

**EXH. DSL-7  
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 \_\_\_**

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

**DOUGLAS S. LOREEN**

**ON BEHALF OF PUGET SOUND ENERGY**

**JUNE 20, 2019**

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## CORPORATE FACILITIES

January 31, 2017

**To:** Dan Doyle  
Marla Mellies  
Margaret Hopkins

**From:** Wayne Gould

**Copy:** Jeff Neumann  
Joel Molander  
Carolyn Danielson  
George Lertkantitham  
Larry Hurwitz

**Re:** I-90 Technology Center  
35131 SE Center Street  
Snoqualmie, WA 98065

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Over the past several months, PSE's Corporate Facilities, Real Estate and Data Center teams have engaged in a search for property suitable to support the west-side data center project. This document summarizes the team's findings and recommendation, which combines data center and office use based on availability of adequate properties, PSE's near- and longer-term facility needs, and supporting analysis. This document concludes with a request for your approval to purchase the I-90 Technology Center and to provide authorizing signatures in accordance with CPM-23.

### Data Center Project

PSE has embarked on a project to upgrade its data center infrastructure and mitigate critical Information Technology and disaster recovery risks. Specifically, the project will mitigate PSE's risk by geographically dispersing its data centers utilizing industry best practice data center solutions. Both indoor/outdoor modular and vendor co-location configurations were considered.

In August 2016, the Executive Sponsors approved the team's recommendation to build and own two data centers, locating one at PSE's Wild Horse wind project and another on the west side of Washington State. In addition, the team received approval to proceed with site location and to advance the project toward commissioning in 2017, with application transfer no later than mid-2018. Using an industry standard risk matrix, the team narrowed its west-side selection to those sites posing the least amount of risk and the highest chance of success to meet project's operating objectives and timeline.

In conducting its search, the team identified the following available properties as suitable for the west-side data center:

1. Talbot Switching Station (Renton)
2. Eastside Operations Center (Redmond)
3. Snoqualmie Ridge Business Park – Mt. Si Raw Land Option (Snoqualmie)
4. PWI Snoqualmie Parkway/SR-18 Raw Land (Snoqualmie)
5. Snoqualmie Ridge Business Park – I-90 Technology Center (Snoqualmie)
6. Boeing Company Eastgate Campus (Bellevue)

## CORPORATE FACILITIES

Table 1 summarizes the alternatives assessment and disposition of each asset as part of this analysis:

TABLE 1: Alternatives Assessment and Asset Disposition		
Asset	Zoning	Disposition
1. Talbot Switching Station	Residential: Conditional Use Permit required allowing variance.	Eliminated from consideration due to CUP timing, uncertainty of outcome and unmitigated operational risk with further delay.
2. Eastside Operations Center	Residential: Conditional Use Permit required allowing variance.	Eliminated from consideration due to CUP timing, uncertainty of outcome and unmitigated operational risk with further delay.
3. Snoqualmie Ridge Mt. Si Raw Land	Commercial: Specific data center exclusion absent City of Snoqualmie variance.	Eliminated from consideration based on City of Snoqualmie zoning prohibition confirmed during meeting with City on 1/19/2017 (City Administrator/Attorney).
4. PWI Raw Land	Residential: Conditional Use Permit required allowing variance.	Eliminated from consideration due to CUP timing, uncertainty of outcome and unmitigated operational risk with further delay.
5. I-90 Technology Center (~45,000 square feet)	Commercial: No zoning issues based on subordinate and accessory use within the office building (if less than 50% gross space and presuming use of residual office space).	City of Snoqualmie confirmed allowance within existing structure on 1/19/2017 (City Administrator/Attorney). To be confirmed vis-à-vis City review, issuance of reply letter and building permits as condition precedent to close of commercial transaction.
6. Boeing Eastgate Campus (~70,000 square feet)	Commercial: No zoning issues due to placement within existing structure	Subordinate use allowed within City of Bellevue; commercial transaction timing risk with Boeing; significant tenant improvement, fiber access and transformer upgrade costs.

