

BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

DOCKET EL19-026

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

DIRECT TESTIMONY OF JON THURBER
ON BEHALF OF THE COMMISSION STAFF
SEPTEMBER 27, 2019



TABLE OF CONTENTS

I.	<u>INTRODUCTION AND QUALIFICATIONS</u>	1
II.	<u>PURPOSE OF TESTIMONY</u>	2
III.	<u>DECOMMISSIONING</u>	2

EXHIBITS

Exhibit_JT-1 Tatanka Ridge Wind, LLC's Responses to Discovery Regarding Decommissioning

Exhibit_JT-2 Decommissioning Escrow Account Condition

1 I. INTRODUCTION AND QUALIFICATIONS

2
3 **Q. Please state your name and business address.**

4 A. Jon Thurber, Public Utilities Commission, State Capitol Building, 500 East Capitol
5 Avenue, Pierre, South Dakota, 57501.
6

7 **Q. By whom are you employed and in what capacity?**

8 A. I am a utility analyst for the South Dakota Public Utilities Commission (“Commission”). I
9 am responsible for analyzing and presenting recommendations on utility dockets filed
10 with the Commission.
11

12 **Q. Please describe your educational and business background.**

13 A. I graduated summa cum laude from the University of Wisconsin – Stevens Point in
14 December of 2006, with a Bachelors of Science Degree in Managerial Accounting,
15 Computer Information Systems, Business Administration, and Mathematics. My
16 regulated utility work experience began in 2008 as a utility analyst for the Commission.
17 At the Commission, my responsibilities included analyzing and testifying on ratemaking
18 matters arising in rate proceedings involving electric and natural gas utilities. In 2013, I
19 joined Black Hills Corporation as Manager of Rates. During my time at Black Hills
20 Corporation, I held various regulatory management roles and was responsible for the
21 oversight of electric and natural gas filings in Wyoming, Montana, and South Dakota. In
22 July of 2016, I returned to the Commission as a utility analyst. In addition to cost of
23 service dockets, I work on transmission siting, energy conversion facility siting, wind
24 energy facility siting, and Southwest Power Pool transmission cost allocation issues.
25

26 In my ten years of regulatory experience, I have either reviewed or prepared over 175
27 regulatory filings. These filings include eight wind energy facility and three transmission
28 facility siting dockets. I have provided written and oral testimony on the following topics:
29 the appropriate test year, rate base, revenues, expenses, taxes, cost allocation, rate
30 design, power cost adjustments, capital investment trackers, PURPA standards, avoided
31 costs, electric generation resource decisions, and wind energy facility siting dockets.
32

1 **Q. Are you familiar with Tatanka Ridge Wind, LLC’s (“Tatanka Ridge Wind” or**
2 **“Company” or “Applicant”) application for a permit of a wind energy facility**
3 **(“Project”), Docket EL19-026?**

4 A. Yes. I have reviewed the Company’s prefiled testimony, appendixes, figures, and
5 responses to data requests produced by Tatanka Ridge Wind as it pertains to the issues
6 that I am addressing.

7

8

II. PURPOSE OF TESTIMONY

9

10 **Q. What is the purpose of your direct testimony?**

11 A. Commission Staff and Tatanka Ridge Wind (jointly the “parties”) are actively engaged in
12 settlement discussions, and Commission Staff is hopeful the parties will reach an
13 agreement that resolves all issues except for the funding for the decommissioning of the
14 Project. Commission Staff intends to file a Settlement Stipulation for the Commission to
15 consider at the October 15th Commission meeting. If the parties are unable to resolve
16 their differences, Commission Staff will file supplemental testimony to address any
17 outstanding issues. The purpose of my direct testimony is to provide Commission
18 Staff’s recommendation on the funding for the decommissioning of the Project.

19

20

III. DECOMMISSIONING

21

22 **Q. Did the South Dakota legislature request that the Commission consider rules for**
23 **the decommissioning of a wind energy facility?**

24 A. Yes. SDCL 49-41B-35(3) states that the Commission may adopt rules to “require bonds,
25 guarantees, insurance, or other requirements to provide funding for the
26 decommissioning and removal of a wind energy facility.” Under that general authority,
27 the Commission promulgated ARSD 20:10:22:33.01:

28

29 ***Decommissioning of wind energy facilities – Funding for removal of***
30 ***facilities. The applicant shall provide a plan regarding the action to be taken***
31 ***upon the decommissioning and removal of the wind energy facilities. Estimates***
32 ***of monetary costs and the site condition after decommissioning shall be included***
33 ***in the plan. The commission may require a bond, guarantee, insurance, or other***
34 ***requirement to provide funding for the decommissioning and removal of a wind***
35 ***energy facility. The commission shall consider the size of the facility, the location***
36 ***of the facility, and the financial condition of the applicant when determining***

1 *whether to require some type of funding. The same criteria shall used to*
2 *determine the amount of any required funding.*
3

4 **Q. Did the Applicant provide a decommissioning plan, an estimate of monetary**
5 **costs, and a description of the site condition after decommissioning as required**
6 **by ARSD 20:10:22:33:01?**

7 A. Yes. Tatanka Ridge Wind provided the decommissioning plan in Appendix Q of the
8 Application, and the Applicant discusses the description of the site condition after
9 decommissioning and the decommissioning cost estimate in Sections 2.0 and 3.0,
10 respectively, of the plan.

11
12 **Q. Did Commission Staff have any concerns regarding the decommissioning plan?**

13 A. Yes. There were discrepancies regarding the removal depth committed to in the direct
14 testimony of Jesse Bermel and the decommissioning plan. On Page 6, lines 84 – 85,
15 Mr. Bermel stated the following in his direct testimony:

16
17 “At the end of commercial operation, Tatanka will be responsible for removing
18 wind facilities and the turbine foundations to a depth of four feet below grade.”

