

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

**IN THE MATTER OF THE COMPLAINT BY ) FINAL DECISION AND ORDER  
CONSOLIDATED EDISON DEVELOPMENT, INC. ) SETTING AVOIDED COST;  
AGAINST NORTHWESTERN CORPORATION DBA ) NOTICE OF ENTRY  
NORTHWESTERN ENERGY FOR ESTABLISHING )  
A PURCHASE POWER AGREEMENT ) EL16-021**

On June 23, 2016, Juhl Energy, Inc. filed a Complaint with the South Dakota Public Utilities Commission (Commission) seeking resolution of a dispute with NorthWestern Corporation dba NorthWestern Energy (NorthWestern) regarding the proper avoided cost for a long-term electric power purchase agreement.

On June 30, 2016, the Commission electronically transmitted notice of the Complaint and the intervention deadline of July 25, 2016, to interested individuals and entities on the Commission's PUC Weekly Filings electronic listserv. On July 19, 2016, NorthWestern filed its Answer to the Complaint. No petitions to intervene were filed. On August 4, 2016, the parties filed a Joint Request for a Procedural Schedule. At its regularly scheduled meeting on August 16, 2016, the Commission established a Procedural Schedule.

On February 15, 2017, the Commission entered an Order Granting Motion to Amend Complaint that was filed by Consolidated Edison Development, Inc. (CED) making CED the complainant based on its acquisition of Juhl Energy Inc.'s interest in the three wind energy projects that are the subject of this docket.

An evidentiary hearing was held on April 11, 2017 through April 12, 2017, at which CED, NorthWestern, and Commission Staff appeared and participated. CED's post hearing brief was submitted on May 17, 2017. Both NorthWestern and Staff responded on June 7, 2017. CED's reply brief was submitted on June 26, 2017. During a regularly scheduled Commission meeting on August 1, 2017, the parties appeared before the Commission and provided oral argument. On August 15, 2017, during a regularly scheduled Commission meeting, the Commission adopted seven motions. Those motions included: (1) Finding that a legally enforceable obligation was established on June 23, 2016, for all three projects; (2) Supporting the avoided cost model offered by NorthWestern using inputs from June 23, 2016; (3) Approving NorthWestern's position on situations 1, 2, and 3; (4) Requiring that there be no adjustment for renewable energy credits; (5) Adopting NorthWestern's method for handling interconnection costs; (6) Setting the capacity value at \$1.38/MWh beginning in 2019 and continuing through the remainder of the contract; and (7) Requiring that the model be rerun with the same methodologies that North Western used in its original model. On August 24, 2017, NorthWestern filed updated Avoided Cost Calculations.

On November 30, 2017, CED filed a Motion for Entry of Order Concluding Case. Both NorthWestern and Commission Staff responded on December 12, 2017.

Having considered the evidence of record, applicable law, and the arguments of the parties, the Commission makes the following Findings of Fact, Conclusions of Law, and Decision:

## **Findings of Fact**

### **Parties**

1. Complainant, Consolidated Edison Development, Inc. (CED) is a New York corporation registered to do business in South Dakota. See Motion to Amend Complaint. During the pendency of these proceedings, CED acquired the original complainant, Juhl Energy, Inc.
2. Respondent, NorthWestern Corporation d/b/a NorthWestern Energy (NorthWestern), a Delaware corporation, is a public utility as defined by SDCL 49-34A-1(12) subject to regulation by the Commission.
3. Commission Staff participated fully as a party in this matter.

### **Procedural Findings**

4. The Procedural History set forth above is hereby incorporated by reference in its entirety in these Procedural Findings. The procedural findings set forth in the Procedural History are a substantially complete and accurate description of the material documents filed in this docket and the proceedings conducted and decisions rendered by the Commission in this matter.

### **Projects**

5. CED requested purchase power agreements (PPAs) for three prospective wind generation facilities (Projects).
6. Brule County Wind, LLC is located in Sections 12, 13, and 24 of Kimball Township in Brule County, South Dakota. CED Exhibit 1 at 3.
7. Aurora County Wind, LLC is located in Sections 8, 16, 17, and 21 of White Lake Township in Aurora County, South Dakota. Hearing Transcript 44:17-18.
8. Davison County Wind, LLC is located in Sections 7, 8, and 9 of Beulah Township in Davison County, South Dakota. Amended Complaint at 3.

