**Exhibit No. \_\_\_ (JLB-1Tr)**

 **Dockets UE-141335**

 **Witness: Jason L. Ball**

**BEFORE THE**

**WASHINGTON STATE UTILITIES AND TRANSPORTATION COMMISSION**

|  |  |
| --- | --- |
| **In the Matter of the** **Petition of King County, Washington, BNSF Railway, Frontier Communications Northwest, Inc., Verizon Wireless, and New Cingular Wireless PCS, LLC. For a Declaratory Order to address the degradation of service from Puget Sound Energy due to the physical deterioration of the Maloney Ridge Line underground cable.** | **DOCKET UE-141335** |

**TESTIMONY OF**

**Jason L. Ball**

**STAFF OF**

**WASHINGTON UTILITIES AND**

**TRANSPORTATION COMMISSION**

***Economic Feasibility of the Maloney Ridge Line***

**November 19, 2014**

***Revised June 8, 2015***

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# INTRODUCTION

##

## Q. Please state your name and business address.

A. My name is Jason L. Ball. My office address is the Richard Hemstad Building, 1300 South Evergreen Park Drive Southwest, P.O. Box 47250, Olympia, Washington 98504. My email address is jball@utc.wa.gov.

## Q. By whom are you employed and in what capacity?

A. I am employed by the Washington Utilities and Transportation Commission (Commission) as a Regulatory Analyst. Among other duties, I am responsible for financial and accounting analysis, load forecasting, and power supply issues of the investor-owned electric and gas utilities under the jurisdiction of the Commission.

**Q. How long have you been employed by the Commission?**

A. I have been employed by the Commission since June 2013.

## Q. Would you please state your educational and professional background?

A. I graduated from New Mexico State University in 2010 with a Bachelor of Arts dual-major in Economics and Government. In 2013, I graduated with honors from New Mexico State University with a Masters of Economics specializing in Public Utility Policy and Regulation. I testified on power supply and load forecasting in Avista Corporation’s general rate case Docket UE-140188. I filed joint testimony in Puget Sound Energy’s (PSE) power cost only rate case in docket UE-141141. I also filed testimony in PacifiCorp’s general rate case Docket UE-140762 on overall policy, revenue requirement, inflation factors, and the Merwin Fish Collector accounting deferral. Since joining the Commission I have participated in several dockets providing analysis in support of other witnesses including: Avista Corporation (Avista) Purchased Gas Adjustment in Docket UG-131748, Puget Sound Energy’s (PSE or Company) Power Cost Only Rate Case in Docket UE-130617, and Pacific Power and Lights (PacifiCorp) general rate case in Docket UE-130043. I presented Staff recommendations to the Commission at open meetings in Dockets UE-131623, UE-131565, and UE-140617. I also reviewed Avista’s Energy Recovery Mechanism annual true-up in Docket UE-140540. I am the lead analyst for matters relating to the Bonneville Power Administration’s Residential Exchange Program, for customers of Avista, PSE, and PacifiCorp.

## Q. What topic will you be testifying to?

A. I will be discussing the economic feasibility of replacing the Maloney Ridge Distribution Line (“Maloney Line”). My recommendations are used by Staff witness David Nightingale in his analysis of the petitioners request for PSE to replace the Maloney Line.

## Q. What are your conclusions regarding the economic feasibility of replacing the Maloney Ridge Distribution Line?

A. My analysis shows that it is not economically feasible for PSE to replace the Maloney Line.

# ECONOMIC FEASIBILITY

##

## Q. Why evaluate the economic feasibility of the petitioner’s request?

A. First, it is necessary to determine if the Maloney Line customers impose costs on PSE similar to other customers of the same Schedule. Second, as discussed in the direct testimony of Mr. Nightingale, the current contract between the petitioners and PSE refers to Schedule 80 of PSE’s electric tariffs stating: “[T]he company shall not be required to provide service if to do so would be economically unfeasible.”[[1]](#footnote-2) To satisfy this test, I performed an economic feasibility study using data provided by the Company.

