January 15, 2018

Steven V. King
Executive Director and Secretary
Washington Utilities and Transportation Commission
P.O. Box 47250
1300 S. Evergree Park Drive S. W.
Olympia, Washington 98505-7250

Re: Puget Sound Energy – 2017 Integrated Resources Plan Docket UE -160918. Rejection of plan due to failure to meet RCW WAC 480-100-132 requirements; Request for supplemental information to fulfill requirements and scheduling of Public Hearing concerning "Energize Eastside" proposal.

Dear Executive Director and Commissioners:

My name is Warren Halverson. I am a retired executive from U. S. West (now Century Link); President of the Canter Green HOA in Bellevue's Bridle Trails neighborhood, Board Member of CENSE and a 45 year ratepayer of Puget Sound Energy.

Over the last four years I have become very involved in electrical reliability issues through involvement with the Bridle Trails Association, the City of Bellevue and the Coalition of Eastside Neighborhoods for Sensible Energy. During this time, I have actively participated with written and oral testimony at Puget Sound Energy's Community Action Group meetings, PSE's Energize Eastside forums, PSE/ City of Bellevue's EIS meetings, various electrical energy forums and PSE's 2015 and 2017 Integrated Resources Planning forums, Advisory Group meetings and processes.

Based upon these personal involvements and analysis of factual information provided in Attachment 1, 2 & 3, it is "our" conclusion that PSE's 2017 IRP miserably fails to address or to provide detail for at least five requirements in RCW WAC 480-100-238. Integrated Resource Planning. (Listed below I reference WAC requirements using parans ().)

1. It fails to provide detail concerning "transmission capability requirements" (3)(d).

2. It fails to provide in Chapter 8: System Planning, for the project Energize Eastside "an assessment of transmission capability and reliability" and meaningful planning, analysis and detail (3)(d).

3. It fails to provide adequate detail and analysis concerning electrical demand, Chapter 5 (3)(a), 3(b), 3(c).

4. It fails to be transparent and open with the IRP Advisory Group in pursuing answers to ongoing questions and requests for further detail (5).

5. It fails to assess market environment, modern technology and alternative solutions in even the broadest sense. This assessment is necessary to satisfy ratepayers and PSE's objective of providing reliable energy in a cost effective manner. This assessment is necessary for the WUTC to meet prudency tests and ultimately rate hearing determinations. It fails 2(b); 3(e); 3(f) in RCW WAC 480-100-238.

Clearly, the WUTC does not manage PSE nor does it manage its projects. However, the WUTC is empowered with the most significant oversight role of any public agency. Being a business person, I truly appreciate the significant responsibility of providing reliable power at a reasonable cost. However, Puget Sound Energy has an exclusive franchise. PSE is a monopoly, a monopoly with unlimited power, foreign ownership and a guaranteed rate of return to shareholders. The WUTC guarantees this rate of return. In effect, the WUTC is the "invisible hand" in our economic system. Thus, your role in protecting the public is both essential and appreciated.

Today, the public has asked - literally cried out - to have an impartial review of PSE's proposed "Energize Eastside". This outcry has occurred only after every human effort possible has failed to get answers to questions. This project, conceived in 1993, – 24 years ago – will leave scars in our neighborhoods for the next 40 years and beyond. Energize Eastside is so large, costing ratepayers $250, 000, 0000 to upwards of $1,000,000, 0000 over the life of the project; so controversial in light of rapidly declining electrical demand, so outdated in terms of technology and cross elasticity between transmission and production ; so environmentally devastating and so unsafe considering proximity to Olympic pipeline and adjoining family residences that no company should be able to build this without strong community scrutiny and tough regulatory oversight. Providing little or no regulatory oversight prior to its construction is simply unsatisfactory.

Chapter 8: "System Planning" seems to be a narrative description of Energize Eastside. It is based upon a biased Environmental Impact Statement. This is inappropriate and incomplete for an IRP evaluation. It seems that this chapter violates the intent of WAC 480-100-132 and falls short if the purpose here is to justify the project.

We therefore request the WUTC fulfill its responsibility by requiring PSE to fulfill its responsibility to provide:

1. Current Load Flow Studies for all transmission and distribution lines located in the Eastside of King County. Special emphasis should be placed on the current 115KV line which PSE proposes to replace with a 230KV transmission line. PSE has often asserted that these lines are outdated and overloaded. Only with current Load Flow studies can demand and reliability be accurately determined.