### **Qualifying Facilities**

9. In its Amended Complaint, CED alleged that each of the three wind projects are qualifying facilities (QFs) as that term is defined in the Public Utility Regulatory Policies Act (PURPA).
10. CED self-certified its projects as QFs using FERC Form 556. CED Exhibit 1 at 3.
11. The installed capacity of each of the Projects is 20 MW. Staff Exhibit 2 at 3:5-6.
12. The Commission finds that Aurora County Wind, LLC is a QF.
13. The Commission finds that Brule County Wind, LLC is a QF.
14. The Commission finds that Davison County Wind, LLC is a QF.

### **Negotiations and Creation of a Legally Enforceable Obligation**

15. The Commission finds that CED and NorthWestern negotiated in good faith.
16. Negotiations ended on April 5, 2016. Amended Complaint ¶ 15.
17. CED communicated and memorialized that CED and NorthWestern were unable to mutually agree to a contract for the sale of electricity on June 23, 2016, when it filed a complaint before the Commission.
18. The Commission finds that CED incurred a legally enforceable obligation on June 23, 2016.

### **Avoided Cost**

19. There are many methods of modeling the costs that a utility may avoid by purchasing the energy and capacity from a QF. NorthWestern uses a stochastic model, PowerSimm for resource planning to meet its obligations to serve customers. PowerSimm is a robust model that accounts for variations in weather that cause variations in load, renewable generation output, and short-term fluctuations in price. Staff Exhibit 2 at 16:18-20. The Commission finds that the PowerSimm model is appropriate to model avoided costs for NorthWestern.
20. The Commission finds that NorthWestern uses PowerSimm to model all new electric energy resources, including company-owned, power purchase agreements, and QFs, for inclusion in NorthWestern's portfolios. NWE Exhibit 2 at 4:14-16.
21. The Commission finds that the appropriate model for determining NorthWestern's avoided costs is the PowerSimm model and that the model is not discriminatory to CED since NorthWestern uses the model for the company's resource planning. NWE Exhibit 2 at 4:14-16.
22. PowerSimm identifies three situations: (1) the hours that NorthWestern will be purchasing energy from the market to serve its load (Situation 1); (2) the hours that NorthWestern (a) has adequate resources to generate electricity to serve load, and (b) may reduce the output of its resources to follow load (Situation 2); and (3) the hours that NorthWestern (a) has adequate resources to generate electricity to serve load, and (b) may not reduce the output of its resource due to operational or contractual constraints (Situation 3). NWE Exhibit 1 at 11:11-21.
23. All costs paid by NorthWestern for the PPAs would be recovered from NorthWestern's ratepayers. Staff Exhibit 1 at 6:29-35.
24. South Dakota does not have any laws or regulations that impose a cost for carbon. Staff Exhibit 1 at 20:6-7.
25. Carbon cost assessments are too speculative to warrant inclusion in an avoided cost calculation. Staff Exhibit 1 at 19:13-14.

