

**EXH. DRK-26T  
DOCKETS UE-220066/UG-220067 et al.  
2022 PSE GENERAL RATE CASE  
WITNESS: DAN'L R. KOCH**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY,**

**Respondent.**

**Docket UE-220066  
Docket UG-220067**

**In the Matter of the Petition of**

**PUGET SOUND ENERGY**

**For an Order Authorizing Deferred  
Accounting Treatment for Puget Sound  
Energy's Share of Costs Associated  
with the Tacoma LNG Facility**

**Docket UG-210918**

**PREFILED TESTIMONY (NONCONFIDENTIAL) OF**

**DAN'L R. KOCH**

**ON BEHALF OF PUGET SOUND ENERGY IN SUPPORT OF THE  
MULTIPARTY SETTLEMENT STIPULATION AND AGREEMENT ON  
REVENUE REQUIREMENT AND ALL OTHER ISSUES EXCEPT  
TACOMA LNG AND PSE'S GREEN DIRECT PROGRAM**

**AUGUST 26, 2022**

**PUGET SOUND ENERGY**

**TESTIMONY (NONCONFIDENTIAL) OF DAN’L R. KOCH ON BEHALF OF  
PUGET SOUND ENERGY IN SUPPORT OF THE MULTIPARTY  
SETTLEMENT STIPULATION AND AGREEMENT ON REVENUE  
REQUIREMENT AND ALL OTHER ISSUES EXCEPT TACOMA LNG AND  
PSE’S GREEN DIRECT PROGRAM**

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**PUGET SOUND ENERGY**

**TESTIMONY (NONCONFIDENTIAL) OF DAN'L R. KOCH**

**SUPPORTING THE MULTIPARTY SETTLEMENT STIPULATION  
AND AGREEMENT**

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1 **PUGET SOUND ENERGY**

2 **TESTIMONY (NONCONFIDENTIAL) OF DAN’L R. KOCH**

3 **SUPPORTING THE MULTIPARTY SETTLEMENT OF REVENUE**  
4 **REQUIREMENT AND ALL OTHER ISSUES EXCEPT FOR TACOMA**  
5 **LNG AND PSE’S GREEN DIRECT PROGRAM**

6 **I. INTRODUCTION**

7 **Q. Are you the same Dan’l R. Koch who submitted prefiled direct testimony on**  
8 **January 31, 2022, as revised on March, 15, 2022 and March 25, 2022, on**  
9 **behalf of Puget Sound Energy (“PSE”) in this proceeding?**

10 A. Yes.

11 **Q. What is the purpose of your testimony?**

12 A. My testimony addresses PSE’s support for the Multiparty Settlement Stipulation  
13 and Agreement (“Settlement”) filed with the Commission on August 26, 2022.<sup>1</sup>

14 This testimony sets forth PSE’s testimony as to why the Settlement regarding the  
15 Energize Eastside project is supported by PSE, is in the public interest, and should  
16 be approved by the Commission. I also address certain concerns previously  
17 raised by intervenor Coalition of Eastside Neighborhoods for Sensible Energy  
18 (“CENSE”). I reiterate how PSE’s decision to proceed with the Energize Eastside

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<sup>1</sup> The Settlement was entered into by the following parties in this case: (i) PSE, (ii) the regulatory staff of the Washington Utilities and Transportation Commission (“Commission Staff”), (iii) Alliance of Western Energy Consumers, (iv) Federal Executive Agencies, (v) Walmart, Inc., (vi) The Energy Project, (vii) Kroger, Co., (viii) NW Energy Coalition, (ix) Sierra Club, (x) Front and Centered, (xi) Microsoft and (xii) Nucor Steel Seattle, Inc., as of August 26, 2022 (collectively the “Settling Parties”).

1 project is prudent based on strong technical and engineering analysis and in  
2 compliance with NERC transmission planning standard TPL-004-1.

