

NextEra Energy Canada, ULC

# **DRAFT Site Plan – Bluewater Wind Energy Centre**

**Prepared by:**

AECOM

300 – 300 Town Centre Boulevard      905 477 8400    tel  
Markham, ON, Canada L3R 5Z6      905 477 1456    fax  
[www.aecom.com](http://www.aecom.com)

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# Table of Contents

		page
<b>1.</b>	<b>Project Information .....</b>	<b>1</b>
1.1	Name of Project and Applicant.....	1
1.2	Location of Project .....	1
1.3	Description of Energy Source, Nameplate Capacity and Class of the Facility.....	1
1.4	Key Contacts .....	2
1.5	Facility Components .....	2
1.5.1	Turbine Specifications .....	2
1.5.2	Laydown and Storage Areas .....	2
1.5.3	Collection Lines.....	3
1.5.4	Transformer Substation .....	3
1.5.5	Electrical Transmission.....	3
1.5.6	Access Roads .....	3
1.5.7	Operations Building and Maintenance .....	3
<b>2.</b>	<b>Project Site Plan.....</b>	<b>4</b>

## List of Figures

Figure 1.	Draft Site Plan - Bluewater Wind Turbine Siting Area.....	18
Figure 2.	Draft Site Plan - Bluewater Transmission Line Siting Area .....	19

## List of Tables

Table 1.	UTM Coordinates of Proposed Bluewater Wind Energy Centre Turbines .....	4
Table 2.	UTM Coordinates of Receptors within Two Kilometres of Project Location.....	5
Table 3.	UTM Coordinates of Existing Turbine in the Municipality of Bluewater .....	17

# 1. Project Information

This Draft Site Plan has been prepared in accordance with Section 54.1 of *Ontario Regulation 359/09 (O. Reg. 359/09)* for the purpose of fixing the location of the noise receptors identified in this Report.

## 1.1 Name of Project and Applicant

Varna Wind Inc., a wholly owned subsidiary of NextEra Energy Canada, ULC (NextEra), is proposing to construct a wind energy project in the Municipalities of Bluewater and Huron East in Huron County, Ontario. The project will be referred to as the Bluewater Wind Energy Centre (the “Project”) and will be located on private lands east of Highway 21 in the vicinity of the shoreline of Lake Huron.

NextEra is the proponent for the Project; however, the Project will be owned and operated by Varna Wind Inc. NextEra’s parent company is NextEra Energy Resources, LLC, a global leader in wind energy generation with a current operating portfolio of over 85 wind energy projects in North America. In Canada, wind farms currently owned and operated by NextEra include: Mount Copper and Mount Miller, (both 54 megawatts (MW)) located in Murdochville, Quebec; Pubnico Point, (31 MW) located near Yarmouth, Nova Scotia; and Ghost Pine (82 MW), located in Kneehill County, Alberta.

## 1.2 Location of Project

The proposed Project is located in Huron County. The Project study area consists of the areas being studied for the wind farm components, as well as for the interconnection route (i.e., the area being studied for transmission lines to connect the Project to the electrical grid). The wind farm area is generally bounded by Blackbush/Bronson Line to the west, Mill Road to the north, Concession 5 Road to the east, and Danceland Road/Staffa Road to the south, in the Municipality of Bluewater, while the transmission line area is located to the east of the wind farm area, and is generally bounded by Concession 5 Road to the west, Mill Road to the north, Huron Road and Perth 183 Road to the east, and Staffa Road to the south, extending into the Municipality of Huron East (refer to Figures 1 and 2).

The following coordinates define the external boundaries of the Project location:

Longitude	Latitude
-81.6776	43.57675
-81.344	43.5398
-81.3731	43.40462
-81.7061	43.44148

## 1.3 Description of Energy Source, Nameplate Capacity and Class of the Facility

The wind turbine technology proposed for the Project is the 1.6 MW GE model wind turbine with a nameplate capacity of 60 MW. It is anticipated the Project will be categorized as a Class 4 facility and consequently, will be in compliance with the requirements outlined for such facilities.

## 1.4 Key Contacts

Project Proponent	Project Consultant
Nicole Geneau Project Director NextEra Energy Canada, ULC 5500 North Service Road, Suite 205 Burlington, Ontario, L7L 6W6 Phone: 1-877-257-7330 Email: Bluewater.Wind@NextEraEnergy.com Website: www.NextEraEnergyCanada.com	Marc Rose Senior Environmental Planner AECOM 300-300 Town Centre Blvd. Markham, Ontario, L3R 5Z6 Phone: 905-477-8400 x388 Email: Marc.Rose@aecom.com

## 1.5 Facility Components

Specific Project components will be refined as the Project evolves. The major components of the Project are proposed to be:

- Up to 41 1.6 MW GE model wind turbine generator locations and pad mounted step-up transformers are proposed for permitting (a maximum of 37 turbines will ultimately be constructed);
- Laydown and storage areas (including temporary staging areas) for construction equipment and supplies;
- Underground electrical collection lines to connect the turbines to the transformer substation ;
- A 115 kV transmission line and a transformer substation to connect to the Hydro One transmission system at the Seaforth Transformer Station;
- Turbine access roads for construction and maintenance, and;
- An operations and maintenance building.

