**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 RESPONSES TO STAFF'S FIRST SET OF DATA REQUESTS TO APPLICANT** **EL18-003**

Below, please find Dakota Range I, LLC and Dakota Range II, LLC (together Dakota Range or Applicant) responses to Staff's First Set of Data Requests to Applicant.

1-1) Should others be granted party status in this docket, provide copies of all data requests submitted by other parties to Applicant in this proceeding and copies of all responses provided to those data requests. Provide this information to date and on an ongoing basis.

Response from Mollie Smith, Attorney, Fredrikson & Byron: No other data requests have been received to date. Dakota Range will provide the requested information to PUC Staff as received.

1-2) Has Applicant or its affiliates funded in whole or in part any studies relevant to this application which have not been provided or referenced in the application?

Response from Mark Mauersberger, Senior Development Manager, Apex Clean Energy Holdings, LLC: In addition to the studies identified in Table 2-1 of the Application or referenced throughout the Application, the Applicant has funded the following studies relevant to this Application:

- Engineering Report Concerning the Effects Upon FCC Licensed Transmitting Facilities Due to Construction of the Dakota Range Wind Energy Project in Northeast South Dakota, dated November 25, 2015, prepared by Evans Engineering Solutions.
- Obstruction Evaluation Analysis, Dakota Range Wind Project, dated September 29, 2015, prepared by Capitol Airspace Group.

1-3) Applicant states on page 3-1 that the majority of the land directly affected by construction is cropland. How does Applicant define *cropland*?

Response from Mark Mauersberger, Senior Development Manager, Apex Clean Energy Holdings, LLC: Cropland is defined by the Applicant as land in row crops or close-grown crops and also other cropland, such as hayland or pastureland, that is in a rotation with row crops or close-grown crops.

1-4) Will the project utilize an Aircraft Detection Lighting System or similar technology? If no, explain the reasoning.

Response from Mark Mauersberger, Senior Development Manager, Apex Clean Energy Holdings, LLC: An Aircraft Detection Lighting System will not be employed for this Project. The lighting system to be employed is common in the industry, adheres to the specifications of the Federal Aviation Administration's (FAA) circular and lighting plan, and meets all County, State, and Federal requirements. A link to the Flash Technology website, a well-known supplier of systems similar to the one to be used for the Project, is provided: https://www.flashtechnology.com/wind-power-lighting/.

1-5) On page 7-2, Applicant discusses a study conducted by Vaisala showing that wind speeds are the highest in November and December, and lowest in July and August. How does this correspond to the peak and shoulder months of Xcel, whom Applicant indicates is purchasing the power?

Response from Mark Mauersberger, Senior Development Manager, Apex Clean Energy Holdings, LLC: The Northern States Power Company d/b/a Xcel Energy System demand and energy peaks are typically in the summer months of July and August and winter months of December and January.

1-6) On page 7-3, Applicant states that states including South Dakota have renewable portfolio standards requiring utilities to sell a specified percentage or amount of renewable electricity annually. Please cite the legal mandate to backup this statement as it applies to South Dakota.

Response from Mollie Smith, Attorney, Fredrikson & Byron: The reference to South Dakota having a renewable portfolio standard was an inadvertent error. The text should have stated that South Dakota established a renewable, recycled, and conserved energy objective, which is set forth in SDCL 49-34A-101.

1-7) Applicant states on page 7-3 that the cost of energy from wind has declined by over 66 percent in the past seven years. Does this calculation account for PTCs? How, if at all, does this amount account for the intermittency of the resource?

Response from Mark Mauersberger, Senior Development Manager, Apex Clean Energy Holdings, LLC: This calculation does not account for PTCs or intermittency. As stated in the report on the bottom of Page 1, "While prior versions of this study have presented the LCOE inclusive of the U.S. Federal Investment Tax Credit and Production Tax Credit, Versions 6.0-10.0 present the LCOE on an unsubsidized basis, except as noted on the page titled 'Levelized Cost of Energy—Sensitivity to U.S. Federal Tax Subsidies'." On Page 2, Lazard states that "Certain Alternative Energy generation technologies are cost-competitive with conventional generation technologies under some scenarios; such observation does not take into account potential… reliability or intermittency-related considerations (e.g., transmission and back-up generation costs) associated with certain Alternative Energy technologies."

1-8) Referring to section 9.1, Applicant states that the project will include underground electric collector lines. How will Applicant ensure field tile is protected and/or repaired as such facilities are installed?

Response from Mark Mauersberger, Senior Development Manager, Apex Clean Energy Holdings, LLC: Based on the county information obtained to date, there is a small amount of existing drain tile within the footprint of the Project. The Applicant requested drain tile maps from landowners to help in the design of underground collection facilities. Where damage to drain tile from the Project will be unavoidable, the Applicant will be responsible for locating and repairing drain tile that is damaged during construction or the operational life of the Project.

1-9) On page 9-4, Applicant states that temporary crane paths may be needed for construction. Will Applicant commit to ensuring appropriate soil decompaction measures are taken?

Response from Mark Mauersberger, Senior Development Manager, Apex Clean Energy Holdings, LLC: In their zoning ordinances, Codington County and Grant County each require Dakota Range to implement measures to minimize compaction associated with the Project. In addition, crane paths will only occur on land which has a signed Wind Energy Lease. Landowners whose land is impacted by a crane path will be compensated for crop damages. Dakota Range will work with landowners on decompaction efforts in addition to compensating for crop damage.

1-10) When undertaking any necessary reseeding, will Applicant consult with NRCS?

Response from Mark Mauersberger, Senior Development Manager, Apex Clean Energy Holdings, LLC: In the Application, it states: "Temporarily disturbed uncultivated areas will be reseeded with certified weed-free seed mixes to blend in with existing vegetation" (see page 3-3). Dakota Range will consult with agencies, as necessary, to ensure reseeding complies with this commitment.

1-11) What percentage of the agricultural land discussed in 14.1.1 is utilized for grazing? What percentage is utilized for cultivated crops?

Response from Mark Mauersberger, Senior Development Manager, Apex Clean Energy Holdings, LLC: There are approximately 39,080 acres of agricultural land within the Project Area. Of this total acreage, approximately 36.8 percent is utilized for grazing and 63.2 percent is utilized for cultivated crops. Grazing lands correspond with the land use classification "Pasturelands and rangelands" on Figure 12 of the Application, and cultivated crops correspond with the land use classifications "Haylands," "Irrigated Lands," and "Land used primarily for row and nonrow crops in rotation."

1-12) Provide copies of written communications with other government agencies including but not limited to US Fish and Wildlife.

a. Were any recommendations provided by US Fish and Wildlife which Applicant chose not to accept? If so, please explain.

Response from Dave, Vice President of Environmental, Apex Clean Energy Holdings, LLC: Written communications between the Applicant and U.S. Fish and Wildlife Service (USFWS), South Dakota Game, Fish and Parks (SDGFP), South Dakota State Historic Preservation Office (SHPO), and South Dakota Department of Environment & Natural Resources (SDDENR) is included in Appendix B of the Application. All additional substantive written communication with government agencies is attached and includes:

- February 14, 2018 letter from SHPO concurring with the results of the archaeological and architectural survey reports and in support of the project;
- February 22, 2017 and July 10, 2017 documentation of communication between the Applicant and SDGFP pertaining to grouse lek avoidance; and

The Applicant accepted the majority of USFWS recommendations, with the exception of voluntarily mitigating for impacts to grassland habitats through easement or fee acquisition to offset displacement impacts to grassland birds, as very few studies are available to understand this potential effect and quantify the benefit of such mitigation.

The Applicant clarified that current research shows that displacement appears to occur for some species at some projects, but not all, and displacement does not occur for other species (actually for some species density increases near turbines). Nonetheless, the Applicant has addressed this recommendation by avoiding and minimizing impacts on grasslands to the maximum extent practicable to substantially reduce potential displacement impacts to birds that may be caused by construction or operation of the Project. Both USFWS and SDGFP agreed that the avoidance/minimization measures discussed during the September 25, 2017 meeting were appropriate to reduce potential impacts to species of concern, and both agencies voiced appreciation of the steps the Applicant had taken to focus facilities on disturbed agricultural lands and avoid higher risk areas (e.g., USFWS easements, leks, nests, untilled grasslands).

Dated this 2nd day of March 2018.

Mark Mauersberger

south dakota
STATE HISTORICAL SOCIETY
DEPARTMENT OF EDUCATION

February 14, 2018

Ms. Jennie Geiger
Dakota Range, LLC
C/o Apex Clean Energy, Inc.
310 4th Street NE, Suite 200
Charlottesville, VA 22902

RE: SDCL 1-19A-11.1 Consultation
Project: 180205002S – Dakota Range I Wind, LLC Project in Grant and Codington Counties, South Dakota
Location: Multiple Counties
(PUC)

Dear Ms. Geiger:

Thank you for the opportunity to comment on the above referenced project pursuant to South Dakota Codified Law (SDCL) 1-19A-11.1. The South Dakota Office of the State Historic Preservation Officer (SHPO) would like to provide the following comments concerning the effect of the proposed project on the non-renewable cultural resources of South Dakota.

On February 5, 2018, we received your letter, the archaeology survey report entitled "Level III Archaeological Inventory of the Dakota Range I Wind Project, Archaeological High Probability Areas, Codington and Grant Counties, South Dakota," prepared by Mark Carpenter, and the architectural survey report entitled "Reconnaissance Level Architectural Survey of the Dakota Range I Wind, LLC Project, Grant and Codington Counties, South Dakota, T119N, R51 & 52W; T120N, R51 & 52W; T121N, R51 &52W," prepared by Brenna Moloney.

According to the reports, 20 newly recorded and four previously recorded archaeological properties and 55 architectural properties were identified and recorded during the various surveys. Based on the information provided in the reports, we concur with the following recommendations.

- Previously recorded archaeological properties 39GT0089, 39GT0090, 39GT0117 and 39GT0118 are considered eligible for listing in the National Register of Historic Places (National Register) under Criterion A.

- Newly recorded archaeological properties 39GT0242, 39GT0258, 39GT0259 and 39GT0261 do not meet any of the Criteria for listing in the National Register.

- Newly recorded archaeological properties 39GT0243, 39GT0244, 39GT0245, 39GT0246, 39GT0247, 39GT0248, 39GT0249, 39GT0250, 39GT0251, 39GT0252, 39GT0253, 39GT0254, 39GT0255, 39GT0256, 39GT0257 and 39GT0260 have not been fully evaluated for listing in the National Register.

- Three structures, CD00000066, CD00000617 and GT00000411, out of the 55 recorded are considered eligible for listing in the National Register under Criterion C.

Given the above, we have determined that the proposed project will not encroach upon, damage or destroy any property that is list in the State or National Register of Historic Places or the environs of such property pursuant to SDCL 1-19A-11.1.

However, we recommend that all eligible and unevaluated archaeological properties be avoided by construction activities. We also recommend working with local Tribal Historic Preservation Officers to identify and avoid any sensitive areas that maybe associated with their tribes.

We appreciate Dakota Range I, LLC's efforts to take into consideration the effects of the project on the non-renewable cultural resources of South Dakota. If you have any questions or concerns, please contact Paige Olson at Paige.Olson@state.sd.us or (605) 773-6004.

Sincerely,

Jay D. Vogt
State Historic Preservation Officer

P Olson

Paige Olson
Review and Compliance Coordinator

Cc: Jane Watts and Terri Bruce, Archaeological Research Center
Dianne Desrosiers, Sisseton Wahpeton Oyate Tribal Historic Preservation Officer

Jennie Geiger

From: Jennie Geiger
Sent: Monday, July 10, 2017 12:24 PM
To: Silka Kempema (silka.kempema@state.sd.us)
Cc: Dave Phillips (dave.phillips@apexcleanenergy.com); Mark Mauersberger (mark.mauersberger@apexcleanenergy.com); Nate Pedder
Subject: BUSINESS CONFIDENTIAL: Dakota Range Wind Lek Report
Attachments: DKR_2017 Grouse Lek Survey_2017-06-28.pdf

Hi Silka –

Attached is a copy of our 2017 lek survey report for current project boundary, which we revised as discussed to focus on areas of lower sensitivity. One active and one potential sharp-tailed grouse (STGR) lek were found.

We are able to avoid the potential lek location by 1 mile with all turbines; however, given other siting constraints, we will need to put some turbines within 1 mile of the lek documented as active. There will be no turbines placed to the east of the lek location, and the nearest turbine to the west will be no closer than 0.3 miles. The appropriateness of this setback is supported by a three year study conducted by Nebraska Game and Parks on impacts to STGR from the Ainsworth Wind Energy Facility, which found that all leks remained active and the number of birds remained stable with turbine setbacks ranging from 0.3-1.6 miles.

We will adhere to SDGFP's recommended restriction on construction activities between March 1 and June 30 for both the active and potential lek to the extent practicable (out to 2 miles); where not practicable, disruptive activities will be conducted between three hours after sunrise and one hour before sunset so as to not interfere with lekking behavior. With these proposed measures we do not anticipate any adverse impacts to the local area population in response to the project during construction or the operating lifetime of the facility (per PUC Siting Requirements).

Please let me know if you would like to discuss further.

Thanks,
Jennie

JENNIE GEIGER
Environmental Permitting Manager

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TECHNICAL MEMORANDUM

Date: June 28, 2017

To: Jennie Geiger, Apex Clean Energy Management, LLC

From: Western EcoSystems Technology, Inc.

Subject: Dakota Range I Wind Project – Prairie Grouse Lek Survey Memo

Introduction

In 2016, Western EcoSystems Technology, Inc. completed an aerial-based survey for sharp-tailed grouse and greater prairie-chicken leks for the Dakota Range I Wind Project (Project). The Project boundary was modified since the 2016 surveys to include additional area; therefore, the unsurveyed portion of the Project was evaluated in 2017 using a ground-based methodology. In addition, previously documented leks from 2016 were revisited to evaluate 2017 status (Figure 1).