2. Current "Eastside Customer Demand Forecasts" with assumptions, actual and forecasted numbers. For IRP continuity and understanding, this should include a comparison to the previous 2013 and 2015 forecasts.

3. Alternative Solutions to an overhead 230KV transmission line. Only with a current load flow study and a local forecast can PSE justify a solution that meets their responsibility to provide reliable electrical energy and do it for consumers in a cost effective way. You too share with them social responsibility for the safety of our citizens and the protection of our environment.

In conclusion, we request the WUTC (1) reject PSE's 2017 IRP submittal until these requirements are fulfilled in a complete rewrite or an addendum; (2) hold a formal hearing on the project "Energize Eastside" for public testimony and submission of expert analysis and testimony as was done in the 2017 IRP Advisory Group meetings for other projects.

We would appreciate a formal reply to this request. Thank you for your consideration.

Sincerely and on behalf of the ratepayer public,

Warren E. Halverson

cc Commissioners Danner, Rendahl and Balasbas

Attachment #1: W. E. Halverson letter to the WUTC, "PSEs 2017 Integrated Resource Plan Chapter #5: Demand; Chapter #8: System Planning"; January 15, 2017.

Attachment #2: W. E. Halverson letter to IRP Advisory Group, "Energize Eastside: Advisory Group Concerns"; September 25, 2017. (PSE did not reply to this letter or questions herein).

January 15, 2018

Steven V. King , Executive Director and Secretary
Washington Utilities and Transportation Commission
P. O. Box 47250
1300 S. Evergreen Park Drive S. W.
Olympia, Washington 98505-7250

Re: PSE's 2017 IRP Chapter #5 Demand; Chapter #8 System Planning, Docket #160918

Dear Executive Director and Commissioners:

While there may be many factors that go into the planning and ultimately the execution of projects, customer demand has to be the primary driver. Validity of models can vary. Actuals are hopefully accurate. Forecasts are imprecise. Nevertheless, as imprecise as all this might be customer demand forecasts are critical.

The 2017 IRP demand analysis lacks detailed factual analysis and justification. Forecasts are incongruent with current information. Forecasts for the Eastside of King County are absent.

1. **Integrated Resource Planning Process – 2015 versus 2017 – Total & Peak Demand**

Total Demand: If you compare Total Electrical Demand forecasts for 2013 to 2015 to 2017, PSE shows a decline from 1.9%, to 1.6% to 1.3%*. PSE's forecasts appear to be consistently inflated by about 17%. Assuming this trend holds, PSE's forecast should be about 1.1%. After many months of IRP Advisory Group meetings PSE stated "demand is flat". I am told Seattle City Light's forecast is .9%, far less than the Eastside which PSE forecasts at 2.4%. It is interesting to note that Seattle's PRSC economic and population growth is equal to if not greater than the Eastside's. (*IRP Figure 1.2; p 1-7; 2017 IRP Figure 5-3; p. 5; 1.3).

Yet, PSE continues to quote PRSC employment and economic growth as a justification for Energize Eastside. Yet, energy growth continues to decline. Rather than creating a false public relations narrative PSE needs to be more forthright and transparent about energy growth in today's market place, as they should within an Integrated Resources Planning Process.

Using 30 year historical data in econometric forecasting is probably a major cause for the large discrepancies. In the past five years there has been a virtual revolution in technology advancements, conservation, and changes in consumer behavior that would be easily clouded.

The important issue here is that data centric information is critical to making decisions of this magnitude and PSE's methodology and conclusions appear flawed. These flaws need to be explained. Will PSE standby their 1.3% forecast?

P 2 – W. E. Halverson Testimony "PSE 2017 IRP, Chapter 5: Demand & Chapter 8: System Planning

2. Integrated Resource Panning 2015 vs 2017 – Missing Data?

In the 2015 IRP, PSE states in the Executive Summary: "Overall electric demand growth has slowed. But some areas are growing rapidly like the Eastside of King County at 2.5% versus 1.6% for all of PSE." (paraphrased). This statement has been challenged on several occasions. Unfortunately, PSE will not answer questions or provide further data and information to support a 2.5% demand projection.

