

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

**IN THE MATTER OF THE APPLICATION
OF TATANKA RIDGE WIND, LLC FOR A
PERMIT OF A WIND ENERGY FACILITY
IN DEUEL COUNTY, SOUTH DAKOTA**

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SETTLEMENT STIPULATION

EL19-026

It is hereby stipulated and agreed by and between the Applicant, Tatanka Ridge Wind, LLC (Applicant or Tatanka Ridge), and Staff of the South Dakota Public Utilities Commission (Staff), (jointly the Parties), that the following Settlement Stipulation may be adopted by the South Dakota Public Utilities Commission (Commission) in the above-captioned matter.

The Parties held several negotiating sessions in an effort to arrive at a jointly acceptable resolution of this matter. As a result of those negotiations, the Parties have resolved all issues subject to this proceeding except for the funding for the decommissioning of the Project and will notice this item for Commission consideration.

INTRODUCTION

On June 17, 2019, the Commission received an Application for a Facility Permit (Application) from Tatanka Ridge, a subsidiary of Avangrid Renewables, LLC. Tatanka Ridge proposes to construct a wind energy facility to be located in Deuel County, South Dakota, known as the Tatanka Ridge Wind Farm Project (Project). The Project would be situated within an approximately 27,900-acre project area, located near the Towns of Toronto and Brandt (Project Area). The Project Area is in Blom, Brandt, Grange, Hidewood, and Scandinavia Townships. The total installed capacity of the Project would be approximately 155 megawatts (MW) of nameplate capacity. The proposed Project includes up to 56 wind turbine generators, access roads to turbines and associated facilities, above/underground electrical collector lines, communication systems, a collection substation, one permanent meteorological tower, less than 0.5-mile long 345-kV gen-tie line connecting the Project, and an operations and maintenance facility. The Project would interconnect to the regional electric grid via the Astoria substation, a new Otter Tail Power Company interconnection substation scheduled to be operational in 2020, located in Scandinavia Township. Tatanka Ridge has entered into two purchase power agreements, one with Google for 98 MW and one with Dairyland Power Cooperative for the balance. The Project is expected to be completed in 2020. Applicant estimates the total construction cost to be \$216 million.

PURPOSE

This stipulation has been prepared and executed by the Parties for the sole purpose of resolving all issues in Docket EL19-026 other than the funding for the decommissioning of the Project. In consideration of the mutual promises hereinafter set forth, the Parties agree as follows:

1. Upon execution of this Stipulation, the Parties shall file this Stipulation with the Commission together with a joint motion requesting that the Commission issue an order approving this Stipulation in its entirety without condition or modification.
2. This Stipulation includes all terms and conditions of the settlement other than the funding for the decommissioning of the Project and is submitted with the condition that, in the event the Commission imposes any material changes or conditions to this Stipulation which are unacceptable to any Party, this Stipulation may, at the option of any Party, be withdrawn and shall not constitute any part of the record in this proceeding or any other proceeding nor be used for any other purpose.
3. This Stipulation shall become binding upon execution by the Parties, provided however, that if this Stipulation does not become effective in accordance with Paragraph 2 above, it shall be null, void, and privileged. This Stipulation is intended to relate only to the specific matter referred to herein; no Party waives any claim or right, which it may otherwise have, with respect to any matter not expressly provided for herein. No Party or a representative thereof shall directly or indirectly refer to this Stipulation as precedent in any other current or future proceeding before the Commission.
4. The Parties to this proceeding stipulate that all pre-filed testimony, exhibits, and responses to Staff data requests on the settled issues will be made a part of the record in this proceeding. The Parties understand that if these issues had not been settled, the Parties would have filed direct and rebuttal testimony on the settled issues.
5. The terms and conditions contained in this Stipulation shall inure to the benefit of and be binding upon the respective successors, affiliates, owners, stockholders, partners, parents, subsidiaries, directors, officers, agents, employees, representatives, attorneys, and assigns of the Parties. In addition, the terms and conditions of this Stipulation, including all facts leading up to the signing of this Stipulation, shall bind the Parties, including consultants, contractors and retained professionals.
6. This Stipulation constitutes the entire agreement between the Parties with respect to the issues it resolves and shall be deemed to supersede any other understanding or

agreements, whether written, oral, expressed or implied, relating to the Application. This Stipulation may not be amended, modified, or supplemented, and waivers or consents to departures from the terms and conditions of this Stipulation may not be given without the written consent thereto executed by all Parties.