Methods

Surveys were completed three times between April 8 and May 9, 2017, in the areas shown in Figure 1, and two times in a small portion of this area because it was added in late April. The 2017 survey area included the unsurveyed portions of the Project and a 0.5-mile buffer. Public roads were driven by a biologist from 30 minutes prior to sunrise until approximately two hours after sunrise. The biologist stopped for a minimum of five minutes approximately every half-mile (more often in hilly terrain, less in flat) to listen and look for displaying birds. If a lek was located, the observer would then map the location (to the best of their ability from the road) and record the number of males, females, and birds of unknown sex attending the lek. When possible, surveys were completed on relatively calm mornings with little to no rain. Leks documented in 2016 that were outside the 2017 survey area were also visited to evaluate 2017 status.

Leks were classified as “potential” when three or more birds were observed in one location during the morning surveys. Leks were classified as “confirmed” if the biologists observed males engaged in lek attendance behavior (e.g., dancing, calling) more than one time. Leks were classified as “historic” if they were known leks that could not be found during the surveys.

Results

One confirmed (Lek 3) and one potential (Lek 4) sharp-tailed grouse lek was documented within the 2017 survey area. Lek 4 was a potential sharp-tailed grouse lek with a maximum of seven birds (3 male, 4 unknown sex) observed during the first survey; however, no males were

exhibiting courtship behavior. Two previously documented leks (Leks 1 and 2) were not located in 2017 and classified as historic. Survey results are shown in Table 1 and Figure 2.

Lek 3 was the only confirmed lek with a maximum of 15 sharp-tailed grouse observed during the second and third survey.

Summary

Results of the 2016 and 2017 surveys indicate that both sharp-tailed grouse and greater prairie chickens are present at low density in and within 0.5 mile of the Project.

Table 1. 2017 Lek survey results (M=number of males, F=number of females, Unk=number of unknown birds, and Total=total number of birds) for the Dakota Range Wind Project.

			SURVEY 1 (4/8/17 to 4/21/17)				Survey 2 (4/22/17 to 5/4/17				Survey 3 (5/5/17 to 5/9/17)			
Lek ID	Lek Status	Species	M	F	Unk	Total	M	F	Unk	Total	M	F	Unk	Total
1	Historic	Sharp-tailed grouse	0	0	0	0	0	0	0	0	0	0	0	0
2	Historic	Greater prairie-chicken	0	0	0	0	0	0	0	0	0	0	0	0
3	Confirmed	Sharp-tailed grouse	-	-	-	-	9	2	4	15	6	unknown	2	8
4	Potential	Sharp-tailed grouse	3	0	4	7	0	0	0	0	0	0	1	1

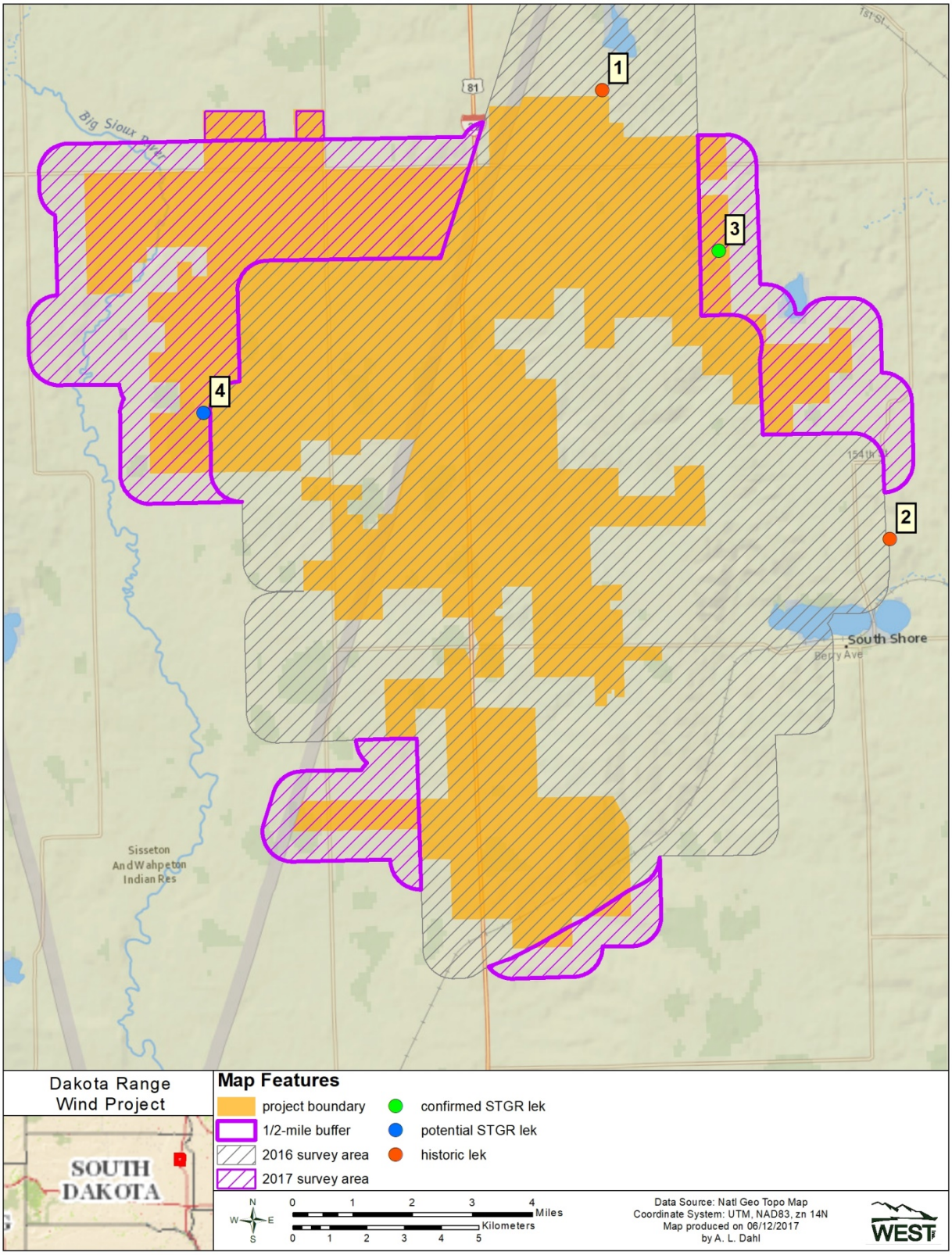

Figure 1. Location of grouse lek survey areas and lek locations for unsurveyed portions of the Dakota Range Wind Project. Surveys occurred from April 8 to May 9, 2017.

**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	* * * * * * * *	**APPLICANTS' RESPONSES TO STAFF'S SECOND SET OF DATA REQUESTS** **EL18-003**

Below, please find Applicants' Responses to Staff's Second Set of Data Requests.

2-1) Referring to section 6.0 of the Application, please explain why Xcel Energy is not listed as the proposed rights of ownership for the Project.

Mollie Smith: Xcel Energy is not listed as the owner of the Project for two reasons. First, while Northern States Power Company, d/b/a Xcel Energy has entered into a Purchase and Sale Agreement with Apex Clean Energy Holdings, LLC, to acquire Dakota Range I, LLC, and Dakota Range II, LLC, the sale has not been finalized. Second, even after the sale is finalized, the Project will still be owned by Dakota Range I, LLC, and Dakota Range II, LLC.

2-2) Does the Applicant agree that the statement in Section 7.3, "[d]elay could force Xcel to re-analyze its source of new generation, removing significant savings for Xcel's customers and guaranteeing a higher cost of energy," is based on forecasts with certain assumptions that may change in the future?

Mollie Smith: The quoted sentence is referencing the fact that receipt of the federal Production Tax Credit is contingent on completing construction within a specified time period. In other words, if the Project were delayed so as to affect receipt of the Production Tax Credit, then the cost of the Project's output would be higher. Thus, the statement is referencing Production Tax Credit benefits, as opposed to forecasts.

2-3) Referring to section 9.0, it is identified that "Figure 12 shows the locations of cemeteries, places of historical significance, and other community facilities (i.e. schools, religious facilities) within or near the project area." Please identify how these locations are displayed on Figure 12.

Jennifer Bell: One church and an associated cemetery are located within the Project Area. This church and associated cemetery is displayed on Figure 12 as a "Public, commercial, and institutional use" indicated by a purple hexagon. Note that the church and cemetery is the easternmost purple hexagon shown on Figure 12. The church and associated cemetery is also displayed on Figure 13 as a "Church and Cemetery" indicated by a turquoise triangle.

2-4) Please provide Figures 12 and 13 with the proposed turbine layout included.

Jennifer Bell: Please see attached Figures 12 and 13 with proposed turbine layout included.

2-5) Referring to section 10.1 of the Application, please provide a discussion on how the constraints and factors identified were measured and weighed.

Mark Mauersberger: Dakota Range went through a thorough review process before selecting the Dakota Range Project site. The factors that were taken into consideration are outlined in 10.1. How these factors were measured and weighed correspond to how each would impact the viability of the Project. For instance, one reason that the site was selected is because of the new Big Stone to Ellendale 345kV line. Transmission capacity is very scarce in South Dakota and North Dakota in the MISO market. This was one, if not the only, site that could inject 300 MW into the MISO network with almost no network upgrades. Currently, other projects in SD connecting to the MISO grid behind the Dakota Range Project are seeing significant upgrades that may or may not make the Projects viable. Dakota Range looked at this point of injection and then analyzed other factors, such as wind resource, environmental compatibility, and community support. In looking at the general area surrounding the point of injection, we found that the area where Dakota Range is currently sited was the best location to minimize the length of the transmission line, while meeting the other factors.

2-6) Referring to section 14.2.2 of the Application, please provide a more detailed description of the wetland impact for each of the five areas. Further, please explain if any mitigation will be done for these impacts.

Jennie Geiger: Permanent wetland impacts for the five areas would result from access road construction through emergent wetlands. The following table identifies the location and permanent impact acreage for each of the five areas.

Area	Waters of the U.S. Type	Proposed Facility	Location	Permanent Impact
1	Wetland	Access Road	From turbine 64 to 155th St	0.01 acre
2	Wetland	Access Road	From turbine A25 to 461st Ave	0.01 acre
3	Wetland	Access Road	From turbine 69 to 459th Ave	0.01 acre
4	Wetland	Access Road	From turbine 40 to 151st St	0.03 acre
5	Wetland	Access Road	From turbine A21 to 152nd St	0.02 acre

The permanent wetland impacts would be authorized under the U.S. Army Corps of Engineers Nationwide Permit 12, and therefore no mitigation is planned for wetland impacts.

2-7) Referring to section 14.3.2.3 of the Application, please identify what other wind sites where used to compare raptor use data and to form the conclusion raptor use is low in the Project Area.

Jennie Geiger: Raptor use data from the Dakota Range Wind Project were compared to data from the adjacent proposed Summit Wind Farm, which is publicly available and includes a comparison of data collected from 49 other wind projects in the central and western U.S. with similar study seasons (WEST 2014, Figure 3). When compared to other wind projects, mean raptor use at the proposed Summit Wind Project was near the lower end of the range of values (ranked 46th out of 49). When compared to the proposed Summit Wind Farm, species composition and mean detection rates at the Dakota Range Wind Project were found to be similar, therefore supporting the conclusion that raptor use is low within the Project Area. Direct impacts to raptor species from the operation of the Project are also expected to be low, as evidenced by data from 38 operating projects sited in similar habitats, 7 of which are in South Dakota (see Appendix C of the Avian Use Survey Report [Appendix F of the Application]).

2-8) Referring to section 14.3.2.4 of the Application, please explain what exactly is "feathering the turbines to manufacturer's cut in speed."

Mark Mauersberger: In accordance with at least one protocol of the operator's control algorithm: as each blade approaches the tower base, it may be feathered to regulate its power loading. To offset resultant loss of torque, the remaining blades may be correspondingly pitched toward power (i.e. feathered into/away from the wind) to balance and/or smooth out the overall rotor torque curve, and thus to avoid torque ripples. This contributes to maximizing power production while minimizing stress on the turbine's components.

2-9) Referring to section 16.5 of the Application, was a letter sent to the FCC for review to confirm no impact to licensed systems? If so, please provide the FCC's response.

Mark Mauersberger: A formal request was sent to the National Telecommunications and Information Administration (NTIA) on November 12, 2015. The NTIA then passed the information on to several Federal agencies, including the FCC for any potential comments or concerns. On January 7, 2016, we received the attached letter back from the NTIA that no Federal agencies, other than Western Area Power Administration, had any concerns with the Dakota Range Project. Dakota Range has reached out to Western Area Power Administration to discuss further.

2-10) Referring to section 21.5.2 of the Application, when will the final review be completed by SWO and any associated recommendations be known?

Jennie Geiger: Apex has coordinated with SWO throughout the design of the Project and has incorporated all recommendations provided to date. Additional cultural surveys will be completed throughout the Project footprint this spring in coordination with SWO to ensure tribal concerns are addressed.

2-11) Referring to Table 21-2 of the Application, pursuant to ARSD 20:10:22:24 please provide the estimated annual employment expenditures. Further, please provide the same data for the first 10 years of commercial operation in one-year intervals.

