

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA

*In the Matter of the Complaint by Oak Tree Energy LLC against  
NorthWestern Energy for refusing to enter into a Purchase Power Agreement*

EL11-006

---

Responsive Testimony of

**Bleau LaFave**

On behalf of NorthWestern Energy

---

Submitted: November 28, 2012

Hearing Date: December 5, 2012

## Table of Contents

Introduction .....	1
Purpose of Testimony .....	1
Mr. Lauckhart’s Testimony .....	1
Mr. Rounds’s Testimony .....	5

## Exhibits

Exhibit 2 .....	Monthly Capacity Factor: Oak Tree / Titan / MISO
-----------------	--

# 1 Testimony

## 2 Introduction

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

4 A: My name is Bleau LaFave. My business address is 3010 West 69<sup>th</sup> Street, Sioux Falls, South  
5 Dakota 57108.

6 **Q: Are you the same Bleau LaFave that has previously filed testimony in this docket?**

7 A: Yes.

## 8 Purpose of Testimony

9 **Q: What is the purpose of your testimony?**

10 A: My testimony is in response to Mr. Lauckhart's testimony on behalf of Oak Tree and  
11 Mr. Rounds's testimony on behalf of Staff concerning avoided cost.

12 **Q: Please summarize your testimony.**

13 A: This response testimony identifies issues negatively affecting NorthWestern's customers in  
14 calculating the avoided cost for energy and capacity in their testimonies.

## 15 Mr. Lauckhart's Testimony

16 **Q: On page 2, line 31 of the Additional Testimony of J. Richard Lauckhart ("Lauckhart Test."),**  
17 **Mr. Lauckhart testifies that NorthWestern's avoided costs lie somewhere between \$56/MWh**  
18 **and \$89/MWh. Do you agree?**

19 A: No. This range does not reflect the incremental costs that NorthWestern's customers can avoid  
20 by purchasing from Oak Tree. As reflected in NorthWestern's testimony, NorthWestern's  
21 estimated 20-year levelized incremental cost for energy is \$37.99/MWh.

22 **Q: Does \$74/MWh represent NorthWestern's incremental cost for Big Stone, and does that affect**  
23 **NorthWestern's avoided cost under this docket? (See Lauckhart Test. 7:7-8.)**

24 A: No, and no. Costs associated with the Big Stone upgrade are not avoidable by purchasing energy  
25 or capacity from the Oak Tree project, so these fixed costs should not be included in calculations  
26 to determine NorthWestern's avoided cost. The only costs related to the Big Stone upgrade that  
27 could be included in our avoided cost calculations are the possible avoidable fuel costs that are

1 offset by Oak Tree production. NorthWestern has already included those avoidable fuel costs in  
2 the hybrid model calculations we have completed and presented to the Commission for its  
3 consideration in determining our avoided costs. Costs presented by Otter Tail in the filing  
4 referenced by Mr. Lauckhart do not represent the costs to NorthWestern's customers for the  
5 Big Stone upgrade.

6 **Q: Does \$74/MWh to \$78/MWh for environmental retrofits represent NorthWestern's**  
7 **incremental cost for Big Stone, and does that affect NorthWestern's avoided cost under this**  
8 **docket? (See Lauckhart Test. 9:8–9.)**

9 A: No, and no. As I stated before, the basis for Mr. Lauckhart's testimony is flawed in the  
10 assumption of an inflated cost basis for Big Stone. Otter Tail's estimated costs do not reflect the  
11 costs related to NorthWestern's customers for the Big Stone upgrades or a new combined cycle  
12 combustion turbine. And fixed costs associated with any project are not avoidable and would  
13 not be used in an avoided cost calculation.

