BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY,

Respondent

PREFILED TESTIMONY OF
RICHARD LAUCKHART
ON BEHALF OF THE
COALITION OF EASTSIDE NEIGHBORHOODS FOR SENSIBLE ENERGY
(CENSE)

JULY 28, 2022
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**COALITION OF EASTSIDE NEIGHBORHOODS FOR SENSIBLE ENERGY**
PREFILED TESTIMONY OF
RICHARD LAUCKHART

I. INTRODUCTION

Q. Please state your name, business address, and position with CENSE

A. My name is Richard Lauckhart. My business address is 44475 Clubhouse Drive, El Macero, California 95618. I have studied the need for Energize Eastside since first being contacted by CENSE for help in April of 2015. I have been retained as a Consultant by CENSE to provide testimony regarding the Prudency of Energize Eastside. Recently CENSE has had major changes in its organization with (a) the withdrawal of their Attorney Rick Aramburu, (b) Resignation by Don Marsh of his Presidency of CENSE, (c) claims to have run out of money, and (d) decision by Don Marsh its Past President (but still CENSE Board member) to file comments on May 31, 2022 in this proceeding UE-220066 as “Lead, Washington Clean Energy Coalition.” While I find those changes to be problematic, I still feel the obligation to bring my testimony to the attention of other parties in US-220066 and the Commissioners themselves. This testimony is being filed for that purpose.

Q. Have you prepared an exhibit describing your education and relevant employment experienced and other professional qualifications?

A. Yes, I have. It is Exhibit RL-2

Q. BRIEFLY DESCRIBE YOUR BACKGROUND

A. I received a Bachelor of Science Degree in Electrical Engineering from Washington State University in 1971. I received a Masters Degree in Business Administration from the
University of Washington in 1975. I worked for Puget Sound Power and Light (the predecessor Company of Puget Sound Energy [PSE]) for 21 years, five years as the Vice President of Power Planning. I left Puget in 1996 when they merged with the gas company and offered lucrative exit packages. I took an exit package. From 1996 to today I have been a power system consultant. My Bio (RL-2) details many of the consulting engagements I have been involved in.

II. EVIDENCE THAT ENERGIZE EASTSIDE IS NOT PRUDENT

Q. WHAT TOPICS ARE YOU COVERING IN YOUR TESTIMONY

A. My testimony provides a background on Power Planning as it relates to the topic of the Prudency of the PSE Investment in the Energize Eastside project. I describe Fatal Flaws in PSE’s attempt to justify Energize Eastside. I describe that:

- PSE fails in its legal burden to prove EE project need.
- The solid verifiable facts demonstrating project need have not been provided (i.e., “show us your homework”)
- It is clear that PSE relies on load flow studies that contain fatal flaws
- PSE is attempting to meets its stated goal of increasing its rates to retail customers in order to grow its profits
- PSE makes no legitimate effort to study appropriate alternatives to EE
- MaxETA/Synapse provide an interesting but flawed review of project need
Q. Where do you provide the basis for the above 6 bulleted points?

A. That evidence is provided in my Exhibits RL-3 and RL-4

Q. What specific topics are you discussing in this testimony?

A. The following topics are included as attachments to this testimony:

1) Discussion of safety of EE…Attachment 1 to this testimony.

2) Discussion of what the WUTC has already said about EE…Attachment 2 to this testimony.

3) Discussion of PSE’s improper reliance on PSE TPL studies and other studies…Attachment 3 to this testimony

4) Discussion of Lauckhart/Schiffman report (including reference to Attachment on summer peak)...Attachment 4 to this testimony.

5) Alternatives to EE if needed…Attachment 5 to this testimony.

6) Discussion of MaxETA/Synapse report included in Koch testimony …Attachment 6 to this testimony.

7) Discussion of problems with foreign ownership and my testimony in ownership transfer proceeding …Attachment 7 to this testimony.

8) City of Newcastle Hearing Examiner Ruling …Attachment 8 to this testimony

III. TESTIMONY I MADE ON THIS SUBJECT IN FEB 2018
Q. Have you testified at the WUTC on the prudence of Energize Eastside prior to this hearing?

A. Yes. On February 21, 2018 I provided this commission a lengthy email with a large number of attachments as public comment on the PSE IRP Docket No. UE-160918. I spoke at the WUTC Public Meeting February 21, 2018 re PSE IRP and provided hard copies of the information I had emailed. My concluding statement to the WUTC on February 21, 2018 was that any decision PSE made to build Energize Eastside …would be imprudent based on the information that is available on February 21, 2018.

Q. Did the WUTC Acknowledgement Letter in PSE IRP Docket No. UE-160918 reflect your concerns?

A. Yes. The Commission Acknowledgement Letter in that case stated the Plan does not include a narrative regarding:

- The effect of the power flows due to entitlement returns on the need for the Energize Eastside Project.
- The reason for, and effect on the need for the Energize Eastside Project, of modeling zero output from five of PSE’s Westside thermal generation facilities.
- PSE’s choice not to provide modeling data to stakeholders with Critical Energy Infrastructure Information clearance from FERC.
- Resolution of the effect of lower load assumptions on the study of need for the Energize Eastside Project
• It is still not clear if a joint utility analysis of all available transmission and potential interconnections in the Puget Sound region might solve the Energize Eastside reliability issues.

Q. You indicate above that WUTC Acknowledgement Letter in PSE IRP Docket No. UE-160918 indicated that the Commission was concerned about PSE’s choice not to provide modeling data to stakeholders with Critical Energy Infrastructure Information clearance from FERC. Did that get fixed in the Data Requests that CENSE made in this proceeding UE-220066?