Brenna Gunderson: The estimated annual employment expenditures are provided in the table below, and would be the same for each of the 10 years of commercial operation:

Job Title	Number	Annual Salary
Facility Manager	1	$100,000.00
Deputy Facility Manager	1	$90,000.00
Wind Turbine Technicians	8	$408,000.00
Lead Technician	1	$69,360.00
Site Admin	1	$24,480.00
Total Per Year		**$691,840.00**

2-12) Referring to page 8 of the Decommissioning Plan (Apendix P), please provide the following:

i) explain how removing project components to a depth of 4 feet below grade would impact the expected costs provided in the Plan;

DNV GL: DNV GL would expect a minor increase in expected costs due the increase in labor and time needed to carry out the additional material associated with the greater decommissioning depth.

ii) explain why crane pad restoration will not occur at decommissioning if cranes are needed for turbine removal;

DNV GL: Our report assumes crane pad restoration will occur following construction. During decommissioning, there are a variety of options related to crane use and potential impacts. It is possible that that hard stands would be used for the cranes, which would minimize the restoration requirements following decommissioning activities.

iii) identify if labor costs associated with stripping materials from the project components, segregating materials, and other prepping of materials for salvage of raw materials is included in the analysis.

DNV GL: Most labor costs would be associated with the disassembly and removal of components. The report assumes that labor associated with loading the material into transport trucks is included; therefore, further labor time is not accounted for.

2-13) Has Dakota Range reached out to the local telecommunications companies to discuss any concerns regarding interference on their systems? If so, please identify any concerns those companies had and how Dakota Range plans to address those concerns.

Mark Mauersberger: Apex reached out to Interstate Telecommunications Cooperative, Inc. (ITC) to discuss concerns regarding interference on their system. Dakota Range entered into the attached agreement with ITC to address their concerns.

2-14) Has Otter Tail Power Company determined the location of the switching station? If so, please identify if the location for the project substation has been decided yet.

Mark Mauersberger: Otter Tail Power Company (OTP) is still in the process of determining the location of the switching station. Per a 4-16-18 conference call between OTP & Apex staff, OTP informed Apex they have reduced their list of prospective switchyard hosts to two. OTP hopes to identify their final selection this spring. Apex will notify the PUC once we have been formally notified that OTP has made their official selection.

2-15) Referring to O'Neal's testimony, page 11, lines 21-23, please provide a summary of the discussions Dakota Range had with the 11 participating residences. If additional, site-specific, modeling was conducted, please provide the results of that modeling.

Mark Mauersberger/Brenna Gunderson: Dakota Range plans to discuss the results with the owners of the 11 participating residences in the next couple of weeks. Dakota Range had planned to discuss the results with those landowners at a recent Project open house, but those landowners were not able to attend.

2-16) Would Dakota Range agree to a permit condition that requires the owner/operator of the wind project to mitigate for shadow flicker concerns if they arise during project operation?

Mark Mauersberger: Consistent with the Direct Testimony of Rob O'Neal, Dakota Range would agree to a permit condition that requires Dakota Range to take reasonable steps to mitigate shadow flicker concerns at the 11 residences that could experience shadow flicker levels above 30 hours per year.

2-17) During the public input hearing, one commenter had concerns regarding the possible adverse effects of the wind turbine's spinning motion and blinking light on autistic children. Please provide Dakota Range's response to this concern and any supporting information.

Mollie Smith: Please see the Direct Testimony of Dr. Mark Roberts.

2-18) During the public input meeting, it was stated that townships were sent draft letters to sign. Were such letters sent out? If yes, which governmental entities were sent these letters (eg township, municipality, county)? Which of these entities responded and how?

Mark Mauersberger: Dakota Range received the attached letters of support from Grant County and Codington County. Dakota Range requested a letter of support from the Punished Woman's Lake Association after agreeing to a voluntary two-mile setback from the shoreline of the lake, but the Association did not provide a letter. Dakota Range did not solicit letters of support from townships.

2-19) Also at the public input meeting, Applicant stated that a representative from Brookings County stated that property values went up. Provide documentation and/or correspondence?

i) Over what time period did property values increase?
ii) What type of property was included in this study?

Mark Mauersberger: At a recent Codington County Planning and Zoning meeting, Luke Muller, the Zoning Officer for Codington County and a First District Association of Local Governments' Staff Member, stated that he had contacted the Brookings County

Equalization Office to ask about wind turbines and property values. According to Mr. Muller, the Brookings County Equalization Office said that they had compared property values before and after installation of the Buffalo Ridge wind projects, and property values in the area had increased by an average of 58 percent. We have requested additional specifics from Luke Muller.

2-20) Please provide GIS shapefiles for the project layout and boundary.

Jennifer Bell: Please see attached GIS shapefiles for the project layout and boundary.

By /s/ Mollie M. Smith_____

Mollie M. Smith
Lisa A. Agrimonti
FREDRIKSON & BYRON, P.A.
Attorneys for Applicants
200 South Sixth Street, Suite 4000
Minneapolis, MN 55402
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Fax: (612) 492-7077

Jennie Geiger

From: Kempema, Silka <Silka.Kempema@state.sd.us>
Sent: Wednesday, February 22, 2017 5:38 PM
To: Dave Phillips
Cc: Jennie Geiger
Subject: RE: Apex-Dakota Range Wind project

I checked with our upland bird biologist. There is a sharp-tailed grouse lek in TRS-119N_052W_28. That is on the west side of the original boundary.

Silka

From: Kempema, Silka
Sent: Wednesday, February 22, 2017 2:28 PM
To: 'Dave Phillips'
Cc: Jennie Geiger
Subject: RE: Apex-Dakota Range Wind project

Hi Dave,

We do not have any records of known lek locations in the extended project area.

I've attached the grouse lek avoidance recommendation document.

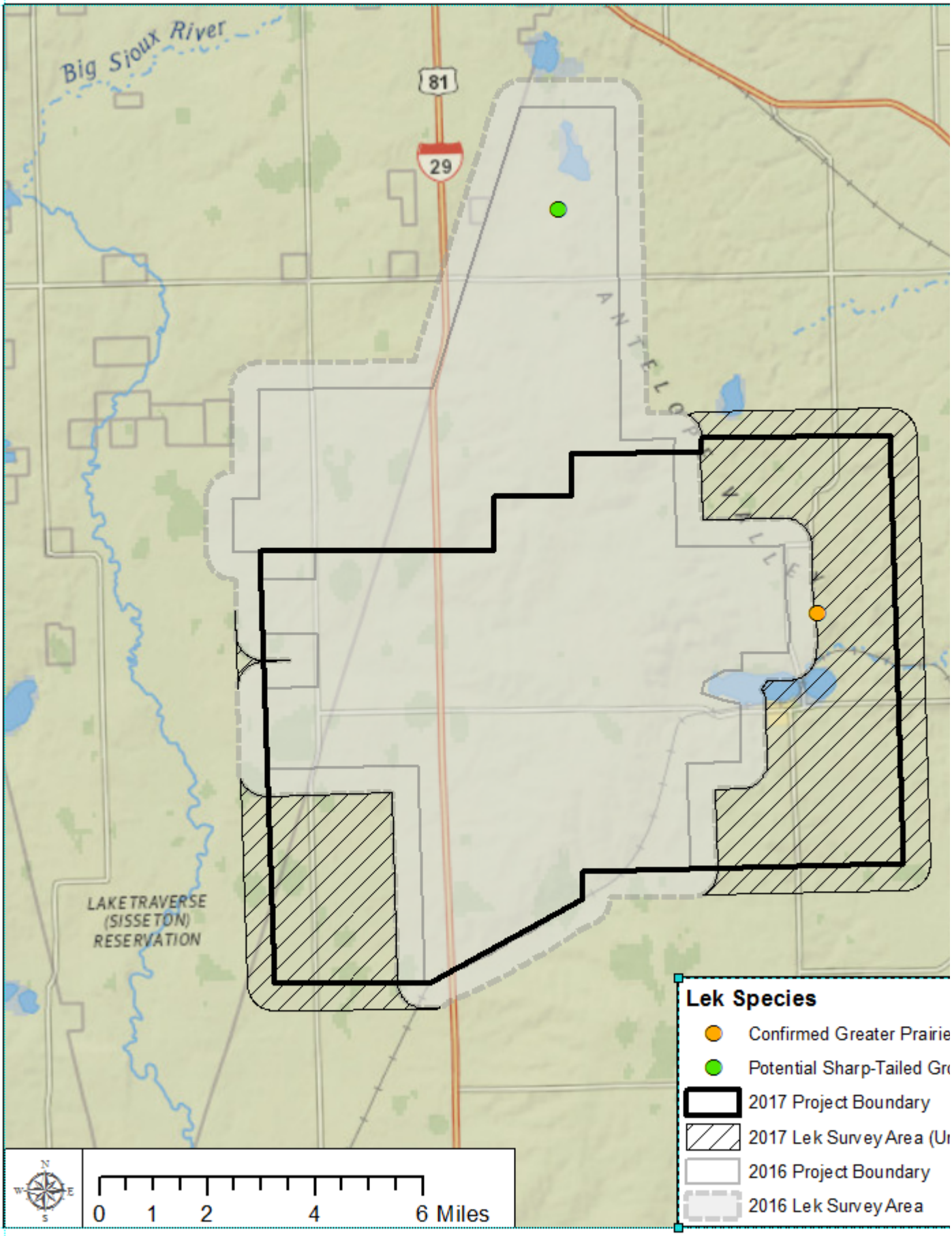
Silka

From: Dave Phillips [mailto:dave.phillips@apexcleanenergy.com]
Sent: Thursday, February 16, 2017 7:32 PM
To: Kempema, Silka
Cc: Jennie Geiger
Subject: Apex-Dakota Range Wind project

Hello Silka, It's been a while since we last discussed our Dakota Range project. Since we last spoke, we've modified our boundary a bit. At some point I'd like to meet with you and Natalie and talk through the changes and survey results from last year. However, in the mean time I was hoping you might be available for a short call to discuss leks, lek surveys and impact avoidance measures.

Attached is a copy of our lek survey report from last year on the old project boundary. Also attached is a figure showing the revised project area relative to the area surveyed for leks last year. Would you have time for a 15-minute call tomorrow (Friday 2/17) to discuss?

Thanks, Dave


Big Sioux River
81
29
ANTELOPE VALLEY
LAKE TRAVERSE (SISSETON) RESERVATION
Lek Species
Confirmed Greater Prairie
Potential Sharp-Tailed Gr
2017 Project Boundary
2017 Lek Survey Area (U
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S
0 1 2 4 6 Miles

DAVE PHILLIPS
Director, Environmental and Wildlife Permitting

Apex Clean Energy, Inc.
246 E. High Street, Charlottesville, VA 22902
W: 434-906-9127
Dave.Phillips@apexcleanenergy.com | www.apexcleanenergy.com

Recommendations for Grouse Lek Buffers

Definitions

For the purposes of this document, the following definitions have been adopted:

No-surface Occupancy (NSO): Use or occupancy of the land surface for wind development and associated infrastructure is prohibited in order to protect identified resource values. The NSO distance will be measured from the center of leks.

Timing Limitation: Use and disturbance of the land surface are prohibited during specified time periods to protect identified resource values.

Lek: The traditional display area where two or more male grouse have attended in two or more of the previous five years.

Recommendations

The NSO recommendation for Sharp-tailed Grouse is at least 1.6 km (1.0 mi), based on life-history information. No new construction in this buffer is recommended.

The recommended timing limitation during the construction year is 1 March to 30 June, for a distance of 3.2 km (2.0 mi), in order to protect leks and nests. No activity in this buffer during this time is recommended.

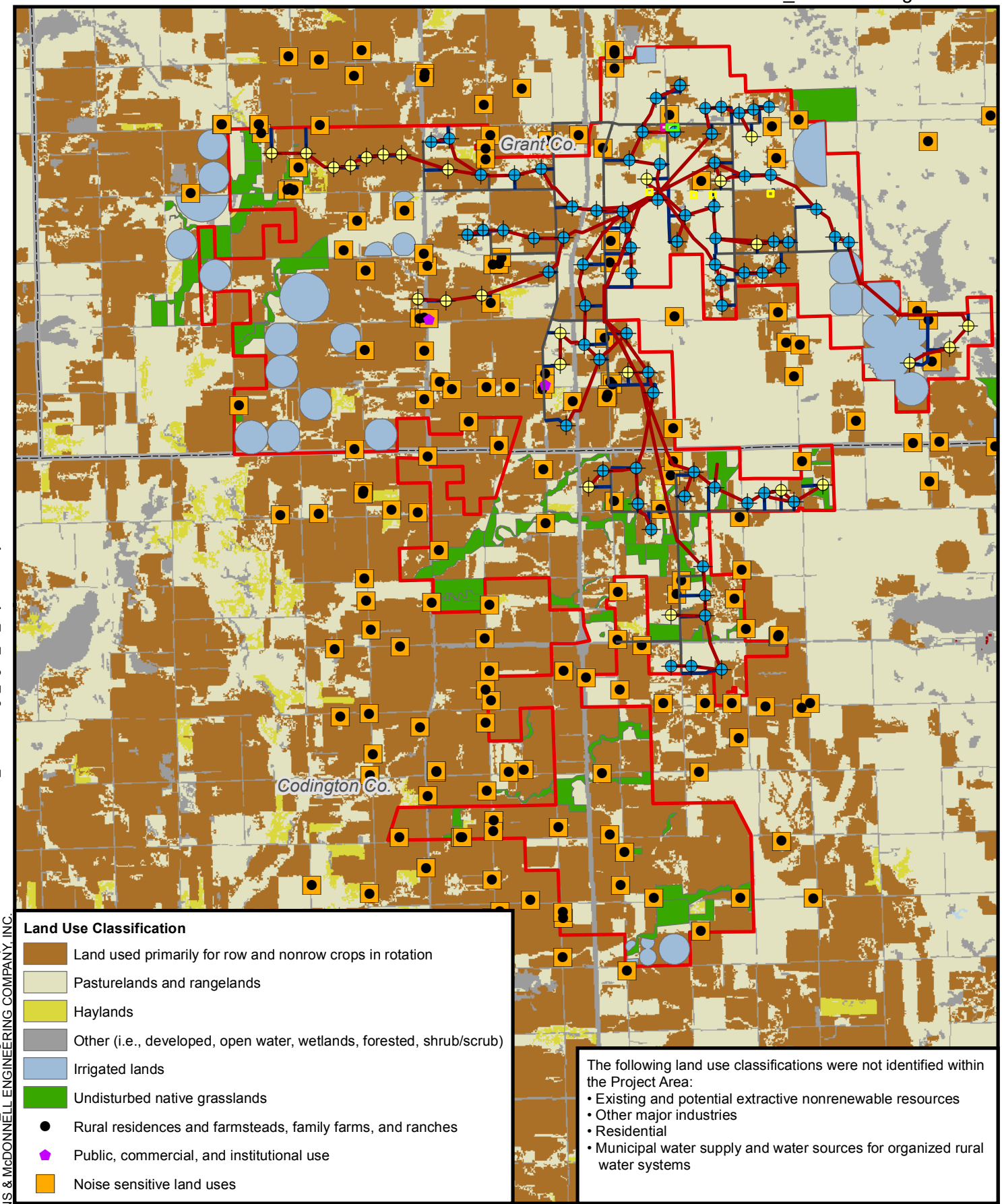
The recommended timing limitation during the post-construction (operational) period is 3 hours after sunrise between 1 March to 30 June, for a distance of 3.2 km (2.0 mi), to protect leks. No activity in this buffer is recommended.

