

Appendix E:
REA Report Changes

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E.1 MODIFICATIONS TO PROJECT DESCRIPTION REPORT

This section describes the modifications to the Project Description Report in support of the additional of the fibre option line, temporary portable generator sets, and backup generator. As described within Section 2.2.5 of the Renewable Energy Approval Amendment Modification Report, the Project Description Report is modified as described in the table below.

Section / Page Reference	Original Text	Modified Text (underlined text is new)
s. 1.1, pg. 1.1, para. 4	As proposed, the Project will include 36 wind turbines for a total maximum installed nameplate capacity of up to 58.32 MW. In addition, the Project will require 34.5 kV above and below ground electrical collector and communication lines, pad-mounted transformers, crane pads, two permanent meteorological towers, access roads, operations and maintenance building, welfare buildings, a transformer station (TS), construction compounds and laydown yards, and other ancillary facilities. The Project will connect to the provincial power grid via existing 115 kV transmission lines located adjacent to the Project's transformer station location.	As proposed, the Project will include 36 wind turbines for a total maximum installed nameplate capacity of up to 58.32 MW. In addition, the Project will require 34.5 kV above and below ground electrical collector and communication lines, pad-mounted transformers, crane pads, two permanent meteorological towers, access roads, operations and maintenance building, welfare buildings, a transformer station (TS) <u>with fibre optic communication line and backup generator</u> , construction compounds and laydown yards, and other ancillary facilities. The Project will connect to the provincial power grid via existing 115 kV transmission lines located adjacent to the Project's transformer station location.
s. 2.2, pg. 2.1, para. 2	The Project Location is defined in O. Reg. 359/09 to include all land and buildings/structures in, on or over which the Proponent proposes to engage in associated with the Project and any air space in which the Proponent proposes to engage in the Project. This includes structures such as: Permanent infrastructure, including: <ul style="list-style-type: none"> • Wind turbines and transformers • Collector and communications lines (overhead and underground) • Transformer station • Access roads (new/upgraded public multi-use and/or Project-specific roads) • Crane pads • Operations and Maintenance building 	The Project Location is defined in O. Reg. 359/09 to include all land and buildings/structures in, on or over which the Proponent proposes to engage in associated with the Project and any air space in which the Proponent proposes to engage in the Project. This includes structures such as: Permanent infrastructure, including: <ul style="list-style-type: none"> • Wind turbines and transformers • Collector and communications lines (overhead and underground) • Transformer station • <u>Fibre optic communication line between transformer station and Highway 17</u> • <u>Backup generator</u> • Access roads (new/upgraded public multi-use

Table E.1: Modifications to Project Description Report

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	<ul style="list-style-type: none"> • Welfare buildings • Permanent meteorological (“Met”) towers • Any area cleared (e.g., cleared of trees or scrub) which will be kept clear during operations • Access road gates (on Project-specific road alignments only) <p>Temporary components, including:</p> <ul style="list-style-type: none"> • Construction compounds and laydown yards • Construction areas surrounding Project infrastructure (e.g. wind turbine staging areas) that are required for installation activities • Concrete batch plants • Water extraction points • Temporary Met towers 	<p>and/or Project-specific roads)</p> <ul style="list-style-type: none"> • Crane pads • Operations and Maintenance building • Welfare buildings • Permanent meteorological (“Met”) towers • Any area cleared (e.g., cleared of trees or scrub) which will be kept clear during operations • Access road gates (on Project-specific road alignments only) <p>Temporary components, including:</p> <ul style="list-style-type: none"> • Construction compounds and laydown yards • Construction areas surrounding Project infrastructure (e.g. wind turbine staging areas) that are required for installation activities • Concrete batch plants • <u>Temporary portable generator sets</u> • Water extraction points • Temporary Met towers
s. 3.3, pg. 3.3, para. 1	<p>The TS is required to step up the 34.5 kV power of the collector lines to the 115 kV voltage required by the transmitter, Great Lakes Power Transmission LP (“GLPT”). The TS consists primarily of two 50 MVA power transformers, grounding transformers, 34.5 kV and 115 kV circuit breakers and disconnect switches, surge arrestors, instrument transformers, meters, a protection and control building, along with associated concrete foundations to mount the afore mentioned equipment. The TS will likely have four 34.5 kV collector circuits entering the low voltage section and two 115 kV circuits leaving the high voltage section. GLPT is responsible for the high voltage infrastructure between the TS fenceline and the GLPT transmission lines.</p>	<p>The TS is required to step up the 34.5 kV power of the collector lines to the 115 kV voltage required by the transmitter, Great Lakes Power Transmission LP (“GLPT”). The TS consists primarily of two 50 MVA power transformers, grounding transformers, 34.5 kV and 115 kV circuit breakers and disconnect switches, surge arrestors, instrument transformers, meters, a protection and control building, along with associated concrete foundations to mount the afore mentioned equipment. <u>A backup generator will be installed within the footprint of the TS for use during maintenance, emergency and other unscheduled outages.</u> The TS will likely have four 34.5 kV collector circuits entering the low voltage section and two 115 kV circuits leaving the high voltage section. GLPT is responsible for the high voltage infrastructure between the TS fenceline and the GLPT transmission lines.</p>