19
20 In Section 2.0 of the decommissioning plan, the Applicant states “Tatanka Ridge will
21 dismantle and remove all towers, turbine generators, transformers, overhead and
22 underground cables, foundations, buildings, and ancillary equipment to a depth of 42
23 inches unless landowner agreements specify a greater depth.” Regarding wind turbine
24 foundations, Section 2.4 of the decommissioning plan states “concrete demolition will be
25 completed on the upper 42 inches of the pedestal.”

26
27 In response to Commission Staff data request 2-22, the Applicant clarified their proposal
28 for removal depth with the following: “Turbine foundations will be removed to a depth of
29 4 feet below grade, as the applicant has committed to landowners. All other facilities will
30 be removed to a depth of 3 ½ feet. Removal of facilities to 3 ½ feet provides sufficient
31 clearance to allow for normal agricultural activities.”

32
33 Removal of turbine foundations to a depth of 4 feet is standard within the industry and
34 consistent with Commission precedent. The removal of all other facilities to a depth of 3

1 ½ feet is supported by the Deuel County Ordinance for Wind Energy Systems
2 requirements regarding site restoration.

3
4 **Q. What is Tatanka Ridge Wind’s estimate for the current cost of decommissioning?**

5 A. Tatanka Ridge Wind estimates the current cost of decommissioning in 2018 dollars is
6 approximately \$89,090 per turbine, or \$9,083,000 for the Project, assuming salvage and
7 no resale of project components. A summary of the decommissioning estimates for
8 activities associated with the major components of the Project is provided in Table 3 of
9 the decommissioning plan.

10
11 **Q. Does Commission Staff believe the decommissioning cost estimate is
12 reasonable?**

13 A. The estimate of future decommissioning costs is based on a number of assumptions that
14 can lead to a wide range of potential costs. Based on the decommissioning cost
15 estimates provided to the Commission by other wind energy facilities in the last couple
16 years (Dockets EL17-055, EL18-003, EL18-026, EL18-046, EL18-053, EL19-007), the
17 estimate appears reasonable as a basis to establish the initial funding, with the caveat
18 that the funding is reviewed and updated periodically based on the current cost estimate
19 of decommissioning and restoration for the Project.

20
21 **Q. What is the Applicant proposing for the useful life of the Project?**

22 A. On Page 24 of the Application, the Applicant states it anticipates the life span of the
23 Project to be approximately 40 years. The Applicant supported this proposal with its
24 response to Commission Staff data request 2-6:

25
26 Tatnaka Ridge Wind, LLC’s wind leases have 30-year operational timelines with
27 two 5 year extensions. This accounts for a turbine replacement at year 20 and
28 results in a project lifespan of approximately 40 years.
29

30 **Q. What is Commission Staff’s recommendation for the useful life of the Tatanka
31 Ridge Wind Farm for the purpose of funding decommissioning?**

32 A. Commission Staff recommends using a 30-year useful life for the purpose of funding
33 decommissioning. The Commission has accepted proposals of a 30-year useful life in
34 four recently sited wind facilities (Crocker Wind Farm (EL17-055), Prevailing Wind Park
35 (EL18-026), Dakota Range III Wind Farm (EL18-046), Deuel Harvest North Wind Farm

1 (EL18-053)) and a 25-year useful life in two recently sited wind facilities (Dakota Range I
2 and II Wind Farms (EL18-003), Triple H Wind Farm (EL19-007)). The Commission has
3 never approved a 40-year expected life span to fund decommissioning, and there is not
4 adequate support to use 40-years as a reasonable assumption in this case. It is prudent
5 to use a more conservative useful life assumption for the purpose of funding
6 decommissioning to ensure adequate funds are available when the facility is retired.
7

8 **Q. The Applicant provided a decommissioning cost estimate per turbine of \$89,090 in**
9 **2018 dollars. Assuming a 30-year life span for the project and a 2020 commercial**
10 **operation date, what is the decommissioning cost estimate per turbine in 2050**
11 **dollars?**

12 A. In the supplemental response to Commission Staff data request 2-25, the Applicant's
13 decommissioning cost estimate in 2050 dollars is approximately \$164,000 per turbine
14 using a 2.0% inflation rate.
15

16 **Q. What was the Applicant's proposal for the periodic review and update of**
17 **decommissioning costs?**

18 A. On Page 12 of the Application, Tatanka Ridge Wind proposes to "re-evaluate the
19 decommissioning costs after the first year of operation, then every 10 years following."
20 However, Mr. Jesse Bermel state in his direct testimony that "Tatanka will review and
21 update the cost estimate of decommissioning and restoration for the Project every five
22 years after Project commissioning pursuant to State Law Requirements." In response to
23 Commission Staff data request 2-23, the Applicant clarified that it proposes to re-
24 evaluate the decommissioning costs on a schedule as found in the Application, or after
25 one year and every ten years thereafter.
26

27 **Q. What is the Applicant's rationale for its proposal of re-evaluating**
28 **decommissioning costs after year one?**

29 A. In response to Commission Staff data request 2-16, the Applicant states it proposes to
30 re-evaluate decommissioning costs after the first year because they will have as-builts at
31 that time.
32

1 **Q. Does the Applicant believe as-built configurations that reflect all changes during**
2 **the construction process of the wind facility will materially affect the**
3 **decommissioning cost estimate?**

