

**EXH. DSL-5  
DOCKETS UE-19 \_\_\_/UG-19 \_\_\_  
2019 PSE GENERAL RATE CASE  
WITNESS: DOUGLAS S. LOREEN**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY,**

**Respondent.**

**Docket UE-19 \_\_\_  
Docket UG-19 \_\_\_**

**FOURTH EXHIBIT (NONCONFIDENTIAL) TO THE  
PREFILED DIRECT TESTIMONY OF**

**DOUGLAS S. LOREEN**

**ON BEHALF OF PUGET SOUND ENERGY**

**JUNE 20, 2019**

Date: 7/17/2015

To: Joel Molander, Director Corporate Shared Services  
Mike Richardson, Director Safety and Business Continuity  
Lars Bergmann, Director Electric Operations

From: Larry Hurwitz

CC: Ryan Brodniak  
Paul Wu  
Janet Phelps  
Mike Stranik  
Mitch Droz  
Serene Stambaugh

Re: Capital Spending Business Case Application – *Bellingham Service Center Renovation*

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## 1. Capital Request

The facility team recommends approving the Bellingham Service Center Renovation business case and funding the design and implementation phases for \$14.8 million dollars through 12/31/2017. The request includes \$200,000 in 2015 which will come from Facility Services reallocated funds.

	Sunk Costs Spent Through 12/31/2014	Current CSA Funding Request	Cost to Complete Project	Total Cost
Capital	\$ 935,952	\$ 4,795,000	\$ 10,005,000	\$ 15,735,952
O&M	\$ -	\$ 115,000	\$ 255,000	\$ 370,000
<b>TOTAL</b>	<b>\$ 935,952</b>	<b>\$ 4,910,000</b>	<b>\$ 10,260,000</b>	<b>\$ 16,105,952</b>

The primary Integrated Strategic Plan (“ISP”) objectives and strategies affected by this business case are not directly aligned to 2015 Measures. However, the business case will provide benefits to Safety, People, Process and Tools, and Customer.

The following three tables reflect the estimated project schedule, and capital and O&M spend schedules.

### High Level Schedule

This project was started before the CSA process was initiated. The review and completion of the design needs to occur in order to move forward with the start of implementation in 2016.

Line #	Lifecycle Phase	Start	Finish	2015				2016				2017			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Initiation	1/3/2014	1/2/2015												
2	Planning	1/1/2015	6/30/2015	■											
3	Design	7/1/2015	2/26/2016			■									
4	Implementation	3/1/2016	10/31/2017							■	■	■	■	■	■
5	Closeout	11/1/2017	12/29/2017												■

**Capital Costs:**

Project Phase Costs	TOTAL	2014 & PRIOR	2015	2016	2017
Initiation	\$ 935,952	\$ 935,952	\$ -		
Planning	\$ 16,971	\$ -	\$ 16,971	\$ -	\$ -
Design	\$ 183,029	\$ -	\$ 183,029	\$ -	\$ -
Implementation	\$ 13,494,600			\$ 4,095,000	\$ 9,399,600
Close-out	\$ 100,000				\$ 100,000
Contingency	\$ 1,005,400	\$ -	\$ -	\$ 500,000	\$ 505,400
<b>Total Capital</b>	<b>\$ 15,735,952</b>	<b>\$ 935,952</b>	<b>\$ 200,000</b>	<b>\$ 4,595,000</b>	<b>\$ 10,005,000</b>

**Note:**

1. Contingency identified is defined as unplanned.
2. For this project, Initiation started in 2009. Project was actively pursued in 2012-13; design/engineering activities were completed; permit application was pending when Project was deferred in 2013. Sunk costs reflects associated costs for design/engineering and permit application.

**O&M Costs: OMRC<sup>1</sup> and Incremental**

Project Phase Costs	TOTAL	2014 & PRIOR	2015	2016	2017
Initiation	\$ -	\$ -			
Planning	\$ -	\$ -	\$ -		
Design	\$ -	\$ -	\$ -	\$ -	
Implementation	\$ 370,000	\$ -	\$ -	\$ 115,000	\$ 255,000
Close-out	\$ -	\$ -	\$ -	\$ -	\$ -
Incremental O&M	\$ -	\$ -	\$ -	\$ -	\$ -
Contingency	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total O&amp;M</b>	<b>\$ 370,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 115,000</b>	<b>\$ 255,000</b>

**Note:**

1. The construction project will be phased to maintain continuous nominal operations on site. Most of the current staff and utility operations will be relocated to Skagit Service Center and the Bellingham Business Office. The OMRC costs account for these interim relocations and temporary offices for the phased project.