3 **II. THE SETTLEMENT REGARDING ENERGIZE EASTSIDE**  
4 **IS IN THE PUBLIC INTEREST AND SUPPORTED BY PSE**

5 **A. Summary of the Settlement regarding Energize Eastside**

6 **Q. Mr. Koch, why is PSE supporting the Settlement, specifically the Energize**  
7 **Eastside provision?**

8 A. The Energize Eastside project is an important transmission project that will  
9 benefit PSE's customers through improved reliability for communities on the  
10 eastside of Lake Washington and increased electrical capacity as growth and  
11 development continues. The need for this project has only increased, and in the  
12 past five of six summers the demand has exceeded the transmission study level  
13 where the deficiencies identified exist on the Eastside. Customers will benefit  
14 from the improved reliability and increased capacity particularly as Washington  
15 moves towards increased electrification.

16 The Settlement reflects a fair and reasonable resolution where the Settling Parties  
17 accept that PSE has met its threshold prudence requirement to demonstrate that  
18 the estimated costs associated with the Energize Eastside investment should be  
19 provisionally included in rates, subject to refund. There is substantial evidence in  
20 the record in my direct testimony that PSE prudently initiated the Energize  
21 Eastside project to address a developing deficiency of the current eastside area

1 transmission infrastructure, considered alternatives including both “wires” and  
2 “non-wires” alternatives, and kept its Board of Directors and management  
3 informed and involved in the decisions regarding the project in accordance with  
4 the prudence standard, which allowed the Settling Parties to reach agreement that  
5 a threshold prudence determination is appropriate. By accepting and not  
6 challenging that PSE met its threshold prudence requirement, while still allowing  
7 parties to challenge the costs of the project when reviewing the investments after  
8 the plant is placed in service, the Settlement is a reasonable resolution for a major  
9 and needed transmission capital project.

10 **Q. Why is the settlement of the Energize Eastside important to PSE?**

11 A. The Settlement provides an adequate solution to a number of issues about the  
12 Energize Eastside project. PSE and the Settling Parties worked together to  
13 structure the Settlement to address the prudence of Energize Eastside while  
14 allowing review of the costs of the investments once plant is in service. The  
15 Settlement provides that PSE should be allowed to provisionally recover for plant  
16 in service for a major needed transmission project. Customers receive the benefit  
17 of improved reliability and capacity, which addresses a current deficiency that  
18 continues to grow with increased customer demand on the eastside. The  
19 Settlement also reasonably adjusts the delayed service dates for Energize  
20 Eastside, which are assumed to be incorporated into the agreed upon revenue  
21 requirement, with the South Phase in service by October 2023 and the North  
22 Phase in service by October 2024.

1 **Q. Does PSE think there is a basis for provisional prudence review?**

2 A. Yes. As explained in my testimony and in the testimony of Commission Staff  
3 witness Joe Nightingale, the need for the Energize Eastside project was  
4 established by PSE and alternatives were considered, and the continued  
5 construction of the project is prudent given the need, which is only expected to  
6 increase. Furthermore, the alternatives are neither feasible nor cost-effective, and  
7 although final project costs are not yet known, 40% of the construction is  
8 complete and 63% of the estimated budget has been spent. It is inconceivable that  
9 the remaining spend would justify changing course to a hypothetical “alternative”  
10 or “shifting need.” Accordingly, the only remaining prudence factor that should  
11 remain is whether the construction expenses were prudently incurred given that  
12 the final costs are not yet known.

13 **III. ENERGIZE EASTSIDE IS NEEDED AND SHOULD BE**  
14 **PROVISIONALLY INCLUDED IN RATES**

15 **Q. Do any parties oppose the inclusion of Energize Eastside provisionally into**  
16 **rates?**

17 A. CENSE did not join in the Settlement, and given its response testimony, I assume  
18 it opposes the Settlement with respect to the Energize Eastside investment.  
19 CENSE claims the Energize Eastside project is not needed. I address below why  
20 CENSE is incorrect.