Appendix A provides a more detailed evaluation of specific site alternatives.

As described in Table 1, zoning and other development risks have eliminated Options 1-4 and the outdoor modular data center approach, resulting in focus on indoor modular configuration.

### Data Center/Facilities Plan Synergies

Options 5 and 6 reflect the potential acquisition of either the I-90 Technology Center or Boeing Eastgate Campus in support of an indoor modular data center. Once developed, both options present the potential for use of surplus building space to create operational and financial synergies involving PSE’s near- and longer-term facility needs; specifically:

- The ability to relocate certain Bellevue Campus employees to the new building and accommodate incremental GtZ personnel, thereby eliminating the need to lease additional office space over the next five years;
- Co-location benefits of GtZ and non-GtZ IT support with internal clientele during initial stages of program launch and development, reducing non-productive travel time and expense;
- All else equal, the ability to eliminate leased floors associated with the expiring PSE Building lease (2018) by relocating staff to surplus office space located at either asset; and
- Improved alignment of staff commuting patterns with company office locations and increased corporate contribution to reductions in regional traffic congestion.

Table 2 presents the summary analysis of Option 5 and 6 based on the proposed synergy and reflects the cost of acquiring and maintaining each asset as well as the Bellevue Campus lease expense based on the number of floors retained in each scenario.

## CORPORATE FACILITIES

Table 2 – Summary Analysis of Alternatives		
Scenario	15 Year PV Cost to Customers <sup>1</sup>	Avoided PV Cost to Customers <sup>2</sup>
5. I-90 Technology Center	\$49,578,570	N/A
6. Boeing Eastgate Campus	\$67,069,090	\$17,490,520

Additional summary cash flow detail is provided in **Appendix B**. Analysis favors use of the surplus office space in lieu of equivalent Bellevue Campus leased space under either Option 5 or Option 6.

### Key Terms and Schedule

- Seller: John J. Hennessy Living Trust
- Purchase Price: \$8,900,000 (versus \$9,700,000 asking)
- Earnest Money: \$425,000
- Due Diligence Period: 60 days
- Extension Rights: Two extensions at \$30,000 each to be netted against final purchase price
- Other: Issuance of City of Snoqualmie building permits per PSE's specifications prior to close of transaction
- Permit Application Date: Estimated February 15, 2017 (City of Snoqualmie)
- Estimated Close Date: April 1, 2017
- Data Center Mobilization Date: May 1, 2017
- Occupancy: May 1, 2017 (FF&E/IT dependent)
- IT/FF&E Order Date: February 15, 2017 (useable at both SKC and Bellingham if transaction does not close)
- Total 2017 Capital Outlay: Estimated \$12,100,000 (excludes data center and avoided cost; includes purchase price; office furniture, fixtures and equipment; IT and communications; and security)
- Total 2017 O&M Outlay: Estimated \$300,000 (includes partial year building maintenance and moving expenses; increases to \$375,000 in 2018)

### Pre-purchase Due Diligence

PSE has retained the following consultants to conduct pre-purchase due-diligence and present findings no later than March 15, 2017:

- MENG Analysis (Electrical/Mechanical/Building Envelope inspection)
- PSC Structural Solutions (Structural/Seismic inspection)
- Geoengineers (Environmental inspection)

Any material findings will be evaluated and subject to your final approvals prior to close.


In accordance with CPM-23, your written approval is required before PSE's Corporate Facilities group may proceed with the purchase of the I-90 Technology Center in Snoqualmie.

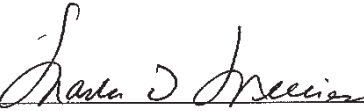
The purchase of I-90 Technology Center in Snoqualmie is hereby:


<sup>1</sup> Includes the cost of the PSE Building lease under both scenarios.

<sup>2</sup> Represents the marginal revenue requirement savings to PSE customers that results from proceeding with purchase of I-90 Technology Center.