In the 2017 IRP, there is no mention or forecast for Eastside of King County. Since there is no analysis here, we might assume that this number should decrease as it has for overall demand. That would suggest that 2.5% versus 1.6% in 2015 would equate to roughly 1.7% for the Eastside in 2017. But, the irony here is that just two years ago Eastside of King County was a critical element in PSE's forecasting and today it is not. The irony here is that Chapter 8, a descriptive analysis of Energize Eastside, is not supported or substantiated by a forecast for that area.

Could it be that a lower forecast would show that the intersection of demand with available capacity is out a few more years? Could it be that a lower forecast would necessitate a further examination of far less costly alternatives to Energize Eastside, which incidentally is about 400% more capacity than we now have.

The important point here is current data and information for Eastside of King County is now absent in the 2017 IRP, which strangely notable since PSE describes "Energize Eastside in such detail in Chapter 8?

3. PSE SEC Form 10K filings – 2014, 2015, 2016

As a business person and after many unsuccessful attempts to acquire demand data, I reviewed PSE's Form 10K reports to see if we could learn more about usage. Following is a table taken from those documents:

PSE – Form 10K*

Entity	2016 over	2015 over	2014 over
Total Customers "% increase yr over yr"	1.5	1.1	1.0
Energy Sales to Cust. "% increase yr over yr"	(3.0%)**	(2.9%)**	(1.6%)**

*PSE SEC 10K filings; pages 13 & 14 (various by year)

**() denotes negative

This chart includes customers and sales for all of PSE. This chart is for sales, not Total Demand or Peak Demand. In any event, this chart shows tremendous downward pressure on sales, which certainly is correlated to demand.

The most obvious conclusion is that while customer growth is increasing energy usage is declining. This is probably shocking to the general public, but probably not to those familiar with the industry.

4. "Eastside Customer Demand Forecast – 2012" & "Eastside Customer Demand Forecast – 2014" as it relates to public presentations, CAG & EIS

In 2013 and on many occasions, an "Eastside Customer Demand Forecast" was presented to the CAG as justification for the Energize Eastside project, and a solution to meet this need was imminent *(See Attachment 1)* The CAG was charged with helping determine the best transmission line route between two substations. This process charged ahead based upon PSE's demand assumption for nearly a year.

PSE provided little if any detail regarding total demand versus peak demand, assumptions, numbers or percents, technology/conservation declining growth etc. Many questions went unanswered.

P. 4 –W. E. Halverson Testimony "PSE 2017 IRP, Chapter 5: Demand & Chapter 8: System Planning

In 2015, this updated 2012 "Eastside Customer Demand Forecast" was presented to a number of groups including the City of Bellevue and PSE's Environmental Impact Statement sessions *(See Attachment 2)*. The message was that the need is imminent and EE is the solution. This process charged ahead under this assumption for another year.

As was the case in previous meetings, PSE provided little if any detail about the new 2014 "Eastside Customer Demand Forecast". There were several written and verbal inquiries about these charts. PSE would not and did not provide answers.

In PSE's and the City of Bellevue's Environmental Impact Statement (Chapter 1 – Introduction and Summary p 1-6) they say:

> "Figure 1-2. Eastside Customer Demand Forecast shows PSE's projected growth in load for the eastside from 2014-2024 and the capacity of its transmission system .... **Without adding 74MW** ....a deficiency could develop as early as winter of 2017 or summer/winter of 2018. There is a caveat that economic activity has a significant effect on energy demand." (paraphrased) *(See Attachment 3)*

Once again, several written and verbal inquiries about this chart, including assumptions, data for each year, % year over year increases etc went unanswered.

The last time that I viewed PSEs webpage this chart had been removed.

5. "Eastside Customer Demand Forecast -2012" compared to "Eastside Customer Demand Forecast – 2014"

Earlier we agreed that a customer demand forecast is critical, perhaps the most critical element of a plan. Because PSE won't provide current data it is hard to be precise. You cannot do an effective job of studying graphs without the numbers. Nevertheless, these forecasts are problematic by simply analyzing them and using some home spun measuring devices. With this analysis at least three major issues are apparent. The following are comparisons:

The 2012 10 year forecast (2012 – 2022) MW axis is 600MW to 800MW calibration.
The 2014 10 year forecast (2014-2024) MW axis is 550MW to 800MW calibration.