21

1 **Q. Do you or other parties agree with CENSE witness Mr. Lauckart that**  
2 **Energize Eastside is not needed?**

3 A. No. PSE has demonstrated through multiple studies that the Energize Eastside  
4 project is needed. As I explained in my Prefiled Direct Testimony, the need for  
5 the Energize Eastside project was initially identified in reliability assessments  
6 done on an annual basis as part of the NERC Compliance Enforcement Program,  
7 where PSE saw the developing need for transmission reliability to supply the  
8 growing region.<sup>2</sup> PSE conducted further studies, including the Eastside Needs  
9 Assessment Report in 2013,<sup>3</sup> and the Supplemental Eastside Needs Report in  
10 2015,<sup>4</sup> which both demonstrated the need for the project. Additionally, Staff  
11 witness Joel Nightingale, provides additional evidence demonstrating the need for  
12 the Energize Eastside project. Mr. Nightingale's Exh. JBN-2 describes the various  
13 studies performed that demonstrate the need, and also provides additional  
14 information regarding the planning level load forecasts used for the Energize  
15 Eastside project and the Transmission Planning Assessment results specific to  
16 Energize Eastside. The NERC Transmission Planning Standard is discussed in  
17 further detail below.

18 **Q. Have any other assessments found there is a need for the Energize Eastside**  
19 **project?**

20 A. Yes. As discussed in my Prefiled Direct Testimony,<sup>5</sup> the City of Newcastle hired  
21 and conducted its own independent third-party assessment of need as part of the

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<sup>2</sup> Koch, Exh. DRK-1T at 48-50.

<sup>3</sup> Koch, Exh. DRK-3r.

<sup>4</sup> Koch, Exh. DRK-4r.

<sup>5</sup> Koch, Exh. DRK-1T.



1 land use permitting proceeding.<sup>6</sup> The City of Newcastle agreed a need exists in  
2 the Energize Eastside area. Furthermore, the Utility System Efficiencies, Inc.  
3 technical analysis,<sup>7</sup> and the Stantec Consulting review memo prepared for  
4 Bellevue, Kirkland, Newcastle, and Renton, Exh. DRK-11, further support and  
5 demonstrate there is a need for the Energize Eastside project.

6 **A. PSE performed extensive studies to establish the need and considered**  
7 **alternatives for Energize Eastside**

8 **Q. What is the purpose of the NERC Transmission Planning Standard TPL-**  
9 **004-1?**

10 A. NERC Standard TPL-001-4, Transmission System Planning Performance  
11 Requirements' stated purpose is to "establish transmission system planning  
12 performance requirements within the planning horizon to develop a Bulk Electric  
13 System (BES) that will operate reliably over a broad spectrum of system  
14 conditions and following a wide range of probable contingencies."<sup>8</sup> In essence,  
15 the standard requires utilities to evaluate its transmission system annually under  
16 this broad spectrum of system conditions and probable contingencies to identify  
17 deficiencies where the system is unable to meet the performance requirements and  
18 include Corrective Action Plans addressing how the performance requirements  
19 will be met. This is to ensure that utilities are addressing any foreseeable

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<sup>6</sup> See Koch, Exh. DRK-12.

<sup>7</sup> Koch, Exh. DRK-10.

<sup>8</sup> NERC, *TPL-001-4* available at <https://www.nerc.com/pa/Stand/Pages/TPL0014RI.aspx>  
(last visited Aug. 26, 2022).

1 deficiencies and are adequately planning for the needed infrastructure to prevent  
2 events from occurring.

3 **Q. Describe the studies PSE performed to determine that a transmission**  
4 **deficiency would emerge within the ten-year planning horizon stipulated in**  
5 **NERC TPL-004-1.**

6 A. PSE has conducted the annual transmission planning study since the TPL  
7 standards became effective in 2005. PSE identified the Energize Eastside need in  
8 the 2009 TPL planning assessment, and since then, each of PSE's annual  
9 transmission assessments for TPL standard compliance has shown the need for  
10 Energize Eastside. PSE also hired Quanta to perform studies specifically for the  
11 transmission system serving the Eastside area to confirm the results of the  
12 transmission planning assessments PSE had annually performed.<sup>9</sup>

13 **Q. Were the studies performed by PSE and Quanta done in accordance with the**  
14 **requirements of the NERC standard?**

15 A. Yes.

16 **Q. Were these studies verified by any other third-party experts?**

17 A. Yes. The 2013 and 2015 Energize Eastside Needs Assessment studies conducted  
18 by PSE and Quanta have been reviewed by multiple third-party experts. The

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<sup>9</sup> Koch, Exh. DRK-3r; Koch, Exh. DRK-4r.