14 **Q: Do you agree with the use of the differential revenue requirement and the approved cost for**  
15 **Spion Kop? (See Lauckhart Test. 10:1–13 & 15:17.)**

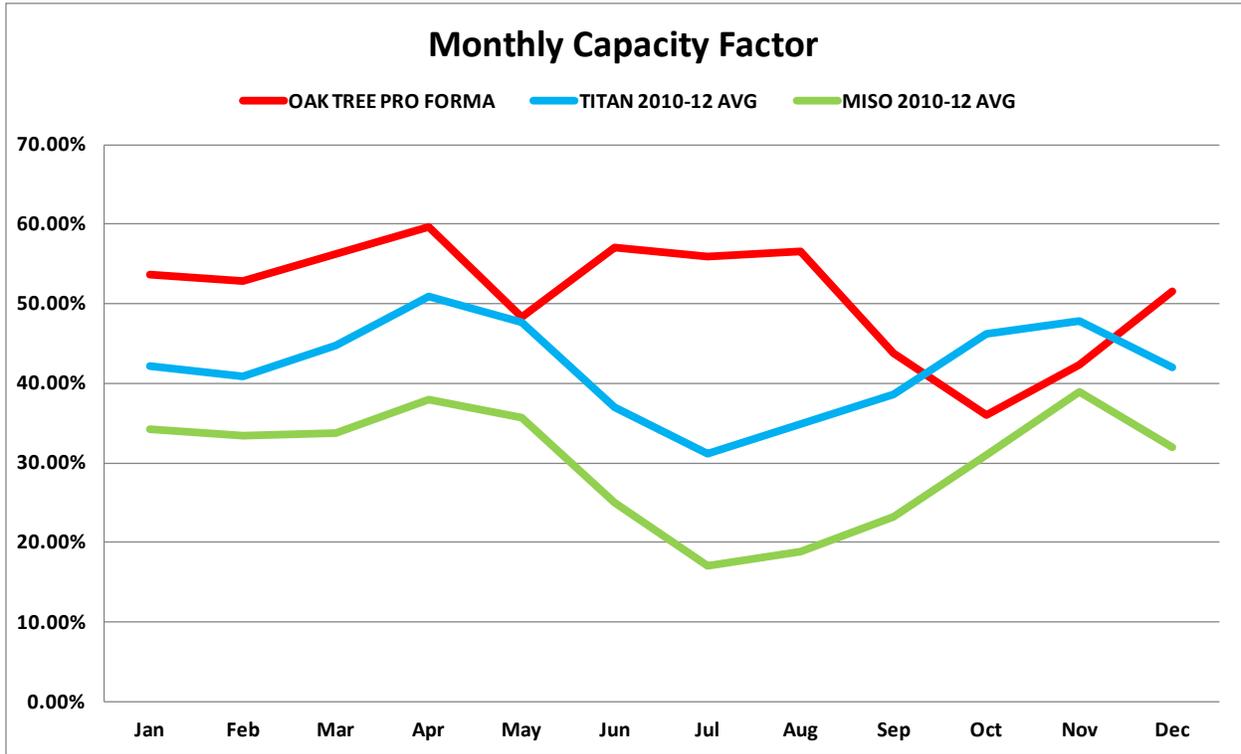
16 A: No. The South Dakota Public Utilities Commission has already ruled on the methodology it wants  
17 the parties to use to determine the avoided costs in this docket. NorthWestern has repeated  
18 several times throughout this proceeding that its Montana jurisdiction is separate from and  
19 different from its South Dakota operations. There are significant differences between Montana  
20 and South Dakota as one looks at our generation portfolios, market conditions, governance,  
21 regional relationships, and transmission connectivity.

22 Mr. Lauckhart's statement that NorthWestern used a differential revenue requirement method  
23 for Spion Kop is false. The project was filed with the Montana Public Services Commission for  
24 preapproval of a levelized rate of \$53.15/MWh based on the estimated total cost of service of  
25 the project. The project has been completed on time and under budget, and NorthWestern filed  
26 a rate adjustment based on the actual project completion costs. Providing Spion Kop delivers  
27 the expected capacity factor of at least 39%, the new levelized rate is \$50.39/MWh.

28 **Q: Would you agree with utilizing hourly or monthly output data for any evaluation for**  
29 **NorthWestern's avoided costs in this docket other than annual estimated supply or capacity**  
30 **ratings? (See Lauckhart Test. 10:1–13.)**

31 A: No. Oak Tree has not provided data to substantiate its output profile to NorthWestern. Neither  
32 NorthWestern nor its customers should be placed in the position of having to substantiate any  
33 data provided by Oak Tree. In quick review, inconsistencies in the limited Oak Tree data do not  
34 give NorthWestern confidence in the suggested hourly or monthly profile. The output report  
35 provided gave a maximum hourly output for the facility of approximately 17.1 MW. Oak Tree  
36 filed a FERC Form 556 with a capacity rating of 18.915 MW. Oak Tree has also filed in this docket

1 that the nameplate capacity of this farm is 19.5 MW. In addition, the estimated hourly data  
 2 output profile from Oak Tree is significantly different from the profiles of Titan and regional  
 3 MISO wind farms as shown below and in Exhibit 2. If Oak Tree desires the hourly production  
 4 associated with its forecasted output, Oak Tree can choose a pricing schedule that includes  
 5 Summer, Winter, Peak and Off-Peak pricing instead of a fixed annual price.