A. No. CENSE made 56 data requests in this proceeding. PSE responded to several of the data requests that what is being asked for is “Critical Energy Infrastructure Information (“CEII”) data which would be designated as EXEMPT per WAC 480-07-160.” But FERC has made it clear that energy consultants like myself need to be able to see CEII as long as they sign a Non-Disclosure Agreement. And in this proceeding, there are Confidentiality Agreements on file that would protect CEII information from being disclosed. PSE continues to avoid providing evidence of their studies of the need for Energize Eastside. Without other parties being provided that information for their inspection, there can be no finding of Prudency of Energize Eastside.

Q. Do you have other concerns about the responses that PSE made to the CENSE data requests?

A. Yes. Other concerns are:

(1) CENSE-17 asked for the following files for PSE/Quanta load flow studies, Exhs. DRK-3 and DRK-4: 1) areatie, 2) buslist, 3) Flows, 4) owner, 5) Summary, and 6) .raw file. The PSE response was:
"Puget Sound Energy ("PSE") objects to CENSE Data Request No 017 as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. PSE further objects to this request as unduly burdensome or expensive. Furthermore, conversion capability to the requested file format is not readily available to PSE and the PSE/Quanta load flow study files contains Critical Energy Infrastructure Information ("CEII") data which would be designated as EXEMPT per WAC 480-07-160."

That response is not adequate. I have received these kinds of files from others who use the PowerWorld model. These files need to be provided.

PSE also responds:

"Attached as Attachment A to PSE’s Response to CENSE Data Request No. 017 is an email to PSE from Richard Lauckhart, an energy consultant contracted by CENSE to act as an expert witness. The email indicates that CENSE had all necessary information from the Western Electricity Coordinating Council base case to run load flow studies and did not need to obtain them from PSE using PSE’s CEII process."

That response is incorrect. My email says I will be using the WECC Base Case file because I have those, even though I would like to be able to use the PSE/Quanta files because it is clear that the PSE/Quanta files differ from the Base Cases...and I want to get the PSE/Quanta files so I can see all the differences.

PSE needs to provide at least the "flows" file from their PowerWorld run. A PowerWorld "Flows" file is available from a PowerWorld load flow model run.
2) **Several of the CENSE data requests** asked for load on the Eastside (and on the substations on the Eastside). *PSE answered in several places that they do not forecast flows on Eastside substations.* That is clearly wrong since PSE provides to WECC the forecast loads on **all** their substations. We therefore must assume the substations loads that PSE provided to WECC are the right ones to use.

3) **CENSE-8** asked for all studies produced in each TPL study over the years. The PSE response was:

"Puget Sound Energy ("PSE") objects to CENSE Data Request No. 008 as overbroad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence because Transmission Planning Assessment studies ("TPLs") are conducted for the entire PSE system and potentially identify various other PSE system deficiencies other than Energize Eastside. Additionally, TPLs contain significant Critical Energy Infrastructure Information ("CEII"), which would be designated as EXEMPT per WAC 480-07-160."

This is not a proper response. If PSE wants to refer to these studies in support of the prudency request, then PSE needs to provide these reports.

4) **In several places CENSE asked for documentation of the stakeholder process that is found in Attachment 1 of TPL-001-4.** *PSE responded in several places that such Stakeholder process does not apply to their studies of Energize Eastside.* That is
wrong. We can take from their response that PSE simply chose not to conduct the
required Stakeholder process when performing their TPL annual studies.

5) CENSE-16 asked if PSE ever sought to include the Energize Eastside project in a
regional transmission plan. The PSE response was:

"Puget Sound Energy ("PSE") did not seek to include the Energize Eastside project in
any regional transmission plan because it is not addressing a regional need."

That response does not square with the PSE/Quanta study assumption that Energize
Eastside needs to be built in part to assure that 1,500 MW of power can be moved to
Canada under a Heavy Winter condition with N-1-1 contingencies. [If PSE would have
sought to have Energize Eastside included in a regional transmission plan, then FERC
would have examined the ‘need’ for Energize Eastside, not the State of Washington.
And FERC policies on allocating the cost of Energize Eastside to regional utilities
would have been invoked. And Bonneville Power would have been assigned the
majority of the cost because of the requirement that Energize Eastside needed to
develop the capability to move 1,500 MW to Canada under heavy winter conditions and
N-1-1 contingency. And a NEPA Environmental Review would have been triggered
rather than SEPA. PSE did not want any of that to happen.]

6) While PSE quotes extensively from the MaxETA report on load flow studies done by
MaxETA, when asked for the files from those MaxETA load flow studies PSE
states as follows:
"Puget Sound Energy ("PSE") objects to CENSE Data Request No. 039 to the extent it seeks documents beyond the scope of PSE’s possession, custody or control as it seeks documents from third-party entities that are not participants in this proceeding.

Synapse and MaxETA were contracted by the City of Newcastle to support the City’s review of PSE’s Conditional Use Permit ("CUP") application and provide an independent analysis. PSE provided data and information to Synapse and MaxETA; however, the power flow analysis performed by MaxETA was never provided to or seen by PSE. Therefore, which “power flow models” were run, or analysis ultimately performed by Newcastle’s consultant is not known."

If PSE wants to rely on language in the MaxETA report, PSE needs to make a witness from MaxETA available to answer data requests and for cross examination. Further, in response to a Public Record Request I made to the City of Newcastle, MaxETA provided all the load flow studies they ran in the work they did for the City of Newcastle. That response clearly demonstrates that many of the load flow studies they talk about in their report simply were not made by MaxETA/Synapse.