1 reports have been reviewed by: Utility Systems Efficiencies, Inc. (hired by City of  
2 Bellevue)<sup>10</sup>; Stantec Consulting Services, Inc. (hired for EIS cities)<sup>11</sup>; and  
3 MaxtETA Energy and Synapse Energy Economics (hired by City of Newcastle).<sup>12</sup>  
4 Also, as part of the TPL-001-4 R8 standard requirement, PSE shares its annual  
5 transmission planning assessments with its neighboring utilities every year. This  
6 gives an opportunity for PSE's neighboring utilities to provide comments and  
7 feedback on PSE's TPL report.

8 **Q. Do you agree with the conclusions of these studies?**

9 A. Yes. I agree with the conclusions that a transmission deficiency exists in PSE's  
10 transmission system and that Energize Eastside solves this deficiency.

11 **Q. Did PSE rely on MaxETA/Synapse to determine the need for Energize  
12 Eastside as alleged by CENSE?**

13 A. No. MaxETA/Synapse was hired by the City of Newcastle as part of its review of  
14 PSE's application for a land use permit to verify compliance with the city's land  
15 use and utilities codes, which include that the applicant demonstrate that the  
16 project is needed. The City of Newcastle hired MaxETA/Synapse to verify this  
17 the need for Energize Eastside. MaxETA/Synapse and the City of Newcastle  
18 affirmed the need for the project.

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<sup>10</sup> Koch, Exh. DRK-10.

<sup>11</sup> Koch, Exh. DRK-11.

<sup>12</sup> Koch, Exh. DRK-12.

1 **Q. Does a need for Energize Eastside still exist for PSE’s forecasted winter peak**  
2 **demand?**

3 A. Summer peak continues to be a primary concern and was exceeded in five of the  
4 past six years. Furthermore, even though winter peak need has not materialized  
5 as quickly as expected, based on the 2021 Transmission Planning Assessment  
6 which concluded in December 2021, the assessment still shows an Energize  
7 Eastside need for winter peak demand in the ten-year horizon. The First Exhibit  
8 to the Prefiled Direct Testimony of Joel B. Nightingale is an excerpt from the  
9 TPLs related to the Energize Eastside needs assessments from 2015 through 2021  
10 documenting these results.<sup>13</sup>

11 **Q. What concerns do you have with the report prepared by Mr. Lauckhart and**  
12 **Mr. Schiffman?**

13 A. There are many concerns with the Lauckhart-Schiffman report and these concerns  
14 have been addressed many times by PSE in the course of the siting and permitting  
15 of the Energize Eastside project. The hearing examiners of the Bellevue and  
16 Newcastle hearings for the south section of the Energized Eastside project, found  
17 the Lauckhart-Schiffman study not to be credible<sup>14</sup>. Attached as Exhibits DRK-27  
18 and DRK-28 are excerpts from the Bellevue and Newcastle decisions discussing

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<sup>13</sup> Nightingale, Exh. JBN-2 at 7-19.

<sup>14</sup> The City of Newcastle Hearing Examiner for Energize Eastside CUP hearing stated that CENSE’s expert witness’s evidence was flawed, inaccurate and not credible. Koch, Exh. DRK-28. The City of Bellevue Hearing Examiner for Energize Eastside CUP found the reports defective and not credible. Koch, Exh. DRK-27 at 4.

1 the Lauckhart-Schiffman study. The Lauckhart-Schiffman report was also  
2 addressed by FERC in the CENSE complaint to FERC on October 21, 2015.