**2. Project Summary**


Scheduled to begin construction in 2016 and conclude in 2017, the project would renovate and increase by one-third the size of the existing 50-year old Bellingham Service Center. The service center currently supports approximately 53 people – PSE and Potelco employees – and seven to 10 business customers

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<sup>1</sup> OMRC – O&M related to capital

per day. The project addresses substandard working conditions, fire sprinkler and seismic safety concerns identified in the 2009 risk report prepared by PSE's insurer, FM Global; customer engagement initiatives identified in the North Region Heat Map; improved north region network hub fiber communications; and Nevada Street improvements including street parking for customers. The project design has been completed, permits application and pre-construction activities may begin within 30 days of funding approval.

### 3. Sign-Off

Signer	Title	Date	Signature
Joel Molander	Dir Corporate shared Services	10/15/2015	 Approval has completed on Bellingh
Mike Richardson	Dir Safety and Business Continuity	10/15/2015	"
Lars Bergmann	Dir Electric Operations	10/15/2015	"

## Appendix A – Detailed Business Opportunity & Benefits

The existing Bellingham Service Center was constructed in 1960. It consists of a 12,500 sq. ft. service center building line headquarters building with covered truck bays, a 6,600 sq. ft. garage/substation wire shop, and more than four acres of paved storage yard. The facility shares its 10-acre site abutting the I-5 corridor with the Bellingham Substation-. The facility currently supports 53 employees, including PSE electric first response, meter and substation crews, as well as Potelco crews. Approximately seven to 10 business customers frequent the site each day. Over the past 53 years, no major improvements have been made to the facility or site. Located adjacent to I-5, the service center is highly visible in the Bellingham service area, and was identified for improvements and upgrades in PSE's Facilities 5-Year Plan. The Bellingham Service Center is PSE's telecommunications hub for Whatcom County and its northern service areas. There are currently eight fiber optic lines terminating in the substation control house. Most (except for 1) of these fiber optic cables are actually routed through the windows of the substation control house, posing risks to the integrity of the communications system. The planned improvements include:

1. Connecting Nevada Street to Kentucky Street to facilitate better and safer vehicle access. Vehicular traffic currently uses the service yard to access these 2 streets (interfering with maneuvering space in front of the truck bays - a safety concern). Opening and improvements to Nevada Street for vehicular traffic to accommodate on-street parking for service center customers and better access for emergency vehicles and personnel.
2. Completely renovating and enlarging the service center to address and resolve significant life, health and safety concerns. The new building will be structurally strengthened to withstand seismic events (earthquakes), protected with fire suppression systems and equipped with the latest emergency (power and communications) backup systems. The building design will also meet the standards of the Americans with Disabilities Act (ADA).
3. Installing new or enhanced building systems including security; heating, ventilation and air conditioning (HVAC); plumbing; electrical; fire suppression; communications systems.
4. Correcting and enhancing safe and efficient on-site operations; for example, providing an environmental storage facility, larger truck bays, efficient storage yard layout, fences and gates, etc.
5. Improving communications infrastructure allowing the new Bellingham Service Center to be the PSE fiber hub and provide diverse fiber routing to the outlying service centers, substations, cogeneration sites and protection for the Bonneville Power Administration's (BPA's) circuits.

In addition, the improvements support the company's primary location for customer engagement in Whatcom County and the north end of PSE's service territory, as identified in the 2013 regional planning Heat Map.

The following photos show the existing condition of the Bellingham Service Center.



