EXHIBIT NO. ___(WJE-16C) DOCKET NO. UE-07___/UG-07___ 2007 PSE GENERAL RATE CASE WITNESS: W. JAMES ELSEA

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

Docket No. UE-07____ Docket No. UG-07____

PUGET SOUND ENERGY, INC.,

Respondent.

FIFTEENTH EXHIBIT (CONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF W. JAMES ELSEA ON BEHALF OF PUGET SOUND ENERGY, INC.

> **R**EDACTED **VERSION**

DECEMBER 3, 2007

Exhibit No. (WJE-16C) Page 1 of 5

Whitehorn 2&3 Analysis of Lessor's Offer to Sell

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November 17, 2003

Background

In 1980, PSE entered into an agreement to sell and lease back two GE Frame 7E combustion turbines and other facilities at the Whitehorn Generating Station. The original lease term extended through July, 2004.

The Second Lease Supplement agreement, dated January 31, 2003, provided for the First Renewal Term of the lease from August 2, 2004 through February 2, 2009. The semi-annual renewal lease payments beginning in February 2005 are about 40% of the current lease payments (\$802,527 renewal compared with current \$2,032,380).

The analysis supporting January 2003 renewal agreement found that the estimated benefits derived from the capacity and energy were greater than the cost of the renewed lease.

On November 6th PSE received a call from an agent for the Whitehorn Lessor offering to sell the units and cancel the lease for a buy-out price of **S** Steve St.Clair described the offer as follows:

Today, Mr. Travers indicated that his client had "sharpened their pencils" and was prepared to offer a "much more attractive deal." None of this is in writing yet, but following is my understanding of the proposal. On the proposed closing date of December 31, 2003, the Lease and Support agreements would be terminated and Whitehorn units 2 & 3 would be sold to PSE for a buy-out price of Lease payments on the original term otherwise due in February, 2004 and August, 2004

totaling \$4,064,760.50 would be waived as would lease payments otherwise due on the extended term totaling \$7,222,745.97. While the proposed buy-out offer would require the approval of the Lessor's Board or Directors, Mr. Travers did not expect any difficulty in that regard.

Description of Analysis

The offer of a buy-out could be analyzed in two steps.

Step 1 Analysis compares the cost to PSE's customers of:

Option A) continuing the lease and defer purchase until February 2009 with Option B) purchasing the plant in December 2003.

Step 2 Analysis – Only needed if Option B is less costly than Option A. If purchase of the plant in 2003 is less costly, then a re-evaluation of the capacity and energy benefits should be compared with the cost of owning. This step of the analysis would also evaluate the cost of other resources to bring an equivalent level of electric power capacity and energy value to PSE customers.

Both options A and B of the Step 1 analysis provide the same energy and capacity benefits to PSE customers. Because of this, the Step 1 analysis can be done without updating the market valuation of electric capacity and energy. The decision variable for Step 1 is the present value of revenue requirements.

Even though Step 2 was not needed, this analysis (November 2003) did look at general trends that could be expected in the market valuation of energy and capacity value of the Whitehorn units.

- The January 2003 analysis evaluated the gross margin that might be expected from Whitehorn as predicted by the Portfolio Screening Model (AURORA 1 prices). The previous analysis was duplicated but updated with the current Portfolio Screening Model (AURORA 4 prices).
- In addition, this analysis compared the forecast of option value from the January 2003 study with the actual call option premiums actually paid by PSE for winter peaking calls Nov03 Feb04.

Summary Results and Conclusions

Step 1. <u>The PV of Revenue Requirements for option A, continue lease and defer purchase, are less than</u> the PV Revenue Requirements for an immediate plant purchase by approximately \$2 million. In addition, the revenue requirement costs in the first 5 years are significantly lower under the lease and defer option. The assumption for the deferred purchase price in 2009 was assumed to be equal to the 2003 offer price when in practical terms the price would likely decline. For these reasons, it is recommended that we decline the purchase offer and continue with the lease. The decision can be reconsidered in 2008 prior to the end of the lease.

Step 2. This analysis found that the 20-year sum of capacity and energy value was about 30% less under current market price forecast, AURORA 4, as compared with the price forecast used in the January 2003 analysis. All else being equal, this reduction in future plant benefits leads one to the decision to defer the purchase.

This analysis also reinforces the fact that PSE made the correct decision to lease the plant in the short term. Actual call options purchased for the winter of 2003-2004 had an average cost of \$2.20 per kw-month. This translates to a value of \$1.32 million for Whitehorn's 150 MW over 4 winter months. In addition, PSE sold 100 MW of 12.5 and 13.0 Heat Rate Options for the third quarter of 2003 for a premium of \$1.585 million. Since Whitehorn's 150 MW is about 30% of the total peaking generation with similar heat rate, then \$.475 million (30% of \$1.585 million) can be attributed to Whitehorn. The total value of \$1.8 million (\$1.32 + \$.475) is greater than the renewal lease rate of \$1.6 million.

| | Opt. A Lease / Defer | | Opt. B Purchase Now | |
|--------------------------|--------------------------|---------------------------------------|----------------------|------|
| Lease Payments | Feb-04 \$ | 2,032,380 | | |
| | Aug-04 | 2,032,380 | | |
| | Feb-05 | 802,527 | | |
| | Aug-05 | 802,527 | | |
| | Feb-06 | 802,527 | | |
| | Aug-06 | 802,527 | | |
| | Feb-07 | 802,527 | | |
| | Aug-07 | 802,527 | | |
| | Feb-08 | 802,527 | | |
| | Aug-08 | 802,527 | | |
| | Feb-09 | <u>802,527</u> | Į | |
| | TOTAL \$ 11,287,506 N/A | | N/A | |
| Asset Purchase Date | February 2009 | | December 2003 | |
| | Defer | | Determber 20 | 303 |
| Purchase Amount | Assume not price erosion | | Price | |
| | | | Sales Tax | |
| | Reduction0 | | Transaction | |
| | Total | · · · · · · · · · · · · · · · · · · · | Total | Γ. Ι |
| Study Period | 2004-2024 | | 2004-2024 | |
| Book Depreciation | 15 year book life | | 20 year book life | |
| | 2009-2023 | | 2004-2023 | |
| Weighted Cost of Capital | 8.89% (45%, 11% ROE) | | 8.89% (45%, 11% ROE) | |
| After Tax WACC | 7.58% | | 7.58% | |