### 1.5.1 Turbine Specifications

The wind turbine technology proposed for this Project is the 1.6 MW GE model wind turbine with a total project nameplate capacity of 60 MW. The turbines are 3-bladed, upwind, horizontal-axis wind turbines that are state of the art technology. The turbines have a 100 metre rotor diameter with a swept area of 7,854 metres; each blade is connected to the main shaft via the hub. The turbine is mounted on an 80 metre tubular steel tower which contains an internal ladder provided for maintenance access. The turbine will be constructed on a foundation that is approximately 200 square metres. The foundation consists of a wooden frame, poured concrete and steel rebar to provide added strength.

The nacelle houses the main components of the wind turbine such as the rotor shaft, gear box, couplings, control panel, bearing brackets and the generator. The nacelle is equipped with sound-proofing, is ventilated and the interior is illuminated with electric lights. Some of the wind turbines will have external lighting in accordance with the requirements of Transport Canada (TC).

### 1.5.2 Laydown and Storage Areas

A temporary laydown and storage area will be constructed on privately owned land for the purpose of staging and storing equipment during the construction phase. Activities on this site will include materials storage, equipment

refuelling, and construction offices. The area will be approximately 4 hectares (10 acres) in size. In addition, a 122 metre by 122 metre square around each wind turbine will be established for the laydown and assembly of the wind turbine components.

### 1.5.3 Collection Lines

The electrical collection system that connects each turbine to the transformer substation will be buried on private property adjacent to the turbine access roads, where feasible. The locations of the underground cables and access roads were determined in consultation with the landowners and in accordance with the setback requirements defined in O. Reg. 359/09.

### 1.5.4 Transformer Substation

Approximately 0.4 hectares in size, the transformer substation for the wind energy centre will either be located on privately held lands through a lease agreement or on land purchased by Varna Wind, Inc. The substation equipment will include an isolation switch, a circuit breaker, a step-up transformer, transmission switch gear, instrument transformers, grounding and metering equipment. All substation grounding equipment will meet the Ontario Electrical Safety Code.

### 1.5.5 Electrical Transmission

The electrical transmission line that will be built from the transformer substation to the connection point at the Seaforth Transformer Station is proposed to be located within the existing road right-of-ways along Centennial Road and Hensall Road in the Municipalities of Bluewater and Huron East. It is anticipated that the transmission line will be mounted on existing hydro poles or on new hydro poles. The local utility company may require NextEra to erect additional poles, or replace undersized poles, in order to accommodate the transmission line.

The interconnection plan for any wind farm is subject to study, design and engineering by the Integrated Electricity System Operator which manages the province's electricity grid, Hydro One which owns the transmission lines, the local distribution company and the Ontario Energy Board, which regulates the industry through the Transmission System Code and the Distribution System Code.

### 1.5.6 Access Roads

On-site access roads to each turbine will be constructed to provide an access point to the properties for equipment during the construction phase and for maintenance activities during operation. Typically the access roads will be 10 metres wide during the construction phase to accommodate the large cranes (with an additional 2 metre clearance on each side for travel), and afterwards reduced to 6 metres wide during the operating phase.

### 1.5.7 Operations Building and Maintenance

An operations building, approximately 30 metres by 15 metres in size, will be constructed on privately held lands or an existing suitable structure will be purchased. It will be used to monitor the day-to-day operations of the wind energy centre and to support maintenance efforts. Potable water will be supplied by a well or through the municipal water system and if required, a septic bed will be constructed for the disposal of sewage. Both will be constructed in accordance with applicable municipal and provincial standards.

## 2. Project Site Plan

As indicated in Section 54.1 of O.Reg 359/09, this Draft Site Plan, illustrated in Figure 1, depicts the project components listed above in addition to noise receptors within two kilometres of the project location. Table 1 provides UTM coordinates of the turbine locations shown on Figure 1 and Table 2 provides UTM coordinates of the noise receptors within two kilometres of the project location.

**Table 1. UTM Coordinates of Proposed Bluewater Wind Energy Centre Turbines**

<b>Turbine Number</b>	<b>Easting</b>	<b>Northing</b>
1	445260	4816548
2	445320	4816183
3	445565	4813118
4	445568	4812063
5	445933	4810683
6	446088	4809847
7	446207	4820836
8	446521	4819890
9	446485	4819125
10	446595	4818636
11	446832	4817609
12	446877	4816800
13	447116	4816186
14	447232	4815368
15	447186	4814525
16	447590	4813794
17	447358	4812978
18	447341	4812484
19	448234	4820588
20	448434	4820321
21	449105	4819060
22	449166	4818561
23	449406	4817022
24	448974	4816250
25	449175	4814818
26	449284	4814234
27	449400	4813830
28	450031	4813877
29	450097	4813116
30	450058	4812694
31	450567	4810875
32	450732	4819033
33	451219	4819080
34	450937	4817380
35	451669	4815710
36	451756	4815381
37	453294	4815596
38	449306	4817953
39	449597	4815379
40	449532	4811269
41	450920	4816780

