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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

<p>In the Matter of the Complaint by Juhl Energy LLC against NorthWestern Corporation dba NorthWestern Energy for Establishing a Purchase Power Agreement</p>	<p>Docket EL16-021</p>
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PREFILED RESPONSE TESTIMONY

8

OF AUTUMN M MUELLER

9

ON BEHALF OF NORTHWESTERN ENERGY

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1 **Witness Information**

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

3 **A.** My name is Autumn M. Mueller, and my business address is 11 East Park Street, Butte,
4 Montana 59701.

5
6 **Q. By whom are you employed and in what capacity?**

7 **A.** I am employed by NorthWestern Corporation d/b/a NorthWestern Energy
8 (“NorthWestern”) as the Coordinator of Generation and Transmission Interconnection in
9 the Regional Planning Department.

10
11 **Q. Please summarize your educational and employment experiences.**

12 **A.** I studied Business and Information Technology at Montana Tech. Additionally, I
13 completed an Electric and Gas Transmission System Operations apprenticeship with
14 NorthWestern where I received a North American Reliability Corporation System
15 Operations Certification and a Montana Department of Transportation Gas Operations
16 Certification. I have worked at NorthWestern (formerly Montana Power Company) for 19
17 years. I began working in the Customer Service Department in 1996, first as a
18 Customer Service Representative, then as a Supervisor of Customer Care. In 2002, I
19 accepted a position in the System Operations Control Center as a Transmission System
20 Operator. I worked both as an Electric and Gas Transmission System Operator until
21 2009, when I accepted my current position as the Coordinator of Generation and
22 Transmission Interconnection.

1 **Q. Have you ever testified before a state regulatory commission?**

2 **A.** Yes. I am currently a witness in the Montana QF-1 Rate Filing in Docket No.
3 D2016.5.39.

4

5 **Purpose of Testimony**

6 **Q. What is the purpose of your testimony?**

7 **A.** The purpose of my testimony is to provide an overview of the transmission issues
8 associated with Juhl Energy's ("Juhl") three proposed projects, Aurora County Wind,
9 Brule County Wind, and Davison County Wind (collectively "Projects") for which Juhl
10 has sought interconnection to NorthWestern's South Dakota electric system.

11

12 **Interconnection History with Juhl Wind**

13 **Q. When did NorthWestern receive interconnection requests from Juhl Wind?**

14 **A.** NorthWestern received interconnection requests for the Brule County Wind project and
15 the Davison County Wind project on July 8, 2015 and for the Aurora County Wind
16 project on July 24, 2015.

17

18 **Q. Please provide an overview of each project, including the project size, location
19 and point of interconnection.**

20 **A.** Brule County Wind is a 20 MW wind project located in Kimball, South Dakota. The
21 project is seeking to interconnect to NorthWestern's 69kV line near the Kimball
22 Substation. Davison County Wind is a 20 MW wind project located in Mitchell, South
23 Dakota. The project is seeking to interconnect to NorthWestern's 34.5kV transmission

1 line near the Mitchell Substation. Aurora County Wind is a 20 MW wind project located
2 near White Lake, South Dakota. The project is seeking interconnection to
3 NorthWestern's 69kV transmission line near the White Lake and Stickney Junction
4 Substations.

5
6 **Q. What is the current status of the Brule County Wind interconnection request?**

7 **A.** The Brule County Wind project has completed the Facilities Study required by
8 NorthWestern Energy. However, the project is also required to have an Affected
9 System Study completed by Southwest Power Pool ("SPP"). SPP sent an Affected
10 System Study Agreement to Juhl for this project on May 20, 2016 for execution. SPP
11 sent a follow up email to Juhl on July 18, 2016, as they had not yet returned the study
12 agreement to SPP. Juhl executed and sent the study agreement to SPP on August 10,
13 2016 noting that the required \$10,000 deposit would be sent to SPP immediately. SPP
14 provided notice to NorthWestern on October 13, 2016 that it has not received the
15 deposit from Juhl. Therefore, the project remains on hold.

16
17 **Q. Do you have any other concerns about the Brule County Wind project?**

18 **A.** Yes, I have two. A valid interconnection request requires a demonstration of site
19 control. When Brule County Wind applied for interconnection, it provided an Option for
20 Lease and Wind Easement dated June 1, 2015 ("Brule Option"). According to the terms
21 of the Brule Option, the term of the option was one year, unless exercised or terminated
22 at an earlier date. According to the Option terms, the Brule Option expired on June 1,
23 2016. I have no evidence that Juhl currently has site control for Brule County Wind.

1 Additionally, a valid interconnection request requires a demonstration of site control for
2 the entire area of a generation project. The Brule Option is for the Southeast one-
3 quarter of Section 12, Kimball Township, Brule County, SD. Until recently, I had no
4 information suggesting that this was not the whole site of Brule County Wind. However,
5 in Corey Juhl's Pre-filed Direct Testimony ("Juhl Direct Testimony"), he identified the
6 site of Brule County Wind as Sections 12, 13, & 24 of Kimball Township. I have no
7 evidence of site control for the entire project area.

8
9 **Q. What is the current status of the Davison County Wind interconnection request?**

10 **A.** The Davison County Wind project has completed the Facilities Study required by
11 NorthWestern Energy. However, the project is also required to have an Affected
12 System Study completed by SPP. SPP sent an Affected System Study Agreement to
13 Juhl for this project on May 20, 2016 for execution. SPP sent a follow up email to Juhl
14 on July 18, 2016, as they had not yet returned the study agreement to SPP. Juhl
15 executed and sent the study agreement to SPP on August 10, 2016 noting that the
16 required \$10,000 deposit would be sent to SPP immediately. SPP provided notice to
17 NorthWestern on October 13, 2016 that it has not received the deposit from Juhl.
18 Therefore, the project remains on hold.