7) CENSE-21 asked for information about the DRK-IT testimony regarding audits performed by other on TPLs prepared by PSE. PSE responded as follows:

"Members of Puget Sound Energy’s ("PSE") Transmission Planning team were present and engaged throughout the audit processes related to the North American Electric Reliability Corporation ("NERC") Standard TPL-001. The specific participant names in the audits by the Western Electricity Coordinating Council ("WECC") and Federal
Energy Regulatory Commission ("FERC") are only available in the non-public WECC/NERC compliance audit reports."

This response is completely inadequate, especially in light of clear evidence that neither NERC nor WECC have ever conducted an audit of PSE TPL studies.

8) CENSE-18 asked PSE to re-run load flow studies DRK-3 and DRK-4 with the gas fired generation turned on and with only 500MW flowing to Canada. PSE responded as follows:

"Puget Sound Energy ("PSE") objects to CENSE Data Request No. 018 as unduly burdensome and duplicative with because it requests PSE complete a new load flow study. The requested powerflow analysis would take around four months to complete using the PowerWorld software."

This response makes no sense. First, it is not necessary to use the PowerWorld software to make these runs. WECC makes the data bases available for PTI and GE PSLF software which should be readily available to PSE load flow modelers. Further changing of the data for the running of (a) the gas fired generators and (b) changing the flow to Canada could be done in less than an hour. Running the model itself after changing the input data only takes minutes.

9) CENSE 43 asked PSE to identify all substations that would be served by the Energize Eastside project and provide for each winter peak loads, summer peak loads, and the
duration of such load for the period from 2006 to the present. *PSE provided a list of 12 KV substations impacted by CAPs.*

Those PSE listed substations include substations north of the Sammamish substation that can be served by other 230/115 KV substations such as Echo Lake, BPA Snohomish and Beverly Park. Those listed 12KV substations also include substations south and east of Talbot Hill that can be served by other 230/115 KV substations such as OBrien, Berrydale, White River, BPA Tacoma, and Tacoma City Light SW.

Clearly a failure of a bank at Sammamish or Talbot Hill or both during a heavy load situation would not require load shedding at all these 12 KV substations. The other nearby 230/115 KV substations would be available in such an emergency to supply customers served by these other listed substations. And these other substations can be loaded to their emergency ratings in such an event. Lauckhart and Schiffman made a load flow run under Winter peak with N-1-1 outages of Sammamish and Talbot Hill 230/115 KV transformers. No transmission problems were found because the other nearby 230/115 KV transformers performed to avoid any problems.

**Q. Are these WUTC expressed concerns as valid today as they were in February of 2018?**

**A. Yes.**

**IV. PERMIT MATTERS REGARDING ENERGIZE EASTSIDE**
Q. Have FERC or WECC ever stated that PSE need to build Energize Eastside in order to comply with FERC/NERC reliability criteria?

A. No. On October 21, 2015 FERC stated that (a) since Energize Eastside is located completely in the PSE service territory AND (b) because PSE never asked for Energize Eastside to be included in a Regional Transmission Plan; that FERC has no jurisdiction over Energize Eastside and the need for Energize Eastside needs to be decided by the State of Washington. See Exhibit RL-8.

Q. Given this FERC finding, where could PSE go to demonstrate the need for PSE in order to get a permit to build Energize Eastside?

A. PSE had the choice of asking the State of Washington Energy Facility Site Evaluation Council (EFSEC) to permit the line or to ask for Conditional Use Permits from the Cities that the Energize Eastside lines pass through. PSE chose the latter. That being the case, each city needs to determine if Energize Eastside fits within its codes.

Q. Has PSE received the permits it needs to build Energize Eastside?

A. No. PSE has not received permits from the Cities of Newcastle, North Bellevue, Redmond or Kirkland. See Attachment 9 to this testimony. The Hearing Examiner in Newcastle gave Conditional Approval to the PSE request for a Conditional User Permit for Energize Eastside. But the Condition has not yet been satisfied.

V. PRUDENCE RECOMMENDAION
Q. What are the four factors the WUTC looks for in a prudence review and how well has PSE met those criteria?

A. The four factors are:

1) **Is there a need for Energize Eastside?** [As indicated in this testimony, PSE fails in its legal burden to prove EE project. PSE inappropriately relies on CEII arguments and confidentiality arguments to refuse to provide the solid verifiable facts demonstrating project need.]

2) **If yes, have Alternatives to Energize Eastside been properly identified and studied?** [As indicated in this testimony, PSE makes no legitimate effort to study appropriate alternatives to Energize Eastside.]

3) **Was there adequate communication with the PSE Board of Directors?** [Based on PSE answers to data request, it appears there has not been adequate communication with the PSE Board of Directors. This answer is further complicated by the Ownership Transfer Proceeding in 2018 in which the new owners were advised by myself of problems with the justification Energize Eastside, but the new owners on the Board imprudently chose not address the matters brought to their attention.]

4) **Is there adequate documentation of the decisions made by PSE?** [As indicated in this testimony, PSE continues to refuse to provide the necessary information to allow for proper investigation by parties like CENSE on why the project is needed and why the conclusions of the Lauckhart-Schiffman load flow study are not correct.]
Q. Given the testimony you have to the WUTC in February of 2018 and given the testimony you provide here regarding PSE’s failure in its legal burden to prove EE project need, what is your recommendation to the PUC regarding Energize Eastside in this proceeding?