Avoid placing wind developments in large, contiguous blocks of grassland. Blocks are considered fragmented by any human-derived feature (e.g., agricultural uses, fences, transmission lines, roads, burned areas) that subdivides them. Maintaining habitat connectivity between leks is important because both males and females use multiple leks throughout the breeding season.

For Greater Prairie-Chickens, the values reported for minimum area requirements, home range, and area needed for successful reintroductions range from 5.1 – 61.4 km^2 (2 – 23.7 mi^2) (Svedarsky et al. *unpublished data*). For Sharp-tailed Grouse, reported home range values range from 0.32 – 2 km^2 (0.12 – 0.7 mi^2) (Connelly et al. 1998). Area needed for successful reintroductions is 33 km^2 (12.7 mi^2). In recent study in central South Dakota, the average home range size for prairie grouse (Greater Prairie Chickens and Sharp-tailed Grouse) was 13.9 km^2 (5.4 mi^2; Runia and Solem 2015).

Minimize road densities and traffic volume. Use existing roads when possible. Limit construction of new roads.

Close and re-vegetate travel ways where appropriate. Re-vegetate closed roads with a suitable seeding mixture for the type of disturbed habitat (e.g.native prairie, or planted grassland).



Land Use Classification

- Land used primarily for row and nonrow crops in rotation
- Pasturelands and rangelands
- Haylands
- Other (i.e., developed, open water, wetlands, forested, shrub/scrub)
- Irrigated lands
- Undisturbed native grasslands
- Rural residences and farmsteads, family farms, and ranches
- Public, commercial, and institutional use
- Noise sensitive land uses

The following land use classifications were not identified within the Project Area:

- Existing and potential extractive nonrenewable resources
- Other major industries
- Residential
- Municipal water supply and water sources for organized rural water systems

- Project Area
- County Boundary
- Primary Turbine
- Spare Turbine
- Private Access Road
- Public Road
- Underground Collection
- Potential Laydown
- Potential O&M
- Potential Substations

NORTH

1 0.5 0 1

Scale in Miles

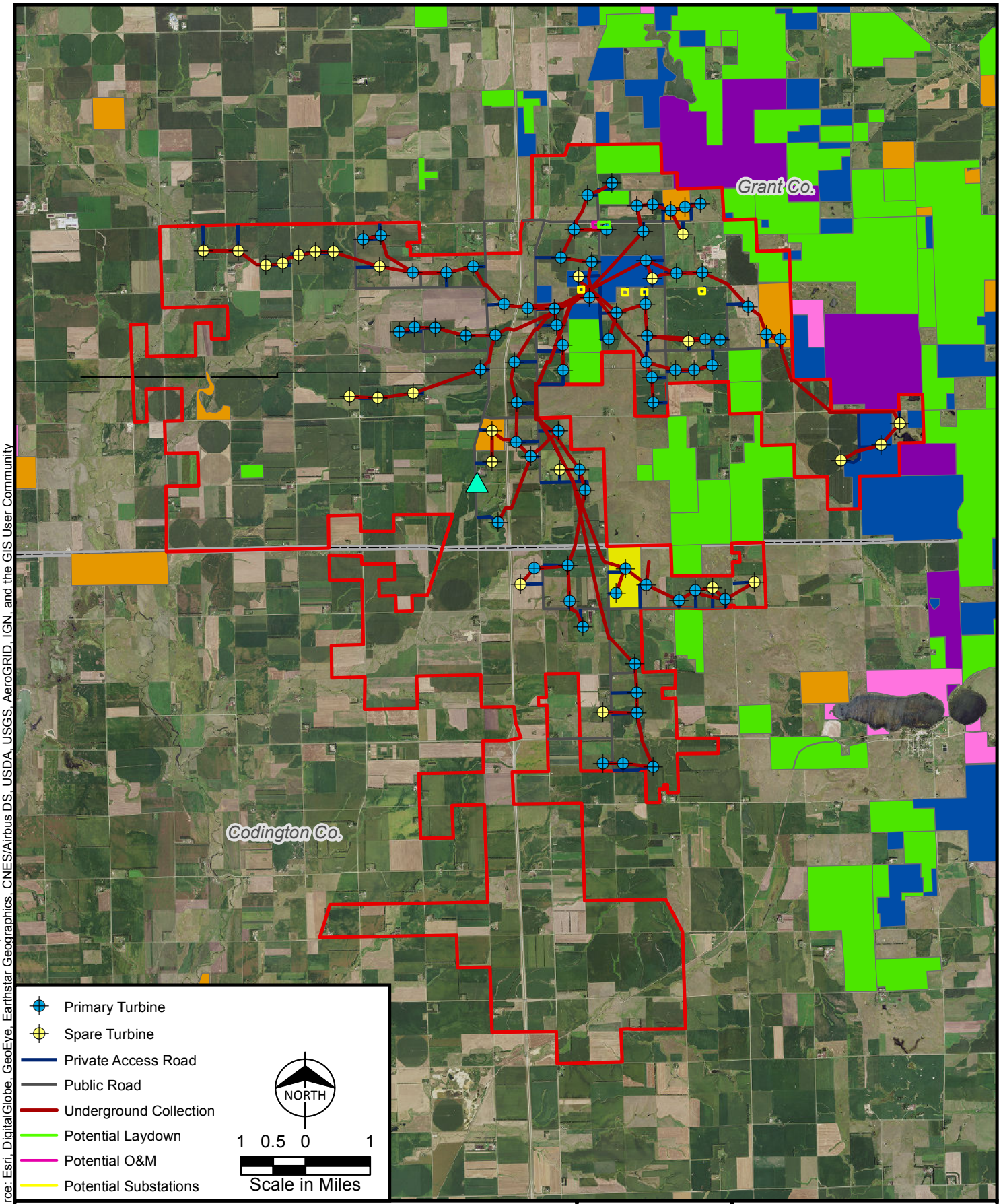
BURNS McDONNELL

Figure 12
Land Use and Project Layout
Dakota Range
Wind Energy Facility
SDPUC Application

Path: Z:\Clients\EN\S\ApexCleanEnr\99035_DakotaRange\Studies\Geospatial\DataFilesArcDocs\99035_DakotaRange_Fig12_LU_Layout.mxd jbell 4/20/2018

Source: Esri, National Land Cover Database (2011), and Burns & McDonnell Engineering Company, Inc.

Issued: 4/20/2018



Path: Z:\Clients\ENS\ApexCleanEnr\99035_DakotaRange\Studies\Geospatial\DataFiles\ArcDocs\99035_DakotaRange_Fig13_PublicLands_Layout.mxd jbell 4/20/2018

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

BURNS McDONNELL

Figure 13
Public Lands and Facilities
and Project Layout
Dakota Range
Wind Energy Facility
SDPUC Application

Source: Esri, USFWS HAPET, SDGFP, Apex, and Burns & McDonnell Engineering Company, Inc.

Issued: 4/20/2018

GRANT COUNTY *SOUTH DAKOTA*

OFFICE OF COUNTY COMMISSIONERS
210 East 5th Avenue
Milbank, SD 57252-2499
Phone: 605-432-6711
Fax: 605-432-9004

October 4, 2017

To: The SD Public Utilities Commission

RE: Letter of Support

The Grant County Commission understands the need for the county to find new and creative business solutions to generate additional revenue. The County has noticed the benefits of South Dakota's strong wind resource and the exceptional economic opportunities it has delivered to communities (across the Midwest) and is excited to hear that APEX has entered into an agreement with Xcel Energy. Grant County is pleased to have been working closely with Apex Clean Energy on their plans to develop Dakota Range Wind. As such, the County endorses the project and looks forward to continuing our partnership with Apex to ensure Grant County's first wind farm is a success.

We believe Dakota Range Wind will significantly benefit our county for the next thirty years or more. After working with the Apex team, we are confident this development will be completed with minimal impacts to the natural environment and minimal disturbance to citizens. The Commission endorses this project and looks forward to the benefits that Grant County will experience upon completion of the project.

Thank you for your consideration.

Sincerely,

Marty Buttke

Marty Buttke, Vice-Chairman
Grant County Commission

AGREEMENT

It is hereby agreed and understood by and between Dakota Range I, LLC, a Delaware limited liability company, c/o Apex Clean Energy, Inc., 310 4th Street, NE, Suite 200, Charlottesville, VA 22902, hereinafter referred to as "Dakota Range", and Interstate Telecommunications Cooperative, Inc., P.O. Box 920, Clear Lake, South Dakota 57226, hereinafter referred to as "ITC", as follows:

WHEREAS, Dakota Range has submitted an Application to Grant County, South Dakota, for a franchise pursuant to SDCL Chapter 31-26 for the right to construct, maintain and operate a wind energy farm system for the purpose of distributing and/or transmitting electricity and electric energy over, upon, along and across certain public highways located within Grant County, South Dakota (the "Application"); and

WHEREAS, ITC has expressed concern in connection with such Application, because the construction of a wind energy farm and its transmission and distribution lines in certain areas may interfere with ITC's existing telephone and telecommunication lines and the signals carried by such lines; and

WHEREAS, Dakota Range has agreed that all construction by Dakota Range will be done in a manner so as to not interfere with the maintenance and operation of other utility and telecommunication lines existing in such public highway right-of-ways or elsewhere; now therefore,

IT IS HEREBY AGREED AND UNDERSTOOD by and between the respective parties that in the event the construction of the wind energy farm and its distribution and/or transmission lines of Dakota Range should "unreasonably interfere" with the operation of the ITC telephone and telecommunication lines upon the wind energy farm being energized or at any time thereafter which requires the need for repairs or replacement of lines,

then Dakota Range shall promptly cooperate in good faith to accomplish such repairs or replacement by promptly taking such steps as may be necessary to resolve or mitigate any such interference. "Unreasonable interference" is defined as ITC's existing telephone and telecommunication lines and the signals carried by such lines having degraded from "4.1.2 Acceptable" or better to "4.1.4 Not Recommended" or worse as such terms are defined and used in "IEEE Std 820™ -2005" (which shall be the applicable standard for assessing any interference described herein). Finally, all costs and expenses resulting from the unreasonable interference shall be timely satisfied in full by Dakota Range.

Dated this 10th day of May 2017.

Dakota Range I, LLC,
a Delaware limited liability company

By: Apex GCL, LLC,
a Delaware limited liability company, its sole member

By: Apex Clean Energy Holdings, LLC,
a Delaware limited liability company, its sole member

Mark Goodwin, President

INTERSTATE TELECOMMUNICATIONS COOPERATIVE, INC.

Bryan Roth
General Manager

Codington County
Planning Commission / Board of Adjustment

1910 West Kemp Avenue
Watertown, SD 57201-3048

Email: codington.county@sdstate.edu
Website: codington.org

Phone: (605) 882-6300
Fax: (605) 882-6302

March 21, 2018

RE: Memorandum

To whom it may concern

Dakota Range I, LLC and Dakota Range II, LLC (Dakota Range) were granted a Conditional Use permit by the Codington County Board of Adjustment on June 19, 2017 for a Wind Energy System. This office is also aware of at least one community meeting in South Shore which was held prior to the permit hearing by the county last June. Throughout the application process Dakota Range was responsive to this office, and provided information requested by the Zoning Office, even when that information was not explicitly required by our county's rules. Based upon this office's experience with this company, there is no reason to doubt that Dakota Range will continue to work with the county to meet the terms of the Zoning Ordinance and their respective Conditional Use Permits.

Sincerely,

Luke Muller
Codington County Zoning Officer

UNITED STATES DEPARTMENT OF COMMERCE
National Telecommunications and
Information Administration
Washington, D.C. 20230

JAN 7 2016

Mr. B. Benjamin Evans
EVANS Engineering Solutions
216 Green Bay Rd., Ste. 105
Thiensville, WI 53092-1625

Re: Dakota Range Project: Codington, Grant & Roberts Counties, SD

Dear Mr. Evans:

In response to your request dated November 12, 2015, the National Telecommunications and Information Administration provided to the federal agencies represented in the Interdepartment Radio Advisory Committee (IRAC) the plans for the Dakota Range Wind Project, located in Codington, Grant and Roberts Counties, South Dakota.

After a 45+ day period of review, one agency, the Department of Energy, had concerns with turbine placement in this area. Please see the brief attached Impact Statement.