19
20 **Q. Do you have any other concerns about the Davison County Wind project?**

21 **A.** Yes, I have two. A valid interconnection request requires a demonstration of site
22 control. When Davison County Wind applied for interconnection, it provided an Option
23 for Lease and Wind Easement dated June 2, 2015 ("Davison Option"). According to the

1 terms of the Davison Option, the term of the option was one year, unless exercised or
2 terminated at an earlier date. By the terms of the Davison Option, it expired on June 2,
3 2016. I have no evidence that Juhl currently has site control for Davison County Wind.
4 Additionally, a valid interconnection request requires a demonstration of site control for
5 the entire area of a generation project. The Davison Option is for the South 1385' of the
6 West 1360' of Section 12, Beulah Township, Davison County, SD. This is
7 approximately one-sixteenth of a section. Until recently, I had no information
8 suggesting that this was not the whole site of Davison County Wind. However, in the
9 Juhl Direct Testimony, Corey Juhl identified the site of Davison County Wind as
10 Sections 7, 8, 9, & 12 of Beulah Township. I have no evidence of site control for the
11 entire area.

12
13 **Q. What is the current status of the Aurora County Wind interconnection request?**

14 **A.** The Aurora County Wind project has completed the Facilities Study required by
15 NorthWestern Energy. On September 2, 2016, Juhl Wind submitted a request for a
16 Material Modification review to move the Point of Interconnection (POI) to a different
17 location on the line. NorthWestern performed this review and found that this change
18 can be made but the estimate and study is currently being reviewed to make sure that
19 no changes will need to be made to accommodate this request.

20
21 This project is also required to have an Affected System Study completed by SPP. SPP
22 sent an Affected System Study Agreement to Juhl Wind for this project on May 20, 2016
23 for execution. SPP sent a follow up email to Juhl Wind on July 18, 2016, as they had

1 not yet returned the study agreement to SPP. Juhl Wind executed and sent the study
2 agreement to SPP on August 10, 2016 noting that the required \$10,000 deposit would
3 be sent to SPP immediately. SPP provided notice to NorthWestern on October 13, 2016
4 that it had not received the deposit from Juhl. Therefore, the project remains on hold.

5
6 NorthWestern notified Juhl Wind that they will also need to provide the new POI
7 information to SPP to include in their study work. NorthWestern also sent notice to SPP
8 of this new POI.

9
10 **Q. Do you have any other concerns about the Aurora County Wind project?**

11 **A.** Yes, I have two. A valid interconnection request requires a demonstration of site
12 control. When Aurora County Wind applied for interconnection, it provided an Option for
13 Lease and Wind Easement dated July 14, 2015 (“Aurora Option”). According to the
14 terms of the Aurora Option, the term of the option was one year, unless exercised or
15 terminated earlier. By the terms of the Aurora Option, it expired on July 14, 2016. I
16 have no evidence that Juhl currently has site control for Aurora County Wind.
17 Additionally, a valid interconnection request requires a demonstration of site control for
18 the entire area of a generation project. The Aurora Option is for the South one-half of
19 Section 12, Eureka Township, Aurora County, SD. Until recently, I had no information
20 suggesting that this was not the whole site of Aurora County Wind. However, in the
21 Juhl Direct Testimony, Corey Juhl identified the site of Aurora County Wind as Sections

1 17, 18, 19, & 20 of Eureka Township. I have no evidence of site control for the entire
2 area.

3

4 **Q. Do you have any other comment about Juhl's site control for the Projects?**

5 **A.** Yes. Based on the Juhl Direct Testimony, Corey Juhl may not understand the
6 requirements for valid interconnection requests. He stated, "Juhl has secured the
7 necessary real property rights needed to complete the Interconnection Application
8 under NorthWestern Energy's Small Generator Interconnection requirements. All land
9 required to construct and operate the projects is or will be secured via long term land
10 lease." This statement indicates the Mr. Juhl does understand that a valid
11 interconnection request requires site control for the whole site of a generation project.
12 However, it is NorthWestern's belief that Juhl does not have site control at this time.
13 There is no difference between the site control required for interconnection and that
14 required for operation. Although Mr. Juhl references long term land leases, Juhl has not
15 provided NorthWestern any evidence of those leases.

16

17 **Q. What are the estimated cost of network upgrades for interconnection of Projects?**

18 **A.** Brule County Wind Network Upgrade Estimate- \$2,617,719
19 Davison County Wind Network Upgrade Estimate - \$2,304,741
20 Aurora County Wind Network Upgrade Estimate - \$2,368,792

21

22 **Q. Is NorthWestern able to provide station power to the Juhl Wind projects?**

1 **A.** NorthWestern is able to provide station power to Davison County Wind. However,
2 NorthWestern is not able to provide station power to Aurora County Wind or Brule
3 County Wind, as these two projects are not located in NorthWestern's service territory.
4 Juhl will be required to submit a request to the local utility provider in the area to request
5 station power. Upon receipt of these requests, the local utility provider will work with
6 SPP to obtain the required transmission service to accommodate these requests from
7 Juhl.

8

9 **Q. What will the process be for NorthWestern to designate the Juhl Wind projects as**
10 **a network resource?**

11 **A.** NorthWestern will be required to submit a request to SPP for the designation as a
12 network resource. SPP clusters these studies so the request needs to be submitted
13 during an open cluster window. SPP has indicated that completion of this process
14 typically takes 18-24 months. This is true of all designation and transmission service
15 requests, not just the Juhl Wind requests. NorthWestern cannot accept energy from the
16 Projects as network resources until the SPP process is complete.

17

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

19 **A.** Yes, it does.