6  
7

8 **Q: What should the cost associated with Renewable Energy Credits (REC) be in South Dakota?**  
 9 **(See Lauckhart Test. 14:24–30.)**

10 Currently, there is no REC requirement in South Dakota. Therefore, the REC value should be zero  
 11 in any avoided cost calculations.

12 **Q: What capacity component should be included in the energy costs in South Dakota?**

13 A: None. NorthWestern will pay for capacity under a capacity payment.

14 **Q: What comments do you have concerning the results of Mr. Lauckhart’s avoided costs**  
 15 **calculations? (See Lauckhart Test. 15:17 (table).)**

16 First, Mr. Lauckhart is double-counting capacity in seven of the 10 cases. Second, all 10 of his  
 17 cases include a payment for RECs. Third, most of the cases cited are based on general  
 18 assumptions that do not relate specifically to NorthWestern customers or our service territory in  
 19 South Dakota. Utilizing the EIA-AEO 2011 early release data provides the closest input for

1 calculation of NorthWestern's actual avoided cost for energy, but still contains assumptions  
2 where historical and localized data is available as described in Mr. Lewis's testimony. Reference  
3 to Otter Tail's customer costs for Big Stone are not relevant to NorthWestern's customers and  
4 costs they will incur as a result of the upgrade to Big Stone. Mr. Lauckhart's calculation — which  
5 uses an average of calculated costs that do not correlate to NorthWestern's service territory,  
6 attempts to impute cost projections from Otter Tail to NorthWestern's situation, uses  
7 forecasted costs based on outdated assumptions from 2010 projections, includes cost options  
8 (such as no-shale projections) that were not relevant at that time in the market, and  
9 misrepresents costs related to Spion Kop — does not produce a just and reasonable rate that  
10 holds NorthWestern's customers indifferent to the impacts of buying Oak Tree's output.

11 **Q: Do you agree with Mr. Lauckhart's conclusions concerning using data from the EIA-AEO 2011**  
12 **early release? (See Lauckhart Test. 15:17–16:2.)**

13 No. The early release reflects the new market for natural gas resulting from the emergence of  
14 shale gas, which was not reflected in previous natural gas forecasts. As discussed earlier, Mr.  
15 Lewis's Market Heat Rate is conservative when considering technologies and increased natural  
16 gas generation. In addition, possible future environmental laws or new regulations are not  
17 known and measurable and are not consistent with the Commission's order.

18 **Q: Do you agree that the Big Stone upgrade represents an avoidable cost that can be offset by**  
19 **Oak Tree? (See Lauckhart Test. 16:2–10.)**

20 No. As discussed earlier, the decision for the Big Stone upgrade was after the date the  
21 Commission determined that an LEO was established. Even if the decision to proceed with the  
22 upgrade had been made by February 25, 2011, the Oak Tree project does not allow  
23 NorthWestern's customers to avoid any actual costs of the Big Stone upgrade. The Big Stone  
24 upgrade will and must proceed regardless of whether energy or capacity from Oak Tree is  
25 available.

26 **Q: Do you agree that a future combined cycle combustion turbine represents an avoidable cost**  
27 **that can be offset by Oak Tree? (See Lauckhart Test. 16:2–10.)**

28 No. NorthWestern's option to construct a new combined cycle combustion turbine will be based  
29 on whether the costs to build a new turbine are competitive to market costs for capacity and  
30 energy and if it will provide other benefits like reliability. Artificially inflating the cost for  
31 constructing a combined cycle combustion turbine and then utilizing that inflated cost to justify  
32 the construction of a QF project would unfairly inflate the avoided costs to be paid by  
33 NorthWestern's customers. Justification for any new generation builds needs to be compared  
34 with the appropriate pricing benchmarks and any resulting benefits.