4 A. In response to Commission Staff data request 3-11(b), the Applicant stated the following:

5
6 Based on previous experience from other wind plant projects, it is not anticipated
7 that using the as-built configuration of the facility will materially change the
8 decommissioning estimate.
9

10 Since the as-builts are not anticipated to materially change the decommissioning
11 estimate, Commission Staff does not believe there is adequate value in re-evaluating
12 decommissioning cost estimates one year after operation to justify the evaluation.
13

14 **Q. Does Commission Staff support the Applicant’s proposal for periodic**
15 **decommissioning review?**

16 A. No. The Commission has established a precedence of reviewing decommissioning
17 costs beginning in year 10 following commercial operation of the Project and each fifth
18 year thereafter. The Applicant proposes less oversight of decommissioning costs than
19 the Commission has historically ordered. Without substantial and compelling justification
20 for why the Commission’s preferred review schedule is unreasonable, Commission Staff
21 recommends reviewing decommissioning costs beginning in year 10 following
22 commercial operation of the Project and each fifth year thereafter.
23

24 **Q. What type of financial assurance did Tatanka Ridge Wind propose in its**
25 **Application for the decommissioning of the Project?**

26 A. In its Application, Tatanka Ridge Wind appears to discuss two financial assurance
27 options for the decommissioning of the Project. On lines 96 – 97 of the direct testimony
28 of Jesse Bermel, Mr. Bermel proposes to “cover the cost of the decommissioning
29 through a parent guarantee or letter of credit.”
30

31 On Page 10 of the Decommissioning Plan provided in Appendix Q, the Applicant states
32 that it “will commit to a parent guarantee for financial assurance adequate to pay the
33 entire cost of the decommissioning process.”
34

1 On Page 124 of the Application, the Applicant stated that it “is responsible for
2 implementing the Decommissioning Plan and will commit to a Letter of Credit for
3 financial assurance adequate to pay the entire cost of the decommissioning process.”
4

5 The Applicant clarified its proposal in response to Commission Staff data request 2-
6 24(a):
7

8 “Applicant is proposing that the same financial assurance [is used] for both Deuel
9 County and the PUC. Deuel County commissioners and zoning officials
10 indicated an interest in a parent guarantee. Applicant prefers that vehicle as
11 well.”
12

13 It appears that the Applicant has settled on requesting a parent guarantee for financial
14 assurance adequate to pay the cost of decommissioning.
15

16 **Q. Does Commission Staff believe a parent guarantee is a financial assurance that
17 the legislature authorized the Commission to consider?**

18 A. Yes. I believe a parent guarantee is a type of guarantee as defined in SDCL 49-41B-
19 35(3) and ARSD 20:10:22:33.01.
20

21 **Q. Do you know what Deuel County commissioners’ and zoning officials’ interest is
22 in a parent guarantee?**

23 A. No. I am not aware of any documentation from Deuel County submitted in the record
24 that indicates support for a specific type of financial assurance. In addition, any
25 documentation from Deuel County should be accompanied by a witness appointed by
26 Deuel County to speak on its behalf and answer questions from the Commission and
27 Commission Staff.
28

29 **Q. Does the Deuel County Ordinance for Wind Energy Systems include any
30 requirements for financial assurance for the funding of decommissioning?**

31 A. Yes. Section 1215.03.9(a) states the decommissioning plan shall include the
32 requirement that “Permittee post a bond or other adequate security sufficient to pay the
33 entire cost of the decommissioning process.” Based on the language in the ordinance, it
34 appears that the Deuel County Commission has similarly broad, general authority as the
35 Commission on the type of financial assurance it requires as security for the funding of

1 decommissioning. There is no mention in the ordinance on a preference for a parent
2 guarantee.

3
4 **Q. Has the Commission approved a permit for a wind energy facility located in Deuel
5 County?**

6 A. Yes. The Commission approved a permit for the Deuel Harvest North Wind Farm
7 located in Deuel County, SD, in Docket EL18-053.

8
9 **Q. What was the financial assurance mechanism proposed by Deuel Harvest North
10 Wind Farm in Docket EL18-053?**

11 A. Through discovery, the Deuel Harvest North Wind Farm voluntarily agreed to an escrow
12 account for the funding for the decommissioning of the facility consistent with
13 Commission precedence.

14
15 **Q. Has Deuel County contacted Commission Staff regarding any concerns with the
16 decommissioning escrow account ordered for the Deuel Harvest North Wind Farm
17 in Docket EL18-053?**

18 A. No, not to my knowledge.

19
20 **Q. Please provide a brief description of a decommissioning escrow account.**

21 A. The decommissioning escrow account is a mechanism through which the applicant can
22 gradually accumulate decommissioning funds over time. The applicant regularly sets
23 money aside in a separate custodial account, segregated from the applicant's assets
24 and outside the applicant's control, for the exclusive purpose of the payment of costs to
25 fulfill its decommissioning obligation.

26
27 **Q. Does Commission Staff believe the legislature granted the Commission the
28 authority to order an escrow account to provide funding for the decommissioning
29 and removal of wind energy facility?**

30 A. Yes. I believe an escrow account serves as a guarantee as defined in SDCL 49-41B-
31 35(3) and ARSD 20:10:22:33.01.

1 **Q. Has the Commission established an escrow account as its preferred financial**
2 **assurance option for the funding for the decommissioning of a wind energy**
3 **facility?**

4 A. Yes, an escrow account has been ordered by the Commission as the financial
5 assurance for the funding for the decommissioning of every wind energy facility that is
6 not owned by a public utility since 2017.

