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## Update to Application to the North Dakota Public Service Commission for a Certificate of Site Compatibility

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Prepared for: Ruso Wind Partners, LLC, 3535 Colonnade Parkway, BIN S-855-EC, Birmingham, AL 35243

Prepared by: KLJ, 4585 Coleman Street, Bismarck, North Dakota 58503

Ruso Wind Project  
Ward **County**, North Dakota

June 2019

A large, abstract geometric design composed of overlapping triangles in various shades of gray, white, and red, covering the bottom half of the page.

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**Table 2, Site Location**

County	Township	Range	Section(s)
Ward	151N	81W	1-8, 10-12, 17-21, 31
	151N	82W	9-15, 22-27, 34-36
	152N	81W	31-34

Note: Information revised is highlighted in green, except removal of all Sections in McLean County.

**Table 7, Representative Turbine Type Characteristics for the Project**

Turbine Type	Rotor Diameter (meters - feet)	Rotor Swept Area (meters <sup>2</sup> - feet <sup>2</sup> )	Cut-in Wind Speed (mps)	Rated Power (MW)	Cut-out Wind Speed (mps)	Blade Length (meters - feet)	Hub Height (meters - feet)	Blade Height (Highest) (meters - feet)	Blade Height (Lowest) (meters - feet)
Siemens SWT-2.415-108	108 – 354.3	9,144 – 98,425.2	3.0	2.415	25.0	52.6 – 172.6	80 – 262.5	134 – 439.6	26 – 85.3
Siemens SG 4.2-145	145 – 475.7	16,506 – 177,669.1	3.0	4.2	27.0	71 – 232.9	107.5 – 352.7	180 – 590.6	35 – 114.8
General Electric 2.3-116	116.5 – 382	10,660 – 114,743	3.0	2.32	32.0	56.9 – 187	80 – 263	138.3 – 454	21.8 – 71.5
General Electric 2.5-116	116.5 – 382	10,660 – 114,743	3.0	2.5	32.0	56.9 – 187	90 – 295	148.3 – 487	31.8 – 104
General Electric 2.82-127	127 – 417	12,667 – 136,346	3.0	2.82	30.0	62.2 – 204	88.5 – 290	152.1 – 499	24.9 – 82

Note: Information added is highlighted in green.

**Table 8, Setback Distances as Designated by the Commission**

Setback Type	Distance
Interstate or state roadway right of way (ROW)	1.1 times the height of the turbine
The geographic center of an intercontinental ballistic missile launch or launch control facility	1,200 feet
County or maintained township roadway	1.1 times the height of the turbine plus seventy-five (75) feet from the centerline of the roadway
Railroad ROW	1.1 times the height of the turbine
115 kilovolt or higher transmission line	1.1 times the height of the turbine
Property line of a non-participating landowner	1.1 times the height of the turbine*
Inhabited rural residence of a non-participating landowner	Three (3) times the height of the turbine*
Inhabited residence or a community building	A wind energy conversion site must not include a geographic area where, due to the operation of the facility, the sound levels within 100 feet of an inhabited residence or a community building will exceed 50 A-weighted decibels**

\* A variance may be granted if an authorized representative or agent of the permittee and affected parties with associated wind rights file a written agreement expressing all parties' support for a variance to reduce the setback requirement in this subsection. A non-participating landowner is a landowner that has not signed a wind option agreement or a wind easement, as defined in North Dakota Century Code 17-04, with the permittee of the wind energy conversion facility.

\*\* The sound level avoidance area criteria may be waived in writing by the owner of the occupied residence or the community building.

Note: Information added is highlighted in green.

**Table 9, Setback Distances as Designated by Local Zoning Ordinances**

Setback Type	Distance	County
Turbine from roadway ROW, farmsteads, and electrical transmission lines	At least 1.1 times	Ward

Note: Information revised is highlighted in green.

**Table 12, Land Use**

Land Classification	Existing Land Use in Previous Project Area (Acres)	Existing Land Use in Current Project Area (Acres)	Temporary Impact (Acres)	Permanent Impact (Acres)
Barren	3	1	0.0	0
Cultivated	14,487	8,951	410.4	36.2
Developed	1,433	687	17.1	2.3
Grasslands	12,809	4,232	95.5	6.6
Open Water	2,679	826	0.5	0
Wetlands	3,591	1,434	8.3	0.3
Woodlands	652	316	2.5	0.3
<b>Total</b>	<b>35,654</b>	<b>16,447*</b>	<b>534.3</b>	<b>45.7</b>

Source: U.S. Department of Agriculture, 2017

Note: Information added/revised is highlighted in green.

\* Total differs from 16,449-acre Project Area due to rounding.