While the other IRAC agencies did not identify any concerns regarding radio frequency blockage, this does not eliminate the need for the wind energy facilities to meet any other requirements specified by law related to these agencies. For example, this review by the IRAC does not eliminate any need that may exist to coordinate with the Federal Aviation Administration concerning flight obstruction.

Thank you for the opportunity to review this proposal.

Sincerely,

Peter A. Tenhula
Deputy Associate Administrator
Office of Spectrum Management

Attachment

The Dakota Range Project has the potential to interfere with Department of Energy Western Area Power Administration radio paths. Turbine placement will be critical, and we request that the project representative contact our Western Spectrum Manager for coordination purposes:

Scott E. Johnson
Senior Telecom Engineer
Spectrum Program Manager
DOE/Western Area Power Administration
720-962-7380 (Phone)
720-962-4080 (Fax)
sjohnson@wapa.gov

Very respectfully,

Pamela E. Main
Energy FAS Representative
Spectrum Management Team
Office of Technology and Innovation
Office of the Chief Information Officer
(301) 903-4261 Office
(240) 449-6207 Mobile
(301) 903-7045 Fax
pamela.main@hq.doe.gov

**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	* * * * * * * *	**APPLICANTS' RESPONSES TO STAFF'S THIRD SET OF DATA REQUESTS** **EL18-003**

Below, please find Applicants' Responses to Staff's Third Set of Data Requests.

3-1) Refer to Page 2-2 of the Application. Please provide copies of the Conditional Use Permits obtained from Grant and Codington County.

Mollie Smith: Copies of the Conditional Use Permits obtained from Grant and Codington Counties were provided in Appendix K to the Facility Permit Application.

3-2) Refer to Page 7-3 of the Application. Please provide an update on the Advanced Determination of Prudence submitted by Xcel to the North Dakota Public Service Commission regarding its acquisition of the Dakota Range entities. Is the construction of this project contingent on the approval of the North Dakota Public Service Commission? Please explain.

Christopher Shaw (Xcel Energy)/Mark Mauersberger: On February 5, 2018, Xcel Energy requested that the ND PSC postpone consideration of Xcel Energy's Dakota Range application for an ADP in order to allow for additional time to analyze the impacts of the Tax Cuts and Jobs Act on the Dakota Range Project and to provide time for Xcel Energy to work with its vendors on efforts to potentially mitigate those impacts. On February 14, 2018, the ND PSC granted Xcel Energy's request and continued the hearing previously scheduled for March 21, 2018. Xcel Energy submitted supplemental information to the ND PSC on March 23, 2018. A hearing has not yet been scheduled.

The ND PSC does not have to grant an ADP for Dakota Range to construct the Project.

3-3) Refer to Page 8-1 of the Application.

a) Please provide a detailed breakdown that supports the project cost estimate of $380 million.

Brenna Gunderson: An estimated breakdown is provided in the table below:

Real Property	
Site Improvements	**8,000,000**
Construction – New Bldg.	**2,000,000**
Total Real Property	**10,000,000**
Personal Property	
Manufacturing Equipment	**250,000,000**
Equip. & Materials installed and purchased by Contr.	**70,000,000**
Equip. & Materials installed and purchased by the Utility	**0**
Soft Costs	**50,000,000**
Total Personal Property (incl. soft costs)	**370,000,000**
Total Real and Personal	**380,000,000**

b) Please provide the specific cost categories that may cause a 20% fluctuation in project costs.

Brenna Gunderson: Project costs can fluctuate due to factors such as the final negotiated costs of equipment and services. The 20% noted was a high-level estimate, and not intended as an exact calculation.

c) How does the Purchase and Sales Agreement with Xcel Energy address fluctuations in costs?

James Mackey: Apex is responsible for the cost of all development work required to provide Xcel Energy with a fully-developed, constructible project at the time of transaction closing. Any fluctuation in post-development costs not related to the site plan, including but not limited to interconnection, equipment procurement, construction and commissioning, are borne by Xcel Energy.

3-4) Refer to Page 9-2 of the Application. The applicant states, "the Applicant requests that the permit allow turbines to be shifted within 500 feet of their current proposed location, so long as specified noise and shadow flicker thresholds are not exceeded, cultural resource impacts are avoided or minimized per the CRMMP, environmental setbacks are adhered to as agreed upon with USFWS and SDGFP, and wetland impacts are avoided to the extent practicable. If turbine shifts are greater than 500 feet, exceed the noted thresholds, or do not meet the other limitations specified, the Applicant would either use an alternate turbine location or obtain Commission approval of the proposed turbine location change."

a) Please provide a detailed and thorough explanation as to why 500 feet was selected as the appropriate distance a turbine could be shifted without obtaining Commission approval.

Brenna Gunderson: Turbine moves after permitting are avoided if possible, but having the flexibility during construction to shift a turbine allows the construction schedule to be maintained in the event there is an unforeseen issue that could be solved with a shift to a turbine. Some examples of why turbines are shifted after permitting include: geotechnical boring evaluations, unanticipated cultural resources, and newly installed towers that could impact radio frequencies. Apex believes a 500 foot move is reasonable, as the turbine will continue to meet all setback and sound requirements and will remain on the same parcel of land.

b) Please provide evidence to support using 500 feet as the appropriate distance to necessitate a Commission filing.

Brenna Gunderson: See answer to (a) above.

c) Please describe what the Applicant envisions as the process to obtain Commission approval of a proposed turbine location change.

Mollie Smith: With respect to the approval of a turbine location change exceeding 500 feet, Dakota Range proposes the following process:

- Dakota Range would file with the Commission a request for approval of the change that includes:
  - An affidavit describing the proposed change, the reason for the change, the reason the change does not comply with one or more turbine flexibility proposal limitations set forth in the Application, and the documentation referenced below;
  - A map showing both the approved location and the proposed change (in different colors);
  - Documentation demonstrating compliance with local zoning requirements, including setbacks from existing off-site residences, businesses, governmental buildings, and non-participating property lines, and the noise requirement at existing off-site residences; and
  - Documentation demonstrating compliance with voluntary commitments regarding cultural resources, wetlands, and sensitive species habitat; and
  - Documentation of compliance with or landowner waiver of voluntary setback commitments.

- Once received, the information would be reviewed by Commission Staff, and a recommendation regarding the request provided to the Commission.
- The Commission would then issue a decision regarding Dakota Range's request at its next regularly scheduled Commission meeting.

3-5) Refer to Page 9-3, Table 9-3 of the Application. Please provide Table 9-3 with the Rotor Diameter and Hub Height in feet rather than meters.

Table 9-3: Wind Turbine Characteristics

Manufacturer	Model	Rotor Diameter	Hub Height	Generator Nameplate Capacity
Vestas	V136-4.2MW	446 feet	269 feet	4.2 MW

3-6) Regarding the voluntary setback from Punished Woman's Lake on Page 10-3:
a) Please explain the basis for the Applicant adopting this voluntary setback.

Mark Mauersberger: In voluntarily agreeing to a 2-mile setback from the lakeshore of Punished Woman's Lake, Apex applied a rationale that was consistent with the lake setbacks imposed by Deuel County, South Dakota, during its recent zoning ordinance amendment process.

Here is a brief description of the lakes for which setbacks are imposed in Deuel County's zoning ordinance:

- Lake Cochrane is a 355-acre spring-fed lake located in Deuel County near the Minnesota border (http://www.lakecochrane.org) with nearby high-end homes and robust tourism (https://gfp.sd.gov/parks/detail/lake-cochrane-recreation-area/). Deuel County established a turbine setback of 3 miles from Lake Cochrane.
- Lake Alice is located in Deuel County. This lake is 1,116 acres in size. It is approximately 12 feet deep at its deepest point (https://www.lake-link.com/south-dakota-lakes/deuel-county/lakealice/19780/?CFID=269729339&CFTOKEN=3c4b52ae102ff5e0-F2F93B49-C60C-D0D2-8F3D9C0B115512CA) and has less real estate and tourism value than Lake Cochrane. Deuel County established a turbine setback of 2 miles from Lake Alice.
- Bullhead Lake is located in Deuel County. This lake is 341 acres in size and was referred to at the Deuel County meetings as a "lesser lake" (see http://www.lake-link.com/south-dakota-lakes/deuel-county/bullhead-lake/19771/). Deuel County established a turbine setback of 1 mile from Bullhead Lake.

b) Please explain how the Applicant determined two miles to be the appropriate setback.

Mark Mauersberger: The surface area of Punished Woman's Lake is 477 acres, and the average water depth is around 12 feet, which is comparable to Bullhead Lake (in size) and is similar to Lake Alice in depth (although Punished Woman's Lake is almost 2.5 times smaller than Lake Alice): http://www.lake-link.com/south-dakota-lakes/codington-county/punished-womans-lake/19690/. Therefore, Punished Woman's Lake falls between Lake Alice and a "lesser lake," and is not comparable to Lake Cochrane. In Apex's opinion, a 1-mile setback is probably the appropriate setback from Punished Woman's Lake; however, in the interest of being a good neighbor, Apex voluntarily imposed a 2-mile setback.

c) Please explain why the Applicant did not adopt the three-mile setback proposed by the Punished Woman's Lake Association.

Mark Mauersberger: There are two key reasons why Dakota Range did not adopt a 3-mile setback from Punished Woman's Lake. First, based on the rationale from Deuel County discussed above, a 2-mile setback is generous. Second, Punished Woman's Lake Association representatives strongly lobbied their own county's Planning and Zoning Board to consider a 3-mile setback from their lake during a recent (post-application filing) zoning ordinance amendment process. This very recent proposal did not receive a single vote of support. In fact, Codington County did not even support inclusion of the voluntary 2-mile setback that Apex agreed to, and, instead, included a 1-mile setback from the lake.

3-7) Refer to Page 10-3, Table 10-1 of the Application. Do any of the County or State siting requirements listed violate any of the recommendations included in any manuals associated with the proposed Vestas V136-4.2 MW turbines? Please explain.

Mark Mauersberger: No. At the public input hearing, there were references to a Vestas manual recommended safety zone of 1,650 feet. However, as indicated by the attached letter from Vestas, the statement has been taken out of context and Vestas does not have a specified safety zone around its turbines.

3-8) Refer to Page 11-1 of the Application regarding cumulative impacts.

a) Please provide the location of the three nearest wind energy facilities, either proposed or under construction, relative to the Project.

Jennifer Bell: In accordance with ARSD 20:10:22:13, cumulative effects of the proposed Project should be considered in combination with "any operating energy conversion facilities, *existing* or *under construction*" (emphasis added). The three nearest operating

wind energy facilities to the Dakota Range Project are Oak Tree Wind Farm, approximately 30 miles southwest in Clark County; Day County Wind Farm, approximately 35 miles west in Day County; and Buffalo Ridge II Wind Farm, approximately 35 miles southeast in Deuel and Brookings Counties.

b) Please describe the distance a wind energy facility would need to be from the Project to be considered adjacent.

Jennifer Bell: A portion of the project boundary of a wind energy facility would need to abut or overlap a portion of the Project Area boundary of Dakota Range to be considered adjacent.

3-9) Refer to Page 14-12 of the Application and Staff data request 3-8. The Applicant states, "Acoustic bat surveys were completed for the Summit Wind Farm (*proposed wind farm adjacent to Dakota Range*) from May 15 through October 11, 2015, during which time 1,567 bat passes over 238 detector nights were recorded." (*emphasis added*) Please explain why the Summit Wind Farm is considered adjacent to the Project when considering acoustic bat surveys, but the Applicant did not consider the Summit Wind Farm when it was analyzing cumulative effects on resources in accordance with ARSD 20:10:22:13.

Jennifer Bell: The Summit Wind Farm is a proposed wind farm. Portions of the Summit Wind Farm project area boundary abut or overlap the Dakota Range Project Area boundary, and, therefore, the two projects are considered adjacent. Because the two proposed projects are adjacent, acoustic bat survey information for the Summit Wind Farm was considered in the bat effects analysis for Dakota Range.

The Summit Wind Farm was not considered when analyzing cumulative effects of the Project, because in accordance with ARSD 20:10:22:13, only "operating energy conversion facilities, *existing* or *under construction*" should be considered (emphasis added). The Summit Wind Farm is a proposed wind farm. It would be speculative to consider a proposed wind energy facility, because it is unknown whether or not such a facility would ultimately be constructed. If the Summit Wind Farm were in fact an operating facility, existing or under construction, then it would be appropriate to consider the Summit Wind Farm when analyzing cumulative effects of the Project.

By /s/ Mollie M. Smith_____

Mollie M. Smith
Lisa A. Agrimonti
FREDRIKSON & BYRON, P.A.
Attorneys for Applicants
200 South Sixth Street, Suite 4000
Minneapolis, MN 55402
Phone: (612) 492-7270
Fax: (612) 492-7077

November 15, 2010

RE: Vestas Safety Manual - Correction and Clarification of Language

Certain older versions of the "General Precautions" chapter of Vestas' Safety Regulations manuals, including the manual entitled "Safety Regulations for Operators and Technicians – V90-3.0 MW/V100-2.75 MW" warn turbine operators and technicians to stay outside a certain radius from a wind turbine "unless necessary". This language, however, was meant to apply only in case of abnormal operation such as fire. The warning was never intended to apply to turbines operating normally. Accordingly, the specific warning was misplaced in the manual's "General Precautions" chapter.

Vestas has no documentation, studies or analysis proscribing a specified safety zone around its wind turbines in normal operation. As a result, Vestas has recently undertaken efforts to remove the warning from the "General Precautions" chapter in all of its manuals. However, Vestas does continue to specify a radius that should be evacuated in case of abnormal operating conditions such as fire. Vestas' Safety Regulations manuals should not be cited as support for any specific safety zone or setback for wind turbines in normal operation.