1 **Q: Do you agree that NorthWestern's avoided cost of \$69.30/MWh as estimated by**  
2 **Mr. Lauckhart is accurate? (See Lauckhart Test. 16:2–10.)**

3 No. Mr. Lauckhart's estimated avoided cost is based on several erroneous factors, including  
4 inflated energy forecasts for unknown environmental and regulatory requirements and an  
5 earlier natural gas forecast that does not reflect the effects of shale gas as of February 25, 2011.  
6 Mr. Lauckhart's estimate also inflates the avoided cost by averaging 10 model inputs that are  
7 not relevant to the real world (as in no-shale options), utilize an old 2010 forecast that does not  
8 represent the long-term shift in the natural gas market associated with shale gas, or include  
9 incorrect costs assumptions (as identified by his Spion Kop numbers). Mr. Lauckhart's proposed  
10 avoided cost number is also inflated by a REC market allowance that is not established in this  
11 region and is not required by the State of South Dakota. Additionally, Mr. Lauckhart includes an  
12 inflated capacity credit in his avoided cost rate that is added into the energy price instead of  
13 treated as a separate cost. In some of Mr. Lauckhart's averages, he does not follow the hybrid  
14 method (e.g., Otter Tail CCCT Direct and Spion Kop Direct).

### 15 **Mr. Rounds's Testimony**

16 **Q: Do you agree with the assumptions made in Mr. Rounds's testimony concerning Oak Tree's**  
17 **energy output and its baseload quantities? (See Rounds Test. 2:3–5.)**

18 A: No. Although I agree with the structure identified in Mr. Rounds's methodology for utilizing the  
19 hybrid model, his assumptions for Oak Tree's energy output and for the baseload output need  
20 to be adjusted. Oak Tree's energy output, as outlined in my November 21 testimony, is on  
21 average 9 megawatts. This is based on the annual projected output of the wind farm as provided  
22 by Oak Tree divided by the total number of hours in the year. As described in Richard J. Green's  
23 testimony, the average output of NorthWestern's generating facilities is approximately 191 MW  
24 per hour.

25 **Q: Does Mr. Rounds properly represent NorthWestern's avoided capacity costs calculation? (See**  
26 **Rounds Test. 2:23–3:2.)**

27 A: NorthWestern agrees with the assignment of 12.9% of capacity for the planning year 2011 that  
28 was published by MISO as represented in my testimony. Although, the 12.9% is to be applied to  
29 the registered capacity, not "name plate," as described by MISO in Mr. Green's testimony. For  
30 future years, the capacity should be adjusted every year based on measured historical  
31 performance.

32 **Q: Does Mr. Rounds properly represent NorthWestern's avoided energy costs for a 20-year**  
33 **period? (See Rounds Test. 3:4–30.)**

34 A: NorthWestern agrees that a levelized cost puts undo risk on NorthWestern's customers. An  
35 adjusted table, similar to the table provided in Mr. Round's testimony at 3:10–30, with the

1 appropriate energy costs as presented in my testimony would be more applicable for  
 2 NorthWestern’s customers. Mr. Rounds’s chart should include a similar escalating structure as  
 3 used in the Titan Wind PPA. The table below reflects my suggested changes to Mr. Rounds’s  
 4 table to make it more appropriate to NorthWestern. The same table can be found on the blend  
 5 summary tab within Exhibit 1 attached to my November 21 testimony.

2012	\$ 22.34
2013	\$ 23.90
2014	\$ 26.36
2015	\$ 29.37
2016	\$ 31.51
2017	\$ 33.55
2018	\$ 35.57
2019	\$ 37.39
2020	\$ 39.15
2021	\$ 41.30
2022	\$ 43.60
2023	\$ 46.02
2024	\$ 48.50
2025	\$ 51.06
2026	\$ 53.59
2027	\$ 56.14
2028	\$ 58.79
2029	\$ 61.53
2030	\$ 64.43
2031	\$ 67.49

6  
 7 **Q: Does Mr. Rounds properly represent NorthWestern’s avoided energy calculations? (See**  
 8 **Rounds Test. 3:31–6:30.)**

9 **A:** While NorthWestern agrees with the components and how they can fit together, we disagree  
 10 with the assumptions and generalization of the data that is actually used in the model. As stated  
 11 by Mr. Rounds, “due to a lack of financial resources” he made assumptions using general models  
 12 to represent NorthWestern’s load curve, hourly load profile estimates, NorthWestern’s load  
 13 growth, Oak Tree’s output, assumed baseload avoidable costs, and generic market price  
 14 forecasts. The resulting estimate could substantially impact the avoided costs.