7

8 **Q. Did the Applicant explain why a parent guarantee is a superior financial assurance**
9 **option compared to the escrow agreement previously ordered by the**
10 **Commission?**

11 A. No, not in direct testimony. In response to Commission Staff data request 2-24(d), the
12 Applicant stated it intended to address the concerns raised by the Commission regarding
13 a parent guarantee during the evidentiary hearing for the Triple H Wind Farm, Docket
14 EL19-007. However, the Applicant did not submit supplemental testimony on this issue
15 by August 30, 2019, pursuant to the procedural schedule, and has not submitted
16 supplemental testimony as of the drafting of this testimony.

17

18 **Q. Did Commission Staff ask for a detailed parent guarantee proposal from the**
19 **Applicant?**

20 A. Yes. In response to Commission Staff data request 2-24(b), the Applicant provided a
21 draft parent guarantee agreement for consideration.

22

23 **Q. Did the Applicant provide any cost information regarding the parent guarantee**
24 **option for the Commission to consider?**

25 A. Yes. In response to Commission Staff data request 2-24(c), the Applicant stated that
26 they were unaware of a cost associated with a parent guarantee other than in the event
27 the guarantee was executed.

28

29 **Q. Do you have any other comments about the Applicant's support for its financial**
30 **assurance proposal?**

31 A. If the Applicant submits additional testimony or documentation supporting its financial
32 assurance proposal, Commission Staff may file supplemental testimony.

33

1 **Q. Please explain why Commission Staff believes an escrow account is a reasonable**
2 **and appropriate method for funding the decommissioning of a wind energy**
3 **facility.**

4 A. The Commission may take a conservative approach and assume a low risk tolerance for
5 the benefit of the citizens of South Dakota. The requirement to have funds set aside in a
6 separate account to fund the decommissioning rather than accept a contractual
7 obligation from an affiliate or third-party lowers the risk that funds will not be available in
8 the event of financial distress of the Applicant.

9

10 **Q. What are some of the concerns shared by previous wind energy facility applicants**
11 **of the escrow account option for financial assurance?**

12 A. Some of the concerns shared by previous applicants include how the account would be
13 maintained or disbursed, and how the escrow account would be attractive to creditors
14 and litigants in the event of a bankruptcy. These legal arguments are better addressed
15 by Commission Staff counsel, but the Commission can reduce these risks through the
16 drafting of the escrow agreement.

17

18 From an applicant's perspective, the concerns listed above seem secondary to the
19 higher cost (opportunity cost) associated with the escrow account compared to the cost
20 of other financial assurance options. In this case, the Company is proposing a no-cost
21 parent guarantee in lieu of an escrow account.

22

23 **Q. Has the requirement of an escrow account for the funding for the**
24 **decommissioning of a wind energy facility impacted the commercial viability of**
25 **any projects?**

26 A. I am unaware of any wind energy facilities permitted by the Commission that will not be
27 constructed because of this requirement. The following facilities have the requirement
28 and are either under construction or have notified the Commission that construction will
29 commence shortly: Crocker Wind Farm, Prevailing Wind Park, Dakota Range III Wind
30 Project, Deuel Harvest North Wind Farm, Crowned Ridge Wind Farm I, and the Triple H
31 Wind Farm.

32

33

1 **Q. Do you have a recommended permit condition if the Commission determines an**
2 **escrow account is the appropriate financial assurance to guarantee**
3 **decommissioning costs?**

4 A. Yes, please see Exhibit_JT-2 for Commission Staff's recommended permit condition for
5 an escrow account. Commission Staff used the escrow account condition included in
6 the Sweetland Wind Farm (Docket EL19-012) permit as a template. The funding at a
7 rate of \$5,000 per turbine per year for the first 30 years is supported by the
8 decommissioning cost estimate per turbine of approximately \$164,000 in 2050 dollars,
9 assuming salvage and no resale.

10

11 **Q. Does this conclude your testimony?**

12 A. Yes, this concludes my written direct testimony. However, I will supplement my written
13 testimony with oral testimony at the hearing to respond to Tatanka Ridge Wind's rebuttal
14 testimony and responses to discovery.

**South Dakota Public Utilities Commission
Tatanka Ridge Wind Project, LLC
Docket EL 19-026
Response to Staff's Second Data Request**

Date: August 16, 2019

Data Request:

2-6) Refer to Page 24 of the Application. The Applicant states it anticipates the life span of the Project to be approximately 40 years. Please provide the basis and supporting documentation for a 40-year useful life for the Project.

Response:

2-6) Tatanka Ridge Wind LLC's wind leases have 30 year operational timelines with two 5 year extensions. This accounts for a turbine replacement at year 20 and results in a project lifespan of approximately 40 years.

Response Prepared by: Jesse Bermel

**South Dakota Public Utilities Commission
Tatanka Ridge Wind Project, LLC
Docket EL 19-026
Response to Staff's Second Data Request**

Date: August 16, 2019

Data Request:

2-16) Refer to Page 124 of the Application. Please explain why the Company proposes to re-evaluate the decommissioning costs after the first year of operation.

Response:

2-16) Tatanka Ridge Wind will re-evaluate decommissioning costs after the first year because we will have as-builts at that time.

Response Prepared by: Mark Mullen

**South Dakota Public Utilities Commission
Tatanka Ridge Wind Project, LLC
Docket EL 19-026
Response to Staff's Second Data Request**

Date: August 16, 2019

Data Request:

2-22) Refer to Page 4 of Appendix Q, Decommissioning Plan, attached to the Application. The Applicant stated that it “will dismantle and remove all towers, turbine generators, transformers, overhead and underground cables, foundations, buildings, and ancillary equipment to a depth of 42 inches unless landowner agreements specify a greater depth.”