The 2012 actual customer demand is 645MW+/- in 2012 and 765MW in 2022.
The 2014 actual customer demand is 590MW +/- in 2014 and 790MW in 2024.

P 5 - W. E. Halverson Testimony "PSE 2017 IRP" Chapter 5: Demand & Chapter 8: System Planning

The 2012 actual numeric customer demand for each year ranges from about 4MW to 22MW.
The 2014 actual numeric customer demand for each year ranges from about 6MW to 32MW.

The 2013 percent increase for the first five months approximates **1.8%** ; last five month 1.5%.
The 2014 percent increase for the first five months approximates **3.7%;** last six months 1.9%.

> **ISSUE 1: THE 2012 FORECAST HAS A RATHER FLAT GROWTH RATE, WHILE THE 2014 HAS SIGNIFICANTLY HIGHER GROWTH FOR THE FIRST FIVE YEARS. Is the 2014 forecast front end loaded? Is this a realistic projection with what we have determined so far, and in terms of technological trends and consumer behavior?**

The 2012 actual customer demand is 650- MW in 2012 and **660MW in 2014.**
The 2014 actual customer demand is (n/a MW in 2012)and **585MW in 2014.**

> **ISSUE 2: IN 2014, THERE IS AN UNACCCOUNTED 75MW REDUCTION IN MW REQUIRED WHEN YOU COMPARE THE TWO FORECASTS. Obviously, near term years in a forecast are more accurate and certain than future years; but, without data and explanations it is hard to account for this mystery.**
>
> **This 75MW reduction is enough to fill the purported 74MW shortfall in the overall 2014 forecast. What would a current 2017 forecast show now that PSE has actuals for the years 2012 thru 2016?**

The 2012 nexus where demand meets capacity is early 2017 to 2018.
The 2014 nexus where demand meets capacity is early 2018 to 2019.

> **ISSUE 3: THE NEXUS POINT FOR THESE FORECASTS IS UNSUBSTANTIATED. IN TODAY'S ENVIRONMENT, THE 2014 FORECAST IS OUTDATED. Since these forecasts begin in 2012, we now have actuals for the past five years. What are the actual numbers between 2012 and 2016? Is the nexus projection of 2018/19 accurate? Is the nexus projection of 2018/19 realistic?**
>
> **With a current 2017 forecast, when would the nexus of demand and capacity occur, if at all in PSE's "Eastside Customer Demand Forecast"?**
>
> **The City of Bellevue has significantly reduced energy consumption. Why are these results so different from PSE's outdated forecasts and current public messaging?**

P. 6 W. E. Halverson Testimony "PSE's 2017 IRP" Chapter 5: Demand; Chapter 8: System Planning

6. City of Bellevue "It's Your City – Fall 2017 Page 3"

Most recently, the City of Bellevue was awarded the Georgetown University Energy Prize for reducing energy consumption. This is a REAL HONOR Let me paraphrase: "By taking the "Smart Energy Pledge" **Bellevue's per capita residential energy use DECREASED BY BY 3.6% from 2015 to 2016.** Businesses are now endorsing "Urban Smart Bellevue" with a goal **to reduce energy consumption by 5% .** *(See Attachment 4)*

More issues: What are the implications to PSE's forecast for 2015? What are the implications for a future forecast and future plans?

The focus herein has been primarily demand. The flip side of this is capacity. In Chapter 8: System Planning there is no mention of **Load Flow Studies.** It is my understanding from experts in the field that the only way to know exactly what is occurring on our electrical infrastructure is to conduct complete load flow studies of the lines and system. This is probably a little simplistic but it does capture a common business viewpoint that you need to know capacity and usage to determine whether you increase that capacity or improve it. Several attempts have been made by the CENSE organization to work with PSE to conduct current load flow studies. In fact, an independent one, Lauckhart/Schiffman, was done using WECC data provided to WECC by PSE. This "illuminated" major flaws in previously outdated studies conducted by PSE. PSE has proclaimed that five different studies were conducted justifying Energize Eastside. However, they never say that only one was based upon a full load flow study of the system. In fact, the other "studies" generally and simply confirm that proper procedures and guidelines were followed.