7. This Stipulation shall be interpreted and construed in accordance with the laws of the State of South Dakota.
8. This Stipulation may be executed by electronic mail or facsimile and in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document.
9. The Parties agree that subject to the four elements of proof under SDCL 49-41B-22, the Commission has the authority to grant, deny, or grant upon reasonable terms, conditions, or modifications a permit for the construction, operation, and maintenance of the Project. Except for the funding for the decommissioning of the Project, each Party further agrees that Applicant has met its burden of proof pursuant to SDCL 49-41B-22 and is entitled to a Permit to construct the Project as provided in SDCL 49-41B-24, subject to the following:

TERMS AND CONDITIONS OF THE SETTLEMENT STIPULATION

1. Applicant will obtain all governmental permits which reasonably may be required by any township, county, state agency, or federal agency, or any other governmental unit for construction and operation activity of the Project prior to engaging in the particular activity covered by that permit. Copies of any permits obtained by Applicant shall be sent to the Commission.
2. Applicant shall construct, operate, and maintain the Project in a manner consistent with (1) descriptions in the Application, (2) Application supplements, (3) responses to any data requests, (4) the Final Decision and Order Granting Permit to Construct Facilities, and Attached Permit Conditions, (5) any applicable industry standards, and (6) any permits issued by a federal, state, or local agency.
3. Applicant agrees that the Commission's complaint process as set forth in ARSD Chapter 20:10:01 shall be available to landowners and other persons sustaining or threatened with damage as the result of Applicant's failure to abide by the conditions of the Permit or otherwise having standing to seek enforcement of the conditions of the Permit. Participating landowners are free to use the complaint process free from retribution or consequence regardless of any private easement term to the contrary.

4. At least 14 days prior to commencement of construction, Applicant shall provide each participating and non-participating landowner in the Project Area as shown in the Application and one-half mile outside the Project Area, using the names and addresses designated to receive the property tax bill sent by the county treasurer, with the following information:
 - a) A copy of the Final Decision and Order Granting Permit to Construct Facilities with attached Permit Conditions;
 - b) Detailed safety information describing:
 - 1) Reasonable safety precautions for existing activities on or near the Project;
 - 2) Known activities or uses that are presently prohibited near the Project, and
 - 3) Other known potential dangers or limitations near the Project;
 - c) Construction/maintenance damage compensation plans and procedures (only to participating landowners);
 - d) The Commission's address, website, and phone number;
 - e) Contact person for Applicant, including name, e-mail address, and phone number.
5. In order to ensure compliance with the terms and conditions of this Permit pursuant to SDCL 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors, and agents of Applicant involved in this Project be made aware of the terms and conditions of this Permit.
6. Except as otherwise provided in the Permit Conditions, Applicant shall comply with all mitigation measures set forth in the Application and Applicant's responses to Commission staff data requests. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.
7. Applicant will negotiate road use agreements with Deuel County and all affected townships, if required. Applicant will follow the terms of all road use agreements. When using haul roads specified in applicable road use agreements, Applicant shall take appropriate action to mitigate wind-blown particles created throughout the construction process, including but not limited to implementation of dust control measures such as road watering, covering of open haul trucks when transporting

material subject to being windblown, and the removal of any soils or mud deposits by construction equipment when necessary.