A. There are several candidate dates when the commission could establish when PSE should have known not to continue to pursue Energize Eastside as follows:

- PSE knew, or should have known, that Energize Eastside was not a prudent project in **2013**. They should have known the assumptions in the Quanta studies (including shutting down PSE west side gas fired generation during a heavy winter peak) were not proper. And they were aware of the problem of co-locating gas and transmission lines was extremely dangerous from the experience in Bellingham in 1998.

- Quanta told PSE and Columbia Grid in 2011 that the cost of EE would be $70 million. [Exh RL-34]. That is why ColumbiaGrid chose EE over the SCL line option. But by the year **2015**, the estimated cost of the Energize Eastside project had jumped to over $250 million, apparently because PSE had come to the understanding that the 115 KV lines could not be removed for conversion to 230 KV until the 230KV was already in place and operating. That required a complete redesign of the Energize Eastside project and a very large increase in cost. It was imprudent not restudy at that time.

- PSE was put on notice by the WUTC in **Feb 2018** that their project was at risk in the WUTC Acknowledgement Letter in their IRP.

- PSE Owners were made aware of the problems with the prudency of Energize Eastside in **2018** in the Ownership Transfer proceeding. A prudent owner would have
negotiated the price it paid for purchasing PSE at the time to eliminate the investment
made in Energize Eastside up to that time and chosen to stop pursuing Energize
Eastside at the time.

I recommend the WUTC pick one of the dates highlighted above as when PSE should
have known not to continue spending money on Energize Eastside.

Q. Does this conclude your prefilled testimony?

A. Yes it does.
Attachment 1 … Discussion of safety of EE

If there is a transmission reliability problem on the Eastside (something that I dispute), then I have identified several options for dealing with any such problem that do not require building Energize Eastside on the same right-of-way as the Olympic Pipeline. It is obvious that if there are several options to solve a problem where only one among them is capable of killing people, no matter how remote that risk might be, a prudent utility would pick any one of the safe options over the one with its unique lethality.

The WUTC needs to be reminded of what happened with the Olympic Pipeline in Bellingham in the year 1999. View the video at the link below.


Imagine if this disaster happened in one of the cities on the eastside rather than in a park in Bellingham.

After a three-year investigation, investigators pointed to a series of failures, and not just a single error, most of which were the fault of Olympic Pipeline. Olympic Pipeline had failed to properly train employees, and had to contend with a faulty computer SCADA system and pressure relief valve. In 1994, five years before the accident, an IMCO Construction crew, working on behalf of the City of Bellingham, damaged the pipeline while constructing the city's water treatment plant, and Olympic Pipeline had failed to find or repair the damage.[2]

Olympic, Equilon and several employees faced a seven count indictment after the investigation in 2002. The companies pleaded guilty to several of the charges, leading to a $112 million settlement, a record at the time. This was the first conviction against a pipeline company under the 1979 Hazardous Liquid Pipeline Safety Act

ON THE BASIS OF SAFETY ALONE, THE WUTC SHOULD FIND PSE’S INVESTMENT IN ENERGIZE EASTSIDE TO BE IMPRUDENT.
Attachment 2 … Discussion of what the WUTC has already said about EE

Proceeding UE-160918 dealt with the PSE 2017 IRP. The WUTC staff and myself and others provided considerable comment/concern regarding Energize Eastside and how PSE was treating that in their IRP. The June 19, 2018 WUTC Acknowledgement Letter in that proceeding provided a list of several matters related to Energize Eastside that needed to be dealt with in the future. PSE has failed to do that. For example, the Acknowledgement Letter stated:

the Plan does not include a narrative regarding:

- The effect of the power flows due to entitlement returns on the need for the Energize Eastside Project.
- The reason for, and effect on the need for the Energize Eastside Project, of modeling zero output from five of PSE’s Westside thermal generation facilities.
- PSE’s choice not to provide modeling data to stakeholders with Critical Energy Infrastructure Information clearance from FERC.
- Resolution of the effect of lower load assumptions on the need for Energize Eastside Project.

These problems have still not been addressed by PSE. Note:

Regarding power flows to Canada...PSE has never provided any contract that PSE has entered into which requires PSE to pay for transmission infrastructure improvements to enable their transmission grid to provide for 1,500 MW of flows to Canada under extreme winter peak conditions with N-1-1 or N-2 contingencies. PSE has failed to correct their load flow studies to remove the requirement that PSE ratepayers pay for the cost of upgrading their transmission lines to enable 1,500 MW to flow to Canada under these conditions.

Regarding modeling zero output from five of PSE’s Westside thermal generation facilities...PSE has never explained why their load flow studies modeled these power plants at zero output. PSE has failed to correct their load flow studies to show these plants operating full out in extreme winter peak conditions. WECC Base Cases show these plants running full out under winter peak load conditions.

Regarding PSE’s choice not to provide modeling data to stakeholders with Critical Energy Infrastructure Information clearance from FERC...PSE has still not provided this information. Clearly PSE is using data in its load flow studies dealing with Energize Eastside that differ substantially from what PSE tells WECC to include in WECC Base Cases. What is needed is a "data autopsy" on the data that PSE used when attempting to justify Energize Eastside. PSE continues to hide the ball on this information so we cannot know what all they chose to vary from what they told WECC and why they varied.
Regarding Resolution of the effect of lower load assumptions on the need for

Energize Eastside Project...PSE refuses to show the latest forecast and actual load on the
18 substations that are in the Energize Eastside area. They clearly have that data available,
but they claim that the load in King County is all they are willing to provide.