## Q. Why is the cost relationship between the Maloney Line customers and the other customers of the same schedule is important.

A. Rate schedules are established for customers that are similarly situated. In electric regulation, this means those customers have similar electric usage patterns, take power at similar voltages, and use similar sized electric equipment such as transformers or electrical conduit. This similarity leads to relatively similar costs to serve the customers on any one schedule. These customers are then charged the same price or rate. In Washington, rates are set through a process called rate spread in an effort to achieve an overall amount of revenue to support the electrical system and the company called revenue requirement.

Currently, the Maloney Line customers take service under PSE’s tariff Schedule 24, General Service (Secondary Voltage, Demand of 50 kW or less)

## Q. Why is this provision about economic feasibility important?

A. Without a test for economic feasibility, the ratepayers of a single class would pay inequitably high rates caused by any ratepayer whose costs to serve are uniquely and extraordinarily greater than other customers of the same schedule. This is because, rates are uniform for similar types of customers and set via the costs to serve the entire class, the derived revenue requirement, and the classes’ rate spread. For instance, a customer living a significant distance from PSE’s general distribution system would impose relatively large costs to be served. Due to uniform rates, all customers in the class would have to cover the additional expense necessary to serve that distant customer.

Further, since PSE operates as a natural monopoly and is therefore regulated questions about when it is economic to serve customers are answered using basic economic principles. In a competitive market, a firm will continue to produce so long as the marginal or incremental cost of the making the next product is equal to or exceeded by the marginal or incremental revenues of selling that next product. If the cost is greater than the benefits, it is not sound economics to continue production. This economic principle is the same for public service companies, such as PSE, that exchange monopolistic powers for regulation. As PSE is a public service company with an obligation to serve, it must provide electricity to the remote customer, but not at large additional expense for other similarly situated customers or reduced profits for its shareholders. Regulation, acting as a surrogate for competition for natural monopolies, allows the company to maintain its production only when it is economically feasible to do so; that is where marginal revenue is greater than or equal to marginal cost. Thus an economic feasibility study is required to determine what, if anything, the customer must contribute to make a project economically feasible.

## Q. What analysis did you conduct on the economic feasibility of the petitioner’s request?

A. I compared the regulated costs that would be created from replacing the Maloney Line with the level of potential revenues expected from the customers taking service on the line over the new lines expected lifetime. Further, I studied the effects of an extremely large increase in the revenues from customers on the Maloney Line.

As discussed Mr. Nightingale’s testimony, the current customers served by the Maloney Line pay 100 percent of all repair and maintenance expenses. Therefore, I limited my study to just the revenue requirement associated with re-building the Maloney Line and not the ongoing operations and maintenance cost.

## Q. How did you perform this analysis?

A. First, as shown in Exhibit No. \_\_\_ (JLB-2C) on page 3 line 2, I calculated the average yearly revenues expected from the Maloney Ridge customers based on usage and charge history. I then calculated the net present value of these revenues over a

period of 35 years[[2]](#footnote-3). To perform this calculation, I relied on the worksheet provided by PSE in Attachment B to its response to Petitioners data request No. 001. As discussed previously, I excluded from this calculation operations and maintenance expense.

## Q. What does your analysis show?

A. The expected level of revenue from the Maloney Ridge customers over the next 35 years is $296,598 and the expected level of regulated costs of replacing the Maloney Line using the same time period is $6,781,319.[[3]](#footnote-4) This is a substantial and significant difference that is driven by two factors: the high capital cost of the replacement line and its low number of billed kilowatt hours. Even extraordinary growth of 500 percent in the revenues received from the Maloney Line would not adequately justify, in my opinion, the Petitioners request. The chart below illustrates the extraordinary gap between the total revenues expected to be received by the customers served on the Maloney Line and the capital costs of replacing the Maloney Line.