8. In accordance with applicable road use agreements or applicable law, Applicant shall comply with or ensure the following conditions regarding road protection:
 - a) All necessary permits authorizing the crossing of federal, state, county, and township roads are properly acquired.
 - b) Applicant shall coordinate road closures with federal, state, and local governments and emergency responders;
 - c) A regular program of road maintenance and repair through the active construction period to keep paved and gravel roads in an acceptable condition for residents and the public shall be implemented.
 - d) After construction, all deteriorated roads shall be repaired and restored to correct all damage resulting from construction traffic or compensate governmental entities for their repair and restoration of deteriorated roads, such that the roads are returned to their preconstruction condition.
 - e) Within 180 days of completing construction and reclamation of the Project, Applicant shall submit documentation to the Commission identifying that the roads were repaired in accordance with this Condition 8 and to the satisfaction of affected townships and county. If the townships or county will not provide such documentation, then Applicant shall provide a report to the Commission on the outstanding road repair issues and how those issues will be resolved.
 - f) Privately owned areas used as temporary roads or crane paths during construction will be restored to their preconstruction condition, except as otherwise requested or agreed upon by the landowner.
 - g) Should Applicant need to widen any existing roadways during construction of the Project, Applicant shall return the roadways back to original width after completion of the Project, unless otherwise agreed upon with the federal, state, county, or township entities, or the landowner.
9. Signage that identifies road closures and disturbances resulting from the Project in accordance with the most recent editions of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration shall be provided.

10. Applicant shall promptly report to the Commission the presence of any critical habitat of threatened or endangered species in the Project Area that Applicant becomes aware of and that was not previously reported to the Commission.
11. Applicant agrees to avoid direct impacts to cultural resources that are unevaluated, eligible for or listed in the National Register of Historic Places (NRHP). When a NRHP unevaluated, eligible or listed resource cannot be avoided, Applicant shall notify the South Dakota State Historic Preservation Office (SHPO) and the Commission of the reasons that complete avoidance cannot be achieved in order to coordinate minimization and/or treatment measures.
12. Applicant agrees to develop an unanticipated discovery plan for cultural resources that are consistent with 36 Code of Federal Regulations § 800.13 (Post-review Discoveries) and South Dakota Codified Laws Chapter 34-27: Cemeteries and Burial Records.
13. Applicant shall file the final Level III Archaeological report with the Commission prior to commercial operation. If any potential adverse impacts to NRHP unevaluated, listed, or eligible cultural resources are identified in the final cultural resources report, Applicant shall file with the Commission a report describing the SHPO-approved planned measures to ameliorate those impacts.
14. Applicant shall provide the Stormwater Pollution Prevention Plan (SWPPP) to the Commission when Applicant has a final design for the Project. The SWPPP will outline the water and soil conservation practices that will be used during construction to prevent or minimize erosion and sedimentation. The SWPPP shall be completed as required by the National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. Applicant will give a copy of the SWPPP to all contractors to be engaged in ground disturbing activities and applicant will review the requirements with them prior to the start of construction.
15. Applicant shall repair and restore areas disturbed by the construction or maintenance of the Project. Except as otherwise agreed to by the landowner, restoration shall include replacement of original pre-construction topsoil or equivalent quality topsoil to its original elevation, contour, and compaction and re-establishment of original vegetation as close thereto as reasonably practical. In order to facilitate compliance with this Permit Condition, Applicant shall:
 - a) Strip the topsoil to the actual depth of the topsoil, or as otherwise agreed to by the landowner in writing (e-mail is sufficient), in all areas disturbed by the Project; however, with respect to access roads, Applicant may remove

less than the actual depth of the topsoil to ensure roads remain low-profile and the contours align with the surrounding area;