Data and Assumptions

Results Step 1

| | | А | В | A - B |
|---------------|-------------|----------------|---------------|----------------|
| | | Annual Lease | Purchase | Revenue |
| | | Payments + Buy | Whitehorn in | Requirements |
| | | Later in 2009 | December 2003 | Savings (Cost) |
| Year | | | | \$x1000s |
| 1 | 2004 | \$4,065 - | \$4,922 | = (\$858) |
| 2 | 2005 | 1,605 | 4,750 | (3,145) |
| 3 | 2006 | 1,605 | 4,524 | (2,918) |
| 4 5 | 2007 | 1,605 | 4,309 | (2,703) |
| 5 | 2008 | 1,605 | 4,104 | (2,499) |
| 6 | 2009 | 6,217 | 3,908 | 2,309 |
| 7 | 2010 | 5,205 | 3,721 | 1,484 |
| 8 | 2011 | 4,941 | 3,538 | 1,403 |
| 9 | 2012 | 4,689 | 3,355 | 1,334 |
| 10 | 2013 | 4,447 | 3,172 | 1,275 |
| 11 | 2014 | 4,214 | 2,988 | 1,226 |
| 12 | 2015 | 3,990 | 2,805 | 1,185 |
| 13 | 2016 | 3,769 | 2,622 | 1,147 |
| 14 | 2017 | 3,549 | 2,439 | 1,110 |
| 15 | 2018 | 3,328 | 2,256 | 1,073 |
| 16 | 2019 | 3,108 | 2,072 | 1,035 |
| 17 | 2020 | 2,887 | 1,925 | 962 |
| 18 | 2021 | 2,667 | 1,813 | 853 |
| 19 | 2022 | 2,446 | 1,701 | 745 |
| 20 | 2023 | 2,226 | 1,590 | 636 |
| 21 | 2024 | 35 | 0 | 35 |
| | | | | |
| Sum Nominal | 2004 – 2024 | \$68,203 | \$62,514 | \$5,690 |
| PV 2003\$ | 2004 – 2024 | \$30,975 | \$33,287 | (\$2,312) |
| @8.89% | | | | |
| PV 2003\$ a/t | 2004 - 2024 | \$34,275 | \$36,004 | (\$1,730) |
| @ 7.58% | | - | | (+1,750) |

The PV of Revenue Requirements for option A, continue lease and defer purchase, are less than the PV Revenue Requirements for an immediate plant purchase by \$1.7 to \$2.3 million. In addition, the revenue requirement costs in the first 5 years are over \$12 million lower under the lease and defer option. The assumption for the deferred purchase price in 2009 was assumed to be equal to the 2003 offer price when in practical terms the price would likely decline.

The purchase decision can be reconsidered in 2008 prior to the end of the lease.

Results Step 2

Actual Option Valuation in 2003

Actual premiums for physical daily call options purchased for Nov03-Feb04 with a strike price \$75 were as follows:

| Deal 1 | 50 MW | 80,000 MWh | \$500,000 | \$6.25 / MWh |
|----------|---------|------------|-----------|----------------------------------|
| Deal 2 | 50 MW | 80,000 MWh | \$380,000 | \$4.75 / MWh |
| Weighted | Average | | | \$5.50 / MWh = \$2.20 / kw-month |

Whitehorn = \$1,320,000 = [150 MW * 4 months * \$2.20 / kw-month]

| PSE sold heat rate call options in Q3 of 2003. | The premiums for these options were: |
|--|--------------------------------------|
|--|--------------------------------------|

| Deal 1 Deal 2 Deal 3 TOTAL | 100 MW 125 MW 50 MW | \$600,000 \$847,000 <u>\$138,600</u> \$1,585,600 | financial financial physical | strike 12.5 x gas daily Sumas + \$2.50 / MWh strike 13 x gas daily Sumas + \$2.50 / MWh strike 13 x gas daily Sumas + \$2.50 / MWh |
|-------------------------------------|---------------------------|---|------------------------------------|--|
|-------------------------------------|---------------------------|---|------------------------------------|--|

Whitehorn's 150 MW is about 30% of the total of 500 MW of combustion turbines with heat rate about 12.5. Assign Whitehorn about \$475,680 of this value.

Total Whitehorn value in 2003 based upon these option purchases and sales is \$1,795,680. This actual value compares favorably with the "Spread Option" estimated valuation done in January 2003 of \$1.1 million in 2004 and \$2.2 million in 2005. The actual lease cost in 2004 is \$4 million, but that drops to \$1.6 million in 2005.

Updated AURORA 4 Gas and Power Prices

The analysis calculated a valuation of Whitehorn using PSE's Portfolio Screening Model (AURORA 4 prices) and compared this value calculated with the same model but using an earlier forecast of gas and power prices (AURORA 1?). The nominal sum of gross margin from 2004-2023 was 30% less using the updated forecast. The January analysis and decision to renew the lease did not rely on the Portfolio Model results. But all other factors being equal, this reduction in the Portfolio model valuation would tend to favor continuing the lease and deferring the purchase.