

**EXH. CLS-8T
DOCKET UE-200115
COLSTRIP UNIT 4 SALE
WITNESS: CINDY L. SONG**

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**In the Matter of the Application of
PUGET SOUND ENERGY**

**For an Order Authorizing the Sale of
All of Puget Sound Energy's Interests
in Colstrip Unit 4 and Certain of
Puget Sound Energy's Interests in
the Colstrip Transmission System**

Docket UE-200115

**PREFILED
SUPPLEMENTAL DIRECT TESTIMONY (NONCONFIDENTIAL) OF
CINDY L. SONG
ON BEHALF OF PUGET SOUND ENERGY**

AUGUST 20, 2020

**PREFILED
SUPPLEMENTAL DIRECT TESTIMONY (NONCONFIDENTIAL) OF
CINDY L. SONG
ON BEHALF OF PUGET SOUND ENERGY**

CONTENTS

I.	INTRODUCTION	1
II.	PSE UPDATED THE TERM OF EACH OF THE NORTHWESTERN PPA AND THE TALEN MONTANA PPA TO REFLECT A START DATE OF THE HOUR ENDING 0100 ON DECEMBER 17, 2020, AND AN EXPIRATION DATE OF THE HOUR ENDING 2400 ON DECEMBER 2, 2025.....	3
III.	PSE REFINED THE QUANTITATIVE ANALYSIS TO REFLECT THE PROJECTED COSTS UNDER THE NORTHWESTERN ENERGY PPA AND THE TALEN MONTANA PPA MORE ACCURATELY.....	5
IV.	MISCELLANEOUS REFINEMENTS TO THE QUANTITATIVE ANALYSIS.....	7
V.	CONCLUSION.....	8

**PREFILED
SUPPLEMENTAL DIRECT TESTIMONY (NONCONFIDENTIAL) OF
CINDY L. SONG
ON BEHALF OF PUGET SOUND ENERGY**

LIST OF EXHIBITS

Exh. CLS-9C Quantitative Analysis, dated August 20, 2020

**PREFILED
SUPPLEMENTAL DIRECT TESTIMONY (NONCONFIDENTIAL) OF
CINDY L. SONG
ON BEHALF OF PUGET SOUND ENERGY**

I. INTRODUCTION

1
2 **Q. Are you the same Cindy L. Song who provided prefiled direct testimony,**
3 **Exhibit CLS-1CT, and six supporting exhibits, Exhibit CLS-2 through**
4 **Exhibit CLS-7, on behalf of Puget Sound Energy (“PSE”) on February 19,**
5 **2020?**

6 **A. Yes.**

7 **Q. Are you aware of the changes to the Proposed Transaction that have**
8 **occurred since PSE filed its Application and supporting testimony in this**
9 **docket on February 19, 2020?**

10 **A. Yes. As discussed in detail in PSE’s Supplement to its Application and the**
11 **Prefiled Supplemental Direct Testimony of Ronald J. Roberts, Exh. RJR-9T, PSE**
12 **will continue with its plan to sell its 25 percent interest in Colstrip Unit 4.**
13 **However, rather than NorthWestern Energy buying PSE’s entire ownership**
14 **interest in Colstrip Unit 4, Northwestern Energy and Talen Montana LLC (“Talen**
15 **Montana”) will each purchase one half of PSE’s 25 percent ownership interest in**
16 **Colstrip Unit 4. Additionally, PSE will buy back replacement power through two**
17 **power purchase agreement (“PPAs”)—one 45 megawatt (“MW”) with**

1 NorthWestern Energy and one 45 MW with Talen Montana. The terms of the sale
2 of the Colstrip Transmission System have not changed. However, I understand
3 that Talen Montana has asserted a claim to acquire a portion of certain PSE
4 interests in the Colstrip Transmission System that PSE is selling to NorthWestern
5 Energy.