- b) Store the topsoil separately from the subsoil in order to prevent mixing of the soil types;
 - c) All excess soils generated during the excavation of the turbine foundations shall remain on the same landowner's land, unless the landowner requests or agrees otherwise in writing; and
 - d) When revegetating non-cultivated grasslands, Applicant shall use a seed mix that is recommended by the Natural Resource Conservation Service (NRCS), or other land management agency, unless otherwise agreed upon with the landowner in writing.
16. The spread of noxious weeds will be avoided or minimized by delivering clean, washed vehicles to the site; using weed-free straw or waddles for erosion control, if readily available; and through the use of weed-free seed mixes following construction. Applicant shall work closely with landowners or land management agencies, such as the NRCS, to determine a plan to control noxious weeds.
17. Applicant shall stage construction materials in a manner that minimizes the adverse impact to landowners and land users as agreed upon between Applicant and landowner or Applicant and the appropriate federal, state, and/or local government agency. All excess (non-permanent) construction materials and debris shall be removed upon completion of the Project, unless the landowner agrees otherwise.
18. In order to mitigate interference with agricultural operations during and after construction, Applicant shall locate all structures, to the extent feasible and prudent, to minimize adverse impacts and interferences with agricultural operations, shelterbelts, and other land uses or activities. Applicant shall take appropriate precautions to protect livestock and crops during construction. Applicant shall repair all fences and gates removed or damaged during construction or maintenance unless otherwise agreed upon with the landowner or designee. Applicant shall be responsible for the repair of private roads damaged when moving equipment or when obtaining access to the right-of-way.
19. Applicant shall bury the underground collector system at a minimum depth of 3.5 feet, or deeper if necessary, to ensure the current land use is not impacted.
20. Applicant shall repair or replace all property removed or damaged during all phases of construction, including but not limited to, all fences, gates, and utility, water supply, irrigation or drainage systems. Applicant shall compensate the owners for

damages or losses that cannot be fully remedied by repair or replacement, such as lost productivity and crop and livestock losses. All repair, replacement and/or compensation described above shall be in accordance with the terms and conditions of written agreements between Applicant and affected landowners where such agreements exist.

21. Applicant shall, in the manner described in its written agreement with a landowner, indemnify and hold the landowner harmless for loss, damage, claim, or actions resulting from Applicant's use of the easement, including any damage resulting from any release, except to the extent such loss, damage claim, or action results from the negligence or willful misconduct of the landowner or his employees, agents, contractors, invitees, or other representatives.
22. Applicant may make turbine adjustments of 200 feet or less from the turbine locations identified at the time a Facility Permit is issued without prior Commission approval, so long as specified noise and shadow flicker thresholds are not exceeded, cultural resource impacts and documented habitats for listed species are avoided, and wetland impacts are avoided or are in compliance with applicable U.S. Army Corps of Engineers (USACE) regulations. Prior to implementing the turbine adjustment, Applicant will file in the docket an affidavit demonstrating compliance with the limitations set forth above. Any turbine adjustment that does not comply with the aforesaid limitations, or turbine model change, would be considered a "material change," and Applicant shall file a request for approval of the "material change" prior to making the adjustment pursuant to the following approval process:

Applicant will file with the Commission and serve on the official Service List a request for approval of the adjustment that includes:

- An affidavit describing the proposed turbine adjustment, the reason for the adjustment, the reason the adjustment does not comply with one or more turbine flexibility limitations set forth above, and information regarding compliance with all other applicable requirements; and
- A map showing both the approved location and the proposed adjustment (in different colors);
 - Once received, the information would be reviewed by Commission staff, and Commission staff will have 10 calendar days within which to request further Commission review.
 - If no further review is requested, Applicant may proceed with the adjustment.

