreed to in principle with final approval anticipated soon.

C. Staging Plan and Support

- i. Hydro One continues to support NextBridge with their outage requirements which have been incorporated into the Staging Plan. To date, planned outages have been successfully executed.
- ii. Through several exchanges, the commissioning plan between Hydro One and NextBridge to schedule tower and lines placement outside each station, has been finalized as per the new in-service date of March 31, 2022.
- iii. Hydro One continues to assist NextBridge in their Work Protection activities related to outages for lines construction, by providing for training and support.

3. Project Schedule Update:

Station Related Work Lakehead TS	Baseline Forecast	Current Forecast	Status
Drainage Environmental Compliance Approval (ECA) received	1-Apr-19	1-Apr-19	Complete
Station Readiness (infrastructure) and connection from towers into station	19-Apr-21	15-Jul-20	Complete
Station ready for In-Service	29-May-21	29-May-21	On Track

Station Related Work Marathon TS	Baseline Forecast	Current Forecast	Status
Re-submission of ECA permit application	1-Nov-18	1-Nov-18	Complete
NextBridge EWT IEA approval obtained	1-Mar-19	1-Mar-19	Complete
Drainage ECA received	1-Oct-19	1-Oct-19	Complete
HONI EA approval	15-Oct-19	15-Oct-19	Complete
Tree cutting commencement	15-Oct-19	15-Oct-19	Complete
Station Readiness (infrastructure) and connection from towers into station	19-Apr-21	19-Apr-21	On Track
Station ready for In-Service	14-Jun-21	14-Jun-21	On Track

Station Related Work Wawa TS	Baseline Forecast	Current Forecast	Status
Direction from MECP to Hydro One regarding Screening Level EA and Part II Order Request	8-Nov-18	8-Nov-18	Complete
NextBridge EWT IEA approval obtained	1-Mar-19	1-Mar-19	Complete
HONI EA approval	30-Sep-19	30-Sep-19	Complete
Tree cutting commencement (no permits required)	1-Oct-19	1-Oct-19	Complete
Station readiness (infrastructure)	7-Dec-20	7-Dec-20	On Track
Connection from towers into station	19-Apr-21	19-Apr-21	On Track
Station ready for In-Service	28-Oct-21	28-Oct-21	On Track

Nextbridge Related Interface Work	Baseline Forecast	Current Forecast	Status
Connection structures ready outside Lakehead TS (1)	30-Mar-20	4-Feb-22	Delayed
Connection structures ready outside Marathon TS (1)	19-Apr-21	11-Feb-22	Delayed
Connection structures ready outside Wawa TS (1)	31-Aug-21	25-Feb-22	Delayed
Conductor/OPGW/OHGW complete to structure outside Lakehead TS (1)	15-Jul-20	4-Feb-22	Delayed
Conductor/OPGW/OHGW complete to structure outside Marathon TS (1)	15-Jun-21	11-Feb-22	Delayed
Conductor/OPGW/OHGW complete to structure outside Wawa TS (1)	31-Oct-21	25-Feb-22	Delayed
Lines/Grounding Spec deliverables for Lakehead TS	19-Oct-20	19-Oct-20	Complete
Lines/Grounding Spec deliverables for Marathon TS	19-Oct-20	19-Oct-20	Complete
Lines/Grounding Spec deliverables for Wawa TS	19-Feb-21	19-Feb-21	Complete

Note (1): Dates proposed to NextBridge in order to meet Hydro One's schedule for connecting to stations and in-servicing by March 2022. NextBridge still to confirm these dates can be met.

4. Project Cost Update:

Hydro One-Stations Upgrades Project Reporting Costs Table										
COST CATEGORIES FOR HYDRO ONE'S STATION UPGRADES PROJECT REPORTING		ACTUALS SPENT		ORIGINAL BUDGET	FORECAST BUDGET VARIANCE					
		A SPENT THIS REPORTING PERIOD \$	B TOTAL SPENT TO DATE \$	C BUDGET PER LTC APPLICATION \$ 000S	D FORECAST BUDGET CHANGE FROM LAST REPORT \$	E FORECAST BUDGET CHANGE FROM LAST REPORT %	F REVISED TOTAL BUDGET	G=F-B BUDGET REMAINING \$	H=G/F*100 BUDGET REMAINING %	REASONS FOR CHANGE
1	Materials	2,333,784	61,947,007	51,337,000	13,503,000	26.30%	64,840,000	2,892,993	4.46%	See explanation next page
2	Labour	3,623,233	40,747,491	56,895,000	-2,201,000	-3.87%	54,694,000	13,946,509	25.50%	See explanation next page
3	Equipment Rental and Contractor Costs	616,960	10,500,396	8,920,000	14,152,000	158.65%	23,072,000	12,571,604	54.49%	See explanation next page
4	Sundry	1,172,964	3,783,222	1,305,000	3,958,000	303.30%	5,263,000	1,479,778	28.12%	See explanation next page
5	Contingencies	0	0	19,227,000	-15,477,000	-80.50%	3,750,000	3,750,000	100.00%	See explanation next page
6	Overhead	1,020,685	12,910,520	13,367,000	3,210,000	24.01%	16,577,000	3,666,480	22.12%	See explanation next page
7	Allowance for Funds During Construction	853,295	6,954,781	6,264,000	7,240,000	115.58%	13,504,000	6,549,219	48.50%	See explanation next page
TOTAL CONSTRUCTION COSTS		9,620,921	136,843,417	157,315,000	24,385,000	16%	181,700,000	44,856,583	24.69%	