**CORPORATE FACILITIES**

Dan Doyle  
Approved:  Date: 1-31-17  
Rejected: \_\_\_\_\_ Date: \_\_\_\_\_  
Comments: \_\_\_\_\_

Marla Mellies  
Approved:  Date: 1/31/17  
Rejected: \_\_\_\_\_ Date: \_\_\_\_\_  
Comments: \_\_\_\_\_

Margaret Hopkins  
Approved:  Date: 1-31-17  
Rejected: \_\_\_\_\_ Date: \_\_\_\_\_  
Comments: \_\_\_\_\_

**Appendices:**

- A. Site alternatives and code assessment
- B. PSE FP&A pro forma analysis, dated January 11, 2017  
PSE FP&A pro forma analysis, dated January 30, 2017

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## CORPORATE FACILITIES

### Appendix A

#### Site Assessments:

PSE's Data Center team reviewed land assets owned by PSE, PWI and third parties in King County and identified the following assets for consideration based on planning and selection criteria developed by HDR Engineering:<sup>3</sup>

Asset (Location)	Ownership
1. Talbot Switching Station (Renton)	PSE
2. Eastside Operations Center (Redmond)	PSE
3. Snoqualmie Ridge Business Park – Mt. Si Raw Land Option (Snoqualmie)	Privately Held
4. PWI Snoqualmie Parkway/SR-18 Raw Land (Snoqualmie)	PWI
5. Snoqualmie Ridge Business Park – I-90 Technology Center (Snoqualmie)	John J. Hennessy Living Trust
6. Boeing Company Eastgate Campus (Bellevue)	Boeing

Options 1 and 2, PSE's Talbot Switching Station and Eastside Operations Center, respectively, were identified as the two preferred locations due to access to PSE's fiber network, ownership and other planning criteria; however, these assets and the Option 3 PWI asset were eliminated due to residential zoning restrictions, timeline to file for and achieve necessary zoning variances, and the risk of failure to mitigate operational risk in the event required variances are not issued by the respective jurisdictions. Accordingly, PSE's expanded evaluation included available office buildings meeting size, fiber proximity and zoning/use requirements.

5. **Snoqualmie Ridge Business Park – I-90 Technology Center (City of Snoqualmie).** The I-90 Technology Center is located within the commercial business park of Snoqualmie Ridge and near PSE's Snoqualmie Operations Center and Mt. Si Substation, offering low-cost access to PSE's owned fiber network.

The Building is located within the Mixed Use (MU) zoning district on Lot 10A of the Snoqualmie Business Park. The proposed IT infrastructure would need to be a subordinate and accessory use within the office building and installed within an area on the first floor of the existing office building that is less than 25 percent of the Building's total floor area. SMC 17.55.060 allows for accessory uses as long as they are incidental to the principal use, are operated and maintained for the benefit of the occupants, employees, or customers of the principal use, and utilize less than 50 percent of the gross floor area of the principal use.

5. **Boeing Company Eastgate Campus (Bellevue).** The Boeing Company ("Boeing") intends to surplus four of its Eastgate campus assets beginning in late 1Q/early 2Q 2017, one of which would be a potential candidate for PSE's data center. Data centers appear to be allowed by way of subordinate use per the City of Bellevue's zoning regulations as of the date of this memorandum. The following considerations were made in connection with these assets:
  - a. Boeing's interest in selling the assets as a package (two larger and two smaller buildings packaged as a whole or grouped by larger and smaller assets).
  - b. Uncertainty surrounding the potential timing of Boeing's marketing of these assets and potential adverse impact on the data center schedule.

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<sup>3</sup> Refer to Data Center project artifacts.

## CORPORATE FACILITIES

- c. The two small buildings under consideration require extensive tenant improvements, estimated at \$17,000,000.

