

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**

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EXHIBITS

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

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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.