**Business Case Evaluation Criteria**

<b>ISP Objectives, Mandatory and/or Corporate Risk</b>	<b>Strategy</b> <i>Abbreviated <a href="#">ISP strategy descriptions</a></i>	<b>Benefit Description</b> <i>Measurement and/or scorecard affected</i>
Safety	<input type="checkbox"/> Educate and train employees on effective safety and wellness strategies.	Improvements include: <ul style="list-style-type: none"> <li>• Fire suppression system</li> <li>• Building structural upgrades (seismic)</li> <li>• Remove Substation/garage building (under transmission lines)</li> <li>• Replace substandard fiber optic cable</li> <li>• Electrical system</li> <li>• Removal of underground fuel storage tank and associated service island.</li> </ul>
People	<input checked="" type="checkbox"/> Develop/Retain best employees <input type="checkbox"/> Ownership, innovation and continuous improvement	<ul style="list-style-type: none"> <li>• Supports the Facility Consolidation long term plan.</li> <li>• Workplace flexibility in anticipation of future changes in the workforce and/or work practices.</li> <li>• Provide a safe, efficient and comfortable working environment for PSE employees, customers and service providers.</li> </ul>
Process and Tools	<input type="checkbox"/> Effectiveness and efficiency <input type="checkbox"/> System reliability and integrity <input type="checkbox"/> Safety and security of systems, information and assets <input type="checkbox"/> Extract and leverage value from existing technology and assets	<ul style="list-style-type: none"> <li>• New intrusion detection/reporting system systems, access control, cameras, new fencing and gates will reduce vandalism and help ensure business continuity.</li> </ul>
Customer	<input type="checkbox"/> Customer Experience Intent Statement <input type="checkbox"/> Recognition PSE role in community <input type="checkbox"/> Ideal customer behavior	<ul style="list-style-type: none"> <li>• The Bellingham Service Center is highly visible in the community; visible through Bellingham I-5 corridor.</li> <li>• Green strategies, including rainwater harvesting, LED lighting and VRF high efficiency HVAC system will highlight PSE's commitment to environmental stewardship.</li> </ul>
Financial	<input type="checkbox"/> 5-year Strategic Plan <input type="checkbox"/> Long-term value <input type="checkbox"/> Grow core business <input type="checkbox"/> Grow New Business	<ul style="list-style-type: none"> <li>• The rebuilt facility will exceed current State Energy Codes and provide efficient building systems while lowering long-term maintenance costs.</li> </ul>
Mandatory	<input type="checkbox"/> Regulatory body <input type="checkbox"/> Internal audit finding <input type="checkbox"/> Business continuity	<ul style="list-style-type: none"> <li>• Address FM Global risk report findings</li> <li>• Comply with ADA (Americans with <i>Disabilities Act</i>) standards</li> </ul>
Corporate Risk	<input type="checkbox"/> Corporate risk	



## Appendix B – Corporate Financial Analysis

The total capital funding requested to complete this project is \$14,600,000 (current project estimate less reallocated \$200,000 in 2015) in the fiscal year 2016 to fiscal year 2017 budget. There is a \$115k operations and maintenance (O&M) move-in expense in 2016. And \$255k in 2017 to cover the costs of staff relocations and final move-in. There has been \$935k spent since 2010. Assuming perfect regulation, the cost to customers for this project is a 39-year net present value (NPV) revenue requirement of \$18,786,213.

### Board Approved Budget Comparison

CAPEX	2015	2016	2017
Board Approved Budget*	\$0	\$4,595,000	\$10,005,000
CSA Request**	\$200,000	\$4,595,000	\$10,005,000
Difference	(\$200,000)	\$0	\$0

\*Board Approved Budget is not complete as of 9/23/2015

\*\* 2015 Funding will come from department budget

### Financial and Accounting Assumptions

- 39 Year Tax Depreciation Life

Bellingham Service Center Renovation  
7/17/2015

Bellingham Service Center Financial Analysis

**Assumptions**

	Total Cost	2014 & Prior	2015	2016	2017
<b>Total Previously Incurred Capital Costs</b>	<b>\$ 935,952</b>	<b>\$ 935,952</b>			
<b>CAPEX</b>					
Planning	\$ 16,971		\$ 16,971		
Design	\$ 183,029		\$ 183,029		
Implementation	\$ 13,494,600			\$ 4,095,000	\$ 9,399,600
Close-out	\$ 100,000			\$ -	\$ 100,000
Contingency	\$ 1,005,400			\$ 500,000	\$ 505,400
<b>Total CAPEX</b>	<b>\$ 15,735,952</b>	<b>\$ 935,952</b>	<b>\$ 200,000</b>	<b>\$ 4,595,000</b>	<b>\$ 10,005,000</b>
<b>AFUDC</b>	<b>\$ 611,342</b>		<b>\$ 44,132</b>	<b>\$ 178,516</b>	<b>\$ 388,694</b>
<b>Total Closed to Plant ( CAPEX + AFUDC )</b>	<b>\$ 16,347,294</b>	<b>\$ -</b>	<b>\$ 1,180,084</b>	<b>\$ 4,773,516</b>	<b>\$ 10,393,694</b>
<b>O&amp;M</b>					
O&M				\$ 115,000	\$ 255,000
<b>Total O&amp;M</b>	<b>\$ 370,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 115,000</b>	<b>\$ 255,000</b>
<b>Total O&amp;M + CAPEX</b>	<b>\$ 16,717,294</b>	<b>\$ 935,952</b>	<b>\$ 244,132</b>	<b>\$ 4,888,516</b>	<b>\$ 10,648,694</b>