Refer to the direct testimony of Jesse Bermel, Page 6, lines 84 – 85. Mr. Bermel states “At the end of commercial operation, Tatanka will be responsible for removing wind facilities and the turbine foundations to a depth of four feet below grade.”

Does the Applicant commit to a decommissioning removal depth of 3 ½ or 4 feet? If the Applicant proposes a decommissioning removal depth of 3 ½ feet, please provide support for using that depth as a reasonable standard for decommissioning.

Response:

2-22) Turbine foundations will be removed to a depth of 4 feet below grade, as the applicant has committed to landowners. All other facilities will be removed to a depth of 3 ½ feet. Removal of facilities to 3 ½ feet provides sufficient clearance to allow for normal agricultural activities.

Response Prepared by: Mark Mullen

**South Dakota Public Utilities Commission
Tatanka Ridge Wind Project, LLC
Docket EL 19-026
Response to Staff's Second Data Request**

Date: August 16, 2019

Data Request:

2-23) Refer to Page 124 of the Application. The Applicant stated that it “will re-evaluate the decommissioning costs after the first year of operation, then every 10 years following.”

Refer to the direct testimony of Jesse Bermel, lines 88 – 91. Mr. Bermel states “because of the uncertainties surrounding future decommissioning costs and salvage values, Tatanka will review and update the cost estimate of decommissioning and restoration for the Project every five years after Project commissioning pursuant to State Law Requirements.”

a) Please provide the “State Law Requirement” Mr. Bermel referred to in his testimony. Mr. Bermel misspoke and will clarify at hearing. The application controls, and Mr. Bermel's testimony will conform to the application.

b) Please clarify how often the Applicant proposes to re-evaluate decommissioning costs. Applicant proposes to reevaluate decommissioning costs on a schedule as found in the application. After one year and every ten years thereafter.

Response Prepared by: Jesse Bermel

**South Dakota Public Utilities Commission
Tatanka Ridge Wind Project, LLC
Docket EL 19-026
Response to Staff's Second Data Request**

Date: August 16, 2019

Data Request:

2-24) Refer to Page 124 of the Application. The Applicant stated that it “is responsible for implementing the Decommissioning Plan and will commit to a Letter of Credit for financial assurance adequate to pay the entire cost of the decommissioning process.”

Refer to Page 10 of Appendix Q, Decommissioning Plan, attached to the Application. The Applicant stated that it “will commit to a parent guarantee for financial assurance adequate to pay the entire cost of the decommissioning process.”

Refer to the direct testimony of Jesse Bermel, lines 96 – 97. Mr. Bermel states “Tatanka proposes to cover the cost of the decommissioning through a parent guarantee or letter of credit.”

a) Please clarify which financial assurance option the Applicant is proposing.

Applicant is proposing that the same financial assurance for both Deuel County and the PUC. Deuel County commissioners and zoning officials indicated an interest in a parent guarantee. Applicant prefers that vehicle as well.

b) Please provide a detailed proposal, including, but not limited, the proposed agreement, of the option selected in (a).

See attached draft agreement.

c) Please provide all relevant cost information associated with the financial assurance option selected in (a).

We are unaware of a cost at this time other than in the event the guarantee were executed. If we are made aware of a cost, we will advise.

d) Does the Applicant intend on submitting supplemental testimony to address the concerns raised by the Commissioners regarding a Letter of Credit or Parent Guarantee during the evidentiary hearing for the Triple H Wind Farm, Docket EL19-007?

We do.

Response Prepared by: Jesse Bermel, Mark Bastach, Mandy Bohnenblust

GUARANTY OF GUARANTOR

THIS GUARANTY, dated as of September 1, 2019, is issued by Avangrid, Inc., a New York corporation, ("Guarantor") in favor of Deuel County, South Dakota a political subdivision of the State of South Dakota ("Guaranteed Party"). Tatanka Ridge Wind, LLC, a Delaware limited liability company, ("Obligor") is an indirect wholly owned subsidiary of Guarantor.

RECITALS

A. Obligor has filed and Guaranteed Party has accepted a decommissioning plan for the future decommissioning of Tatanka Ridge Wind, LLC, dated as of _____, 20__ (the "Agreement").

B. This Guaranty is delivered to Guaranteed Party by Guarantor pursuant to the Agreement.

AGREEMENT

1. Guaranty.

A. Guaranty of Obligations Under the Agreement. For value received, Guarantor hereby absolutely, unconditionally and irrevocably, subject to the express terms hereof, guarantees the payment when due of all payment obligations, whether now in existence or hereafter arising, by Obligor to Guaranteed Party pursuant to the Agreement (the "Obligations"). This Guaranty is one of payment and not of collection and shall apply regardless of whether recovery of all such Obligations may be or become discharged or uncollectible in any bankruptcy, insolvency or other similar proceeding, or otherwise unenforceable.

B. Maximum Guaranteed Amount. Notwithstanding anything to the contrary herein, Guarantor's aggregate obligation to Guaranteed Party hereunder is limited to Five Million U.S. Dollars (\$5,000,000.00) (the "Maximum Guaranteed Amount") (it being understood for purposes of calculating the Maximum Guaranteed Amount of Guarantor hereunder that any payment by Guarantor either directly or indirectly to the Guaranteed Party, pursuant to a demand made upon Guarantor by Guaranteed Party or otherwise made by Guarantor pursuant to its obligations under this Guaranty including any indemnification obligations, shall reduce Guarantor's maximum aggregate liability hereunder on a dollar-for-dollar basis), including costs and expenses incurred by Guaranteed Party in enforcing this Guaranty, and shall not either individually or in the aggregate be greater or different in character or extent than the obligations of Obligor to Guaranteed Party under the terms of the Agreement. IN NO EVENT SHALL GUARANTOR BE SUBJECT TO ANY CONSEQUENTIAL, EXEMPLARY, EQUITABLE, LOSS OF PROFITS, PUNITIVE, TORT OR OTHER SIMILAR DAMAGES.