Wind turbines are sophisticated pieces of equipment and Vestas takes great care to ensure the safety of its equipment, its employees and their communities. As with any sophisticated electric generation equipment, abnormal operating conditions can occur. Nevertheless, Vestas wind turbines in normal operation are safe. Vestas employs thousands of service and maintenance technicians who work safely within close proximity to wind turbines every day.

Vestas Americas
1881 SW Naito Parkway, Portland, OR 97201, USA
Tel: +1 503 327 2000, Fax: +1 503 327 2001, vestas-americas@vestas.com, www.vestas.com
Company Reg. Name: Vestas-American Wind Technology, Inc.

**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	* * * * * * * *	**STAFF'S FOURTH SET OF DATA REQUESTS TO APPLICANT** **EL18-003**

Below, please find Staff's Fourth Set of Data Requests to Applicant. Please submit responses within 10 business days, or promptly contact Staff to discuss an alternative arrangement. In addition, please specify the responder when answering each interrogatory. Should any response have subparts answered by more than one individual, identify the respondent by subpart.

4-1) Are participating residents prohibited from filing a complaint before the South Dakota Public Utilities Commission or any other governmental entity regarding noise or any other concern due to language in their easement? Explain.

Mollie Smith: This request calls for a legal conclusion. That said, the leases do not specifically prohibit landowners from complaining to the Commission, but the leases do obligate participating landowners to cooperate with Dakota Range to obtain and maintain permits for the Project.

4-2) Please provide the name, address, and distance to the closest turbine of non-participating residences that are within the following distance from the closest turbine to their residence:

a) 1,000 ft. to 1 mile;
b) 1 mile to 2 miles; and
c) 2 miles to 3 miles.

Please submit the response to Staff Data Request 4-2 confidentially.

Dakota Range is compiling data responsive to this request and will submit on April 26, 2018, per the extension granted by Ms. Amanda Reiss.

4-3) Refer to Mr. Mike MaRous' direct testimony, Page 1, Lines 26 – 27. When will the market impact studies for multiple wind projects in South Dakota be completed? Does

the Applicant intend to introduce these studies in this docket when the studies are complete? Please explain.

Michael MaRous and Mollie Smith: The April 13, 2018 Market Impact Analysis for the Crocker Wind Farm Study was submitted to the South Dakota Public Utilities Commission on April 13, 2018 in Docket No. 17-28. The other study work is underway and a completion date has not been set.

At this time, Dakota Range does not intend to submit market analyses for other projects in this docket; however, Mr. MaRous may offer additional information in support of his analysis for Dakota Range in rebuttal testimony, if appropriate.

4-4) Refer to Mr. Mike MaRous' direct testimony, Page 2, Lines 8 – 10. Mr. MaRous states, "When I use the phrase 'proximity to wind turbines,' I generally mean turbines within three to five times the hub height of a wind turbine."

a) Based on the Dakota Range project proposed turbines, please provide the range Mr. MaRous considers to be within proximity to the proposed wind turbines.

Michael MaRous: As an initial matter, I note that the quoted portion of my testimony has a typographical error: three to five times "hub height" should be three to five times "tip height," generally 1,500 to 2,500 feet. Based on the Project's proposed turbines, the range I consider to be within proximity to the proposed wind turbines is 1,476 feet – 2,460 feet.

b) Is Mr. MaRous asserting that residences and agricultural land that are at a distance of more than five times the hub height of a wind turbine away from a wind turbine do not need to be analyzed for any potential property value impact associated with the Project? Please explain.

Michael MaRous: Based on my years of appraisal experience, the values of residences and agricultural properties that are located more than five times the tip height away from a wind turbine are unlikely to be affected. That does not mean they should not be considered in a market analysis. I viewed all properties and residences in the Project area within Clay County and concluded that there was no market evidence that the value of distant properties and residences would be affected by the Project.

c) What is the basis for selecting three to five times the hub height of a wind turbine as the definition of proximity?

Michael MaRous: As clarified above, I meant to say "tip height," not "hub height." I chose to define "proximity" as three to five times the tip height of a wind turbine based on my experience as detailed in response to Part b.

4-5) Refer to Mr. Mike MaRous' direct testimony, Page 3, Lines 19 – 20. How did visiting the Project area in Grant and Codington counties assist in conducting your market value analysis?

Michael MaRous: Visiting the Project area in Grant and Codington counties allowed me to get acquainted with the market area and demographics, as well as the physical characteristics of the Project footprint. This familiarity was helpful in conducting the market analysis.

My extensive experience has taught me that a thorough inspection of the subject and subject area is extremely helpful when preparing an accurate report. I have participated in the last several publications of *The Appraisal of Real Estate*, the foremost recognized publication concerning real estate appraisal. A thorough site and area inspection is always considered part of "best practice." My visit to the Project area in Grant and Codington counties allowed me to observe the physical characteristics of the area (such as gravel roads, rolling topography, existence of numerous prairie potholes, wire fences in need of maintenance, older homes and out buildings, existing wind farms, small lakes, and limited non-agricultural uses). It also showed the suitability for agricultural pasture and hunting type uses. I viewed residential properties (on my way to and from the Project area) and I also viewed the planted shelterbelts around a large majority of the smaller "farmette" parcels. I could view and observe the proximity to amenities, services, and infrastructure of the area. The inspection also provided a confirmation of issues that I had found with reviewing the other technical expert reports, as well as published and historical information in the area, which aided me in preparing my market value analysis.

4-6) Refer to Mr. Mike MaRous' direct testimony, Page 5, Lines 2 – 20.

a) On lines 6 – 10, Mr. MaRous mentioned one tax appeal based upon wind farm-related concerns. However, on Page 47 of 57 of Exhibit 1 to Mr. MaRous testimony, it is stated that there have been no tax appeals in any South Dakota county. Which statement is correct? Please clarify.

Michael MaRous: My testimony is correct, that there has been one tax appeal in South Dakota, which was unsuccessful. As noted in my Market Analysis, there was one

unsuccessful appeal in Aurora County, and that tax appeal was inadvertently omitted from the summary of outreach to South Dakota assessors.

b) On lines 11 – 12, Mr. MaRous stated there have been no reduction in assessed valuations due to proximity to wind turbines. Does the Applicant know how many reductions in assessed valuations there have been in the Counties surveyed during the requested survey time period, and the reasons for each reduction?

Michael MaRous: No. I do not have this information.

c) On lines 18 – 20, Mr. MaRous states, "Further, county assessors repeatedly stated that county revenues and revenues to individual farms outweighed any initial concerns that residents had about the wind farms joining their communities."

i. Referring to "revenues to individual farms," does "individual farms" refer to participating landowners in the Project? If no, please explain.

Michael MaRous: We understood the county assessors to be referring to participating landowners, but the assessors did not use that phrase in our surveys.

ii. Referring to "initial concerns that residents had about wind farms," does "residents" refer to non-participating landowners to the Project? If no, please explain.

Michael MaRous: In this portion of my testimony I was referring to all landowners, participants and non-participants in the Project area.

iii. Please explain the County Assessors role and how they are qualified to issue an opinion on how the increased revenues associated with the Project outweighed any concerns.

Michael MaRous: Assessors set the market value of properties in their jurisdictions. An assessor's determination of market value is used by the County to assess property taxes, and the assessor's determination of market value would be what is being challenged in a property tax protest/appeal. Assessors analyze economic factors and sales transactions to estimate market value. They also receive input on factors influencing value, and know of complaints from parties protesting the assessor's opinion of market value.

The minimum qualifications for county assessors are set by statute. A county assessor must obtain the Certified Appraiser Assessor designation from the South Dakota Department of Revenue. (SD Laws 10-3-1.1; SD Laws 10-3-1.2; SD Admin. Rules

64:02:01:14). To be eligible for this certification, they must have "at least one year of full-time experience in the assessing and appraising field, have completed and passed the required training prescribed in § 64:02:01:16, and ha[ve] passed the certification examination." (SD Admin. Rules 64:02:01:05.) Appraisers routinely and reasonably rely upon information provided by assessors to prepare market analyses and appraisals.

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**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	* * * * * * * * *	**APPLICANTS' RESPONSES TO STAFF DATA REQUEST No. 4-2** **EL18-003**

Below, please find Applicants' Response to Staff Data Request No. 4-2.

4-1) Please provide the name, address, and distance to the closest turbine of non-participating residences that are within the following distance from the closest turbine to their residence:

a) 1,000 ft. to 1 mile;
b) 1 mile to 2 miles; and
c) 2 miles to 3 miles.

Please submit the response to Staff Data Request 4-2 confidentially.

Mollie Smith: The requested information is attached. Dakota Range notes that for "c", Dakota Range does not have complete information regarding residences between two and three miles from a turbine because the dataset extends only one mile from the Project boundary. As requested by Staff, Dakota Range is submitting responses to Staff Data request No. 4-2 confidentially.

By /s/ Mollie M. Smith

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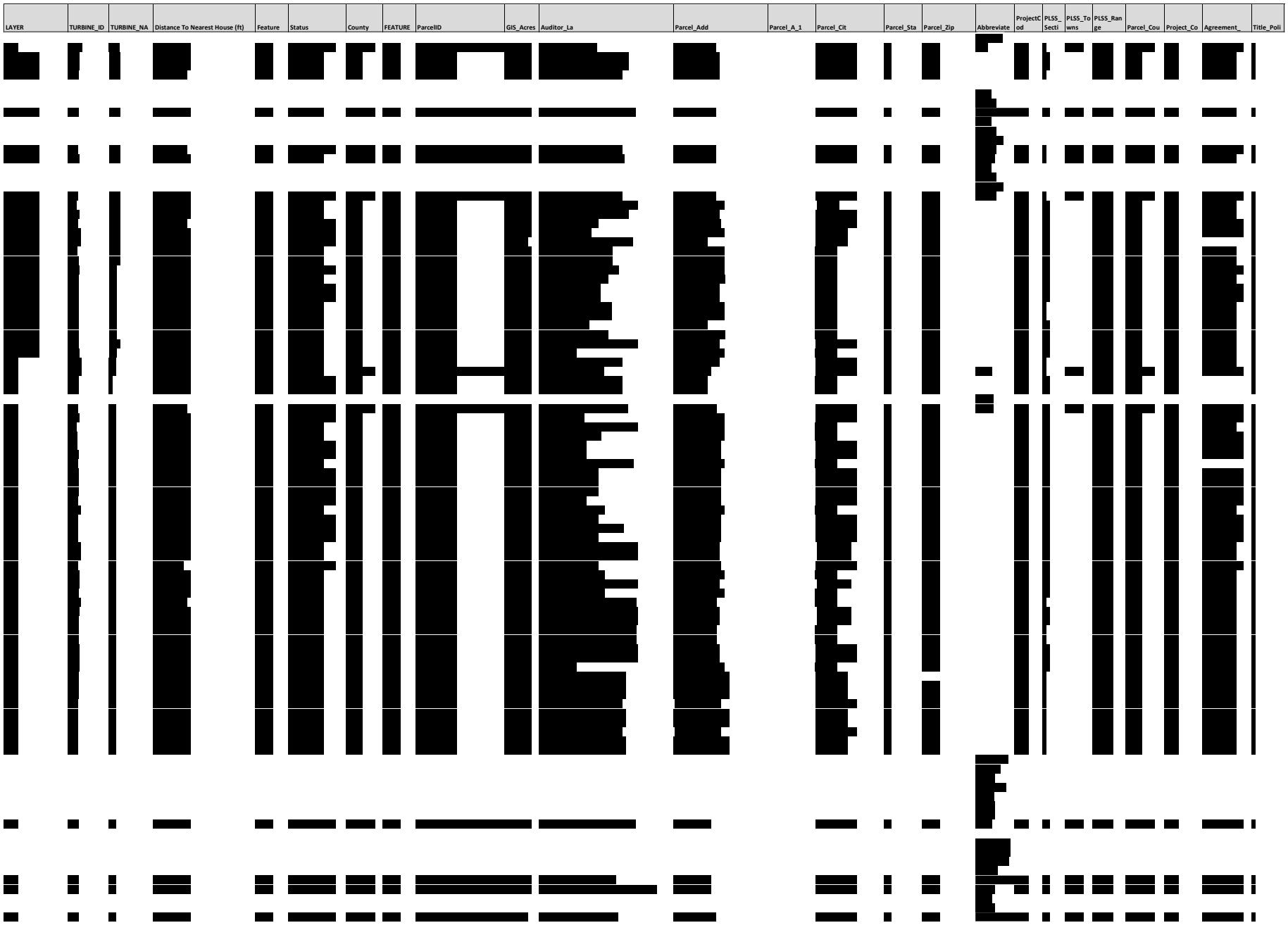
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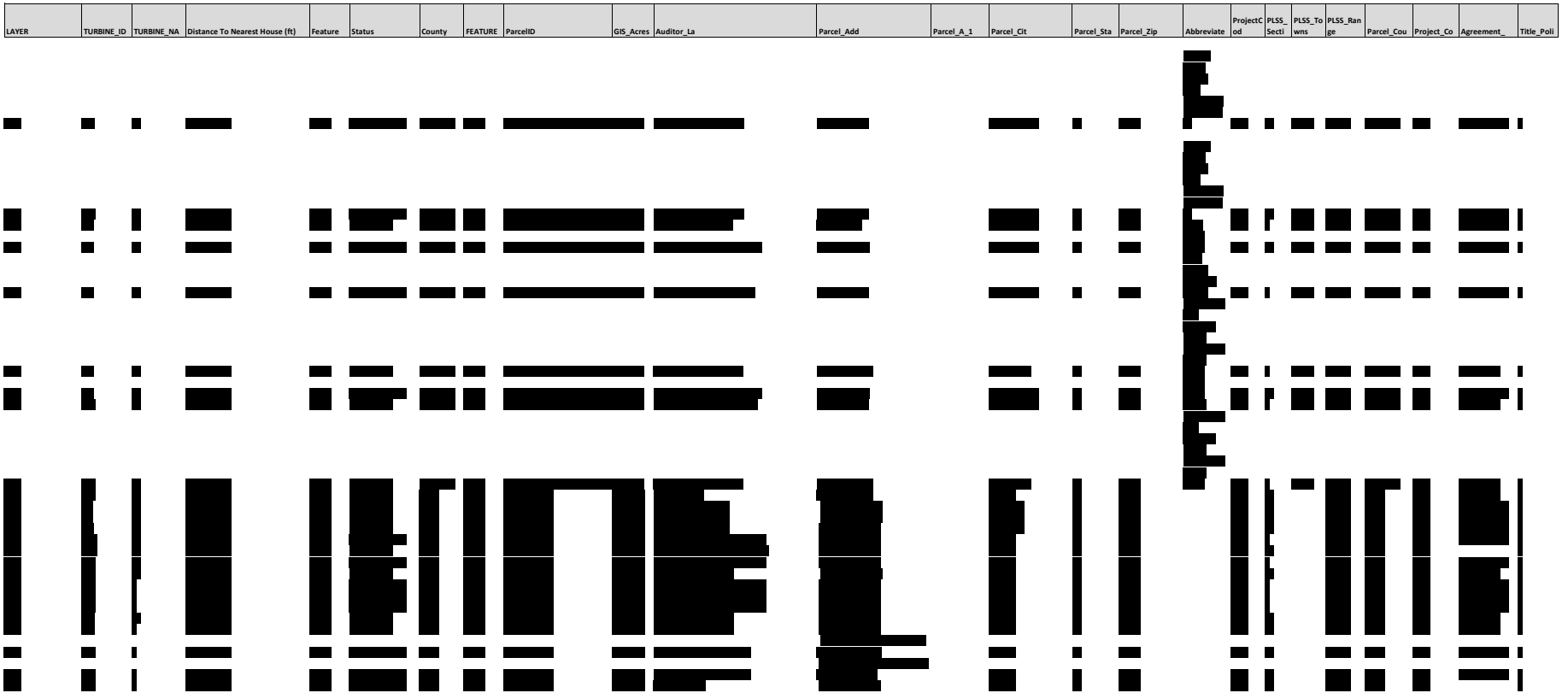
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**BEFORE THE PUBLIC UTILITIES COMMISSION
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IN THE MATTER OF THE APPLICATION BY DAKOTA RANGE I, LLC AND DAKOTA RANGE II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN GRANT COUNTY AND CODINGTON COUNTY, SOUTH DAKOTA, FOR THE DAKOTA RANGE WIND PROJECT	* * * * * * * *	**STAFF'S FIFTH SET OF DATA REQUESTS TO APPLICANT** **EL18-003**

