EXH. RBB-5
DOCKETS UE-22___/UG-22___
2022 PSE GENERAL RATE CASE
WITNESS: ROQUE B. BAMBA

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**Docket UE-22____** **Docket UG-22____**

FOURTH EXHIBIT (NONCONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF

ROQUE B. BAMBA

ON BEHALF OF PUGET SOUND ENERGY

JANUARY 31, 2022

PUGET SOUND ENERGY
The Energy To Do Great Things

Sammamish-Juanita 115kV Project
Annual Budget Record
Corporate Spending Authorization (CSA)

Before starting: Contact the Capital Budget team (CSA-TeamMail@pse.com) for any clarification needed and review the CSA Standard when completing this template.

Date Submitted:	11/4/2021
Officer Sponsor:	Dan Koch
Project Director:	Roque Bamba
Responsible Cost Center:	4022

I. Project Overview

Update each section with high level information as applicable, noting any changes from the previous request/Gate.

Business Need:

With growth in the North King area in recent years, the three 115kV lines connecting at Moorlands Switching Station can overload during an outage at peak conditions. This system serves 12 substations with over 200 MW of load. If any of the lines serving the Moorlands Switching Station are taken out of service during heavy load hours, a loss of a second line would result in customer interruptions.

In addition, PSE's Transmission Planning Guidelines identify that for predominantly commercial areas, a fourth transmission line should feed an area serving more than 150 MW. The Moorlands area has previously peaked at 239 MW and is in need of an additional transmission source for full reliability.

Overcurrent relays have been installed at Sammamish substation on the Sammamish-Vitulli line and at Cottage Brook substation on the Cottage Brook-Moorlands line to prevent the overloads identified in the NERC Transmission Planning (TPL) studies. If the relays operate, power will be shut off to all 12 substations served by the 3-line system at Moorlands Switch. While this keeps PSE NERC-compliant, it causes interruption to customers and is not a reliable customer service plan.

NEED DRIVERS

- Compliance: Ensure NERC compliance while reducing customer interruptions.
- Reliability: The area is susceptible to customer interruptions if multiple lines that serve Moorlands Switch are out. Additionally, the system is heavily loaded, warranting system improvements and reconfiguration.
- Capacity: Increased capacity is required for this area.

Proposed Solution:

Build a new 4.65 mile 115 kV transmission line between Sammamish substation and Juanita substation, and upgrade another 0.15 miles of existing Sammamish – Moorlands #1 115kV line. Change the Totem Lake substation 115 kV source from the existing tap off of the Sammamish – Vitulli 115kV transmission line to a loop through configuration served by the new Sammamish to Juanita 115 kV transmission line.This will improve service of those customers served from the Totem Lake substation. Adding a new 115 kV transmission line source to the Juanita substation and taking the Totem Lake substation off of the Sammaish – Vitulli 115 kV line address the issues identified in the Business Need section above.

Project Outcome/Results:	There will be a reliability improvement for the area and increased capacity to serve existing loads and future growth. Converting the Totem Lake Substation source from a tap to a loop through configuration will provide reliability improvement to the customers served from that substation and enables future capacity additions.
OCM, Process & Training Impact:	○ N/A ◉ Low Impact ○ Medium Impact ○ Significant Impact Improve the operational capacity of the Moorlands area electric system and increase capacity and improved reliability to over 60,000 people.
Primary ISP Alignment:	Processes & Tools — ISP strategy descriptions
ISP Strategy Description:	Process & Tools - System reliability and integrity
Portfolio Description:	Strategic — Capital Allocation Definitions
Project Complexity:	○ Straightforward and well understood ◉ Complex and well understood ○ Complex and not well articulated

II. Key Schedule and Financial Information

Expected Start Date If Funded:	01/2007
Expected In-Service Date:	11/1/2023

High-Level Schedule *Enter Expected # of Years and Months*

Duration				
Planning	**Design**	**Execution**	**Total Project**	**Anticipated Closeout date**
11 years	**4 years**	**1 year and 6 months**	**16 years and 6 months**	11/2023

Initial Estimated Funding % by Phase as of 09/14/2021**:** *Enter values to include both O&M and Capital in the cells below for percentage of funding to be used in each phase of the project.*

Initiation	Planning	Design	Execution	Closeout
1%	16%	15%	67%	1%

Initial Grand Total Estimate (contingency included and in $000s): **Contingency Standard**	**Capital: $30,183,572**	**OMRC/Project O&M: $0** (Not including O&M Tail)