2. Payment; Currency. All sums payable by Guarantor hereunder shall be made in freely transferable and immediately available funds and shall be made in the currency in which the Obligations were due. If Obligor fails to pay any Obligation when due, the Guarantor will pay that Obligation directly to Guaranteed Party within twenty (20) days after written notice to Guarantor by Guaranteed Party. The written notice shall provide a reasonable description of the amount of the Obligation and explanation of why such amount is due.

3. Waiver of Defenses. Except as set forth above, Guarantor hereby waives notice of acceptance of this Guaranty and of the Obligations and any action taken with regard thereto, and waives presentment, demand for payment, protest, notice of dishonor or non-payment of the Obligations, suit, or the taking of and failing to take other action by Guaranteed Party against Obligor, Guarantor or others and waives any defense of a surety. Without limitation, Guaranteed Party may at any time and from time to time without notice to or consent of Guarantor and without impairing or releasing the obligations of Guarantor hereunder: (a) make any change to the terms of the Obligations; (b) take or fail to take any action of any kind in respect of any security for the Obligations; (c) exercise or refrain from exercising any rights against Obligor or others in respect of the Obligations or (d) compromise or subordinate the Obligations, including any security therefor. Notwithstanding the foregoing, Guarantor shall be entitled to assert rights, setoffs, counterclaims and other defenses which Obligor may have to performance of any of the Obligations and also shall be entitled to assert rights, setoffs, counterclaims and other defenses that the Guarantor may have against the Guaranteed party, other than defenses based upon lack of authority of Obligor to enter into and/or perform its obligations under the Agreement or any insolvency, bankruptcy, reorganization, arrangement, composition, liquidation, dissolution or similar proceeding with respect to Obligor.

4. Term. This Guaranty shall continue in full force and effect until [Insert term or whether it automatically expires upon final payment]. Guarantor further agrees that this Guaranty shall continue to be effective or be reinstated, as the case may be, if at any time payment, or any part thereof, of any Obligation is rescinded or must otherwise be restored or returned due to bankruptcy or insolvency laws or otherwise. Guaranteed party shall return this original executed document to Guarantor within twenty (20) days of termination of this Guaranty.

5. Subrogation. Until all Obligations are indefeasibly performed in full, but subject to Section 6 hereof, Guarantor hereby waives all rights of subrogation, reimbursement, contribution and indemnity from Obligor with respect to this Guaranty and any collateral held therefor, and Guarantor hereby subordinates all rights under any debts owing from Obligor to Guarantor, whether now existing or hereafter arising, to the prior payment of the Obligations.

6. Expenses. Whether or not legal action is instituted, Guarantor agrees to reimburse Guaranteed Party on written demand for all reasonable attorneys' fees and all other reasonable costs and expenses incurred by Guaranteed Party in enforcing its rights under this Guaranty. Notwithstanding the foregoing, the Guarantor shall have no

obligation to pay any such costs or expenses if, in any action or proceeding brought by Guaranteed Party giving rise to a demand for payment of such costs or expenses, it is finally adjudicated that the Guarantor is not liable to make payment under Section 2 hereof.

7. Assignment. Guarantor may not assign its rights or delegate its obligations under this Guaranty in whole or part without written consent of Guaranteed Party, *provided, however*, that Guarantor may assign its rights and delegate its obligations under this Guaranty without the consent of Guaranteed Party if (a) such assignment and delegation is pursuant to the assignment and delegation of all of Guarantor's rights and obligations hereunder, in whatever form Guarantor determines may be appropriate, to a partnership, limited liability company, corporation, trust or other organization in whatever form that succeeds to all or substantially all of Guarantor's assets and business and that assumes such obligations by contract, operation of law or otherwise, *provided*, such entity has an Investment Grade Rating by either Moody's Investors Service, Inc. ("Moody's") or Standard & Poor's Ratings Group, a division of McGraw-Hill, Inc. ("S&P") or (b) such assignment and delegation is made to an entity within the Iberdrola S.A. group of companies that has an Investment Grade Rating by either Moody's or S&P. For purposes of this Section 7, "Investment Grade Rating" means a minimum credit rating for senior unsecured debt or corporate credit rating of BBB- by S&P or Baa3 by Moody's. Upon any such delegation and assumption of obligations and, if required, the written consent of Guaranteed Party (which consent shall not be unreasonably withheld, conditioned or delayed), Guarantor shall be relieved of and fully discharged from all obligations hereunder, whether such obligations arose before or after such delegation and assumption.

8. Non-Waiver. The failure of Guaranteed Party to enforce any provisions of this Guaranty at any time or for any period of time shall not be construed to be a waiver of any such provision or the right thereafter to enforce same. All remedies of Guaranteed Party under this Guaranty shall be cumulative and shall be in addition to any other remedy now or hereafter existing at law or in equity. The terms and provisions hereof may not be waived, altered, modified or amended except in a writing executed by Guarantor and Guaranteed Party.

9. Entire Agreement. This Guaranty and the Agreement are the entire and only agreements between Guarantor and Guaranteed Party with respect to the guaranty of the Obligations of Obligor by Guarantor. All agreements or undertakings heretofore or contemporaneously made, which are not set forth herein, are superseded hereby.