ON THE BASIS OF PSE’S FAILURE TO ADDRESS THESE ISSUES RAISED IN THE 2017
PSE IRP ALONE, THE WUTC SHOULD NOT AGREE THAT PSE’S INVESTMENT IN
ENERGIZE EASTSIDE IS PRUDENT
Attachment 3 … Discussion of PSE’s improper reliance on PSE TPL studies and other studies

As the WUTC acknowledged in their Acknowledgement Letter in UE-160918, PSE has refused to provide modeling data to stakeholders with Critical Energy Infrastructure Information clearance from FERC.

PSE argues that it does not need to provide that data because they study Energize Eastside in their Annual Transmission Planning Assessments. But this PSE argument fails because:

1) PSE has provided no TPL-001-4 Annual Transmission Planning Assessment report in this or any other proceeding.

2) TPL-001-4 has a requirement for Stakeholder Involvement. But PSE erroneously claims that the Stakeholder process described in Attachment 1 to TPL-001-4 is not applicable when it comes to updating a study of the need for Energize Eastside in an Annual TPL-001-4 Transmission Planning Assessment. That argument makes no sense.

3) PSE says that WECC performs audits of its Annual TPL-001-4 Transmission Planning Assessments. But a listing of which entities have been audited by WECC and NERC can be found at:

https://www.nerc.com/pa/comp/Pages/NERC%20Regional%20Audit%20Reports.aspx

Open this link and you will find links to all the audits that WECC/NERC have conducted over the years. Click on the "WECC" tab. There are links to the audits performed for each of the years 2014-2021. Click on the tab for each of the years 2014-2021. These tabs show the names of the entity being audited. PSE's name does not appear in any of these years as having been audited on compliance with TPL-001. Click on one of the specific audits in any of these years to get an example of what is in an audit report. Note that each report says, "Confidential Information Has Been Removed, Including Privileged and Critical Energy Infrastructure Information." So, any PSE argument that their audit was not included in this list because of CEII concerns does not hold water.

PSE has not provided any such WECC/NERC audit report of its annual TPL-001-4 Transmission Planning Assessments because no such audit is listed by WECC/NERC.

PSE also argues that the FERC Order in the Johnson/Lauckhart Complaint at FERC makes it clear that the PSES/Quanta studies were done correctly, which PSE claims means that FERC agrees that Energize Eastside is necessary to meet reliability requirements. That claim is false. A reading of that FERC Order makes it clear that FERC decided that since (a) Energize Eastside is
completely located in the PSE service territory, AND BECAUSE PSE never asked for the line to be included in a Regional Transmission Plan; that FERC has no jurisdiction over Energize Eastside and any need for Energize Eastside needed to be decided by the State of Washington. That being the case, PSE had the option of either (a) attempting to permit the project at EFSEC or (b) to seek permits from the individual cities such as Newcastle. PSE chose the latter, which itself was an imprudent decision because of the cost and lengthy time compared to the EFSEC process. PSE has already spent over $100 Million on permitting of Energize Eastside and still does not have all its needed permits after 8 years of trying.

PSE also argues that FERC Reliability criteria TPL-001-4 requires PSE to build transmission to address any transmission reliability problems it finds when doing TPL-001-4 Transmission Planning assessments. But that is not true. TPL lists many actions that are allowed to be taken to address any transmission reliability problems it finds. TPL 001-4 requires an analysis of system deficiencies. But at page 4, the rule lists the “associated actions needed to achieve required system performance.” Though “installation of transmission” is one of those “associated actions,” several other actions are listed, including “Operating Procedures” as well as “use of rate applications, DSM, new technologies or other initiatives.” There is no one required “associated action” or “solution.” Instead, a utility must plan a solution that will eliminate the deficiency.

PSE has provided absolutely no concrete evidence that Energize Eastside is needed, or that if needed, that other prominently identified alternatives (such as a small peaker located near the load in Bellevue, or use of the Existing Seattle City Line, or a new 230/115 KV transformer at the PSE Lake Tradition substation, or a cocktail of DSM activities such as rate design or battery installations) would be more prudent to invest in rather than Energize Eastside.
Attachment 4 … Discussion of Lauckhart/Schiffman (including reference to Attachment on summer peak)

As the WUTC stated in their Acknowledgement Letter in UE-160918, the IRP does not include a narrative regarding three key items related to their examination of the need for Energize Eastside. These three items are:

* The effect of the power flows due to entitlement returns on the need for the Energize Eastside Project
* The reason for, and effect on the need for the Energize Eastside Project, of modeling zero output from five of PSE’s Westside thermal generation facilities.
* Resolution of the effect of lower load assumptions on the need for Energize Eastside Project

PSE has chosen not to modify their load flow studies to adjust for these three items. Nor has PSE run a series of load flow studies for a heavy summer peak load situation.

The Lauckhart-Schiffman load flow study dated February 18, 2016 corrected for these three items. The Lauckhart-Schiffman load flow study was provided to the WUTC on July 25, 2017 in connection with the PSE IRP Docket No. UE-160918.

