



The location of the wind turbines is bound by:

- The Melancthon-Osprey Townline to the north
- The Melancthon-Mulmur Townline to the east
- Sideroad 15 in Melancthon to the south
- 5th Line/6th Line Northeast/Sideroad 240/County Road 2 to the west.

Figure 1 shows the Wind Facility Site Plan.

### 3.1 Description of Wind Turbines

The project is composed of 49 wind turbines. There are two different types of wind turbines planned for the wind farm. There will be 18 GE 2.75 MW wind turbines and 31 GE 1.6 MW wind turbines. Figure 2a, the Wind Facility Site Plan, illustrates the location and model of each wind turbine to be used and Table 2 outlines the wind turbines' general characteristics.

Table 2: Wind Turbine Characteristics		
Wind Turbines	GE 1.6 MW	GE 2.75 MW
Total Number	31	18
Rating*	1.6 MW	2.75 MW
Number of Blades	3	3
Blade Length	48.7 m	50.2 m
Hub Height	80 m	85 m
Rotor Diameter	100 m	103 m
Cut-In Wind Speed	3.5 m/s	3 m/s
Cut-Out Wind Speed	25 m/s	25 m/s
Rated Wind Speed	11 m/s	12 m/s
Swept Area	7,850 m <sup>2</sup>	8,328 m <sup>2</sup>

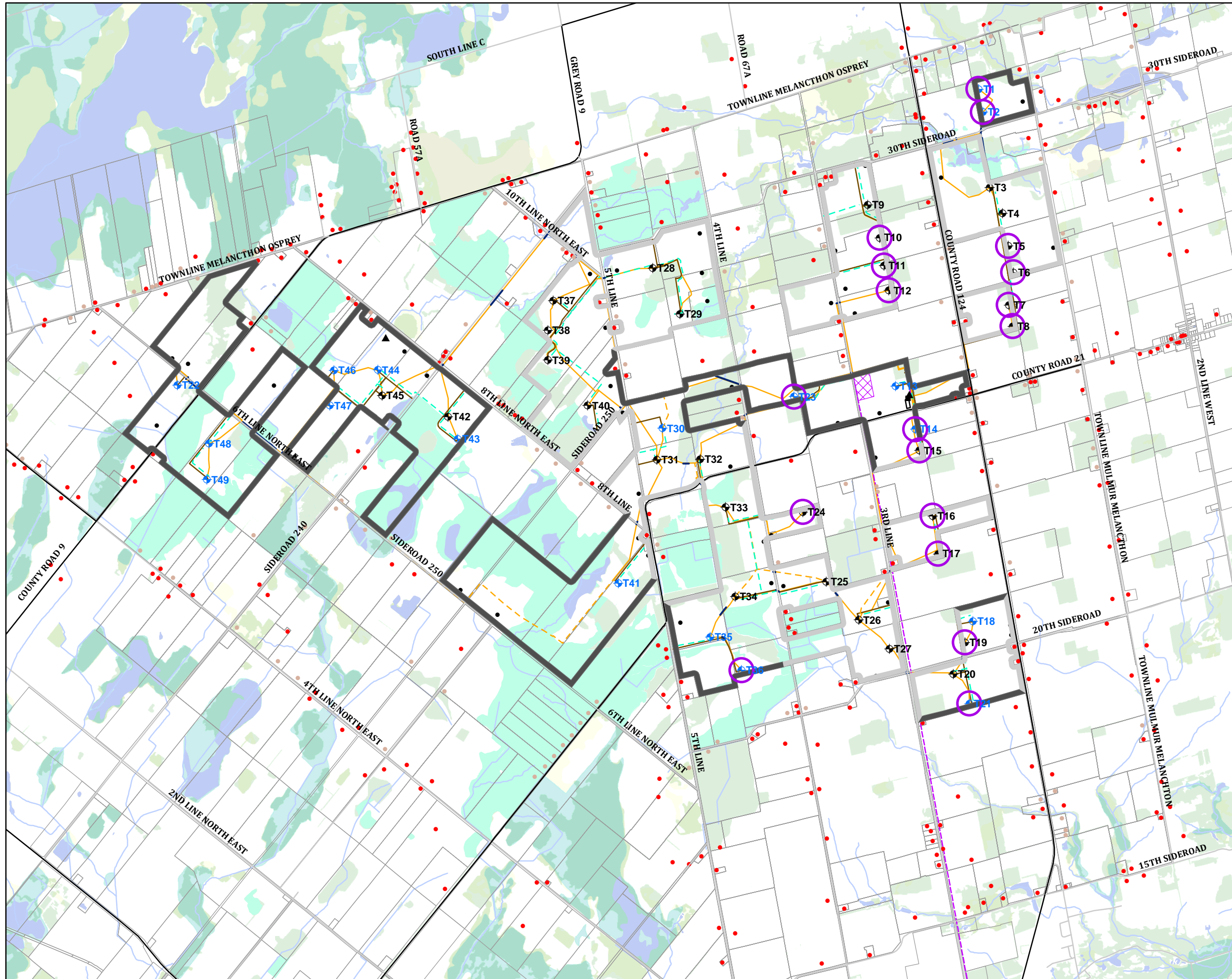
\* Please see the Wind Turbine Specification Report for further information on the nameplate capacity of the wind turbines.