Table E.1: Modifications to Project Description Report

Section / Page Reference	Original Text	Modified Text (underlined text is new)
		<p><u>The fibre optic line will be installed within the road beds of Dump Road, Hogg Dam Road and MacKay Road with no direct disturbance to adjacent natural features. The fibre optic line will be routed from the Project’s transformer station to Highway 17 to facilitate communication to and from the wind project. The fibre optic line will provide communications to the site including telephone, network and internet access to the Project for construction and operations. During operations, the fibre optic line will provide reliable network and internet service to the Project for the site Supervisory Control and Data Acquisition (SCADA) system and for remote monitoring and control of the turbines. In addition, an internet connection is required to fulfill Hydro One grid protection requirements and IESO requirements for site visibility and centralized forecasting. The fibre optic line will also connect to Great Lakes Power’s Gartshore TS located on MacKay Road.</u></p>
s. 3.8, pg. 3.5, para. 1	<p>Lands to be temporarily used during the construction of the Project include: construction compounds; construction areas surrounding infrastructure (e.g. wind turbine staging areas) that are required to support installation works; concrete batch plants; and water extraction points. Any temporary office facilities used during construction will not require installation of permanent services (e.g. sewer, electrical), and will be placed within the delineated construction compounds. In all instances, temporary cleared areas will be minimized to the extent possible and will be limited to the minimum area required to safely support construction activities.</p>	<p>Lands to be temporarily used during the construction of the Project include: construction compounds; construction areas surrounding infrastructure (e.g. wind turbine staging areas) that are required to support installation works; concrete batch plants; and water extraction points. Any temporary office facilities used during construction will not require installation of permanent services (e.g. sewer, electrical), and will be placed within the delineated construction compounds. <u>Temporary portable generator sets will also be moved among construction areas and compounds to facilitate construction of the Project.</u> In all instances, temporary cleared areas will be minimized to the extent possible and will be limited to the minimum area required to safely support construction activities.</p>

E.2 MODIFICATIONS TO CONSTRUCTION PLAN REPORT

This section describes the modifications to the Construction Plan Report in support of the additional of the fibre option line, temporary portable generator sets, and backup generator. As described within Section 2.2.5 of the Renewable Energy Approval Amendment Modification Report, the Construction Plan Report is modified as described in the table below.

Section / Page Reference	Original Text	Modified Text
s. 1.0, pg. 1.1, para. 4	As proposed, the Project will include 36 wind turbines for a total maximum installed nameplate capacity of up to 58.32 MW. In addition, the Project will require 34.5 kV above and below ground electrical collector and communication lines, pad-mounted transformers, crane pads, two permanent meteorological towers, access roads, operations and maintenance building, welfare buildings, a transformer station (TS), construction compounds and laydown yards, and other ancillary facilities. The Project will connect to the provincial power grid via existing 115 kV transmission lines located adjacent to the Project's transformer station location.	As proposed, the Project will include 36 wind turbines for a total maximum installed nameplate capacity of up to 58.32 MW. In addition, the Project will require 34.5 kV above and below ground electrical collector and communication lines, pad-mounted transformers, crane pads, two permanent meteorological towers, access roads, operations and maintenance building, welfare buildings, a transformer station (TS) <u>with fibre optic communication line and backup generator</u> , construction compounds and laydown yards, and other ancillary facilities. The Project will connect to the provincial power grid via existing 115 kV transmission lines located adjacent to the Project's transformer station location.
s. 2.0, Table 2.1, pg. 2.7	Activity: Transformer Station Description of Activities: The TS consists primarily of two (2) 50 MVA power transformers, 34.5 kV and 115 kV circuit breakers and disconnect switches, surge arrestors, instrument transformers, revenue meters, a protection and control building along with associated foundations to mount the afore mentioned equipment. A chain link fence with barbed wire top will be installed around the TS area and will be equipped with locked vehicle gates to maintain public safety and allow for maintenance access.	Activity: Transformer Station Description of Activities: The TS consists primarily of two (2) 50 MVA power transformers, 34.5 kV and 115 kV circuit breakers and disconnect switches, surge arrestors, instrument transformers, revenue meters, <u>fibre optic communication line</u> , a protection and control building along with associated foundations to mount the afore mentioned equipment. <u>The fibre optic line will be installed within the road beds of Dump Road, Hogg Dam Road and MacKay Road with no direct disturbance to adjacent natural features. A backup generator will be installed within the footprint of the TS for use during maintenance, emergency and other unscheduled outages.</u> A chain link fence with barbed wire top will be installed around the TS area and will be equipped with locked vehicle gates to maintain public safety and allow for

Section / Page Reference	Original Text	Modified Text
		maintenance access.
s. 2.0, Table 2.1	n/a	All Activities: add <u>temporary portable generator sets</u> to listed Construction Vehicle Types

E.3 MODIFICATIONS TO DESIGN & OPERATIONS REPORT

This section describes the modifications to the Design & Operations Report in support of the additional of the fibre option line, temporary portable generator sets, and backup generator. As described within Section 2.2.5 of the Renewable Energy Approval Amendment Modification Report, the Design & Operations Report is modified as described in the table below.