### Code Assessment:

<b>I-90 Technology Center-</b>	
- 35131 SE Center Street	
<b>Use</b>	<p>The Building is located within the Mixed Use (MU) zoning district on Lot 10A of the Snoqualmie Business Park. Office is one of the allowed uses in Chapter 13 of the Snoqualmie Ridge Development Standards (Section 13.020 Allowed Uses).</p> <p>The proposed IT infrastructure will be a subordinate and accessory use within the office building and installed within an area on the first floor of the existing office building that is less than 25 percent of the Building's total floor area. SMC 17.55.060 allows for accessory uses as long as they are incidental to the principal use, are operated and maintained for the benefit of the occupants, employees, or customers of the principal use, and utilize less than 50 percent of the gross floor area of the principal use. The proposed IT infrastructure supports the day-to-day operational activities of PSE's employees and contractors, including those intended to be relocated to the Building.</p>
<b>Landscaping</b>	Per Section 8B of the Snoqualmie Business Park, SMC 17.70.080(B) applies to commercial development. Ten feet of Type III landscaping is required along the perimeter of the site. Type III landscaping provides a visual separation from street and compatible uses to soften the appearance of parking areas and building facades.
<b>Noise</b>	Noise generated from the mechanical equipment is required to be within the maximum noise level of 60 dB(A); specifically, rooftop chillers and backup generator located adjacent to the building.
<b>Mechanical Screening</b>	The proposed rooftop mechanical equipment will be screened behind the existing parapet wall, which may be adjusted if necessary to provide the requisite screening.
<b>Parking</b>	SMC 17.65.150, Table 1 requires one parking stall per every 500 gross square feet of business/office park use. The site currently contains 182 spaces per its original permit issued by the City in 2001.

<b>Boeing Eastgate Campus</b>	
- 3070 160 <sup>th</sup> Avenue SE	
- 3150 160 <sup>th</sup> Avenue SE	
<b>Use</b>	<p>Both parcels are located within the OLB (Office and Limited Business) zoning district. When the property was rezoned from LI in 2002 (Ordinance 5418), a concomitant zoning agreement was placed on the property (33216). It does not appear that any of the conditions will affect the joint data center/office proposal; a copy of the concomitant zoning agreement should be obtained from the City Clerk's Office as part of due diligence.</p> <p>Administrative Office – General is an allowed use in the OLB zone (LUC 201.10.440). Office use is defined as a use that provides professional administrative, or business related services. Production, distribution, or the retail or wholesale sale of goods or commodities are not included (LUC 20.50.038).</p> <p>Data center use is not addressed in the zoning code; however, there is a section that addresses subordinate uses. Subordinate uses shall be located on the same lot or in the same structure as the permitted or principal use, be functionally related to the permitted or principal use, and be generally limited in size to 25 percent of the floor area devoted to the related permitted or principal use (LUC 20.20.840).</p> <p>The OLB standards (LUC 20.20C.040(B)(7)) require accessible outdoor gathering areas to be provided for employees, the general public, and visitors on site.</p>
<b>Landscaping</b>	<p>Ten feet of Type III landscaping is required along all interior property lines and street frontages (LUC 20.20.520F). Type III landscaping is intended to provide visual separation of uses from streets, and visual separation of compatible uses so as to soften the appearance of streets, parking areas and building elevations.</p> <p>Based on the plat requirements for this development, a 60 foot buffer is required adjacent to 160th Avenue SE (recording #8203180677). There is also a 10' public walking easement along the frontage of Parcels 7 and 8 (recording #9403230364).</p>
<b>Noise</b>	BCC 9.18 specifies the maximum permissible sound levels for a Class B environment (commercial land use district) is 60 dBA. There is residential zoning across 161st Ave SE to the southeast of the parcels. In that case, the noise level for those receiving sites (Class A) cannot exceed 55 dBA.