Revised total budget is based on a Class 2 estimate for remaining work with a range of +20%/-15%. For clarification, this table captures all costs incurred up until February 28, 2021

5. Explanation for Cost Variances

As was mentioned in the previous report, a review of the budget was performed this quarter. The results indicate that the project costs will remain well-within the AACE Class 3 estimate originally provided, however, there are increased costs that Hydro One has identified at this time. Variances from the original estimate are predominantly driven by external factors including:

- COVID-19 pandemic related impacts;
- Increased AFUDC carrying costs associated with in-service delays due to NextBridge's 5 month delay,
- Additional environmental approval requirement attributed to the MECP (Ministry of Environment, Conservation and Parks) elevation of the Environmental Assessment to a full Class EA, that was received after a Screen-Out EA had been completed. As a result, tree cutting was delayed causing the civil work that was scheduled for summer months to be performed in the winter instead which added snow removal, heating and hoarding being under-estimated; and
- Increased risks associated with outage and weather constraints as previously described in this report.

These uncontrollable items combined account for approximately **\$11.2M** of the \$24.4M forecast budget change from the last quarterly report. To mitigate and control these costs, a raised awareness with the IESO and OPG has been established to minimize cancellation of planned outages. Contingency outage plans are in place that have been communicated to the IESO. Opportunities for outage work to be coordinated and bundled together where possible, have been setup.

The remainder of the cost variances (8% over the original 157M estimate) are predominantly attributed to inclement weather, and unforeseen subsurface and bedrock issues that impacted the relay building construction. The bedrock discoveries and extensive soil remediation around the yard expansion and laydown area also increased rental equipment standby charges. As well there was redesign and rework associated with line parameter, staging plan, foundation, cable trench vendor selection and reactor commissioning changes. These drivers have had an impact on all categories of the budget.

These costs could not have been captured in the original desktop estimating exercise. These costs could only be unearthed once the project matured significantly from the original 2017 estimate to the point where it now has a more defined project execution plan. Cognizant of this evolution, and current state of the Project, Hydro One has elevated the AACE classification of the revised \$181.7M forecast estimate to a Class 2 estimate.

6. Risk Management Update:

Risk Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Impact of the Risk on the Project	Mitigation of Risk and/or Impact
Outage cancellations due to new IESO regulations of restricting outages combined with OPG low water level impact	High	In-service delay / cost overrun	High	Adding contingency dates for alternative outage dates. Constant communications with IESO. Delays could cause activities to slide affecting both schedule and cost.
Outage availability considerations due to COVID-19 pandemic disruption	Medium	Project delays/ cost overrun	High	Coordinate and bundle outage requirements. Delays could cause activities to slide affecting both schedule and possibly cost.
Cost & Schedule impacts due to COVID-19 pandemic disruption.	Medium	Project delays/ cost overrun	High	Looking for efficiency gains in work methods. Monitor affect of working with new social distancing measures and make adjustments as required.
NextBridge not being able to meet Hydro One's deliverable commitments and/or the in-service date	Medium	Project delays/ cost overrun	High	Communication with NextBridge and tracking the Staging Plan. By not meeting HONI standards could cause re-design and delays to project schedule.
NextBridge dead-end structure not designed to Hydro One standards	Low	Project delays/ cost overrun	Medium	Communication with NextBridge and monitoring of design. By not meeting HONI standards could cause re-design and delays to project schedule.
Delays in obtaining required EA approvals for Wawa TS	No risk - complete	Project delays/ cost overrun	High	Complete – approval granted
Delays in construction of 230kV Control building due to EA approval delay	No risk - complete	Project delays/ cost overrun	High	Complete – approval granted
Delays in obtaining required EA approvals for Marathon TS	No risk - complete	No impact	No impact	Complete – approval granted
Delays in obtaining funding for engineering and long-lead material	No risk - complete	No impact	No impact	Complete – funding received
Material delivery delay considerations	No risk - complete	Delay in procurement/delivery	Low	Monitor material status reports and contact vendor on a periodic basis. Delays could cause activities to slide affecting both schedule and possibly cost.
Soil conditions do not match samples in soil report	No risk - complete	No impact	No impact	Complete - risks have been mitigated using alternative construction measures.
Commissioning resource availability due to compressed schedule	No risk - complete	Project delays/ cost overrun	No impact	Complete - resources acquired