Section / Page Reference	Original Text	Modified Text
s. 1.0, pg. 1.1, para. 4	As proposed, the Project will include 36 wind turbines for a total maximum installed nameplate capacity of up to 58.32 MW. In addition, the Project will require 34.5 kV above and below ground electrical collector and communication lines, pad-mounted transformers, crane pads, two permanent meteorological towers, access roads, operations and maintenance building, welfare buildings, a transformer station (TS), construction compounds and laydown yards, and other ancillary facilities. The Project will connect to the provincial power grid via existing 115 kV transmission lines located adjacent to the Project's transformer station location.	As proposed, the Project will include 36 wind turbines for a total maximum installed nameplate capacity of up to 58.32 MW. In addition, the Project will require 34.5 kV above and below ground electrical collector and communication lines, pad-mounted transformers, crane pads, two permanent meteorological towers, access roads, operations and maintenance building, welfare buildings, a transformer station (TS) <u>with fibre optic communication line and backup generator</u> , construction compounds and laydown yards, and other ancillary facilities. The Project will connect to the provincial power grid via existing 115 kV transmission lines located adjacent to the Project's transformer station location.
3. 3.4, pg. 3.2, insert new text after existing 3 rd paragraph	n/a	<u>A backup generator will be installed within the footprint of the TS and will be operated only under the following parameters:</u> <ul style="list-style-type: none"> <u>In the event of the loss of electrical power from the 115 kV hydro grid which causes the TS to lose station service and result in possible damage to the facility:</u>

Table E.3: Modifications to Design & Operations Report

Section / Page Reference	Original Text	Modified Text
		<ul style="list-style-type: none"> • <u>In exercise mode once per month for 10 minutes;</u> • <u>During scheduled Project maintenance, one per year for approximately eight hours; and,</u> • <u>During unscheduled TS outage, assumed to be approximately once per year for eight hours.</u> <p><u>The operating parameters in which the backup generator will be operated are in accordance with the exemption requirements of Section 7. (1) of O. Reg. 359/09.</u></p> <p><u>A fibre optic line from the Project's transformer station to Highway 17 to facilitate communication to and from the wind project. The fibre optic line will provide communications to the site including telephone, network and internet access to the Project for construction and operations. During operations, the fibre optic line will provide reliable network and internet service to the Project for the site Supervisory Control and Data Acquisition (SCADA) system and for remote monitoring and control of the turbines. In addition, an internet connection is required to fulfill Hydro One grid protection requirements and IESO requirements for site visibility and centralized forecasting. The fibre optic line will also connect to Great Lakes Power's Gartshore TS located on MacKay Road.</u></p>

E.4 MODIFICATIONS TO DECOMMISSIONING PLAN REPORT

This section describes the modifications to the Decommissioning Plan Report in support of the additional of the fibre option line, temporary portable generator sets, and backup generator. As described within Section 2.2.5 of the Renewable Energy Approval Amendment Modification Report, the Decommissioning Plan Report is modified as described in the table below.

Section / Page Reference	Original Text	Modified Text
s. 1.1, pg. 1.1, para. 4	As proposed, the Project will include 36 wind turbines for a total maximum installed nameplate capacity of up to 58.32 MW. In addition, the Project will require 34.5 kV above and below ground electrical collector and communication lines, pad-mounted transformers, crane pads, two permanent meteorological towers, access roads, operations and maintenance building, welfare buildings, a transformer station (TS), construction compounds and laydown yards, and other ancillary facilities. The Project will connect to the provincial power grid via existing 115 kV transmission lines located adjacent to the Project's transformer station location.	As proposed, the Project will include 36 wind turbines for a total maximum installed nameplate capacity of up to 58.32 MW. In addition, the Project will require 34.5 kV above and below ground electrical collector and communication lines, pad-mounted transformers, crane pads, two permanent meteorological towers, access roads, operations and maintenance building, welfare buildings, a transformer station (TS) <u>with fibre optic communication line and backup generator</u> , construction compounds and laydown yards, and other ancillary facilities. The Project will connect to the provincial power grid via existing 115 kV transmission lines located adjacent to the Project's transformer station location.
s. 3.3.5, pg. 3.4, para. 1	The TS including transformers, switchgear, structures, grounding grid and electrical equipment will be removed from the site. Fluids contained within the equipment will be drained and disposed of in accordance with applicable waste disposal regulations. Steel, conductors, switches, and transformers will be reconditioned and reused, sold as scrap, recycled, or disposed of appropriately depending upon market value.	The TS including transformers, switchgear, structures, <u>backup generator</u> , grounding grid and electrical equipment will be removed from the site. Fluids contained within the equipment will be drained and disposed of in accordance with applicable waste disposal regulations. <u>The fibre optic line will remain in place, with both ends that come to the surface removed to approximately 1 m below grade.</u> Steel, conductors, switches, and transformers will be reconditioned and reused, sold as scrap, recycled, or disposed of appropriately depending upon market value.