**Financial Projections**

Summary Financial Results	PV	2015	2016	2017	2018	2019	2020+	Total
Net Income		\$27,608	\$166,128	\$516,345	\$745,068	\$723,904	\$12,054,429	\$14,233,483
EBITDA		\$60,507	\$397,809	\$1,301,745	\$2,099,987	\$2,053,602	\$41,628,302	\$47,541,952
Incremental Rate Impact		0.002%	0.017%	0.049%	0.064%	0.061%	0.057%	
Total NPV Benefits/(Costs)	\$ (12,173,444)							
Cost to Customer PVR	\$ 18,786,213							

\*Assumes Perfect Regulation

**Income Statement**

	2015	2016	2017	2018	2019	2020+	Total
Revenue Requirement	\$63,371	\$537,085	\$1,630,441	\$2,199,399	\$2,150,819	43,598,976	\$50,180,092
Expenses:							
O&M	-	115,000	255,000	-	-	-	370,000
Depreciation	-	33,717	170,103	467,066	467,066	15,209,343	16,347,294
Revenue Taxes	2,864	24,276	73,696	99,413	97,217	1,970,674	2,268,140
Taxes	14,866	89,453	278,032	401,191	389,795	6,490,847	7,664,183
Operating Expenses	\$17,730	\$262,446	\$776,831	\$967,669	\$954,077	\$23,670,863	\$26,649,617
Operating Income	45,641	274,639	853,610	1,231,730	1,196,742	19,928,112	23,530,475
Interest	(18,033)	(108,511)	(337,265)	(486,662)	(472,838)	(7,873,683)	(9,296,992)
<b>Net Income</b>	<b>\$27,608</b>	<b>\$166,128</b>	<b>\$516,345</b>	<b>\$745,068</b>	<b>\$723,904</b>	<b>\$12,054,429</b>	<b>\$14,233,483</b>
Ratebase	\$587,390	\$3,534,559	\$10,985,833	\$15,852,182	\$15,401,889		
Return on Ratebase	7.77%	7.77%	7.77%	7.77%	7.77%		
ROE	9.8%	9.8%	9.8%	9.8%	9.8%		

**EBITDA**

Operating Income	\$45,641	\$274,639	\$853,610	\$1,231,730	\$1,196,742	\$19,928,112	\$23,530,475
Add Back Depreciation	-	33,717	170,103	467,066	467,066	15,209,343	16,347,294
Add Back Taxes	14,866	89,453	278,032	401,191	389,795	6,490,847	7,664,183
<b>EBITDA</b>	<b>\$60,507</b>	<b>\$397,809</b>	<b>\$1,301,745</b>	<b>\$2,099,987</b>	<b>\$2,053,602</b>	<b>\$41,628,302</b>	<b>\$47,541,952</b>

**Cash Flow**

Operating Income	\$45,641	\$274,639	\$853,610	\$1,231,730	\$1,196,742	\$19,928,112	\$23,530,475
Add Back Depreciation	-	33,717	170,103	467,066	467,066	15,209,343	16,347,294
Add Back Deferred Taxes	5,303	20,241	40,601	(16,772)	(16,772)	(32,601)	(0)
Less: Tax Benefit of Interest	(6,312)	(37,979)	(118,043)	(170,332)	(165,493)	(2,755,789)	(3,253,947)
<b>Operating Cash Flow</b>	<b>\$44,633</b>	<b>\$290,618</b>	<b>\$946,271</b>	<b>\$1,511,692</b>	<b>\$1,481,542</b>	<b>\$32,349,066</b>	<b>\$36,623,821</b>
Capital Expenditures	(1,135,952)	(4,595,000)	(10,005,000)	-	-	-	(15,735,952)
<b>Net Cash Flow</b>	<b>(\$1,091,319)</b>	<b>(\$4,304,382)</b>	<b>(\$9,058,729)</b>	<b>\$1,511,692</b>	<b>\$1,481,542</b>	<b>\$32,349,066</b>	<b>\$20,887,869</b>