*Note: All co-ordinates are provided in NAD 83 Zone 17.*

**Table 2. UTM Coordinates of Receptors within Two Kilometres of Project Location**

Receptor ID Number	Receptor Type	Easting	Northing
1	Non-participating	445421.91	4808223.93
2	Non-participating	447007.41	4808444.90
3	Non-participating	447325.48	4808496.53
4	Non-participating	445222.33	4808615.85
5	Non-participating	447240.08	4808839.33
6	Non-participating	447005.33	4808850.12
7	Vacant Lot Non-participating	447246.82	4808968.86
8	Non-participating	450246.48	4809056.11
9	Vacant Lot Non-participating	450321.98	4809067.03
10	Vacant Lot Non-participating	444993.26	4809159.57
11	Vacant Lot Non-participating	451358.45	4809217.57
12	Vacant Lot Non-participating	445934.49	4809259.91
13	Non-participating	450398.45	4809278.80
14	Non-participating	445070.60	4809290.97
15	Non-participating	449248.62	4809312.73
16	Non-participating	444966.71	4809318.58
17	Non-participating	450179.01	4809330.51
18	Non-participating	446894.99	4809336.78
19	Non-participating	446964.07	4809340.41
20	Vacant Lot Non-participating	444953.58	4809381.16
21	Non-participating	447212.52	4809388.89
22	Non-participating	447034.37	4809421.01
23	Vacant Lot Non-participating	449088.33	4809429.24
24	Vacant Lot Non-participating	445080.71	4809434.26
25	Vacant Lot Non-participating	449257.66	4809466.28
26	Non-participating	449049.67	4809544.86
27	Non-participating	450255.57	4809563.04
28	Vacant Lot Non-participating	445078.79	4809594.32
29	Non-participating	450268.34	4809635.87
30	Vacant Lot Non-participating	447312.14	4809682.57
31	Vacant Lot Non-participating	449236.49	4809683.24
32	Vacant Lot Non-participating	445056.44	4809700.90
33	Non-participating	446870.89	4809720.69
34	Vacant Lot Non-participating	446906.55	4809792.01
35	Non-participating	445032.39	4809792.29
36	Participating	449207.87	4809840.08
37	Participating	449163.02	4809875.18
38	Vacant Lot Non-participating	445001.80	4809909.93
39	Vacant Lot Non-participating	444860.97	4809973.17
40	Vacant Lot Non-participating	450025.02	4810024.23
41	Non-participating	448949.03	4810029.21
42	Non-participating	447140.16	4810031.43
43	Participating	446835.54	4810054.96

Receptor ID Number	Receptor Type	Easting	Northing
44	Non-participating	447100.10	4810072.13
45	Non-participating	450230.26	4810099.72
46	Non-participating	446770.67	4810107.11
47	Non-participating	444801.46	4810142.48
48	Vacant Lot Non-participating	444952.33	4810188.70
49	Vacant Lot Non-participating	448925.01	4810232.74
50	Vacant Lot Non-participating	450002.38	4810261.86
51	Vacant Lot Non-participating	447091.62	4810266.95
52	Vacant Lot Non-participating	449157.15	4810292.67
53	Vacant Lot Non-participating	447065.89	4810377.20
54	Non-participating	448886.23	4810399.78
55	Vacant Lot Non-participating	450183.11	4810412.14
56	Participating	450024.80	4810445.86
57	Non-participating	446725.78	4810463.38
58	Non-participating	446959.26	4810488.98
59	Vacant Lot Participating	450189.36	4810630.70
60	Non-participating	447061.45	4810636.15
61	Vacant Lot Non-participating	449076.29	4810696.96
62	Non-participating	448851.33	4810775.16
63	Vacant Lot Participating	449907.62	4810807.37
64	Vacant Lot Participating	450150.28	4810873.86
65	Vacant Lot Non-participating	448874.15	4810891.75
66	Non-participating	445273.55	4811025.65
67	Non-participating	443856.74	4811050.24
68	Non-participating	443863.52	4811057.02
69	Non-participating	443884.57	4811077.27
70	Participating	450125.46	4811083.27
71	Non-participating	443831.17	4811087.56
72	Non-participating	445269.52	4811108.30
73	Non-participating	445263.75	4811128.22
74	Non-participating	444207.26	4811147.19
75	Vacant Lot Non-participating	444695.61	4811183.64
76	Vacant Lot Non-participating	445132.68	4811215.18
77	Non-participating	444902.63	4811230.59
78	Vacant Lot Non-participating	445337.33	4811255.42
79	Non-participating	445923.45	4811283.35
80	Vacant Lot Non-participating	444679.07	4811296.09
81	Non-participating	444924.71	4811345.21
82	Vacant Lot Non-participating	445115.74	4811384.41
83	Participating	446512.91	4811421.42
84	Participating	447592.56	4811429.34
85	Non-participating	446597.30	4811448.92
86	Non-participating	446759.86	4811450.20
87	Vacant Lot Non-participating	446646.00	4811464.12
88	Vacant Lot Participating	445636.20	4811465.10