Estimated Five Year Allocation: *Enter values in the cells below for years anticipated, up to five years, plus any expected future years. Change "Year 1, Year 2, etc. to the relevant years for this project. Ongoing O&M begins after project close-out.*

Category:	2020 and Prior	Year 1 (2021)	Year 2 (2022)	Year 3 (2023)	Year 4 (2024)	Year 5 (2025)	Total
Capital (contingency included)	$7,958,572	$880,000	$11,900,000	$9,370,000	$75,000	$0	$30,183,572
OMRC / Project O&M	$0	$0	$0	$0	$0	$0	$0

III. Ongoing Benefits

Benefit	Metric	Metric Type	Benefit Description	Benefit Type	Benefit Owner	Baseline	Target
System Reliability and Integrity	Customer Impacts	Quantitative	Reduce potential impacts for up to 60,000 customer interruptions by removing multiple N-1-1 overloads	Direct	C. Koch	60,000	>90%
System Reliability and Integrity	Removes IOP	Quantitative	Removes the need for automatic load shedding of up to 60,000 customers in Moorlands area.	Direct	C. Koch	1	>90%
System Reliability and Integrity	Increase Capacity	Quantitative	Increases capacity to Sammamish - Moorlands area with the addition of fourth transmission line to the system	Direct	C. Koch	New 115kV transmission line	100%

Category:	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Ongoing O&M (to be funded by business)	N/A	N/A	N/A	N/A	N/A	N/A

Ongoing O&M (requesting $'s)	*	*	*	*	*	***O&M increase based on business planning analysis for major CAP plant additions**
Benefits	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Net impact (= Benefits – O&M)	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
* Payback in Years	Years = Total Costs / Annual Cash Benefits					

* Enter positive amount or Not Applicable

IV. Risk Management Summary

Identify high level risk categories expected for the project. Consider Project Dependency, Project Timing and Resourcing, as well as Regulatory Risk.

Summary of high level risks sentence:	Construction risks are easement acquisition and permit challenges. System risks are existing system would not meet NERC reliability standards without causing customer interruptions. Also, PSE is forced to take excess system risk during maintenance outages by creating radial systems that risks over 60,000 customers.

V. Phase Gate Change Summary

*Use this section for changes from: **Planning to Design**, **Design to Execution** or **Execution to Closeout** phases. To have a history of the changes at each phase gate change, **copy/paste the table below above the previous table.***

Phase:	Annual Budget Record
Scope:	Scope has not changed since last CSA.
Budget:	Reduction in the cost of regulatory fees and permits, legal fees, and associated overheads has reduced the overall budget by $1,526,428 since the last CSA.
Schedule:	Schedule has not changed since last CSA.
Benefits:	Benefits have not changed since last CSA.

Phase:	Planning to Design
Scope:	Installing a 1.6 mile, 17 ft wide access road along RR ballast corridor to access the new transmission pole locations along Willows Road located in Redmond. This is documented in PCR #2.
Budget:	The need for a new access road increased the lifetime capital budget by $5,900,000.
Schedule:	The project will not be built in 2021 as originally planned and is currently targeted for construction start in 2022 and completion in 2023.
Benefits:	Benefits have not changed since last CSA.

Prepared by:	Ryan Wieder

VI. CSA Approvals

Add/remove rows as needed in the table below. Email approval is acceptable. To maintain a history of the changes at each phase gate change, ***copy/paste the table below above the previous table.*** *Send to the Capital Budget team at CSA-TeamMail@pse.com. For a project in the Strategic Project Portfolio (SPP) review the Escalation Criteria for appropriate escalation and approvals.*

For guidance on approval authority levels, follow CTM-07 Invoice Payment Approval Exhibit I Invoice/Payment Approval Chart

Project Phase	Planning to Design			
Approved By	**Title**	**Role**	**Date**	**Signature**
Tony Pagano	Manager Major Projects	Manager	11/22/2021	DocuSigned by: Tony Pagano C7D3BC09443B4AC...
Roque Bamba	Director Project Delivery	*Director Sponsor	11/29/2021	DocuSigned by: Roque Bamba BC203E4E58BB426...
Dan Koch	Vice President Operations	Executive Sponsor	12/06/2021	DocuSigned by: Dan Koch 7E7434ECBF5B4C0...
		Choose an item		

*Director Sponsor attests that all considered documentation has been approved.

Please direct any questions to either:

1. The Capital Budget team at CSA-TeamMail@pse.com, or
2. The Enterprise Project and Performance Project Practices team at EPP-ProjectPracticesTeam@pse.com