The Lauckhart-Schiffman load flow study found there are no transmission reliability issues on the Eastside in a heavy winter load flow situation. That study also addressed the heavy summer situation in its Appendix G. As Appendix G states, the heavy winter loads on the 18 substations on the Eastside total 402 MW. The heavy summer loads on the 18 substations on the Eastside total 281 MW. There is no generation on the eastside, so all generation needed to feed these 18 substations needs to be brought in from outside the eastside geographic area. The problem with the PSE/Quanta load flows studies of Energize Eastside is that the 1,000+ MW of PSE Westside thermal generation that they decided to take offline during the winter peak *(much more than the 402 MW of Eastside load) is the generation that is designed to serve these eastside loads.* Taking them offline during a heavy winter peak results in problems with the transmission system on the eastside. PSE/Quanta should have rerun their load flow study to see if any transmission deficiency remained if those power plants were running full out. WECC Base Cases have these projects running full out in a heavy winter condition. **The Lauckhart-Schiffman study turned these plants on and we found no transmission reliability problem on the eastside.** Further, Appendix G of the Lauckhart-Schiffman study explains why it is clear that no summer problem exists even without having to run a heavy summer load flow study.

The Lauckhart-Schiffman load flow study used the loads that PSE had provided to WECC in 2015 for WECC Base Cases in year 2018. These loads were considerably lower than the loads used by
PSE/Quanta in their load flow studies. Since February of 2016 when the Lauckhart-Schiffman studies were run, loads have proven to be even lower than what Lauckhart-Schiffman used. Making the finding of the Lauckhart-Schiffman load flow study work even more legitimate that there are no transmission reliability problems on the eastside.

The Lauckhart-Schiffman load flow study corrected flaws in the PSE/Quanta load flow studies. When these flaws are corrected, it is clear there are no transmission reliability problems in the PSE Eastside area. That being the case, any money PSE continues to spend on Energize Eastside is imprudent.
Attachment 5 … Alternatives to EE if needed

As I have previously commented, the Lauckhart-Schiffman study evidences that there are no reliability problems on the eastside.

But if somehow the WUTC finds there is a reliability problem, there are four prominently identified alternatives that are much better than building Energize Eastside. Those alternatives are:

1) **Using the existing Seattle City Light line instead.** Seattle City Light owns a large double circuit 230 KV line that parallels the proposed Energize Eastside transmission line. It is located a short distance West of the proposed Energize Eastside transmission line. Under FERC "Reciprocity" rules SCL is obligated to make its lines available to others if formally requested to do so. SCL has formally adopted its own FERC compliant Open Access transmission agreement. PSE claims that SCL said they preferred PSE not use its line. But PSE never formally requested to be allowed to use the SCL line. SCL has said that if PSE would have requested to use the SCL line that SCL would have discussed how that would be done. A short "loop" of the SCL line through the PSE Lakeside substation would accomplish what needs to be done. While PSE would need to pay for the cost of looping the existing SCL line through the Lakeside substation, such cost would be much lower than the cost of building Energize Eastside. And the safety risk caused by locating Energize Eastside on the same corridor as the Olympic Pipeline would be greatly reduced.

2) **The Lake Tradition alternative.** The existing PSE Lake Tradition 115 KV switching station near the City of Issaquah includes several 115 KV lines that serve the eastside. There is no 230/115 KV transformer in this switching station. An existing BPA 230 KV line is literally within a stone’s throw from the Lake Tradition switching station. PSE has long recognized that looping the existing BPA 230 KV line through the Lake Traditions switching station and installing a 230/115 KV transformer there would be a good plan if the eastside load grew to the point of needing more 230/115 KV transformation. A prudent decision would be to study this alternative rather than pursuing Energize Eastside.

3) **A small peaker plant located near the load in the city of Bellevue** so there is no need to build Energize Eastside. The most recent PSE IRP indicates that PSE needs to add more peaker power plants in order to have enough power to cover their peak load. The IRP further states that the peaker needs to be fueled with biodiesel which is a CETA compliant fuel. Locating such a peak near the load in the City of Bellevue to avoid building 18 miles of new 230 KV transmission is the prudent thing to do. Further, in order to provide for "environmental justice" in the locating of power plants, it is time that the City of Bellevue hosts such a peaker plant. To date, the City of Bellevue has avoided any adverse
environmental impacts from power plants because the power plants serving Bellevue have all been located where the adverse environmental impacts affect others. That is not environmental justice.

4) A cocktail of Demand Side Management programs. Demand Side Management (DSM) programs include (a) energy efficiency measures (e.g. insulation and double pain windows) put in customer premises, (b) rate incentives to cause customers to reduce load during peak load hours, (c) batteries to provide a source of power near the load when needed, (d) decentralized located small generators, etc. The draft Synapse report strongly criticized PSE for not making more effort to accomplish a cocktail of these DSM programs. Prudent planning would involve more activity on this front rather than just looking for a Transmission Solution. Especially if Energize Eastside is the proposed transmission solution that is extremely costly and suffers from safety problems to PSE customers.

There is clear evidence that there is no reliability problem on the transmission grid on the eastside. But if the WUTC believes otherwise, then any of the above 4 alternatives need to be seriously studied before it is determined that building Energize Eastside is a prudent use of PSE ratepayer funds.
Attachment 6 … Discussion of MaxETA/Synapse report included in Koch testimony

In his Prefiled Direct Testimony in this proceeding (DRK-1T), Daniel Koch provides the basis for PSE’s belief that Energize Eastside is needed and is a prudent investment. But there are many problems with his testimony as follows:

1) At page 50 of DRK-1T Mr. Koch testifies that PSE is audited by the Western Electricity Coordinating Council ("WECC") on behalf of NERC for compliance with all NERC standards and is subject to substantial penalties for failure to comply with the NERC standards. But as I point out in my third set of public comments in this proceeding sent on April 9, 2022, the only list of audits performed by WECC and NERC can be found at: https://www.nerc.com/pa/comp/Pages/NERC%20Regional%20Audit%20Reports.aspx

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An examination of the list of all the audits of NERC standards performed by WECC and NERC in the years 2014 to today evidences the truth that PSE has not been audited by WECC or NERC in any of these years for compliance with any FERC/NERC reliability standards. That is why PSE has not provided a copy of any audit report related to their annual TPL studies.