Receptor ID Number	Receptor Type	Easting	Northing
89	Non-participating	446771.12	4811465.12
90	Non-participating	446825.03	4811467.05
91	Vacant Lot Non-participating	445823.50	4811473.70
92	Participating	447075.23	4811477.01
93	Non-participating	446621.24	4811481.92
94	Non-participating	446802.91	4811488.08
95	Non-participating	446681.07	4811490.62
96	Non-participating	446702.33	4811491.55
97	Non-participating	446742.29	4811495.72
98	Non-participating	446757.84	4811495.97
99	Non-participating	445503.37	4811497.37
100	Non-participating	446770.74	4811500.02
101	Vacant Lot Non-participating	446702.39	4811522.72
102	Non-participating	446761.21	4811538.85
103	Non-participating	446757.22	4811584.18
104	Vacant Lot Non-participating	446804.95	4811593.73
105	Non-participating	448079.42	4811594.69
106	Vacant Lot Participating	446881.83	4811599.38
107	Non-participating	448111.65	4811602.63
108	Non-participating	446750.33	4811613.19
109	Participating	446558.58	4811621.37
110	Non-participating	446754.32	4811637.85
111	Non-participating	448643.77	4811638.72
112	Non-participating	446821.40	4811641.47
113	Vacant Lot Non-participating	447415.05	4811678.26
114	Non-participating	446814.88	4811679.91
115	Non-participating	447794.19	4811705.69
116	Vacant Lot Non-participating	447811.98	4811715.02
117	Non-participating	448827.13	4811729.29
118	Non-participating	448653.98	4811731.95
119	Vacant Lot Participating	448936.63	4811737.07
120	Non-participating	447564.58	4811744.90
121	Non-participating	448804.93	4811756.81
122	Non-participating	447569.74	4811761.41
123	Vacant Lot Participating	449458.52	4811814.25
124	Vacant Lot Participating	449594.51	4811839.98
125	Vacant Lot Non-participating	449686.39	4811851.00
126	Non-participating	448031.78	4811860.69
127	Vacant Lot Non-participating	449807.68	4811873.06
128	Non-participating	450004.67	4811883.16
129	Vacant Lot Participating	450151.95	4811905.75
130	Vacant Lot Participating	448925.60	4811913.48
131	Non-participating	449372.87	4811920.01
132	Non-participating	448070.56	4811931.99
133	Vacant Lot Participating	450487.61	4811946.56

Receptor ID Number	Receptor Type	Easting	Northing
134	Vacant Lot Non-participating	450752.23	4811975.96
135	Vacant Lot Participating	449715.79	4811998.02
136	Vacant Lot Non-participating	451096.15	4812033.94
137	Participating	450060.00	4812047.22
138	Vacant Lot Participating	450432.48	4812111.95
139	Vacant Lot Non-participating	451722.51	4812122.98
140	Vacant Lot Participating	450645.65	4812152.38
141	Vacant Lot Non-participating	451616.64	4812152.71
142	Vacant Lot Non-participating	450932.32	4812174.43
143	Vacant Lot Participating	450792.66	4812185.46
144	Vacant Lot Non-participating	451611.28	4812235.58
145	Participating	448726.23	4812252.41
146	Vacant Lot Non-participating	451693.11	4812273.67
147	Vacant Lot Non-participating	451814.40	4812284.69
148	Vacant Lot Non-participating	446584.43	4812354.52
149	Non-participating	448854.25	4812387.20
150	Non-participating	446416.39	4812420.85
151	Non-participating	448800.68	4812430.62
152	Participating	446702.89	4812580.02
153	Vacant Lot Non-participating	446544.00	4812593.42
154	Vacant Lot Participating	448620.55	4812674.27
155	Non-participating	448503.59	4812739.12
156	Vacant Lot Non-participating	446544.00	4812755.13
157	Vacant Lot Non-participating	450855.14	4812791.88
158	Non-participating	446366.86	4812792.19
159	Vacant Lot Participating	446753.49	4812799.23
160	Non-participating	448793.32	4812839.43
161	Non-participating	446700.05	4812924.96
162	Vacant Lot Participating	450700.78	4812935.22
163	Non-participating	446335.41	4812981.39
164	Non-participating	448728.71	4813022.00
165	Non-participating	448726.13	4813150.65
166	Participating	448512.31	4813158.62
167	Vacant Lot Non-participating	450811.04	4813188.82
168	Vacant Lot Participating	446492.54	4813192.49
169	Vacant Lot Participating	450671.37	4813225.57
170	Non-participating	446611.27	4813233.21
171	Non-participating	446403.92	4813280.72
172	Participating	449736.94	4813366.73
173	Participating	446319.18	4813380.86
174	Vacant Lot Non-participating	445055.50	4813405.66
175	Vacant Lot Participating	446654.26	4813471.82
176	Participating	448677.55	4813543.23
177	Vacant Lot Non-participating	450748.56	4813593.10
178	Non-participating	448476.65	4813613.28

Receptor ID Number	Receptor Type	Easting	Northing
179	Non-participating	452536.36	4813655.34
180	Non-participating	446291.75	4813694.41
181	Non-participating	452790.27	4813722.96
182	Non-participating	446742.98	4813747.62
183	Participating	448600.00	4813787.36
184	Vacant Lot Non-participating	453829.30	4813822.81
185	Vacant Lot Participating	448484.56	4813898.15
186	Vacant Lot Participating	450505.99	4813975.33
187	Non-participating	446293.63	4813985.96
188	Non-participating	446306.61	4813994.91
189	Vacant Lot Participating	450726.50	4814004.74
190	Vacant Lot Non-participating	452555.33	4814017.28
191	Vacant Lot Participating	448616.87	4814019.44
192	Non-participating	452711.51	4814027.13
193	Vacant Lot Non-participating	453797.55	4814039.77
194	Participating	446483.74	4814051.97
195	Vacant Lot Non-participating	451204.29	4814063.54
196	Non-participating	448465.18	4814069.72
197	Vacant Lot Non-participating	451450.54	4814089.27
198	Vacant Lot Participating	450502.31	4814181.15
199	Vacant Lot Non-participating	450697.10	4814217.90
200	Non-participating	446089.90	4814258.35
201	Vacant Lot Non-participating	451513.02	4814298.76
202	Non-participating	446361.14	4814325.03
203	Non-participating	446149.25	4814339.32
204	Non-participating	448441.58	4814359.27
205	Non-participating	448438.06	4814388.08
206	Vacant Lot Participating	450476.58	4814390.64
207	Non-participating	454275.89	4814460.11
208	Participating	446423.33	4814463.00
209	Non-participating	448430.41	4814470.98
210	Participating	448617.97	4814472.16
211	Vacant Lot Non-participating	452733.22	4814475.18
212	Vacant Lot Non-participating	454384.92	4814484.27
213	Participating	448649.72	4814485.68
214	Participating	446441.77	4814491.53
215	Non-participating	452362.42	4814564.54
216	Non-participating	446321.23	4814570.33
217	Non-participating	452471.28	4814579.99
218	Non-participating	446227.04	4814592.22
219	Non-participating	446211.25	4814599.35
220	Non-participating	452719.90	4814614.26
221	Non-participating	450315.88	4814708.29
222	Vacant Lot Non-participating	454508.40	4814754.50
223	Vacant Lot Participating	448572.54	4814768.47