**CORPORATE FACILITIES**

<p><b>Boeing Eastgate Campus</b></p> <ul style="list-style-type: none"> <li>- 3070 160<sup>th</sup> Avenue SE</li> <li>- 3150 160<sup>th</sup> Avenue SE</li> </ul>	
<p><b>Mechanical Screening</b></p>	<p>The OLB design standards in LUC 20.20C.040(A)(2) require rooftop equipment to be visually screened. The design and color of the rooftop mechanical screening should be integrated with the building architectural style. Service yards and at-grade mechanical equipment shall be sight screened from adjoining properties or streets and highways by a solid planting of evergreen trees and shrubs at least as high as the equipment or use being screened within two years of the time of planting.</p> <p>Pursuant to LUC 20.20.525(C), Mechanical Screening standards, mechanical equipment located at or below grade may be placed within a required rear or side setback area. Mechanical equipment shall be visually screened by a solid, non-reflective visual barrier that equals or exceeds the height of the mechanical equipment. The barrier may be provided by any of the following:</p> <ul style="list-style-type: none"> <li>a. Architectural features, such as parapets or mechanical penthouses;</li> <li>b. Walls or solid fencing, of a height at least as high as the equipment is screens;</li> <li>c. Vegetation and/or a combination of vegetation and view-obscuring fencing, of a type and size which will provide a dense visual barrier at least as high as the equipment it screens within two years from the time of planting; or</li> <li>d. The natural topography of the site or the adjoining property or right-of-way.</li> </ul>
<p><b>Parking</b></p>	<p>Per LUC 20.20.590(F), for Office business services/professional services/general office, the minimum number of parking stalls required is 4:1,000 net square feet and the maximum allowed is 5:1,000 net square feet. Up to 50% of the stalls can be compact.</p> <p>Net square feet = the total number of square feet within the inside finished wall surface of the outer building walls of a structure, excluding major vertical penetrations of the floor (elevator and other mechanical shafts, stair wells), mechanical equipment, parking areas, common restrooms, common lobbies, and common hallways. Storage area is included in the net square feet calculation unless the property owner demonstrates that it cannot be converted to habitable space. (LUC 20.50.036)</p>



## CORPORATE FACILITIES

### Appendix B

PSE FP&A pro forma analyses, dated January 11, 2017 and January 30, 2017.

#### Snoqualmie Analysis

Indoor Modular Data Center + Office Space

	A	B	C	D	E	F	G	H
1	January 11, 2017	Nominal (15-year)			Pre-Tax PV			Pre-Tax PV Revenue Requirement
2		Total Cash	Opex	Capex	Total Cash	Opex	Capex	Total Outlay
3	Option 1: Purchase I-90 Technology Center / No Facilities and GtZ Synergy	119,556,689	87,594,780	31,961,909	75,683,156	60,824,202	14,858,954	75,699,063
4	Lease: Employees remain at PSE Building							
5								
6	Option 2: Purchase I-90 Technology Center / Facilities and GtZ Synergy	78,384,978	58,372,337	20,012,641	46,411,963	38,768,897	7,643,065	49,578,570
7	Purchase Snoqualmie Building and relocate two PSE Building floors in 20							

#### Boeing Analysis

Indoor Modular Data Center + Office Space

	A	B	C	D	E	F	G	H
1	January 30, 2017	Nominal (15-year)			Pre-Tax PV			Pre-Tax PV Revenue Requirement
2		Total Cash	Opex	Capex	Total Cash	Opex	Capex	Recovery
3	Option 1: Purchase Boeing Eastgate Campus / No Facilities and GtZ Synergy	131,127,268	97,065,359	34,061,909	74,136,500	48,441,780	25,694,720	83,316,509
4	Lease: Employees remain at PSE Building							
5								
6	Option 2: Purchase Boeing Eastgate Campus / Facilities and GtZ Synergy	91,397,618	54,307,510	37,090,109	55,708,143	30,136,489	25,571,655	67,069,090
7	Purchase Snoqualmie Building and relocate two PSE Building floors in 20							

- Both analyses include the cost associated with maintaining the PSE Building leased space for the modeled options.
- Creating the data center/office space synergy and co-location is favorable for both I-90 Technology Center and Boeing Eastgate Campus options.