## 4. PROPERTY LINE SETBACK REPORT REQUIREMENTS

According to Ontario Regulation 359/09 subsection 53(1), all wind turbines should be located hub height from each non-participating lot line. A turbine may be sited closer to the property line if the Applicant submits a Property Line Setback Assessment Report to fulfill the requirements of Ontario Regulation 359/09 subsection 53(3).

# Dufferin Wind Power Project

## Figure 1: Wind Farm Site Plan



### Legend

- Participating Receptors
- Non Participating Receptors
- Vacant Lot Receptors
- ▲ MET Towers
- Turbines within Maximum Property Line Setback\*
- Major Roads
- Local Roads
- Watercourse
- Unevaluated Wetlands
- Provincially Significant Wetlands
- Non - Provincially Significant Wetlands
- Woodlands
- Waterbody
- Parcels

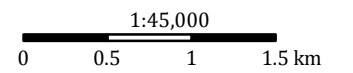
### Property Line Setbacks

- 1.6 MW Maximum Setback (60 m)
- 2.75 MW Maximum Setback (61.5m)

### Project Components

- ◆ 2.75 MW Turbine Location
- ◆ 1.6 MW Turbine Location
- Directional Drilling
- Underground Collector System Path
- - - Underground Collector Alternate Path
- Access Roads
- 69 KV Line
- 230 KV Line (Overhead)
- - - 230 KV Line (Underground)
- Substation
- O&M Building
- Temporary Construction Laydown Area

\*See detailed site plans







The Property Line Setback Assessment Report is only required when one or multiple wind turbines do not meet the REA setback for non-participating property lines. As indicated in the REA Technical Guidelines:

“In the absence of an agreement with a neighbouring land owner specifically permitting a closer setback, the proponent may consider applying to reduce the property line setback to the length of the turbine blade plus 10 metres. In order to do so, the REA application must include a Property Line Setback Assessment Report. This report must be developed to demonstrate that siting the turbine in such a location will not result in any adverse impacts on neighbouring businesses, infrastructure, or land use activities. Specifically, this assessment should evaluate the land use in the vicinity of the turbine.

The Property Line Setback Assessment must be developed to demonstrate that siting the turbine in such a location will not result in any adverse impacts on neighbouring businesses, infrastructure, or land use activities. Specifically, the assessment should evaluate the land use in the vicinity of the turbine. This should confirm the presence of structures (i.e., barns, storage buildings, stables) and if there will be any expected adverse impacts associated with the turbine being located closer than the turbine hub height setback. If there are potential adverse impacts, a description of preventative measures to address the potential adverse impacts must be included. Such an assessment must be performed separately for each turbine that is sited within the specified property line setback. Diagrams of the turbine locations in question depicting the land uses could be incorporated in the assessment to provide greater clarity.”

This report must demonstrate there are no sensitive land uses adjacent to the proposed wind turbine that does not meet the hub height non-participating property line setback. The minimum distance as defined by the Regulation is blade length plus 10 metres. The assessment is meant to evaluate the land use in the vicinity of the turbine and if there will be any adverse impacts associated with siting the turbine closer than hub height.

If there are adverse impacts from siting the turbine closer than hub height to the non-participating property line, a description of preventative measures is needed to address these affects.