**39 Years:**

NPV Regulated	\$834,193
Cost to the Customer (PVR)	\$18,786,213
NPV Total Cost of Project	(12,173,444)
5 Year Net Income	\$2,179,053
5 Year EBITDA	\$5,913,649

**Appendix C – Risks, Key Assumptions and Measures for Success**

**Risk**

<b>Risk Description</b> <i>(List risks that could significantly impact funding and/or spend schedule)</i>	<b>Mitigation Plan</b> <i>(What are you doing to mitigate the risk? Are risk \$s assigned?)</i>	<b>Risk Date Horizon</b> <i>(Date risk will no longer be a threat)</i>
<p>1. The cost estimate for the proposed project is based on current design documents and may be subject to market forces at construction bid time. Unforeseen site conditions and regulatory requirements may also impact construction costs.</p> <p><i>Impact = (M) and Probability = (M)</i></p>	<p>Update the forecast after Bid process.</p> <p>Nominal construction variances are anticipated and a 10% contingency has been set aside to meet these challenges.</p> <p>\$0 risk funding included.</p>	

**Risk of Not Doing**

The facility will remain in its current deficient condition. PSE’s insurance company, FM Global, produced a risk report (see below) September 29, 2009, which cited deficiencies including the lack of an automatic fire sprinkler system and concrete barriers separating high-voltage transformers. While there is no short-term impact from the insurance company, if there were to be an incident, PSE’s insurance coverage for this facility would be challenged. In addition, we are non-compliant with current seismic and ADA standards. Site conditions are currently substandard and may require immediate remedial action.

If PSE elected not to proceed with the Bellingham Service Center Renovation, the cost and work for the Bellingham Substation network infrastructure, which amounts to an estimated \$50K, would need to be transferred to the Bellingham Substation project.

**FM Global Risk Report**

Puget Sound Energy, Inc.

**Principal Site Activity**

This is a service center for operational support, excluding the nearby sub-station.

**Understanding the Risk at this Facility**

This Puget Sound Energy sub-station and service center was visited to perform a loss prevention visit.

The largest hazard at this location is a lack of automatic sprinklers. Over the last five years, the average loss resulting from fire that an adequately sprinklered, FM Global insured location suffered was less than US\$0.4 million, compared with US\$2.2 million for locations needing sprinklers. A study of these losses has demonstrated that automatic sprinkler protection is the best defense against a fire. Invented more than 100 years ago, sprinklers are tried and tested and have proven to be the most practical and reliable means of controlling a fire in business and industry. Having adequate sprinkler protection will ensure that, if the unthinkable happens, a business will suffer only a limited interruption. Sprinkler protection minimizes not only fire damage, but also water and smoke damage and allows for quick resumption of normal operations.

**Summary of Recommendations**

Rec Number	Recommendation Synopsis	Loss Expectancies (USD)	Cost Estimate (USD)
09-09-001	Implement use of the FM Global Hot Work Permit System.	Reduces probability or severity.	5,000
09-09-002	Implement a formal, property loss prevention emergency response plan.	Reduces probability or severity.	5,000
09-09-003	Provide automatic sprinkler protection for all buildings.	7,410,000 PD About 548 Days BI	100,300
09-09-004	Concrete barriers should be built, separating high-voltage, close-proximity transformers.	7,000,000 PD About 120 Days BI	5,000

Factory Mutual Insurance Company (FM Global) has developed this report for insurance underwriting purposes. The report is provided to you for informational purposes only to reduce the possibility of loss to property by bringing to your attention certain potential hazards or conditions. You must make the decision whether to take any action. FM Global undertakes no duty to any party by providing this report or performing the activities on which it is based. The liability of FM Global is limited to that contained in its insurance policies.