- If further review is requested, the Commission will issue a decision regarding Applicant's request at its next available regularly scheduled Commission meeting, subject to notice requirements, after the request for further review is made by Commission staff.
23. Applicant may adjust access roads, the collector system, meteorological towers, the operations and maintenance facility, the Project substation, and temporary facilities, so long as they are located on land leased for the Project, cultural resources are avoided, or mitigated in consultation with the SHPO; documented habitats to listed species are avoided; wetland impacts are avoided or are in compliance with applicable USACE regulations; and all other applicable regulations and requirements are met.
 24. If the Project causes interference with radio, television, or any other licensed communication transmitting or receiving equipment, Applicant shall take all appropriate action to minimize any such interference and shall make a good faith effort to restore or provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the Project. This mitigation requirement shall not apply to any dwellings or other structures built after completion of the Project.
 25. Applicant will provide Global Positioning System (GPS) coordinates of structure locations to affected landowners at any time during the life of the Project. Coordinates will be provided in writing to landowners within 30 days of a request.
 26. The Project, exclusive of all unrelated background noise, shall not generate a sound pressure level (10-minute equivalent continuous sound level, Leq), of more than 50 dBA when all turbines are producing full acoustic output at any currently occupied participating residence unless the owner of the residence has signed a waiver, or more than 45 dBA at any currently occupied non-participating residence unless the owner of the residence has signed a waiver. Applicant shall, in support of the evaluation of a formal noise complaint and upon Commission formal request, conduct field surveys or provide post-construction monitoring data verifying compliance with specified noise level limits. If the measured wind turbine noise level exceeds 50 dBA at any currently occupied participating residence or 45 dBA at any non-participating residence where the owner of the residence has not signed a waiver, then the Applicant shall take whatever steps are necessary in accordance with prudent operating standards to meet this standard. Sound monitoring will not be repeated in a representative area during any five-year period unless operational or maintenance changes result in a reasonable assumption of higher turbine sound levels.

The post-construction monitoring survey, upon Commission formal request, shall be executed as follows:

- a) The post-construction monitoring survey shall follow the applicable portions of American National Standards Institute (ANSI) standard S12.9 Part 3, and other acoustical standard relating to equipment and calibration specifications.
- b) Noise levels shall be measured continuously for at least two weeks, or until such time that a sufficient number of valid 10-minute Leq periods are acquired to determine compliance to a reasonable degree of scientific certainty. At a minimum, data must be collected for multiple 10-minute periods on at least two different nights when the nearest turbines are operating at full acoustic emissions, and background noise levels are sufficiently low such that the measured total noise level can be assumed to equal the turbine-only noise level. During the post-construction monitoring survey, windscreens will be used to protect microphones and minimize effects from self-generated wind-induced noise.
- c) Measurements shall be conducted in proximity to the complainant's dwelling. In the event of multiple complainants, representative locations will be at a select number of non-participating and participating residences (where access can be arranged) with the highest expected noise levels based on acoustic modeling. Typically, 4 to 6 measurement locations total.
- d) Measurements shall be conducted using sound level meters meeting ANSI Type 1 specifications. An anemometer shall be placed within 20 feet of each microphone, and at a height of 2 meters above the ground.
- e) The measurement data shall be analyzed as follows:
 - i. Analyze those data acquired when the ~4 turbines nearest to each measurement location are operating at full capacity (80% electric power or more, which typically occurs at a hub-height wind speed of 6 m/s or greater).
 - ii. Discard those samples measured when the 10-minute average ground wind speed is 5 m/s or greater.
 - iii. Remove transient background noise (i.e. occasional traffic, activities of residents, farming activities, and wind gusts) per ANSI S12.9 Part 3.
 - iv. Remove continuous background noise by conducting turbine shut-downs, where the background noise is measured directly. Shut down testing will be conducted in a controlled manner, where consultant's staff may be present on site to observe and listen during the tests and/or collect audio recordings. Shut down testing shall continue until enough data has been collected when ground wind speeds are between approximately 2 and 5 m/s that a repeatable pattern is observed in the measured background noise level. Background noise levels will be

- subtracted from total noise levels measured during these wind conditions to calculate turbine-only noise levels.
- v. Review of the frequency spectra of potential turbine-only samples to identify and remove outliers (spectral shape clearly differing from those samples measured under very low (less than 2 m/s) ground wind conditions, which are the samples most representative of turbine-only noise).
 - f) Compare the resulting turbine-only noise levels to the 45 and 50 dBA limits. Compliance shall be demonstrated if all samples are less than the limits.
27. Shadow flicker at any existing residence shall be limited to no more than 30 hours annually.
28. Not less than 30 days prior to commencement of construction work in the field for the Project, Applicant will provide to Commission staff the following information:
- a) the most current preconstruction design, layout, and plans, including the turbine model selected;
 - b) a sound level analysis showing compliance with the applicable sound level requirements;
 - c) a shadow flicker analysis showing compliance with the applicable shadow flicker requirements; and
 - d) such additional Project preconstruction information as Commission staff requests.
29. Within 90 days after the Project's commercial operation date, Applicant shall submit a report to the Commission that provides the following information:
- a) as-built location of structures and facilities, including drawings clearly showing compliance with the setbacks required by state and local governments;
 - b) the status of remedial activities for road damage, landowner property damage, crop damage, environmental damage, or any other damage resulting from Project construction activities; and
 - c) a summary of known landowner complaints and Applicant's plan for resolving those complaints.