6 **Q. Has PSE updated its quantitative analysis to reflect the changes in the**
7 **transactions for which PSE seeks approval in this proceeding?**

8 A. Yes. This prefiled supplemental direct testimony addresses the following updates
9 to PSE's quantitative analysis to reflect the changes in the transactions for which
10 PSE seeks approval in this proceeding and the most recent information as of the
11 date of the filing of this supplemental testimony:

- 12 (i) PSE updated the term of each of the NorthWestern PPA
13 and the Talen Montana PPA to reflect a start date of the
14 hour ending 0100 on December 17, 2020, and an expiration
15 date of the hour ending 2400 on December 2, 2025, as
16 discussed in Section II below;
- 17 (ii) PSE refined the quantitative analysis to reflect the projected
18 costs under the NorthWestern Energy PPA and the Talen
19 Montana PPA more accurately, as discussed in Section III
20 below;
- 21 (iii) PSE made miscellaneous adjustments to its quantitative
22 analysis, as discussed in Section IV below; and
- 23 (iv) PSE updated its discount rate based on the rate of return
24 outcome of PSE's 2019 general rate case in Dockets UE-
25 190529, *et al.*

26 The following testimony discusses each of these updates.

1 **II. PSE UPDATED THE TERM OF EACH OF THE**
2 **NORTHWESTERN PPA AND THE TALEN MONTANA PPA**
3 **TO REFLECT A START DATE OF THE HOUR ENDING 0100 ON**
4 **DECEMBER 17, 2020, AND AN EXPIRATION DATE OF THE HOUR**
5 **ENDING 2400 ON DECEMBER 2, 2025**

6 **Q. Could you please summarize the power purchase agreement addressed in the**
7 **Direct Testimony of Cindy L. Song, Exh. CLS-1CT, and presented in the**
8 **Sixth Exhibit to the Prefiled Direct Testimony of Cindy L. Song, Exh. CLS-**
9 **7C?**

10 **A.** The quantitative analysis of the Proposed Transactions discussed in the Direct
11 Testimony of Cindy L. Song, Exh. CLS-1CT, and presented in the Sixth Exhibit
12 to the Prefiled Direct Testimony of Cindy L. Song, Exh. CLS-7C, assumed that
13 PSE would enter into a PPA with NorthWestern Energy for 90 MW of the
14 capacity from Colstrip Unit 4, commencing on June 1, 2020, and expiring on
15 May 15, 2025.

16 As a result of the exercise of the right of first refusal by Talen Montana, PSE will
17 not be entering into a PPA with NorthWestern Energy for 90 MW of the capacity
18 from Colstrip Unit 4, commencing on June 1, 2020, and expiring on May 15,
19 2025. Instead, PSE will enter into two PPAs (one each with NorthWestern Energy
20 and Talen Montana) of 45 MW each.

21 **Q. What is the proposed term of the two PPAs?**

22 **A.** Given the uncertainties of the regulatory approval processes before this
23 Commission and the Montana Public Service Commission, the parties have not

1 yet identified a commencement date and have agreed to work in good faith to
2 identify a date prior to closing of the proposed transactions.

3 The term of the two PPAs would be identical and are intended to have a term that
4 expires the earlier of (a) 258 weeks after the commencement date of the PPAs or
5 (b) the hour ending 2400 on December 31, 2025. The intent of the proposed term
6 is to (i) maintain a term of two weeks less than a full five (5) years identified in
7 the term of the originally proposed PPA of 90 MW with NorthWestern Energy
8 and (ii) ensure that PSE has no obligations to purchase capacity output from
9 Colstrip Unit 4 after December 31, 2025.

10 **Q. What terms has PSE assumed for purposes of the quantitative analysis**
11 **submitted in this supplemental filing?**

12 A. For purposes of this supplemental filing, PSE has assumed terms for the two
13 PPAs that commence at the hour ending 0100 on December 17, 2020, and expire
14 at the hour ending 2400 on December 2, 2025. In other words, the terms of the
15 PPAs assumed for purposes of this quantitative analysis is 258 weeks—a term of
16 identical length to the term analyzed in the quantitative analysis addressed in the
17 Direct Testimony of Cindy L. Song, Exh. CLS-1CT, and presented in the Sixth
18 Exhibit to the Prefiled Direct Testimony of Cindy L. Song, Exh. CLS-7C.