26. There are no laws or regulations in South Dakota that require utilities to obtain renewable energy credits (RECs). Staff Exhibit 1 at 20:32-33.
27. NorthWestern does not avoid any costs by obtaining RECs. Staff Exhibit 1 at 21:1.
28. The appropriate contract term is twenty years to enable CED to obtain financing in accordance with objectives of PURPA.
29. The Commission finds that NorthWestern uses short-term futures prices for natural gas and electricity with a long-term escalation rate set at the Energy Information Administration's (EIA) Annual Energy Outlook (AEO) nominal escalation rate for natural gas when evaluating all of the company's planning and portfolio decisions. NWE Exhibit 1 at 12:11-21.
30. The Commission finds that using natural gas and electricity price forecasts based on the Intercontinental Exchange (ICE) short-term futures prices and then escalated at EIA's AEO nominal escalation rate for natural gas is not discriminatory to CED since NorthWestern uses the same method for the company's resource planning.
31. NorthWestern has certain generation units that cannot be backed down below a certain level. Therefore, there may be times (Situation 3) at which the wind creates excess generation and will need to be sold into the market. Staff Exhibit 1 at 10-11; Staff Exhibit 2 at 21:11-14.
32. The Commission finds that during Situation 1, NorthWestern can reduce its market purchases by purchasing the energy from a QF, and therefore, its avoided costs are market prices. Staff Exhibit 2 at 8:13-14.
33. NorthWestern projects market prices using forward market prices for the early years and escalating the forward price by the EIA's projected natural gas price escalation rate as published in the AEO (EIA Escalator). The Commission finds that this is an appropriate method of forecasting future market prices of energy for Situation 1. NWE Exhibit 2 at 8-9.
34. The Commission finds that during Situation 2, NorthWestern can reduce the output of its resources by purchasing the energy from a QF, and therefore its avoided costs are the variable costs of operating the highest cost generating resource for which NorthWestern can reduce the output. NWE Exhibit 2, Table 2.
35. NorthWestern projects its variable costs of generating resources by escalating the current variable costs by the appropriate factor for each generation unit and sets the variable cost for any hour equal to the highest variable cost. The Commission finds that this is an appropriate method for forecasting future avoided costs for energy for Situation 2. NWE Exhibit 2, Table 2.
36. The Commission finds that during Situation 3, NorthWestern cannot avoid any costs by purchasing more energy, and therefore its avoided costs are zero. NWE Exhibit 2, Table 2.
37. NorthWestern is a member of the Southwest Power Pool (SPP). Hearing Transcript 282:17.

### **Capacity Cost**

38. The Commission finds that NorthWestern has a need for capacity starting in 2019, and capacity payments for CED shall reflect 2019 as the beginning date for determining levelized capacity payment obligations. NWE Exhibit 1 at 15:17-20; CED Exhibit 2 at 39; and Staff Exhibit 2 at 28:5-6. The Commission further finds that the appropriate avoided capacity cost shall be based on the cost of a new simple cycle peaking plant. Staff Exhibit 2 at 28:6-8. The Commission further finds that the amount of capacity CED's projects will receive payment for shall be based on the SPP accredited capacity for each project. NWE Exhibit 1 at 16:14-21. Finally, the Commission finds that CED shall be paid monthly for avoided capacity costs on a dollar per MWh rate of \$1.38 per MWh. Staff Exhibit 1, FN 3.

### **Regulation**

39. Wind generation projects require regulation support. In the SPP area, in 2015 the average cost of regulation for wind energy was \$0.24/MWh. NorthWestern calculated the future annual cost per MWh of regulation by escalating the 2015 cost by the EIA Escalator. The Commission finds that this is a reasonable method of calculating the increased cost of regulation that the QFs will impose and that QFs should be responsible for paying this cost. NorthWestern proposed deducting the annual cost per MWh of regulation from each year's average avoided cost in dollars per MWh. The Commission finds the NorthWestern's proposed deduction for incremental regulation is appropriate. NWE Exhibit 1 at 17:21-27.

### **Network Upgrades**

40. Network upgrades are those items that are on the utility's side of the point of interconnection. These items are necessary for the interconnected operation of the QF. The Commission finds that due to the location of the CED's Projects, the network upgrades will not provide any additional reliability to NorthWestern's system. Further, the Commission finds that the QFs should pay for the network upgrades that are necessary for interconnected operation and that do not provide any additional system benefit. NorthWestern estimated that the total network upgrades necessary for interconnected operation would cost \$7,291,252, consisting of \$2,368,792 for the Aurora County project, \$2,617,719 for the Brule County project and \$2,304,741 for the Davison County project. NorthWestern calculated the revenue requirement for the network upgrades for the three projects to be \$2.84/MWh. NWE Exhibit 1 at 18:17-21. The Commission finds this estimate to be reasonable and that subtracting this amount from each year's average avoided cost value is appropriate.

### **General**

41. To the extent that any Conclusion of Law set forth below is more appropriately a Finding of Fact, that Conclusion of Law is incorporated by reference as a Finding of Fact.

### **CONCLUSIONS OF LAW**

1. The Commission has jurisdiction over this matter pursuant to 16 U.S.C. Chapter 12, § 824a-3, 18 C.F.R. Part 292, and SDCL Chapters 1-26 and 49-34A, specifically 49-

34A-93.