Receptor ID Number	Receptor Type	Easting	Northing
224	Vacant Lot Non-participating	452546.06	4814790.48
225	Non-participating	454317.27	4814800.98
226	Vacant Lot Participating	450406.75	4814813.31
227	Vacant Lot Non-participating	450634.62	4814816.98
228	Vacant Lot Participating	446455.79	4814868.44
229	Vacant Lot Non-participating	452461.25	4814883.14
230	Non-participating	448274.33	4814914.74
231	Non-participating	450437.80	4814927.79
232	Non-participating	448464.22	4814973.25
233	Non-participating	452629.57	4814974.37
234	Vacant Lot Non-participating	450572.14	4814978.69
235	Non-participating	452658.29	4814985.71
236	Non-participating	452658.98	4814988.14
237	Non-participating	446230.18	4814991.77
238	Non-participating	452651.87	4815005.36
239	Non-participating	450274.59	4815091.01
240	Vacant Lot Non-participating	443732.39	4815140.41
241	Non-participating	452467.56	4815222.37
242	Participating	448221.31	4815247.18
243	Participating	448385.35	4815321.95
244	Participating	446312.24	4815333.18
245	Vacant Lot Non-participating	454475.32	4815342.55
246	Vacant Lot Non-participating	450336.92	4815349.90
247	Participating	452359.35	4815372.80
248	Non-participating	443586.38	4815417.82
249	Vacant Lot Non-participating	445777.29	4815423.38
250	Participating	452658.81	4815428.42
251	Non-participating	444866.30	4815486.71
252	Non-participating	443602.55	4815518.51
253	Vacant Lot Non-participating	443761.79	4815518.97
254	Vacant Lot Participating	448411.06	4815555.72
255	Non-participating	448114.57	4815594.78
256	Participating	450325.79	4815609.63
257	Non-participating	445338.81	4815611.48
258	Vacant Lot Participating	450553.76	4815629.22
259	Non-participating	448403.41	4815707.88
260	Vacant Lot Participating	448168.49	4815717.43
261	Vacant Lot Non-participating	443772.81	4815735.81
262	Participating	452202.86	4815739.45
263	Vacant Lot Non-participating	454405.49	4815761.54
264	Non-participating	452511.90	4815782.45
265	Vacant Lot Participating	450284.38	4815804.05
266	Vacant Lot Participating	446793.92	4815809.31
267	Non-participating	446143.43	4815818.22
268	Non-participating	448311.98	4815825.38

Receptor ID Number	Receptor Type	Easting	Northing
269	Non-participating	443804.05	4815875.85
270	Vacant Lot Participating	446376.10	4815893.86
271	Vacant Lot Participating	448363.28	4815930.60
272	Non-participating	443651.35	4815941.47
273	Vacant Lot Non-participating	454372.41	4815960.00
274	Non-participating	448295.60	4815995.83
275	Non-participating	450554.56	4816001.94
276	Vacant Lot Participating	450241.36	4816011.46
277	Participating	448153.23	4816021.98
278	Non-participating	448302.85	4816064.18
279	Vacant Lot Non-participating	445986.08	4816082.58
280	Non-participating	450563.38	4816091.58
281	Non-participating	454392.65	4816105.04
282	Non-participating	450560.59	4816114.33
283	Non-participating	446062.18	4816126.30
284	Non-participating	452172.97	4816185.97
285	Non-participating	446341.09	4816200.22
286	Non-participating	452596.41	4816249.07
287	Vacant Lot Participating	446058.86	4816257.70
288	Non-participating	448177.79	4816266.93
289	Non-participating	443795.32	4816282.29
290	Vacant Lot Participating	446249.97	4816327.53
291	Non-participating	454202.07	4816341.78
292	Participating	450200.15	4816364.32
293	Non-participating	454391.04	4816368.63
294	Vacant Lot Non-participating	443857.35	4816382.66
295	Participating	450433.77	4816422.13
296	Vacant Lot Participating	446216.90	4816459.84
297	Vacant Lot Non-participating	452245.13	4816476.31
298	Participating	448305.64	4816488.82
299	Vacant Lot Non-participating	448094.98	4816544.38
300	Vacant Lot Non-participating	454002.76	4816561.86
301	Non-participating	452231.17	4816587.45
302	Non-participating	452455.55	4816598.25
303	Non-participating	446220.26	4816598.94
304	Participating	445796.61	4816599.21
305	Non-participating	446215.36	4816643.53
306	Non-participating	443701.55	4816651.21
307	Non-participating	443895.67	4816682.88
308	Non-participating	443700.38	4816689.92
309	Participating	447865.40	4816713.82
310	Vacant Lot Participating	450358.38	4816752.00
311	Participating	447934.53	4816764.74
312	Vacant Lot Non-participating	454284.21	4816764.90
313	Participating	447885.27	4816775.51