Below, please find Applicants' Responses to Staff's Fifth Set of Data Requests.

5-1) Refer to Mr. Mark Mauersberger's direct testimony, Page 2, Line 17. Mr. Mauersberger is sponsoring Appendix L, Property Value Effects Study, of the Application, while Mr. MaRous is supporting Section 21.1.2.3 of the Application. Is this correct? Please explain.

Mollie Smith: Mr. Mark Mauersberger assisted with preparation of the Application and is sponsoring Appendix L. Mr. Mike MaRous is supporting, rather than sponsoring, the Application's discussion of property value effects in Section 21.1.2.3 of the Application.

5-2) Refer to Mr. Mark Mauersberger's direct testimony, Page 10, Lines 13 – 15. Mr. Mauersberger states, "…., environmental setbacks are adhered to as agreed upon with USFWS and the South Dakota Game, Fish, and Parks, …". Please provide a list of all environmental setbacks that the Applicant is implementing.

Jennie Geiger: Dakota Range has committed to the following environmental setbacks, as agreed upon with USFWS and SDGFP during the September 26, 2017 meeting:

- Bald eagle nest turbine setback of 1.6 miles.
- Prairie grouse lek turbine setback of no less than 0.3 mile.

In addition, the proposed layout avoids potentially suitable Dakota skipper and poweshiek skipperling habitat and USFWS easements.

5-3) Refer to Mr. Mark Mauersberger's direct testimony, Page 11, Lines 12 – 17. Does the County conditional use permit supersede the South Dakota Public Utilities Commission authority as provided in South Dakota codified law or administrative rule. Please explain.

Mollie Smith: This request calls for a legal conclusion, and the Commission's siting authority is outlined in SDCL Ch. 49-41B.. To the extent necessary, Dakota Range will address this issue in briefing.

5-4) Refer to Mr. Mark Mauersberger's direct testimony, Page 11, Lines 19 – 24. When will the Applicant determine whether future projects are possible based on available transmission capacity? Please explain.

Mark Mauersberger: Dakota Range does not know yet when a decision on future projects will be made. Available transmission capacity and its cost will be known when the results of interconnection studies become available. The Independent System Operator is responsible for completing those studies. Dakota Range and other developers are given a general schedule of when to expect completed studies, but the schedule is subject to change. Future projects are dependent upon available transmission capacity, but other proprietary business information is also considered in the decision. Dakota Range continues to assess the viability of future projects and will publicly submit documentation to the appropriate permitting authorities if a decision to move forward is reached.

5-5) Please provide Mr. Mike MaRous' appraiser work file for this docket.

Michael MaRous: My work file containing documents Bates labeled as Dakota Range 000001 — Dakota Range 000262 are attached. The work file includes an updated version of my South Dakota assessor's survey that adds surveys of the county assessors in Campbell and McPherson counties.

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**BEFORE THE PUBLIC UTILITIES COMMISSION
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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	* * * * * * * *	**STAFF'S SIXTH SET OF DATA REQUESTS TO APPLICANT** **EL18-003**

Below, please find Staff's Sixth Set of Data Requests to Applicant. Please submit responses within 10 business days, or promptly contact Staff to discuss an alternative arrangement. In addition, please specify the responder when answering each interrogatory. Should any response have subparts answered by more than one individual, identify the respondent by subpart.

6-1) Refer to the direct testimony of Mr. Mike MaRous, Page 4, Lines 6 – 12. Mr. MaRous states, "I reviewed sales transactions in seven northeastern counties in South Dakota with operating wind farms to try to identify matched paired sales to use for comparison, meaning sales of similar rural residential properties where one property was near a wind farm and one property was not. However, of the sales reviewed, only one rural residential property sale was near a wind farm, and that property, located in Brookings County, South Dakota, was nearly four miles away from a turbine. As a result, the sale was not close enough to a wind turbine to use in a proximate/not proximate paired sales comparison."

a) How close to a wind turbine would a property sale need to be to be included in a paired sales analysis? Explain.

Mike MaRous: Ideally, a property sale included in a paired sales analysis would be located within 5 times the turbine tip height (approximately 2,500 feet) of a wind turbine.

b) Explain the review process Mr. MaRous conducted to ensure he reviewed all sales transactions near operating wind farms.

Mike MaRous: Using the wind farms associated with the assessor's survey, we went to real estate websites (such as Zillow, Trulia, Redfin, etc.) and the Northeast South Dakota Association of Realtors ("NESD") Multiple Listing Service ("MLS") to look

for all sales in the immediate area. We then contacted any relevant brokers to confirm our findings.

6-2) Refer to the direct testimony of Mr. Mike MaRous, Page 4, Lines 23 – 27.

a) Describe the qualifications and experience of each of the six South Dakota County assessors surveyed by the Applicant.

Mike MaRous: The statutorily required qualifications for county assessors in South Dakota (also called "Directors of Equalization") are contained in Title 10, Chapter 10-3 of the South Dakota Codified Laws, titled "County Directors of Equalization."

b) Are the duties and responsibilities of an assessor and an appraiser the same? If no, please explain.

Mike MaRous: An assessor is working for a county or public body and an appraiser is working for an individual client. The ultimate goal of both an assessor and an appraiser is to estimate market value as of a specific date.

c) Are the education requirements for an assessor and an appraiser the same? If no, please explain.

Mike MaRous: They have similar course requirements, but appraisers' course requirements are generally more rigorous and extensive.

d) Please explain the difference between an assessed value and an appraised value.

Mike MaRous: "Appraised value" is market value and "assessed value" can be adjusted for level of assessment and equalization factors. Further, in South Dakota, crop and pasture land is assessed on productivity and residential properties are assessed on market value.

e) Does an assessor review property on an individual basis or conduct mass appraisals? Please explain.

Mike MaRous: They can do both. The value of agricultural land in South Dakota is based on productivity, and it appears that residential assessed value has specific estimates of value that would not necessarily meet the requirements of Uniform Standards of Professional Appraisal Practices ("USPAP") under appraisal standards.

f) Does an assessor consider the view from an individuals' property when determining an assessed value for taxation purposes? Please explain.

Mike MaRous: View and any factors that affect value should be considered by the assessor when estimating market value and translating into assessed value.

g) Please provide the objective measures that each of the six South Dakota county assessors consider when determining an assessed value.

Mike MaRous: It is my understanding that they are looking at productivity factors and crop values when valuing agricultural land. When valuing residential properties, they are looking at sales transactions, sales volume, market conditions, location, paved roads, land size, building sizes, amenities, and condition. They are also looking at desirability of location, economic viability, and future trends. Further, they will also consider the views of and from subject property.

6-3) Refer to Mr. MaRous's Market Analysis. Since Mr. MaRous could not identify any sales of property within the proximity of wind turbine, is the only analysis specific to South Dakota a survey of County Assessors? Please explain.

Mike MaRous: We included the Brookings County comparison as a South Dakota-specific analysis to reinforce the data we received from the assessors. There was also an analysis of recent residential and land sales of properties that were near the Project that were considered. There were, however, no sales involving property within proximity to turbines.

6-4) Refer to the direct testimony of Mr. Robert O'Neal, Page 4, Line 21, through Page 5, Line 18. Regarding Grant and Codington County's sound level requirement for wind energy facilities:

a) Please explain what "constructive interference" means in each ordinance.

Robert O'Neal: Neither ordinance defines "constructive interference." From a general acoustics perspective, this term means the addition of two waveforms of similar phase in which a signal and any reflections are added together. In other words, the sound to be measured to satisfy the counties' sound ordinances is the sound from all operating wind turbines combined. That is how the sound level modeling study was performed.

b) Is the "average sound" measurement defined in the ordinance? Please explain.

Robert O'Neal: "Average sound" is not defined in either ordinance.

c) Has Mr. O'Neal confirmed with Grant and Codington County that the L_{eq} metric is appropriate? If so, please provide documentation.

Robert O'Neal: I have not conferred with either county on the metric. However, a preliminary sound analysis report was provided to each county with the Conditional Use Permit (CUP) applications, and each county granted a CUP to Dakota Range for the Project without taking issue with the sound analysis conducted. Further, the International Electrotechnical Commission (IEC) 61400-11 standard wind turbine manufacturers use to measure sound from their wind turbines is defined in terms of an Leq. Therefore, the sound modeling results were presented in terms of an Leq and compared to the sound level limits on an Leq to Leq basis.

d) Please explain all efforts of the Applicant to work with Grant and Codington County to better define the sound ordinance.

Mark Mauersberger: It is unclear what is meant by this request. Dakota Range believes that it has demonstrated compliance with the each county's sound requirement, as evidenced by issuance of CUPs.

e) Please explain how Grant and Codington County will audit the Dakota Range Wind Facility for compliance with its sound ordinance.

Mollie Smith: Neither the Grant County ordinance nor the Codington County ordinance includes any specific audit provisions. However, Dakota Range committed to providing an updated sound analysis for the final layout showing compliance with each county's applicable ordinance provision prior to construction.

6-5) Can the South Dakota Public Utilities Commission order a different sound level requirement than what is in Grant and Codington County's ordinance? If yes, please provide the factors the Applicant believes the Commission should consider in determining an appropriate sound level requirement. If no, please cite South Dakota codified laws or administrative rules the Applicant considered in making that determination.

Mollie Smith: The SD PUC's permitting authority for a wind energy facility is set forth in South Dakota Laws Ch. 49-41B. Dakota Range believes the issue of whether a

condition is appropriate is an issue for briefing because it is dependent on an analysis of the specific condition language and the fully developed record in the case.

6-6) Refer to the direct testimony of Mr. Mark Mauersberger, Page 10, Lines 7-19.

a) Please explain how the request for turbine flexibility is compliant with ARSD 20:10:22:33.02 based on the Commission's interpretation of the rule in Docket EL17-028.

Mollie Smith: The rule cited is an Application content requirement (as noted by the PUC's Order Granting Motion to Deny and Dismiss Crocker Wind Farm's Application, dated November 1, 2017), and, therefore, is not determinative of the final conditions of the permit issued. Further, said order does not address turbine shifts.

b) Please explain why shifts of turbines of up to 500 ft. should not be considered a new configuration of wind turbines.

Mollie Smith: See response to DR 6-6(a).

6-7) At the Public Input Hearing on March 21, 2018, Mr. Mauersberger stated the following:

"In addition to the aforementioned, Codington County representative actually reach out to their neighboring county's equalization office to discuss property values since Buffalo Ridge Wind Farm was built more than ten years ago. Brookings County told Codington County that they had just completed such an analysis on 243 home sites that were in and around the Buffalo Ridge Wind Farm.

Their conclusion? Over the past decade, 242 of the 243 homes around this nearby wind farm increased in value by an average of fifty eight percent. Now I understand that project opponents love to cite a flawed real estate study done in Canada. However, I would rely on South Dakota analysis done on an established wind farm in a nearby county as a better comparable."

a) Please explain why this analysis was not submitted as support for the Application if it was sourced at the Public Input Hearing and the general public was instructed to "rely" on the analysis by the Applicant.

