BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY DAKOTA RANGE I, LLC AND DAKOTA RANGE II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN GRANT COUNTY AND CODINGTON COUNTY, SOUTH DAKOTA, FOR THE DAKOTA RANGE WIND PROJECT	* * * * * * * *	**DAKOTA RANGE I, LLC AND DAKOTA RANGE II, LLC'S RECOMMENDED CONDITION 40 AND PROPOSED FINDING OF FACT 65** **EL18-003**

RECOMMENDED CONDITION 40:

Applicant will use two methods to detect icing conditions on turbine blades: (1) sensors that will detect when blades become imbalanced or create vibration due to ice accumulation; and (2) meteorological data from on-site permanent meteorological towers, on-site anemometers, and other relevant meteorological sources that will be used to determine ice accumulation is occurring. These control systems will either automatically shut down the turbine(s) in icing conditions (per the sensors) or the Applicant will manually shut down turbine(s) if icing conditions are identified (using meteorological data). Turbines will not return to normal operation until the control systems no longer detect an imbalance or when weather conditions either remove icing on the blades or indicate icing is no longer a concern.

PROPOSED FINDING OF FACT 65:

Dakota Range provided evidence that the potential for ice to be thrown from turbines is a very rare occurrence.[1] The Project meets both the state and county non-participating property line setback requirements.[2] The concern for ice shedding is typically within 300 feet of the turbine. While there is the potential for ice to be thrown further, impacts are not anticipated at 620 feet from a turbine (the closest distance of a turbine to a nonparticipating property line).[3] The record also demonstrates that Dakota Range has in place appropriate operational mechanisms to minimize and avoid the potential for ice throw. In addition, turbines have ice detection systems that will detect icing conditions from a remote control center, enabling the turbines to be paused remotely in the event that icing is taking place.[4] Further, Dakota Range has committed to the following condition: Applicant will use two methods to detect icing conditions on turbine blades: (1) sensors that will detect when blades become imbalanced or create vibration due to ice

[1] Evid. Hrg. Tr. at 424 (Gunderson) (CONFIDENTIAL); Evid. Hrg. Tr. at 434-435 (James) (CONFIDENTIAL).
[2] SDCL 43-13-24. Codington County, Ordinance 65 §5.22.03(1)(d)(c) and Grant County Compiled Zoning Ordinances, § 1211.04(2)(c).
[3] Evid. Hrg. Tr. at 435 (James) (CONFIDENTIAL).
[4] Evid. Hrg. Tr. at 432 (James) (CONFIDENTIAL).

accumulation; and (2) meteorological data from on-site permanent meteorological towers, on-site anemometers, and other relevant meteorological sources that will be used to determine ice accumulation is occurring. These control systems will either automatically shut down the turbine(s) in icing conditions (per the sensors) or the Applicant will manually shut down turbine(s) if icing conditions are identified (using meteorological data). Turbines will not return to normal operation until the control systems no longer detect an imbalance or when weather conditions either remove icing on the blades or indicate icing is no longer a concern.

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