Receptor ID Number	Receptor Type	Easting	Northing
314	Non-participating	452350.56	4816784.84
315	Vacant Lot Non-participating	443886.75	4816786.95
316	Non-participating	446012.71	4816820.20
317	Non-participating	443838.25	4816870.24
318	Participating	450165.98	4816899.36
319	Vacant Lot Non-participating	443721.41	4816952.89
320	Non-participating	451530.21	4816962.63
321	Participating	450161.76	4816963.33
322	Vacant Lot Participating	448260.37	4816967.04
323	Non-participating	451510.60	4816988.22
324	Participating	450104.82	4816996.38
325	Vacant Lot Non-participating	452193.68	4817006.57
326	Non-participating	452480.70	4817018.45
327	Non-participating	443866.47	4817020.17
328	Participating	450145.59	4817040.66
329	Participating	446089.09	4817042.28
330	Non-participating	445998.56	4817050.06
331	Participating	450220.12	4817114.16
332	Vacant Lot Non-participating	443930.85	4817158.15
333	Participating	448166.95	4817273.83
334	Participating	448015.46	4817322.15
335	Non-participating	452188.89	4817337.84
336	Non-participating	452409.88	4817373.68
337	Non-participating	450192.05	4817377.12
338	Vacant Lot Non-participating	454155.57	4817400.72
339	Non-participating	445925.73	4817414.70
340	Vacant Lot Non-participating	443784.25	4817442.37
341	Participating	446046.27	4817447.52
342	Non-participating	445924.26	4817452.42
343	Non-participating	450086.09	4817494.74
344	Non-participating	443783.34	4817526.29
345	Vacant Lot Non-participating	450227.21	4817528.88
346	Vacant Lot Non-participating	452109.00	4817528.92
347	Vacant Lot Non-participating	452288.51	4817533.04
348	Vacant Lot Non-participating	444496.85	4817555.09
349	Vacant Lot Non-participating	444802.90	4817561.43
350	Non-participating	444861.99	4817566.65
351	Vacant Lot Participating	447977.37	4817569.79
352	Vacant Lot Participating	450200.93	4817643.30
353	Non-participating	448161.99	4817660.35
354	Vacant Lot Non-participating	452083.71	4817717.09
355	Participating	446065.51	4817753.46
356	Non-participating	445815.60	4817764.90
357	Non-participating	447892.10	4817780.21
358	Non-participating	448050.21	4817857.92

Receptor ID Number	Receptor Type	Easting	Northing
359	Participating	451822.65	4817878.27
360	Non-participating	448051.27	4817945.57
361	Non-participating	452178.44	4817945.66
362	Non-participating	452194.12	4817966.86
363	Vacant Lot Non-participating	448102.33	4818051.25
364	Non-participating	445790.95	4818059.25
365	Non-participating	452169.51	4818064.89
366	Participating	450134.86	4818082.22
367	Participating	450004.12	4818106.41
368	Vacant Lot Participating	445985.35	4818110.06
369	Participating	447478.20	4818153.58
370	Participating	447549.69	4818201.24
371	Non-participating	450997.68	4818207.53
372	Vacant Lot Non-participating	448079.96	4818219.75
373	Participating	445924.21	4818221.06
374	Vacant Lot Participating	449932.64	4818242.37
375	Vacant Lot Non-participating	450105.38	4818279.12
376	Participating	452003.11	4818343.92
377	Non-participating	452128.20	4818421.22
378	Vacant Lot Participating	449906.91	4818470.24
379	Non-participating	448001.65	4818473.43
380	Vacant Lot Non-participating	452946.39	4818477.59
381	Participating	447692.93	4818501.16
382	Non-participating	451879.64	4818507.65
383	Non-participating	452223.37	4818521.12
384	Vacant Lot Participating	445933.90	4818536.40
385	Vacant Lot Participating	447982.78	4818615.08
386	Participating	445940.46	4818630.68
387	Vacant Lot Non-participating	445720.73	4818650.33
388	Vacant Lot Non-participating	452751.60	4818661.36
389	Vacant Lot Participating	449866.48	4818705.46
390	Vacant Lot Participating	447786.25	4818782.64
391	Vacant Lot Participating	452126.80	4818804.69
392	Participating	447910.92	4818873.09
393	Vacant Lot Participating	449843.69	4818926.59
394	Vacant Lot Participating	451917.30	4818955.38
395	Vacant Lot Participating	449985.46	4818957.88
396	Non-participating	445692.22	4819027.96
397	Participating	445851.14	4819063.44
398	Vacant Lot Non-participating	449973.06	4819120.77
399	Non-participating	451897.11	4819221.37
400	Non-participating	449918.11	4819237.02
401	Participating	452027.74	4819238.07
402	Vacant Lot Participating	445647.22	4819245.73
403	Vacant Lot Non-participating	448003.10	4819311.89