1 **III. PSE REFINED THE QUANTITATIVE ANALYSIS TO**
2 **REFLECT THE PROJECTED COSTS UNDER**
3 **THE NORTHWESTERN ENERGY PPA AND**
4 **THE TALEN MONTANA PPA MORE ACCURATELY**

5 **Q. Has PSE refined its quantitative analysis of the benefits of the NorthWestern**
6 **Energy PPA and the Talen Montana PPA?**

7 **A. Yes. PSE has made the following refinements to its quantitative analysis of the**
8 **benefits of both the NorthWestern Energy PPA and the Talen Montana PPA:**

- 9 • The refined quantitative analysis prices deliveries under the
10 PPAs on an hourly basis.
- 11 • The refined quantitative analysis assumes that PSE pays for
12 its pro rata share (i.e., 90 MW / 185 MW) of any budgeted
13 base operating and maintenance costs allocated to
14 NorthWestern Energy and Talen Montana on an upfront
15 basis.
- 16 • The refined quantitative analysis calculates the “O&M Cost
17 (Base) Equivalent,” which provides PSE with a partial
18 credit against Mid-C Index prices and is an amount equal to
19 the quotient of (i) the budgeted base operating and
20 maintenance costs allocated to NorthWestern Energy and
21 Talen Montana, divided by (ii) the projected net generation
22 of the 185 MW of capacity of Colstrip Unit 4 to be sold to
23 NorthWestern Energy and Talen Montana.
- 24 • The refined quantitative analysis establishes a floor price
25 based on the cost of coal at minimum heat rate plus
26 variable operations and maintenance costs.
- 27 • The refined quantitative analysis requires PSE to pay the
28 greater of
 - 29 (i) the difference between (a) the Mid-C index price for
30 the applicable hour, minus (b) the applicable O&M
31 Cost (Base) Equivalent ; or
 - 32 (ii) the applicable floor price.

1 These refinements to the quantitative analysis conducted by PSE more accurately
2 reflect the projected costs to PSE under the NorthWestern Energy PPA and the
3 Talen Montana PPA.

4 **Q. Has PSE provided a quantitative analysis for each of the NorthWestern**
5 **Energy PPA and the Talen Montana PPA?**

6 A. No. The substantive terms of the NorthWestern Energy PPA and the Talen
7 Montana PPA are identical. For the purposes of identifying the potential costs and
8 benefits of the two PPAs, PSE could have either (i) conducted one quantitative
9 analysis by treating the two PPAs as one 90 MW PPA or (ii) conducted two
10 quantitative analyses by treating the two PPAs as separate 45 MW PPAs and
11 summing the results of these two quantitative analyses. The results of either
12 approach would be identical. PSE elected the former for purposes of simplicity
13 and efficiency.

14 **Q. Can PSE provide an illustrative example of the variable pricing for the**
15 **NorthWestern Energy PPA and the Talen Montana PPA under different**
16 **Mid-C index price scenarios?**

17 A. Yes. Table 1 below provides an illustrative example of the variable pricing for the
18 NorthWestern Energy PPA and the Talen Montana PPA under different Mid-C
19 index price scenarios.