30. For purposes of this Project and the commitments herein, “residences/dwellings,” “businesses,” “structures,” “schools,” “churches,” and “buildings owned and/or maintained by a governmental entity” shall include only those that are in existence and in use as of the date of the Commission’s order issuing a permit. “Business” shall not include agricultural uses.
31. Applicant shall seek input from local emergency response personnel to properly and effectively coordinate an emergency response plan consistent with local resources and response abilities. Upon completion of construction, a Project operation emergency response plan shall be provided to Commission staff to make available to the general public on the Commission’s website.
32. Prior to the construction of the Project, Applicant will notify public safety agencies by providing a schedule and the location of work to be performed within their jurisdiction. The agencies contacted will include the South Dakota Department of Public Safety, the sheriff of Deuel County, and the Deuel County Office of Emergency Management.
33. Applicant agrees to undertake two years of independently-conducted post-construction avian and bat mortality monitoring for the Project, and to provide a copy of the report and all further reports to the United States Fish and Wildlife Service, South Dakota Game, Fish, and Parks, and the Commission. Applicant may request an exemption from the Commission from conducting the second year of post-construction avian and bat mortality monitoring for the Project based on the results from year one. If Applicant requests an exemption as contemplated by this condition, Applicant may temporarily suspend monitoring until such time as the Commission rules on the exemption. If the exemption is not granted, monitoring will resume for a period of twelve months from the date of the Commission’s order denying the exemption.
34. Applicant shall file the Bird and Bat Conservation Strategy (BBCS) prior to beginning construction of the Project. The BBCS shall be implemented during construction and operation of the Project.
35. If the Project is decommissioned, Applicant will follow Section 19 of the Application and the decommissioning plan laid out in Appendix Q of the Application, as modified in Applicant’s responses to Staff data requests. The Commission shall be notified prior to any decommissioning action.
36. The Project will monitor icing conditions of the turbines while under severe weather conditions. If these conditions occur during normal business hours or outside of such hours, the control systems will automatically shut down the affected

turbines until severe icing is no longer a concern. In some cases, during normal business hours, site personnel may manually shutdown turbines that pose a significant concern. Turbine control sensors will detect the reduction of efficiency of the blade due to ice buildup by utilizing meteorological data from on-site permanent meteorological towers, on-site anemometers, and other relevant turbine control parameters to determine if ice accumulation is occurring. These control systems will either automatically shut down the turbine(s) in severe icing conditions or Applicant may manually shut down turbine(s) if these conditions pose a significant concern. Applicant will pay for any documented damage caused by ice thrown from a turbine.

37. Applicant shall utilize an Aircraft Detection Lighting System approved by the Federal Aviation Administration.
38. The terms and conditions of the Permit shall be made a uniform condition of construction and operation, subject only to an affirmative written request for an exemption or amendment addressed to the Commission. A request for an exemption or amendment shall clearly state which particular condition should not be applied and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis, which evaluation shall be completed within 60 days unless exigent circumstances require action sooner.
39. Applicant shall provide a copy of the Commission's Final Decision and Order Granting Permit to Construct Facilities; Notice of Entry and attached Permit Conditions in this docket to the affected county, townships, and municipalities in the Project Area.

Dated this 4th day of October 2019.

Tatanka Ridge Wind, LLC

By: _____



Its: Counsel of Record

Public Utilities Commission Staff

By: _____



Its: Staff Attorney