Index: 078685.76-01 / Account: 1-05724 / Order ID: 551794-7 / Rev.: 1 2

**Key Assumptions**

Assumption Description <i>(List assumptions you have made about your project)</i>	Assumption has been confirmed by?	Assumption Date Horizon <i>(Date assumption will no longer be a threat)</i>
1. The total capital estimate (currently at \$15,735,952) for the proposed project is based on current design documents and may be subject to market forces at construction bid time. Unforeseen site conditions and regulatory requirements may also impact construction costs. We anticipate nominal construction variances and have set aside a 10% contingency to meet these challenges.		
2. The project budget assumes that the existing soils testing results will continue to be valid and that no additional soil subsurface conditions will be identified.		

<b>Assumption Description</b> <i>(List assumptions you have made about your project)</i>	<b>Assumption has been confirmed by?</b>	<b>Assumption Date Horizon</b> <i>(Date assumption will no longer be a threat)</i>
3. If the project is approved, PSE will solicit bids and award the construction contract within three months of funding approval in 2016. PSE will enter a guaranteed maximum cost construction contract to predetermine costs for construction and allow unhindered access to the Contractor's books/records. If the bidding is held within the expected timeframe, we do not anticipate that market forces would substantially alter the current projections.		

**Measures for Success**

<b>Measure for Success</b> <i>(List measures for success)</i>	<b>Measured by?</b> <b>(How do you plan to measure?)</b>	<b>Measure Date Horizon</b> <i>(Date measurement will be available)</i>
1. Successful completion of construction renovation.	<ul style="list-style-type: none"> <li>• Permit of Occupancy Received</li> <li>• Fire suppression system</li> <li>• Building structural upgrades (seismic)</li> <li>• Remove Substation/garage building (under transmission lines)</li> <li>• Replace substandard fiber optic cable</li> <li>• Electrical system</li> <li>• Removal of underground fuel storage tank and associated service island.</li> </ul>	12/31/2017
2. Supports the Facility Consolidation long term plan.	<ul style="list-style-type: none"> <li>• Workplace flexibility in anticipation of future changes in the workforce and/or work practices.</li> </ul>	12/31/2017

3. Provide a safe, efficient and comfortable working environment for PSE employees, customers and service providers.	<ul style="list-style-type: none"> <li>• Comply with ADA (Americans with <i>Disabilities Act</i>) standards</li> <li>• New intrusion detection/reporting system systems, access control, cameras, new fencing and gates</li> </ul>	12/31/2017
4. Exceed current State Energy Codes and provide efficient building systems while lowering long-term maintenance costs.	<ul style="list-style-type: none"> <li>• Green strategies, including rainwater harvesting, LED lighting and VRF high efficiency HVAC</li> </ul>	12/31/2017
5. Insurable	<ul style="list-style-type: none"> <li>• Address FM Global risk report findings</li> </ul>	12/31/2017

## Appendix D - Analysis of Alternatives

Alternatives Explored	Risks (Cons)	Benefits (Pros)	Total Cost
1. Current state	<ul style="list-style-type: none"> <li>• Loss of building function due to catastrophic disasters</li> <li>• Potentially cited for code violations; workplace safety and air quality issues</li> <li>• Write off work and cost amounting to 953K sunk cost</li> </ul>	<ul style="list-style-type: none"> <li>• Lowest initial cost</li> </ul>	\$953,000 O&M write-off
<b>2. Full rebuild – Recommended alternative</b>	<ul style="list-style-type: none"> <li>• <b>Higher initial costs than some of the other alternatives</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Replace existing 12,412 sq. ft. line headquarters building and 6,600 sq. ft. SF garage/wire shop with new 28,420 sq. ft. service facility, complying with all building and life safety codes and regulations.</b></li> <li>• <b>Provide value to PSE’s plant assets/inventory.</b></li> <li>• <b>Construct a functional, efficient, low maintenance building with a service life of</b></li> </ul>	<b>\$15,735,952, including sunk costs</b>