1
2
3

**Table 1. Illustrative Example of Variable Pricing for
the NorthWestern Energy PPA and the Talen Montana PPA
under Different Mid-C Index Price Scenarios**

		Scenario 1	Scenario 2	Scenario 3
A	Mid-C Index Price	\$20.00/MWh	\$30.00/MWh	\$40.00/MWh
B	O&M Cost (Base) Equivalent	\$10.00/MWh	\$10.00/MWh	\$10.00/MWh
C	Net Price (A - B)	\$10.00/MWh	\$20.00/MWh	\$30.00/MWh
D	Floor Price	\$25.40/MWh	\$25.40/MWh	\$25.40/MWh
E	Amount Paid by PSE (Greater of C or D)	\$25.40/MWh	\$25.40/MWh	\$30.00/MWh
F	PSE (Cost)/Savings Compared to Mid-C Prices (A - E)	\$(5.40)/MWh	\$4.60/MWh	\$10.00/MWh

4
5
6
7

In sum, PSE pays (i) the Floor Price for deliveries in any hour in which the Net Price is equal to or less than the Floor Price and (ii) the Mid-C index price less the O&M Cost (Base) Equivalent for deliveries in any hour in which the Net Price is greater than the Floor Price.

8
9

**IV. MISCELLANEOUS REFINEMENTS TO
THE QUANTITATIVE ANALYSIS**

10
11
12

- Q. Did PSE make any other refinements to its quantitative analysis?**
- A. Yes. During discovery, parties asked PSE to update the hedged scenario in a manner that reduced the price of the hedge from \$37.75/MWh to \$36.60/MWh.

1 PSE made updates to its quantitative analysis to reflect this lower hedge price of
2 \$36.60/MWh.

3 **Q. Did PSE make any further refinements to its quantitative analysis?**

4 A. Yes. In the quantitative analysis presented in the Prefiled Direct Testimony of
5 Cindy L. Song, Exh. CLS-1CT, PSE compared continuing operations of Colstrip
6 Unit 4 through May 15, 2025, which was the expiration date of the proposed PPA
7 with NorthWestern Energy presented in the Seventh Exhibit to the Prefiled Direct
8 Testimony of Ronald J. Roberts, Exh. RJR-8C. Now that PSE's quantitative
9 analysis assumes that the two proposed PPAs with NorthWestern Energy and
10 Talen Montana will expire at the hour ending 2400 on December 2, 2025, PSE
11 extended the comparison through the end of calendar year 2025 for the purpose of
12 comparing continuing operations at Colstrip Unit 4 with the proposed transactions
13 with NorthWestern Energy and Talen Montana.

14 **V. CONCLUSION**

15 **Q. What are the results of PSE's quantitative analysis presented in this**
16 **supplemental direct testimony that compares the costs of continuing**
17 **operations of Colstrip Unit 4 with the costs of the proposed transactions with**
18 **NorthWestern Energy and Talen Montana?**

19 A. For purposes of this prefiled supplemental direct testimony, PSE's quantitative
20 analysis projects that the proposed transactions with NorthWestern Energy and
21 Talen Montana would provide present value savings of approximately \$6 to

1 \$33 million to PSE customers when compared to continuing operation of Colstrip
2 Unit 4.

3 **Q. How do the results of PSE’s quantitative analysis presented in this**
4 **supplemental direct testimony compare with the results of PSE’s quantitative**
5 **analysis presented in the prefiled direct testimony filed on February 19,**
6 **2020?**

7 A. The results of PSE’s quantitative analysis presented in this supplemental direct
8 testimony are slightly lower than PSE’s quantitative analysis presented in the
9 prefiled direct testimony filed on February 19, 2020. Whereas the quantitative
10 analysis presented in the prefiled direct testimony filed on February 19, 2020,
11 projected that the proposed transaction with NorthWestern Energy would provide
12 net present value savings to PSE customers of between \$25 and \$46 million, the
13 quantitative analysis presented in this prefiled supplemental testimony project that
14 the proposed transactions with NorthWestern Energy and Talen Montana would
15 provide net present value savings to PSE customers of between \$6 and
16 \$33 million. Please see the First Exhibit to the Prefiled Supplemental Direct
17 Testimony of Cindy L. Song, Exh. CLS-9CT, for the results of PSE’s updated
18 quantitative analysis.

19 **Q. Does this conclude your prefiled supplemental direct testimony?**

20 A. Yes, it does.