10. Notice. Any demand for payment, notice, request, instruction, correspondence or other document to be given hereunder by Guarantor or by Guaranteed Party shall be in writing and shall be deemed received (a) if given personally, when received, (b) if mailed by certified mail (postage prepaid and return receipt requested), five days after deposit in the U.S. mails, (c) if given by facsimile, when transmitted with confirmed transmission or (d) if given via overnight express courier service, when received or personally delivered, in each case with charges prepaid and addressed as

follows (or such other address as either Guarantor or Guaranteed Party shall specify in a notice delivered to the other in accordance with this Section):

If to Guarantor:

Avangrid, Inc.
% Avangrid Renewables, LLC
1125 NW Couch, Suite 700
Portland, OR 97209
Attn: Credit Manager

If to Guaranteed Party:

Deuel County, South Dakota
408 4th Street West
Clear Lake, SD 57501
Attn: Zoning Officer

11. Counterparts. This Guaranty may be executed in counterparts, each of which when executed and delivered shall constitute one and the same instrument.

12. Governing Law. This Guaranty shall be governed by and construed in accordance with the laws of the state of New York without giving effect to principles of conflicts of law.

13. Further Assurances. Guarantor shall cause to be promptly and duly taken, executed and acknowledged and delivered, such further documents and instruments as Guaranteed Party may from time to time reasonably request in order to carry out the intent and purposes of this Guaranty.

14. Limitation on Liability. Except as specifically provided in this Guaranty, Guaranteed Party shall have no claim, remedy or right to proceed against Guarantor or against any past, present or future stockholder, partner, member, director or officer thereof for the payment of any of the Obligations, as the case may be, or any claim arising out of any agreement, certificate, representation, covenant or warranty made by Obligor in the Agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Guarantor has executed and delivered this Guaranty as of the date first set forth above.

**AVANGRID, Inc.,
a New York corporation**

By: _____
Name:
Title:

By: _____
Name:
Title:

Acknowledged and agreed:

**Deuel County, South Dakota,
a political subdivision of the State of South Dakota**

By: _____
Name:
Title:

**South Dakota Public Utilities Commission
Tatanka Ridge Wind Project, LLC
Docket EL 19-026
Response to Staff's Second Data Request**

Date: August 16, 2019

Data Request:

2-25) Refer to Appendix Q to the Application. Per Appendix Q to the Application, the estimated cost of decommissioning per turbine in current dollars is \$89,090, assuming salvage and no resale.

- a) Please provide the estimated cost of decommissioning per turbine in current dollars, assuming no salvage and no resale.
- b) Please provide the estimated cost of decommissioning per turbine in 2050 dollars, assuming salvage and no resale. Please provide and explain the assumptions and calculations to determine the 2050 estimate.
- c) Please provide the estimated cost of decommissioning per turbine in 2050 dollars, assuming no salvage and no resale. Please provide and explain the assumptions and calculations to determine the 2050 estimate

Response:

2-25a) As shown in Table 4 of Appendix Q, total decommissioning expenses are estimated to be \$9,083,000, not considering salvage or resale. This equates to an estimated decommissioning cost of \$162,196 per turbine.

2-25b) We have not performed this calculation due to volatility of several markets, construction, energy and labor.

2-25c) We have not performed this calculation due to volatility of several markets, construction, energy and labor.

Response Prepared by: Mark Mullen

**South Dakota Public Utilities Commission
Tatanka Ridge Wind Project, LLC
Docket EL 19-026
Supplemental Response to Staff's Second Data Request**

Date: September 19, 2019

Data Request:

2-25)

- b) Please provide the estimated cost of decommissioning per turbine in 2050 dollars, assuming salvage and no resale. Please provide and explain the assumptions and calculations to determine the 2050 estimate.

The estimated cost of decommissioning is \$164,601 per turbine in 2050 dollars, assuming salvage and no resale. This was calculated using an assumed inflation rate of 2.0% a year, per the Federal Open Market Committee inflation projections "PCE Inflation-Longer Run". See attachment.

- c) Please provide the estimated cost of decommissioning per turbine in 2050 dollars, assuming no salvage and no resale. Please provide and explain the assumptions and calculations to determine the 2050 estimate.

The estimated cost of decommissioning is \$299,672 per turbine in 2050 dollars, assuming no salvage and no resale. This was calculated using an assumed inflation rate of 2.0% a year, per the Federal Open Market Committee inflation projections "PCE Inflation-Longer Run". See attachment.

Response Prepared by: Mark Mullen



9/12/2019

Mark Mullen
Avangrid Renewables
1125 NW Couch St.,
Suite 700
Portland, OR 97209

Re: Tatanka Decommissioning 2050 Pricing

Dear Mark Mullen:

Barr Engineering’s (Barr) “Wind Project Decommissioning Plan – Tatanka Ridge Wind Project – May 2019” describes the Tatanka Wind Project components, impacts and feasibility of decommissioning of the Project at the end of its useful life. The report, based on the design completed at the time, includes a cost estimate of decommissioning activities expected to be needed to return the site to approximate preconstruction conditions. Table 1 below, from the referenced Decommissioning Plan represents the estimated decommissioning costs.

Table 1 Net Decommissioning Summary

Item	Cost
Decommissioning expenses	\$9,083,000
Potential revenue - salvage value of turbine components and recoverable materials	(\$4,093,980)
Net Decommissioning Cost	\$4,989,020
Per Turbine Decommissioning Cost (based on 56 turbines)	\$89,090

These costs were not scaled nor accounted for inflation of future cost at the end life of the project. These costs are calculated to be in 2019 dollars.