3 FERC stated:

4 Contrary to Complainants' vague allegations that the  
5 Respondents have violated [Federal transmission planning  
6 regulations], the record before us shows that [PSE] and the  
7 other Respondents have complied with the applicable  
8 transmission planning requirements[.]<sup>15</sup>

9 The primary concerns with the Lauckhart-Schiffman report are that it:

- 10 • Fails to stress the electric system as required by federal standards. The  
11 report implies that only one contingency was studied versus the many  
12 thousands which are required;
- 13 • Uses an incorrect load growth for the Eastside area;
- 14 • Erroneously interprets power flows to Canada;
- 15 • Confuses planning standards with day-to-day operations;
- 16 • Did not perform any summer analysis; and
- 17 • Was never independently reviewed.

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<sup>15</sup> *Coalition of Eastside Neighborhoods for Sensible Energy, et. al. v. Puget Sound Energy et. al.*, Dkt. EL15-74-000, 153 FERC ¶ 61,076 at ¶ 61 (Oct. 21, 2015).

1 **Q. Do you agree with Mr. Lauckhart’s assertion that there are not transmission**  
2 **reliability problems on the eastside when PSE’s westside thermal generation**  
3 **is turned on?**

4 A. No. As clearly stated in the independent report prepared by Utility Systems  
5 Efficiencies, Inc. (Independent Technical Analysis of Energize Eastside, 2015)  
6 that:

7 Several hypothetical scenarios were studied as part of the  
8 Optional Technical Analysis (OTA). Each one showed  
9 overloads in the 2017/18 timeframe, indicating project need  
10 in order for PSE to meet federal regulatory requirements for  
11 system reliability. The OTA results showed that reducing the  
12 Eastside area growth from 2.4% to 1.5% per year in the  
13 period from winter 2013/14 to winter 2017/18 still resulted  
14 in project need. Reducing PSE’s King County growth while  
15 keeping the Eastside growth the same similarly resulted in a  
16 project need. Turning on additional generation in the Puget  
17 Sound area also resulted in a project need.<sup>16</sup>

18 Additionally, the report notes the results of the analysis demonstrated that  
19 increasing the power output of existing Puget Sound area generation to the levels  
20 specified in ColumbiaGrid’s July 2010 “Puget Sound Area Generation Modeling  
21 Guideline” eliminated only one of five overloads in the 2017/18 normal winter,  
22 but it “*did not eliminate project need.*”<sup>17</sup>

23 **Q. What alternatives to Energize Eastside did PSE consider, and**

24 A. As shown in my Prefiled Direct Testimony, PSE evaluated a variety of  
25 alternatives and concluded Energize Eastside is the best solution.<sup>18</sup> The 2014

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<sup>16</sup> Koch, Exh. DRK-10 at 6.

<sup>17</sup> Koch, Exh. DRK-10 at 63 (emphasis added).

<sup>18</sup> Koch, Exh. DRK-1T at. 55-60.

1 Solutions report<sup>19</sup> and the Supplemental Eastside Solutions Study Report<sup>20</sup>  
2 considered conservation, additional generation, demand response, distributed  
3 generation, energy storage, expansion of transmission substations, and the  
4 upgrading of transmission lines and 115kV lines. PSE also conducted a non-wires  
5 alternative study that concluded the cost-effective non-wires alternatives were not  
6 large enough to provide sufficient load reduction.<sup>21</sup> The 2015 and 2018 Strategen  
7 Eastside System Energy Storage Alternatives Screening Study evaluated battery  
8 storage alternatives.<sup>22</sup> POWER Engineers also studied the feasibility of  
9 underground cables.<sup>23</sup>

10 **Q. Have any recent advancement in technology made these alternatives a viable**  
11 **option?**

12 A. No. PSE's ongoing and contemporaneous evaluation of energy storage included  
13 distributed energy storage and concluded that even if "every customer in PSE's  
14 Eastside area installed a storage system sized comparably to a Tesla Powerwall 2,  
15 only about half of the 2019 Eastside transmission capacity deficiency would be  
16 met and less than a quarter of the 2027 Eastside capacity deficiency would be  
17 met," referring to the summer-peak demand. Strategen's 2018 Eastside System  
18 Energy Storage Alternatives Assessment estimated that the cost of the distributed

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<sup>19</sup> Koch, Exh. DRK-5r.