2) Mr. Koch discusses matters related to the PSE load forecast. That discussion is irrelevant for this proceeding because the WUTC should only be interested in what loads PSE has provided to WECC so that WECC can prepare Base Cases as required by FERC. WECC has a number of Base Cases that they can provide under non-disclosure agreements. I have collected a number of those WECC Base Cases. Synapse also asked for and got WECC Base Cases from WECC in order to understand what PSE loads were on each of the substations on the eastside in Heavy Winter load conditions and also in Heavy Summer load conditions. PSE should not be using loads that differ from what they told WECC in their studies. I have examined loads on the PSE eastside substations. PSE has been reducing these loads. PSE needs to have correct substation loads for WECC Base Cases because other utilities in the WECC, including (a) Seattle City Light and (b) the Bonneville Power Administration (who also have loads in King County); both use these WECC Base Cases for their own transmission reliability studies. PSE has not updated the PSE/Quanta load flow studies since 2013 or 2015. The loads in their load flow studies are higher than what they are telling WECC now. The PSE/Quanta 2013 and 2015 load flow studies need to be updated. Choosing not to update their studies is imprudent.
3) Mr. Koch attaches the report that MaxETA/Synapse prepared for the City of Newcastle as his Exhibit DRK-12. His testimony neglects to mention that MaxETA/Synapse found no winter transmission system problems on the eastside. MaxETA/Synapse got recent WECC Base Cases with the more recent PSE forecast of loads on the 18 substations on the eastside. When MaxETA/Synapse ran their load flow studies they found no transmission problems on the eastside in the winter. That is fully consistent with the Lauckhart-Schiffman study. PSE has made no attempt to discredit the MaxETA/Synapse finding that there is no transmission reliability problem on the eastside in the Winter.

4) Mr. Koch relies on the MaxETA/Synapse alleged finding of a Bulk Electric System vulnerability in King County in the summer as a demonstration of "NEED" for Energize Eastside. But MaxETA/Synapse did not run any load flow studies or Transient Stability studies that demonstrated that there was a Bulk Electric System vulnerability in King County in the summer. (Note: In response to a Public Record Act request, MaxETA/Synapse made it clear that they just got recent WECC Base Cases from FERC and made some load flow runs with those. But they never ran a load flow study that demonstrated there was a Bulk Electric System vulnerability in either King County or the Eastside. Further, they never ran any study that demonstrated that Energize Eastside would solve this unidentified problem).

The information that MaxETA/Synapse relied on to conclude there is a Bulk Electric System vulnerability in King County can be found on Exhibit DRK-12 at pages 24 and 25 of 33 pages. The insights gained from pages 24 and 25 of DRK-12 include:

   a) At page 24 MaxETA/Synapse make it clear that they are relying on PSE's assumption of a King County threshold of 1,594 MW on Figure 10. MaxETA/Synapse did not develop this number.

   b) Figure 10 on DRK-12, page 25 shows that for every year starting in 2008 until today, the actual load exceeded the PSE estimated 1,594 MW Threshold. If PSE believes that is true, then PSE is under a FERC/NERC obligation to address/fix that problem ASAP. And if not fixed, then PSE needs to have "self-reported" a violation of FERC/NERC reliability criteria. And PSE would be assessed big fines by FERC for (a) failing to self-report a violation, and (b) failing to address the problem. If the MaxETA/Synapse finding of a Bulk Electric System vulnerability in King County is true, then PSE needs to be working with Seattle City Light and Bonneville Power to determine the best fix for the problem. However, since no other reliability organization is aware of this problem and since MaxETA did not run load flow studies that demonstrated that such problem exists, then likely no such problem exists. Therefore, MaxETA/Synapse have actually found that (a) there is no winter problem that needs to be addressed by building Energize Eastside and (b) there is no summer problem that needs to be addressed by building Energize Eastside.

THE MaxETA/SYNAPSE REPORT DEMONSTRATES THAT ATTEMPTING TO BUILD ENERGIZE EASTSIDE IS IMPRUDENT
Attachment 7 … Discussion of problems with foreign ownership and my testimony in ownership transfer proceeding

Four foreign companies acquired US electric utilities during a four-year period starting in 1999. The buyers decided that the prospect of US regulation was an acceptable price of owning a US utility. State approval of these acquisitions was contentious, and the applicants had to enter in settlements with consumer advocacy groups and to agree to numerous conditions to get through them.

In 2009 Macquarie (An Australian based company) bought all of the stock of Puget. Why did Macquarie want to buy Puget?

Macquarie stated: “We don’t have employees. We’re not the neighboring utility. Combining work forces and eliminating redundancies is not the story. Our interest is to grow the business.”

How do you grow a utility regulated by the WUTC?

Macquarie had a plan to invest $1 Billion each year into new PSE utility infrastructure so they could get the WUTC to increase the electric rates for PSE retail customers and increase their profit. By the year 2013, Macquarie was 4 years into the five-year period and had been able to justify only a small amount of new investment. Macquarie came up with the idea of justifying Energize Eastside in order to greatly increase their investment. Macquarie hired Quanta to run load flow studies to attempt to justify the need for EE. Macquarie was using Quanta to build any new PSE infrastructure. Macquarie apparently advised Quanta that they would become the Engineer, Procure, Construct (EPC) contractor on Energize Eastside if Macquarie could get it permitted. It would appear that Quanta adopted a fatally flawed load flow analysis in order to get the lucrative EPC contract.