## Q. Have you performed this analysis on an annual basis?

A. Yes. Below is a table showing the annual regulated costs for the capital investments associated with replacing the Maloney Line and the expected level of annual revenues from the customers currently on the Maloney Line.

|  |  |  |  |
| --- | --- | --- | --- |
|   | No Growth | 100% Growth | 500% Growth |
| Annualized Revenues from Maloney Line Customers | $19,915 | $39,829 | $119,487 |
| Annualized Costs for replacing the Maloney Line  | $435,405 | $435,405 | $435,405 |
| Difference | $(415,490) | $(395,576) | $(315,918) |

As the last row of the table shows, even with extraordinary growth the expected annual revenue from the customers of the Maloney Line is drastically lower than the annual regulated costs to replace the line.

## Q. Did you perform an analysis of any options other than the replacement of the entire Maloney Line?

A. Yes. Attached as Exhibit No. \_\_\_ (JLB-3) is Attachment A from PSE’s response to Petitioners data request No. 009 describing the five different replacement options for the Maloney Line. I focused my analysis above on the first option which replaces most of the Maloney Line. Page 4 of my Exhibit No. \_\_\_ (JLB-2C) compares the other options to the expected revenues from the Maloney Line customers over the next 35 years.

## Q. Are any of these other options, in your opinion, economically feasible?

A. No. The expected revenues over the next 35 years from the Maloney Ridge customers represent at most 11 percent of the total regulated costs for any of the four additional options.

## Q. **Whose interests did your analysis take into account?**

A. My analysis was performed from the public’s economic interest in PSE replacing the Maloney Line. The size and cost of replacement dwarfs any potential revenues from customers serviced by the line. Without phenomenal growth in billed kilowatt-hours to justify the increased revenue requirement of building the Maloney Line, PSE’s other customers in Schedule 24 would suffer a disproportionately large increase in their rates.

## Q. Are there any other factors which may impact your analysis and their results?

A. Yes. The current line has experienced a high rate of failure over the last 20 years. As a result, the facility’s repair and maintenance costs have increased significantly.[[4]](#footnote-5) These costs are exacerbated by the terrain and remoteness of its location. I did not include repair and maintenance costs in my analysis because of their speculative nature and because the Petitioners currently have a contract with PSE which deals with them separately. However, if the repair and maintenance costs are incurred by PSE over the life of the facility the line replacement would be even more economically unfeasible proposition.

 Additionally, my analysis does not take into account the cost of delivering power from PSE’s main distribution system to the Maloney Line. This includes also the cost of producing the power for the Maloney Line customers. Rather than complicate the analysis with complex projections of future power and distribution costs and given that the petitioners use a relatively small amount of kilowatt-hours, I chose to limit my analysis to the capital costs of building the line.

 Finally, the capital costs included in my analysis are based on PSE’s estimates for replacing most of the Maloney line and use injection on a small portion.[[5]](#footnote-6) If this is the case, the portion of the line that receives injection only could need to be replaced[[6]](#footnote-7) before the 35 years in my calculations. If this occurred, the Maloney Line replacement costs would increase. This would further increases the level of capital costs necessary to continue service on the Maloney Line.

## Q. Does this conclude your testimony?

A. Yes.

1. Puget Sound Energy Electric Tariff G, Schedule 80, Fourth Revision of Sheet No. 80-d., section 9. Refusal of Service, last paragraph, effective August 1, 2006. [↑](#footnote-ref-2)
2. According to PSE’s response to Petitioners data request No. 009, the estimated expected useful life for replacing the Maloney Line is 35 years. [↑](#footnote-ref-3)
3. This estimate is based on Option 1 included in the list of maintenance options for the Maloney Line, attached as Exhibit No. \_\_\_ (JLB-3). [↑](#footnote-ref-4)
4. PSE Response to Staff Data Request No. 005, Attachment A [↑](#footnote-ref-5)
5. PSE response to Petitioners Data Request No. 009 [↑](#footnote-ref-6)
6. PSE response to Staff Data Request No. 040 [↑](#footnote-ref-7)