<sup>20</sup> Koch, Exh. DRK-6r.

<sup>21</sup> Koch, Exh. DRK-7.

<sup>22</sup> Koch, Exhs. DRK-8 and DRK-9.

<sup>23</sup> Koch, Exhs. DRK-13 and DRK-14.

1 batteries, not including the solar panels, would cost in the range of \$2.1 billion to  
2 \$3.1 billion.<sup>24</sup>

3 **Q. Mr. Lauckhart identifies four alternatives to Energize Eastside. Would these**  
4 **alternatives adequately address the need the Energize Eastside project**  
5 **solves?**

6 A. No. Mr. Lauckhart proposed the following alternatives: (1) a small peaker plant  
7 located near the load in Bellevue;<sup>25</sup> (2) use of the Existing Seattle City Line; (3) a  
8 new 230/115 kV transformer at the PSE Lake Tradition substation; or (4) a  
9 cocktail of DSM activities such as rate design or battery installations.<sup>26</sup> All of  
10 these alternatives have been evaluated by PSE. The associated analysis for each  
11 can be found in the 2015 Supplemental Eastside Solutions Study Report by  
12 Quanta/PSE,<sup>27</sup> the 2018 Eastside System Energy Storage Alternatives Assessment  
13 by Strategen Consulting,<sup>28</sup> and the 2014 Non-Wires Screening Study by Energy  
14 Environmental Economics.<sup>29</sup>

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<sup>24</sup> Koch, Exh. DRK-9.

<sup>25</sup> PSE understands there is an active dispute among CENSE members as to whether the Bellevue peaker plant is a valid alternative that should be considered.

<sup>26</sup> Lauckhart, Exh. RL-1T at 27-28.

<sup>27</sup> Koch, Exh. DRK-6r.

<sup>28</sup> Koch, Exh. DRK-9.

<sup>29</sup> Koch, Exh. DRK-7.



1 **B. PSE followed the permitting process for Energize Eastside?**

2 **Q. Did PSE follow the correct permitting process for Energize Eastside?**

3 A. Yes. PSE obtained permits and continues to pursue permits for the local  
4 jurisdictions where the Energize Eastside project will be built. Engaging with  
5 local jurisdictions in the permitting process serves two purposes. First, obtaining  
6 permits is a necessary part of large multijurisdictional transmission projects.  
7 Second, PSE can engage with the jurisdictions and the public to increase  
8 awareness about the project. This is further discussed in my Prefiled Direct  
9 Testimony.<sup>30</sup>

10 **Q. What is the status of permits to construct Energize Eastside?**

11 A. All associated state and federal permits have been issued for the project. Four of  
12 the five Conditional Use Permits (“CUP”) have been issued for the project. Only  
13 the CUP for the north half of the Bellevue segment remains to be issued.  
14 Construction permits have been issued for Renton and the south Bellevue  
15 segment, with the construction permits for the Newcastle segment currently under  
16 review. PSE is constructing the Energize Eastside project in compliance with the  
17 permits issued by each jurisdiction.

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<sup>30</sup> Koch; Exh. DRK-1T at 76-78; Koch, Exh. DRK-19.

1 **Q. What is the status of construction for Energize Eastside?**

2 A. The new Richards Creek 230 kV-115 kV substation is substantially complete and  
3 the majority of costs have been incurred. In Renton, the vast majority of the  
4 transmission lines construction has been completed and the south Bellevue  
5 segment is currently under construction, with completion projected by November  
6 of 2022. The Newcastle transmission line segment and the few remaining  
7 transmission spans in Renton will be completed in 2023. Finally, the north phase  
8 is anticipated to be completed in 2024.

9 **IV. CONCLUSION**

10 **Q. Does this conclude your testimony?**

11 A. Yes.