Alternatives Explored	Risks (Cons)	Benefits (Pros)	Total Cost
		<b>more than 50 years</b>	
3. Partial rebuild	<ul style="list-style-type: none"> <li>• Building improvements will not address all seismic and fire sprinkler deficiencies</li> <li>• Higher costs to complete the remaining portion at a later date</li> <li>• Garage and substation wire shop will remain in current condition with existing deficiencies</li> </ul>	<ul style="list-style-type: none"> <li>• \$1,202,750 less than cost of a full rebuild;</li> <li>• Achieves <b>some</b> of the functional benefits of a full rebuild</li> </ul>	\$12,375,500
4. Limited improvements	<ul style="list-style-type: none"> <li>• Building improvements will not address all seismic and fire sprinkler deficiencies</li> <li>• Will not provide value to PSE's capital improvements</li> <li>• Write off \$700K sunk costs</li> <li>• May incur higher O&amp;M costs</li> </ul>	<ul style="list-style-type: none"> <li>• Lower implementation costs:                             <ul style="list-style-type: none"> <li>○ New fence and gates</li> <li>○ New HVAC system</li> <li>○ Interior upgrades to workstations and functional areas</li> </ul> </li> </ul>	\$1,375,000 capital + \$175,000 O&M
5. Lease an existing facility	<ul style="list-style-type: none"> <li>• Incurred continued O&amp;M rent payment for the leased facility instead of investing in a capital facility.</li> <li>• Cost for tenant improvement associated with new leased space</li> <li>• May not address network telecommunications requirements</li> <li>• There are currently no property listings that meet the service center's functional requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Lower capital investment costs for tenant improvements</li> </ul>	Estimated annual lease and operating costs:  \$430,000
6. Buy existing facility	<ul style="list-style-type: none"> <li>• There currently are no property listings that meet our functional requirements</li> <li>• Depending on property conditions, tenant</li> </ul>	<ul style="list-style-type: none"> <li>• NA</li> </ul>	Property purchase + tenant improvement estimated at

Alternatives Explored	Risks (Cons)	Benefits (Pros)	Total Cost
	improvements may be substantial		\$15,000,000
7. Buy land and build	<ul style="list-style-type: none"> <li>Land cost at \$1M plus</li> <li>Construction costs for new development will be higher than renovation, with added site developmental costs.</li> <li>Uncertainty about accessibility, communications linkages and site utilities (sewer, water, power)</li> </ul>	<ul style="list-style-type: none"> <li>No interruption to on-going operations at existing service center.</li> </ul>	Land cost + utilities + construction costs estimated at \$17,000,000

## Appendix E - Regulatory Implications

### Regulatory Approvals if applicable

- Regulatory approvals required – Street improvements right-of-way (ROW), building, plumbing, HVAC, electrical and low voltage permits
- Time frame expected – Street ROW permit ready to be issued; building permit application may start within three days after funding approval; other permits are due during project construction.
- Processes for approvals – All permit documents for the building are ready for submission; the street improvements ROW permit was approved and has been ready for issuance since December 2012.
- Expected probability to achieve the approvals – We expect permit approvals within six weeks with 100% confidence.

## Appendix F - Contributing Team Members

Contributing Team Member	Organization
Larry Hurwitz	Mgr. Corporate Facilities
Paul Wu	Proj. Mgr.
Kathy Clark	Space Planner/Interior Design
David Babbitt	Elec. Engr.
Robert Kuchcinski	Mech. Engr./Bldg. performance
Joel Snow	I.T. Proj. Mgr.
Carolyn Danielson	I.T. Infrastructure
Chris Perez	I.T. Infrastructure



<b>Contributing Team Member</b>	<b>Organization</b>
Dennis Libadia	Communications/Fiber Optics
Glen Harston	Corp. Security Proj. Mgr.
Cathy Lorentz	Purchasing
Matt McGraw	EFR Supv.
John Phillips	Customer & Systems Projects Mgr.
Randy Walls	Substation/Elec. Ops Mgr.
Dan Lofstrom	Substation Ops- Northern Supv.
Darryl Walker	Substation Meter/Relay Supv.
Turushia Thomas	Meter Relay Operations Mgr.
Rachel Montoya	Meter Relay Operations Supv.
Dave Landers	Engineering-Elec.&Gas Syst. Mgr.
Matt Wiegand	System Design-Elec. Supv.
Gordy Johnston	Environmental Supv.
John Spellman	Business Continuity & Emerg Mgt
Bob Stafford	Contract Management Mgr.
James Pruchnic	Material Distribution & Planning Mgr.

## Appendix G – Business Case Definitions

<b>Term</b>	<b>Definition</b>
1.	

## Appendix H – Business Case Change Log

<b>Revision</b>	<b>Date</b>	<b>Submitted by</b>	<b>Change Summary</b>