2. 16 U.S.C. § 824a-3(a) required the Federal Energy Regulatory Commission to promulgate rules "to encourage cogeneration and small power production..., which rules require electric utilities to offer to... (2) purchase electric energy from such facilities." Under 16 U.S.C. § 824a-3(f), following FERC's promulgation of such rules, "each State regulatory authority shall, after notice and opportunity for public hearing, implement such rule (or revised rule) for each electric utility for which it has ratemaking authority." Pursuant to 16 U.S.C. § 824a-3(b), "rates for such purchase-
  - a. shall be just and reasonable to the electric consumers of the electric utility and in the public interest, and
  - b. shall not discriminate against qualifying co-generators or qualifying small power producers.

No such rule prescribed under subsection (a) of this section shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy."

16 U.S.C § 824a-3 defines "incremental cost to the electric utility of alternative electric energy" as follows:

"incremental cost of alternative electric energy" means, with respect to electric energy purchased from a qualifying co-generator or qualifying small power producer, the cost to the electric utility of the electric energy which, but for the purchase from such co-generator or small power producer, such utility would generator or purchase from another source.

The FERC rules set forth in 18 C.F.R. Part 292 set forth the standards for the Commission's determination of avoided cost.

3. A legally enforceable obligation need not have a contract executed by the utility to exist. If it did, utilities could negate the operation of PURPA simply by refusing to sign.
4. A legally enforceable obligation occurs when the qualifying facility has made and communicated a real and true commitment and ability to deliver energy, capacity, or energy and capacity entitling it to a long-term avoided cost rate. The qualifying facility must communicate and memorialize that the qualifying facility and the public utility were unable to mutually agree to a contract for the sale of electricity.
5. A legally enforceable obligation was created on June 23, 2016, under 18 C.F.R. § 292.304(d).
6. The appropriate contract term for the Projects is twenty years in order to enable the Projects to obtain financing in accordance with the objectives of PURPA.
7. The inclusion of carbon costs in the avoided cost calculations is not justified at this time due to the absence of any legislation establishing such costs and is therefore too speculative to warrant inclusion in the avoided cost.

8. The capacity value is \$1.38/MWh beginning in 2019 and continuing through the remainder of the contract.
9. The levelized avoided cost value is \$26.91/MWh.
10. To the extent that any of the Findings of Fact in this decision are determined to be Conclusions of Law or mixed Findings of Fact and Conclusions of Law, the same are incorporated herein by this reference as a Conclusion of Law as if set forth in full herein.

It is therefore

ORDERED, that the avoided cost for CED's projects is \$26.91/MWh, including \$1.38/MWh for capacity. It is further

ORDERED, that CED and NorthWestern shall enter into negotiations in good faith to consummate a power purchase agreement consistent with the avoided cost determinations and other Findings of Fact and Conclusions of Law of this Order and with current normative terms of such contracts. The parties shall conclude such negotiations and reach an agreement on a power purchase agreement no later than thirty (30) days following the date of issuance of this Order and file such agreement with the Commission.

#### NOTICE OF ENTRY AND OF RIGHT TO APPEAL

PLEASE TAKE NOTICE that this Final Decision and Order Setting Avoided Cost was duly issued and entered on the 20<sup>th</sup> day of December 2017. Pursuant to SDCL 1-26-32, this Final Decision and Order Setting Avoided Cost will take effect 10 days after the date of receipt or failure to accept delivery of the decision by the parties. Pursuant to ARSD 20:10:01:30.01, an application for a rehearing or reconsideration may be made by filing a written petition with the Commission within 30 days from the date of issuance of this Final Decision and Order Setting Avoided Cost. Pursuant to SDCL 1-26-31, the parties have the right to appeal this Final Decision and Order Setting Avoided Cost to the appropriate Circuit Court by serving notice of appeal of this decision to the Circuit Court within thirty (30) days after the date of service of this Notice.

Dated at Pierre, South Dakota, this 20<sup>th</sup> day of December 2017.

<b>CERTIFICATE OF SERVICE</b>	
The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically or by mail.	
By:	<u>Adam deHueck</u>
Date:	<u>12/20/17</u>
(OFFICIAL SEAL)	

BY ORDER OF THE COMMISSION:

Kristie Fiegen

KRISTIE FIEGEN, Chairperson

Gary Hanson

GARY HANSON, Commissioner

Chris Nelson

CHRIS NELSON, Commissioner