But Macquarie ran into opposition to their plan to permit Energize Eastside, so in 2018 (WUTC Docket No. U-180680) a number of Canadian Pension fund management firms petitioned the WUTC to authorize the sale of Macquarie’s ownership of PSE to them.

At the time I commented to the WUTC that it is apparent that foreign ownership under Macquarie has been very problematic. Foreign ownership prioritizes financial returns for distant investors over local community values. A foreign investor that is investing retirement fund monies has the primary goal of maximizing the return they make on those invested funds. This becomes particularly problematic when it comes to Transmission Planning of PSE’s internal transmission system since these owners, with a primary goal of maximizing profit, have worked to avoid knowledgeable review of their desired plans to
build transmission lines in PSE’s service territory. In pursuing profit, the foreign owners have the incentive to build large transmission projects that are not needed in order to increase ratebase and reap the WUTC regulated return on those unneeded investments.

The transfer of ownership of PSE to Canadian Pension fund management firms results in PSE owners being primarily interested in making the most money they can for the pension funds they are managing. The owners do not pay PSE electric bills, so they don’t care what PSE rates are. The owners do not live near the Olympic Pipeline so they have no fear that their families and friends are facing risk of a catastrophic explosion. By approving the ownership of PSE by these Canadian Pension Fund management companies, WUTC takes on a critical responsibility to regulate the actions these foreign investors are pursuing.

In proceeding UE-220066, the WUTC should recognize that the owners of PSE are making an imprudent decision to build Energize Eastside in order to meet their mission of maximizing profits for their pension funds.
Attachment 8 … City of Newcastle Hearing Examiner Ruling

On April 28, 2022, after a 5-day hearing and extensive briefing, the Hearing Examiner for the City of Newcastle issued his "FINDINGS OF FACT, CONCLUSIONS OF LAW, DECISION AND CONDITIONS OF APPROVAL" on the application submitted by Puget Sound Energy for a Conditional Use Permit in the City of Newcastle for the Energize Eastside transmission project. The Hearing Examiner produced an 81-page document to explain and support his decision.

The Hearing Examiner gave Conditional Approval of the permit for Energize Eastside. He rejected all the testimony of CENSE witnesses including myself, saying that Jens Nedrud had clearly rebutted the expert testimony of all CENSE witnesses including myself. This Hearing Examiner 81-page document has many problems which need to be brought to the attention of the WUTC in proceeding UE-220066. In this public comment I will address some of the problems.

1. The Hearing examiner was not asked to address, and did not address, the Prudency of Energize Eastside. He only ruled on whether or not Energize Eastside fit within the City Code of the City of Newcastle.

2. At the outset of the hearing, the Hearing Examiner was asked to order PSE to produce key documents, including the key load flow files, that were produced when PSE ran their load flow studies that allegedly demonstrated the need for Energize Eastside. PSE objected to having to produce this information. The Hearing Examiner refused to require PSE to produce this information even though myself and others had signed a CEII Non-Disclosure Agreement. That allowed PSE to continue its 8-year effort to refuse to make available the standard vital underlying information that power planners use and expect from others to justify system upgrades.

3. The Hearing Examiner stated that PSE had very recently performed a TPL-001-4 Annual Transmission Plan that continued to show there was a need for Energize Eastside. However, PSE never produced a TPL-001-4 report in that proceeding to support their statement. And PSE took the position that the Stakeholder Process required by TPL-001-4 did not apply to studies they made on Energize Eastside.

4. The Hearing Examiner stated that the PSE TPL-001-4 studies were reviewed and accepted as appropriate through WECC audits, despite the fact that PSE never produced an audit report to support their claim that such an audit was performed. As I stated in my third set of comments to you on April 9, 2022, the information in the link below indicates that neither WECC nor NERC has ever conducted such an audit of PSE TPL-001-4 compliance.

https://www.nerc.com/pa/comp/Pages/NERC%20Regional%20Audit%20Reports.aspx

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5. The Hearing Examiner found, based on the testimony of Jens Nedrud, that Seattle City Light could not be required to let PSE use its transmission line that runs parallel to the Energize Eastside proposed route. This despite the clear evidence that SCL must make its Transmission Line available for use under the FERC Open Access Tariff reciprocity requirement. And despite the fact that Seattle City Light has officially adopted its own Open Access Transmission Tariff that complies with FERC requirements for such a tariff. And despite the fact that the Hearing Examiner was provided a copy of a letter from Seattle City Light written to Larry Johnson saying that PSE never officially requested to be allowed to use their line and SCL would have entered into discussions with PSE to allow that to happen if PSE ever formally requested us of their line. 

6. The Hearing Examiner relies extensively on the report by MaxETA/Synapse for the City of Newcastle. This despite the many problems with this MaxETA/Synapse report that were provided him in the Newcastle CUP hearing. And the Hearing Examiner refused to require that authors of the MaxETA/Synapse report appear in hearing and stand cross examination. There was considerable criticism of the MaxETA/Synapse report brought to the attention of the Hearing Examiner, but he simply ignored that testimony.

The WUTC is clearly more qualified to review these complicated power planning matters than is the Hearing Examiner for Newcastle. In UE-220066, the WUTC needs to examine these and other matters related to the PSE attempt to have the WUTC find that Energize Eastside is a Prudent Investment.