Receptor ID Number	Receptor Type	Easting	Northing
404	Non-participating	447726.08	4819317.66
405	Participating	449834.52	4819401.60
406	Vacant Lot Non-participating	451847.47	4819418.47
407	Vacant Lot Non-participating	447687.02	4819433.17
408	Participating	445755.44	4819507.54
409	Participating	447691.81	4819576.50
410	Non-participating	449924.65	4819579.12
411	Non-participating	445288.67	4819594.61
412	Participating	449771.31	4819651.12
413	Vacant Lot Non-participating	447874.46	4819668.39
414	Non-participating	447701.21	4819705.52
415	Non-participating	452861.17	4819809.77
416	Non-participating	447751.31	4819841.43
417	Non-participating	445714.10	4819842.18
418	Non-participating	452649.25	4819855.69
419	Vacant Lot Participating	449715.95	4819882.85
420	Non-participating	445799.33	4819886.08
421	Non-participating	452974.75	4819923.34
422	Vacant Lot Participating	445544.31	4819933.01
423	Non-participating	451831.71	4819967.11
424	Non-participating	452715.57	4819982.42
425	Vacant Lot Participating	447778.57	4820012.44
426	Vacant Lot Participating	446017.21	4820043.33
427	Vacant Lot Non-participating	452203.61	4820047.92
428	Vacant Lot Non-participating	451827.40	4820049.30
429	Non-participating	452416.77	4820056.01
430	Non-participating	452117.91	4820056.41
431	Non-participating	451889.27	4820088.15
432	Non-participating	452134.14	4820090.53
433	Participating	449705.34	4820096.94
434	Non-participating	451822.20	4820097.28
435	Non-participating	452087.31	4820098.87
436	Non-participating	452044.05	4820112.36
437	Vacant Lot Non-participating	451815.08	4820121.14
438	Non-participating	451816.64	4820125.06
439	Non-participating	451583.98	4820134.08
440	Non-participating	451997.62	4820142.13
441	Non-participating	447721.66	4820142.56
442	Non-participating	452154.38	4820145.70
443	Non-participating	451636.16	4820151.07
444	Non-participating	451814.11	4820151.59
445	Vacant Lot Non-participating	452238.54	4820155.87
446	Non-participating	451964.28	4820158.79
447	Non-participating	452076.05	4820169.27
448	Non-participating	451922.21	4820169.91



Receptor ID Number	Receptor Type	Easting	Northing
449	Non-participating	452051.17	4820174.12
450	Non-participating	451812.28	4820175.07
451	Non-participating	451894.43	4820179.04
452	Non-participating	452114.27	4820183.83
453	Non-participating	451870.62	4820189.35
454	Non-participating	451851.57	4820192.93
455	Non-participating	451996.82	4820199.67
456	Non-participating	451948.80	4820208.40
457	Non-participating	451607.64	4820208.71
458	Non-participating	452158.35	4820211.58
459	Non-participating	452093.66	4820217.53
460	Non-participating	451785.68	4820221.90
461	Non-participating	452061.91	4820229.04
462	Non-participating	451765.44	4820231.03
463	Non-participating	451735.28	4820234.20
464	Non-participating	451870.62	4820238.17
465	Non-participating	452035.72	4820238.17
466	Non-participating	451703.53	4820251.66
467	Non-participating	451797.59	4820257.22
468	Vacant Lot Participating	447548.86	4820269.35
469	Non-participating	451765.05	4820270.32
470	Participating	445746.02	4820274.25
471	Non-participating	445537.94	4820277.08
472	Non-participating	451939.28	4820277.86
473	Non-participating	451739.25	4820280.64
474	Non-participating	451827.75	4820287.38
475	Non-participating	451693.61	4820295.72
476	Non-participating	451876.97	4820298.49
477	Non-participating	451833.71	4820303.65
478	Vacant Lot Non-participating	451321.39	4820311.76
479	Non-participating	451961.50	4820313.97
480	Non-participating	451838.47	4820319.13
481	Non-participating	451641.62	4820329.45
482	Non-participating	451886.09	4820340.17
483	Non-participating	451847.60	4820340.96
484	Non-participating	451223.79	4820356.34
485	Non-participating	451844.82	4820375.89
486	Vacant Lot Non-participating	452007.54	4820376.81
487	Non-participating	451907.92	4820381.04
488	Non-participating	451227.06	4820384.48
489	Non-participating	450914.42	4820395.79
490	Non-participating	451409.10	4820396.53
491	Vacant Lot Non-participating	451515.52	4820396.75
492	Non-participating	451468.23	4820403.28
493	Non-participating	451436.48	4820439.40