15 It appears that Mr. Rounds overestimates NorthWestern’s load. For example, utilizing the  
 16 estimated blocks of time and load for those blocks of time, Mr. Rounds’s model starts in 2012  
 17 with an estimated system load of 2,167,222 MWh’s. NorthWestern’s forecasted load for 2012 is  
 18 1,660,736 MWh’s. As a result of using his input, Mr. Rounds’s estimate is a 30% overstatement  
 19 of needed energy for NorthWestern customers in 2012. As this overstatement is escalated for  
 20 the rest of the 20 years, the results magnify. This result would artificially raise the avoided costs  
 21 by increasing the amount of purchased power. Each assumption can have similar results. I also  
 22 believe it would difficult in the future to consistently recreate the inputs suggested by Mr.  
 23 Rounds as they are generally estimated figures, not actual numbers that are directly relatable to  
 24 NorthWestern.

25 In contrast, my model inputs for estimating an avoided cost are easily repeatable, known,  
 26 historical, publicly available, and are directly related to NorthWestern Energy. NorthWestern’s  
 27 inputs utilize NorthWestern’s 2010 load curve, calculated hourly load profiles for each year  
 28 based on NorthWestern’s load growth, Oak Tree’s stated average output, actual 2010 baseload

1           avoidable costs, and market price forecasts that are tied by MISO to a point on NorthWestern's  
2           system. It is my opinion that utilizing known, measurable, and publicly available inputs will result  
3           in an avoided cost that is just and reasonable for NorthWestern's customers now and into the  
4           future. These inputs will also allow NorthWestern to continue to use the hybrid model for future  
5           QF purposes, as it will be easily repeatable.

6   **Q:       Does Mr. Rounds properly represent NorthWestern's avoided capacity calculations? (See**  
7   **Rounds Test. 6:31–34.)**

8   A:       NorthWestern agrees with the 12.9% multiplier, as described above and in pages 53 to 60 of the  
9           Midwest ISO 2011 – 2012 LOLE Study Report that is the source of the 12.9%. Table D3 of the  
10          MISO 2011 – 2012 LOLE Study Report also shows the variability of wind Effective Load Carrying  
11          Capability from 2005 through 2010 (2.8% in 2007 to 39.6% in 2006). NorthWestern does not  
12          agree with the utilization of nameplate capacity as discussed earlier. In addition, NorthWestern  
13          does not agree with assigning a fixed quantity for capacity; NorthWestern does agree with  
14          assigning a fixed price for capacity. Because wind is an intermittent resource, the amount of  
15          energy and capacity delivered by a project will vary each year. Therefore, only the price paid per  
16          unit for capacity or energy should be established for each under the QF contract.

17 **Q:       Does this conclude your testimony?**

18 A:       Yes, it does.

Affidavit of Bleau LaFave

STATE OF SOUTH DAKOTA )

: ss

COUNTY OF LINCOLN )

Bleau LaFave, being first duly sworn upon oath, states and alleges as follows:

1) I am the Director of Long-Term Growth for NorthWestern Corporation d/b/a NorthWestern Energy.

2) I have read this document and am familiar with its contents, and the same are true to the best of my knowledge and belief.

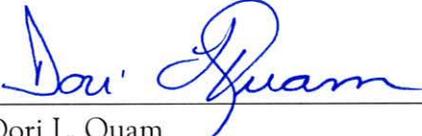
Further affiant sayeth naught.

Dated at Sioux Falls, South Dakota, this 28<sup>th</sup> day of November, 2012.

  
\_\_\_\_\_  
Bleau LaFave

SUBSCRIBED AND SWORN to before me this 28<sup>th</sup> day of November, 2012.



  
\_\_\_\_\_  
Dori L. Quam  
Notary Public, South Dakota  
My commission expires: 2/4/2016