Mark Mauersberger: See response to DR 2-19. The statement was not made until after the Application was filed, and I indicated I would rely on the Brookings County data over other flawed studies often referenced.

b) Please provide the name, title, and qualifications of the Codington County representative mentioned above.

Mark Mauersberger: See response to DR 2-19.

c) Please provide the name, title, and qualifications of the employee at the Brookings County equalization office that Codington County contacted.

Mark Mauersberger: See response to DR 2-19.

d) For the 242 homes around the Buffalo Ridge Wind Farm, is the "increase in value" based on assessed value or real estate sales transactions? Explain.

Mark Mauersberger: See response to DR 2-19.

e) Please define "in and around the Buffalo Ridge Wind Farm" for distances, similar to how Mr. MaRous defines proximity.

Mark Mauersberger: See response to DR 2-19.

f) Did the analysis focus on residential or agricultural properties? Explain.

Mark Mauersberger: See response to DR 2-19.

g) Is the Applicant asserting that the increase in value of these properties was primarily associated with the nearby wind farm? Explain.

Mark Mauersberger: See response to DR 2-19.

h) Did Brookings County perform a paired sales analysis to determine if the increase was associated with property being near a wind farm? Explain.

Mark Mauersberger: See response to DR 2-19.

i) How did the increase in value of these 242 properties compare to increase in value of properties that were not near a wind farm? Explain.

Mark Mauersberger: See response to DR 2-19.

j) On Slide 24 of the Applicant's presentation for the Public Input Hearing, the Applicant made claims that it follows an "evidence-based approach", relying on "qualified/peer-reviewed studies." Does the Applicant believe this study and the results conveyed to the general public met this rigorous standard? Explain.

Mark Mauersberger: Please see response to DR 2-19. Dakota Range employed an evidence-based approach to designing the Project and, where applicable, relied on qualified/peer-reviewed studies. Dakota Range's scientific studies were based on multiple, qualified, professional reviews of the Project layout and immediately adjacent lands. Dakota Range's Real Estate analysis was a statistical study, based on

assembling historical property value data (collected pre & post construction of a wind farm).

Dated this 30th day of April, 2018.

By /s/ Mollie M. Smith

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**BEFORE THE PUBLIC UTILITIES COMMISSION
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Below, please find Applicants' responses to Staff's Seventh Set of Data Requests to Applicant.

7-1) Refer to Figure 2 of the Application. Please provide the approximate number of miles Turbine 72 is from the city limits of Watertown.

Jennifer Bell: Turbine 72 is located approximately 13 miles from the city limits of Watertown, at their nearest point.

7-2) Please provide the turbines, by number, that are within 300 meters from the following land use classifications:

Jennifer Bell: The following numbers of turbines are located within these land use classifications or within 300 meters of these land use classifications:

a) **Undisturbed native grasslands:** 11
b) **Haylands:** 5
c) **Pastureland and rangeland:** 91.

7-3) Please refer to the Constraints Map depicted on Figure 5:
a) Please define "Buildable Area".

Brenna Gunderson: For the purposes of Figure 5, the "buildable area" was developed by incorporating setback requirements and other factors related to the siting of wind turbines.

b) Please explain how certain turbines (ie – 16, 18, 19, 20) are not shown to be in a Buildable Area.

Brenna Gunderson: Turbines 16, 18, 19, and 20 are shown in a non-Buildable Area as a result of an error in creating Figure 5 in which an outdated version of the Buildable Area was inadvertently used.

c) Please resubmit Figure 5 to also show the turbine flexibility requested, and submit Figure 5 with more detail (ie – broken out into 4 or 6 sub-regions of the project).

Brenna Gunderson: See the attached revised Figure 5 maps.

7-4) Refer to Appendix I to the Application.

a) Please provide the electronic files that support Table B-1 and Table B-2 in Appendix I to the Application.

Rob O'Neal: Tables B-1 and B-2 are being provided.

b) Please provide Table B-1 and Table B-2 with the following additional columns of information for each receptor ID: distance to closest turbine, closest turbine number, and street address associated with receptor ID.

Rob O'Neal: The street addresses associated with each of the 189 receptors was not provided. The attached table (Dakota Range Receptor Distances to Turbines) includes the distance from each of the 189 receptors to the closest turbine and the number of that closest turbine.

c) Is "sensitive receptors" defined as property lines in Grant County, instead of how it is defined for Codington County on Page 1-1, to mirror the sound level requirement in Grant County's ordinance? Please explain.

Rob O'Neal: In Grant County, the point of evaluation was the "perimeter" of the structure, which was interpreted to mean at the edge of a structure, not the property line. In Codington County, the point of evaluation was the property line (although results are presented at each structure, too). Sound levels at any property line between a participating and non-participating parcel at 50 dBA or less in both counties (see Figure 5-2A and Figure 5-2B in Appendix I).

7-5) Refer to Page 9-2 of the Application regarding final micrositing flexibility. The Applicant states, "As a result of final micrositing, minor shifts in the turbine locations may be necessary to avoid newly identified cultural resources (cultural resource studies in coordination with the SWO are ongoing), or due to geotechnical evaluations of the wind turbine locations, landowner input, or other factors. Please

provide a list of all wind generation projects completed by Apex Clean Energy Holding, LLC, or an associated subsidiary, where turbines were moved during the final micrositing process. For each project identified, provide how many turbines were moved, how many feet each turbine was shifted, and the reason for each shift. Also, provide a list of all wind generation projects completed by Apex Clean Energy Holding, LLC, or an associated subsidiary, where no turbines were shifted during the final micrositing process.

Brenna Gunderson: This information is not readily available. The Applicant provided additional detail on turbine micrositing in its Application (see, for example, Section 9.1).

Dated this 3rd day of May, 2018.

By /s/ Mollie M. Smith

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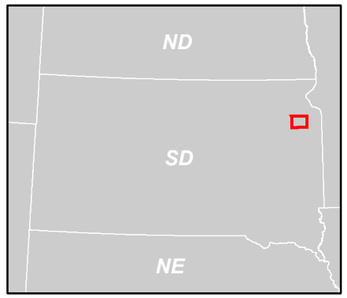

Dakota Range

Buildable Within 500ft From Turbine

- Project Boundary
- Parcel Boundary
- Primary Turbine
- Spare Turbine
- 500 ft. Radius
- Buildable Area (V136 at 82m)

Date: 5/2/2018 Author: MR

Coordinate System: NAD 1983 StatePlane South Dakota North FIPS 4001 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

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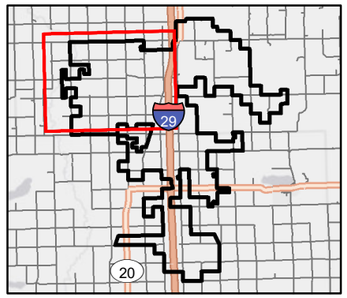
APEX CLEAN ENERGY



Dakota Range

Buildable Within 500ft From Turbine

- Project Boundary
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- Primary Turbine
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- 500 ft. Radius
- Buildable Area (V136 at 82m)

Date: 5/2/2018 Author: MR

Coordinate System: NAD 1983 StatePlane South Dakota North FIPS 4001 Feet
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Datum: North American 1983
Units: Foot US

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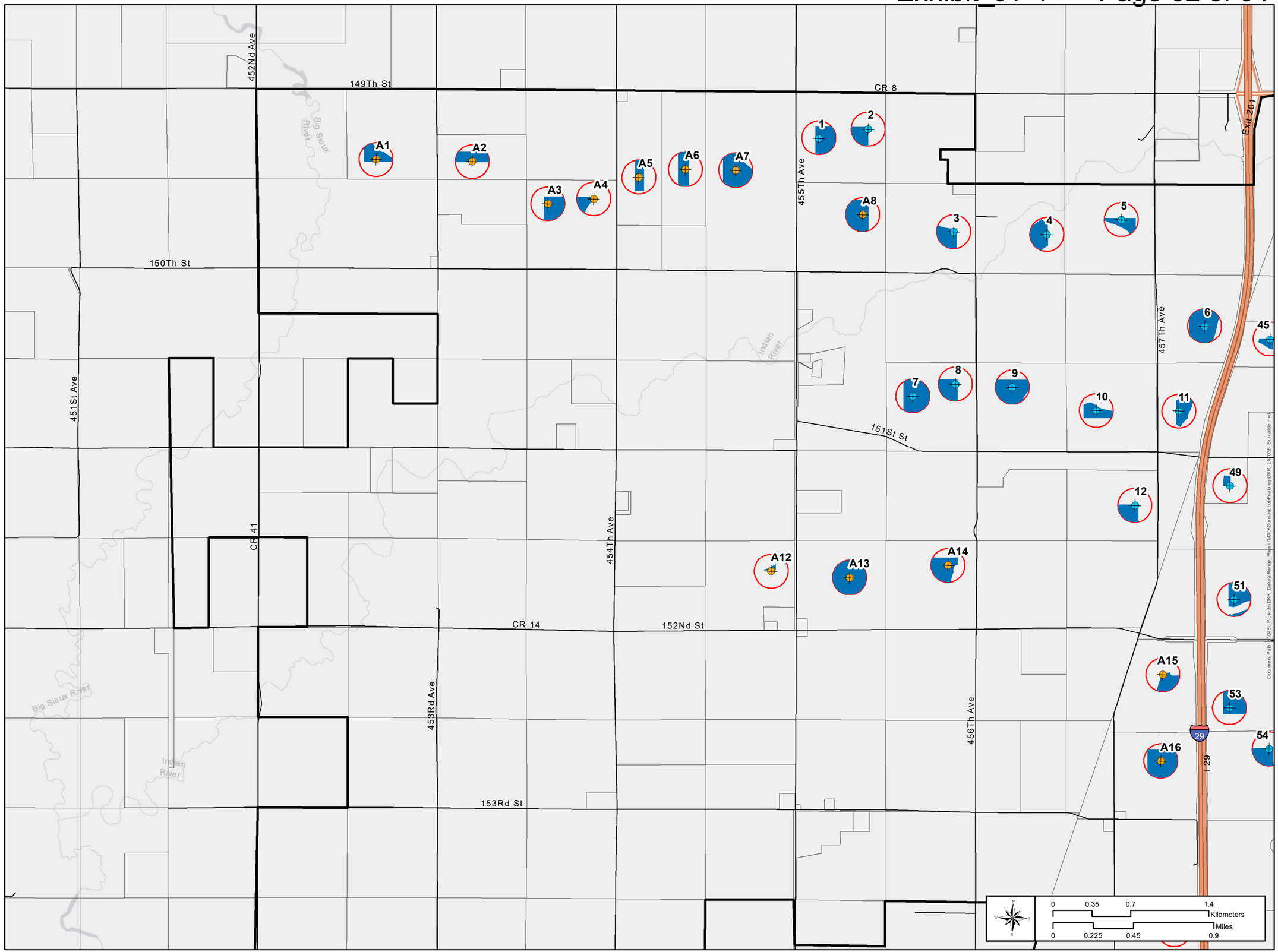
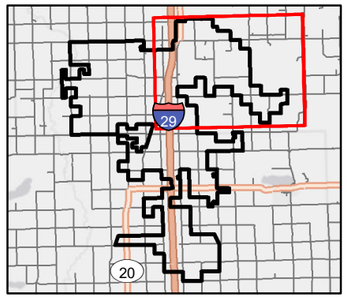
APEX CLEAN ENERGY

1





Dakota Range

Buildable Within 500ft From Turbine

- Project Boundary
- Parcel Boundary
- Primary Turbine
- Spare Turbine
- 500 ft. Radius
- Buildable Area (V136 at 82m)

148Th St
457Th Ave
458Th Ave
459Th Ave
464Th Ave
Exit 201
Indian River
149Th St
CR 8
CR 5
150Th St
151St St
460Th Ave
CR 14
152Nd St
461St Ave
463Rd Ave
153Rd St
465Th Ave
CR 7
I 29
Soo Creek
Myers Lake

5 6 10 11 12 13 15 14 16 17 18 19 20 21 27 28 A11 22 23 A9 29 A10 30 31 24 45 46 47 48 49 50 25 26 32 33 34 35 36 A18 40 41 42 43 44 37 38 39 51 A15 52 53 54 A16 A17 55 56 A21 A20 A19

Date: 5/2/2018 Author: MR

Coordinate System: NAD 1983 StatePlane South Dakota North FIPS 4001 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

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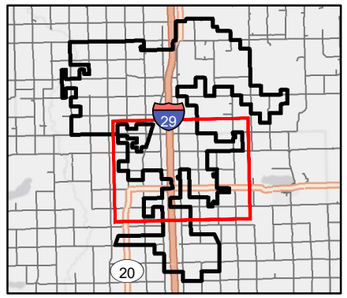
APEX CLEAN ENERGY

0 0.4 0.8 1.6 Kilometers
0 0.25 0.5 1 Miles

Document Path: Y:\GIS_Projects\DKR_DakotaRange_Phase#\MXD\Construction\Features\DKR_LAY03d_Buildable.mxd



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Projection: Lambert Conformal Conic
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Units: Foot US

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APEX CLEAN ENERGY

13
57
58
A22
62b
63
61
59
65
A24
A25
64
66
60
67
68
A26
69
70
71
72

154Th St
155Th St
156Th St
157Th St
158Th St
CR 5
CR 9
CR 7
457Th Ave
458Th Ave
459Th Ave
460Th Ave
461St Ave
455Th Ave
456Th Ave
I 29
Exit 193
SR 20
20
29
Soo Creek
Maloney Creek

0 0.35 0.7 1.4 Kilometers
0 0.225 0.45 0.9 Miles