Receptor ID Number	Receptor Type	Easting	Northing
494	Vacant Lot Participating	447752.36	4820456.85
495	Vacant Lot Non-participating	447511.92	4820457.56
496	Vacant Lot Non-participating	452028.71	4820464.13
497	Non-participating	450883.18	4820494.46
498	Vacant Lot Non-participating	451856.73	4820495.88
499	Non-participating	451240.52	4820512.54
500	Vacant Lot Non-participating	451190.08	4820536.45
501	Vacant Lot Non-participating	452065.75	4820559.38
502	Non-participating	450434.80	4820568.02
503	Non-participating	445406.15	4820630.97
504	Non-participating	445331.83	4820631.46
505	Non-participating	450952.59	4820637.38
506	Vacant Lot Non-participating	452089.56	4820641.40
507	Participating	445586.09	4820649.55
508	Non-participating	450985.38	4820678.37
509	Non-participating	450780.51	4820696.39
510	Non-participating	450760.90	4820723.03
511	Non-participating	450672.92	4820727.56
512	Vacant Lot Non-participating	452121.31	4820741.94
513	Vacant Lot Non-participating	452150.41	4820826.61
514	Non-participating	449927.00	4820832.00
515	Non-participating	450194.67	4820836.29
516	Vacant Lot Non-participating	444265.31	4820892.27
517	Vacant Lot Participating	449546.73	4820903.30
518	Non-participating	449991.19	4820924.65
519	Vacant Lot Non-participating	449315.18	4820995.18
520	Vacant Lot Non-participating	449701.00	4821015.88
521	Non-participating	447505.73	4821041.19
522	Non-participating	449575.81	4821054.01
523	Non-participating	445564.71	4821060.55
524	Non-participating	447504.01	4821062.27
525	Participating	448480.01	4821106.36
526	Non-participating	449056.40	4821110.93
527	Participating	446828.17	4821121.64
528	Non-participating	449391.52	4821175.68
529	Vacant Lot Non-participating	447439.03	4821202.74
530	Non-participating	449141.07	4821226.91
531	Vacant Lot Participating	445562.69	4821259.80
532	Non-participating	446778.79	4821262.50
533	Vacant Lot Non-participating	445367.90	4821289.20
534	Non-participating	444265.64	4821294.60
535	Non-participating	446779.83	4821304.08
536	Non-participating	444798.43	4821334.27
537	Non-participating	449147.47	4821371.35
538	Vacant Lot Non-participating	447437.10	4821395.79

Receptor ID Number	Receptor Type	Easting	Northing
539	Vacant Lot Participating	446319.81	4821414.16
540	Non-participating	448161.48	4821424.78
541	Vacant Lot Non-participating	445114.30	4821439.89
542	Non-participating	448503.91	4821444.97
543	Vacant Lot Non-participating	444996.69	4821450.92
544	Non-participating	448135.94	4821460.93
545	Vacant Lot Non-participating	448410.36	4821468.32
546	Non-participating	448254.22	4821506.52
547	Vacant Lot Non-participating	448175.41	4821549.28
548	Vacant Lot Participating	447624.54	4821568.53
549	Vacant Lot Non-participating	445117.98	4821642.03
550	Non-participating	445765.53	4821654.72
551	Vacant Lot Non-participating	445004.04	4821715.54
552	Participating	446655.37	4821760.59
553	Non-participating	445093.67	4821775.45
554	Non-participating	445105.03	4821802.89
555	Non-participating	447606.80	4821804.89
556	Non-participating	447388.38	4821836.79
557	Vacant Lot Non-participating	445632.52	4821917.68
558	Participating	446945.35	4821980.91
559	Vacant Lot Non-participating	444829.49	4822047.81
560	Vacant Lot Non-participating	444674.97	4822049.92
561	Vacant Lot Non-participating	445617.82	4822083.07
562	Non-participating	446340.48	4822173.36
563	Vacant Lot Non-participating	445819.96	4822185.98
564	Non-participating	446033.49	4822298.17
565	Participating	446366.24	4822311.76
566	Vacant Lot Non-participating	445352.04	4822543.05
567	Non-participating	445529.69	4822563.33
568	Non-participating	445243.01	4822570.08
569	Vacant Lot Non-participating	445808.45	4822725.62

Note: All co-ordinates are provided in NAD 83 Zone 17

There is one existing turbine within the Municipality of Bluewater. This 800 kW turbine is a component of the Zurich Wind Farm, operated by Magnum Wind Energy. Figure 1 illustrates the location of this turbine in relation to the proposed turbine layout for this Project and UTM coordinates are provided in Table 3.

**Table 3. UTM Coordinates of Existing Turbine in the Municipality of Bluewater**

Turbine Name	Easting	Northing
Zurich Wind Farm	446740.77	4808398.45

Note: All co-ordinates are provided in NAD 83 Zone 17





**Legend**

- Turbine 2km Buffer
- Parcel Boundary

**Receptors**

- Participating
- Non-participating
- Vacant Lot Participating
- Vacant Lot Non-participating

**Project Components**

- Turbine Location
- ▲ Zurich Wind Farm
- Project Location
- 300m Boundary
- Transmission Line
- Collection Line
- Access Road
- Laydown Area
- Substation

**Roads**

- Highway
- Major Road
- Local Road
- Railway

**Natural Features**

- Intermittent Stream
- Permanent Stream
- Waterbody
- Woodlots

Scale: 1:14,000  
UTM Zone 17N, NAD 83

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NextEra Energy Canada, ULC  
Bluewater Wind Energy Centre

**Draft Site Plan  
Wind Turbine Siting Area**

December 2011  
60155032

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Figure 1





**Legend**

- Parcel Boundary
- Project Components**
  - Turbine Location
  - Project Location
  - 300m Boundary
  - Seaforth Transformer Station
  - Transmission Line
  - Collection Line
  - Access Road
- Roads**
  - Highway
  - Major Road
  - Local Road
  - Railway
- Natural Features**
  - Intermittent Stream
  - Permanent Stream
  - Waterbody
  - Woodlots

UTM Zone 17N, NAD 83  
 1:17,000  
 0 100 200 300 400 500 600 700 800 900 1000 1100 1200  
 Meters

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 Bluewater Wind Energy Centre

**Draft Site Plan  
 Transmission Line Siting Area**

December 2011  
 60155032

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Figure 2