2050 Pricing

It’s not possible to account for dynamic changes in the construction, energy or labor markets thirty years from now, but one can assume an inflation factor. An inflation rate of 2.0% a year, per the Federal Open Market Committee inflation projections “PCE Inflation-Longer Run”, was used to convert potential future costs of the decommissioning of the Tatanka Wind Project into 2050 dollars. (Table 2)

Sincerely,

Joel Bahma, P.E.

Table 2 Decommissioning per Turbine in 2050 Dollars

Year	Inflation*	Includes Salvage, No Resale	No Salvage, No Resale
2019		\$ 89,090	\$ 162,196
2020	2%	\$ 90,871	\$ 165,440
2021	2%	\$ 92,689	\$ 168,749
2022	2%	\$ 94,543	\$ 172,124
2023	2%	\$ 96,433	\$ 175,567
2024	2%	\$ 98,362	\$ 179,078
2025	2%	\$ 100,329	\$ 182,660
2026	2%	\$ 102,336	\$ 186,313
2027	2%	\$ 104,383	\$ 190,039
2028	2%	\$ 106,470	\$ 193,840
2029	2%	\$ 108,600	\$ 197,717
2030	2%	\$ 110,772	\$ 201,671
2031	2%	\$ 112,987	\$ 205,704
2032	2%	\$ 115,247	\$ 209,818
2033	2%	\$ 117,552	\$ 214,015
2034	2%	\$ 119,903	\$ 218,295
2035	2%	\$ 122,301	\$ 222,661
2036	2%	\$ 124,747	\$ 227,114
2037	2%	\$ 127,242	\$ 231,656
2038	2%	\$ 129,787	\$ 236,290
2039	2%	\$ 132,383	\$ 241,015
2040	2%	\$ 135,030	\$ 245,836
2041	2%	\$ 137,731	\$ 250,752
2042	2%	\$ 140,485	\$ 255,767
2043	2%	\$ 143,295	\$ 260,883
2044	2%	\$ 146,161	\$ 266,100
2045	2%	\$ 149,084	\$ 271,422
2046	2%	\$ 152,066	\$ 276,851
2047	2%	\$ 155,107	\$ 282,388
2048	2%	\$ 158,209	\$ 288,036
2049	2%	\$ 161,374	\$ 293,796
2050	2%	\$ 164,601	\$ 299,672

*Board of Governors of the Federal Reserve System (2019, June 19). *FOMC Projections materials, accessible version*. Retrieved from <https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20190619.htm>

**South Dakota Public Utilities Commission
Tatanka Ridge Wind Project, LLC
Docket EL 19-026
Response to Staff's Third Data Request**

Date: September 6, 2019

Data Request:

3-11) Refer to the Applicant's response to Commission Staff Data Requests 2-16.

a) Please explain how the as-builts could materially change the project decommissioning estimates provided to the Commission in the Application.

b) Please explain why it is necessary to adjust the decommissioning cost estimate and associated financial assurance after year 1 to address any immaterial cost changes rather than waiting until after year 5 or 10.

Response:

3-11

a) Based on previous experience from other wind plant projects, it is not anticipated that using the as-built configuration of the facility will materially change the decommissioning estimates.

3-11

b) It is not necessary to adjust the decommissioning estimate and associated financial assurance after year 1 to address immaterial cost changes. The applicant is open to waiting until after year 5 or 10 to adjust the estimate.

Response Prepared by:

Mark Mullen

1. At least 60 days prior to commencement of commercial operation, Applicant shall file an escrow agreement with the Commission for Commission approval that provides a decommissioning escrow account. The escrow agreement shall incorporate the following requirements:
 - a) The escrow account is funded by the turbine owner annually at a rate of \$5,000 per turbine per year for the first 30 years, commencing no later than the commercial operation date.
 - b) Beginning in year ten following commercial operation of the project and each fifth year thereafter, the turbine owner shall submit to the Commission an estimated decommissioning date, if established, and estimated decommissioning costs and salvage values. Based on the verification of the information in the filing the Commission may determine that funds in escrow are sufficient to cover the costs of decommissioning and that reduced or no additional deposits are required. The Commission also may determine that additional funding is required and may require additional funding equal to the estimated amount needed for decommissioning.
 - c) All revenues earned by the account shall remain in the account.
 - d) An account statement shall be provided annually to the Commission and become a public record in this docket.
 - e) The escrow account obligations will be those of Tatanka Ridge Wind and the escrow agreement shall include terms providing that the agreement binds Tatanka Ridge Wind's successors, transferees, and assigns. A sale of project assets shall include the associated Permit that requires Commission approval per SDCL § 49-41B-29.
 - f) The escrow account agent shall be a South Dakota chartered state bank or a nationally chartered bank with an office located in South Dakota.
 - g) The escrow agreement shall be subject to the laws of South Dakota and any disputes regarding the agreement shall be venued in South Dakota.
 - h) To minimize the risk that the escrow account would be subject to foreclosure, lien, judgment, or bankruptcy, the escrow agreement will be structured to reflect the follow factors:
 - 1) That Tatanka Ridge Wind agreed to the creation of the escrow account;
 - 2) Tatanka Ridge Wind Triple H exercises no control over the escrow;
 - 3) The initial source of the escrow account;
 - 4) The nature of the funds put into the escrow account;
 - 5) The recipient of its remainder (if any);
 - 6) The target of all its benefit; and

- 7) The purpose and its creation.
 - i) Account funds are to be paid to the project owner at the time of decommissioning, to be paid out as decommissioning costs are incurred and paid.
 - j) If the project owner fails to execute the decommissioning requirement found in this section of the Conditions, the account is payable to the landowner who owns the land on which associated project facilities are located as the landowner incurs and pays decommissioning costs.