The electrical industry landscape is changing i.e. declining growth, new technologies, abundance of enery in the USA, Canada, California and Southwest. Yet, Washington Rate Payers are going to be asked to fund a project that is not completely "vetted". **Why won't PSE conduct a current Load Flow study and analysis on the Energize Eastside?**

P.7 W. E. Halverson Testimony "PSE's 2017 IRP" Chapter 5: Demand & Chapter 8: System Planning

With only our limited amount of information, the WUTC and ratepayers must question whether a transmission line with 400% +/- additional capacity is the solution or a "fit" to meet customer demand needs ranging from at a maximum 74MW to a minimum negative electrical energy growth in the future.

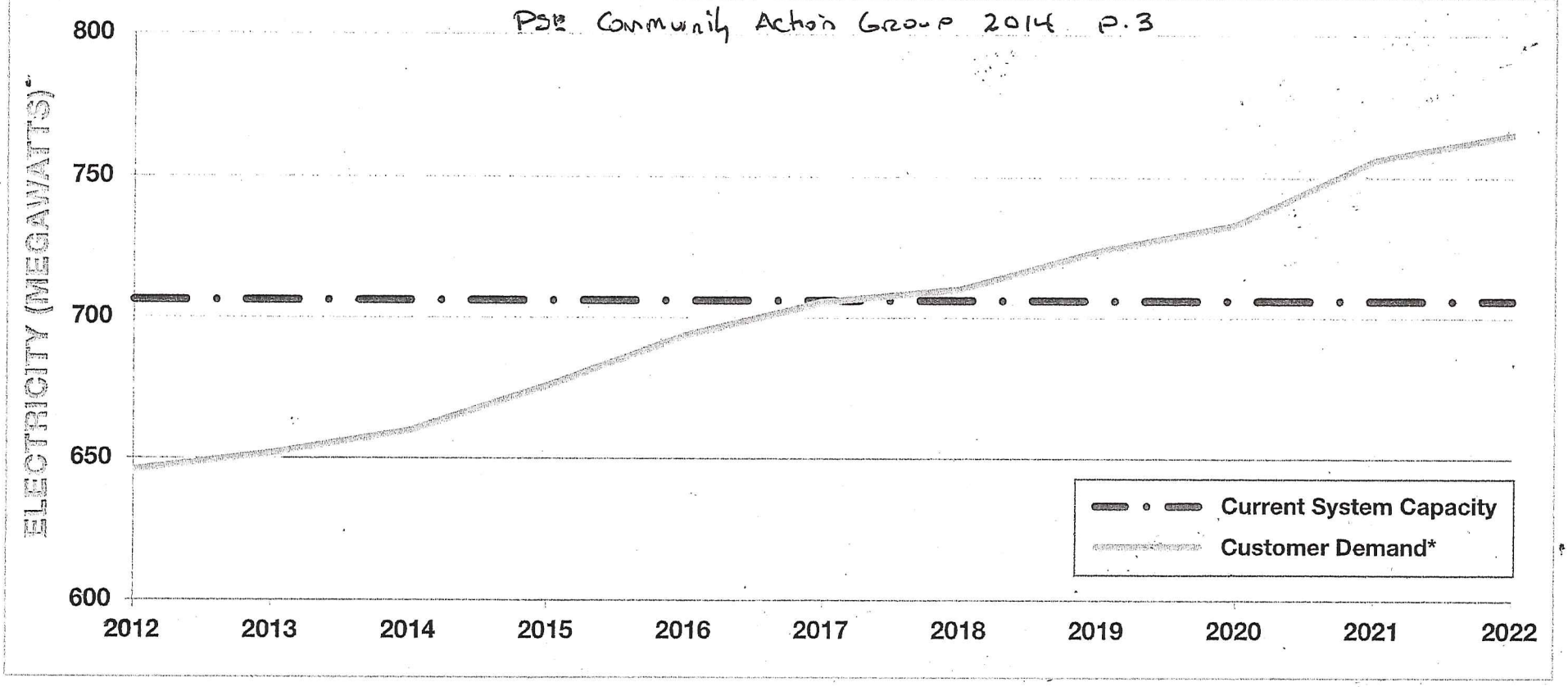
I submit that items 1-6 clearly show that PSE's Chapter 5 and Chapter 8 do not meet the intent of WAC 480-100-132 or common regulatory standards of being transparent and of providing adequate and accurate information as a basis to fulfill its responsibilities.

Sincerely and on behalf of the ratepayer public,

Warren E. Halverson

EASTSIDE CUSTOMER DEMAND FORECAST

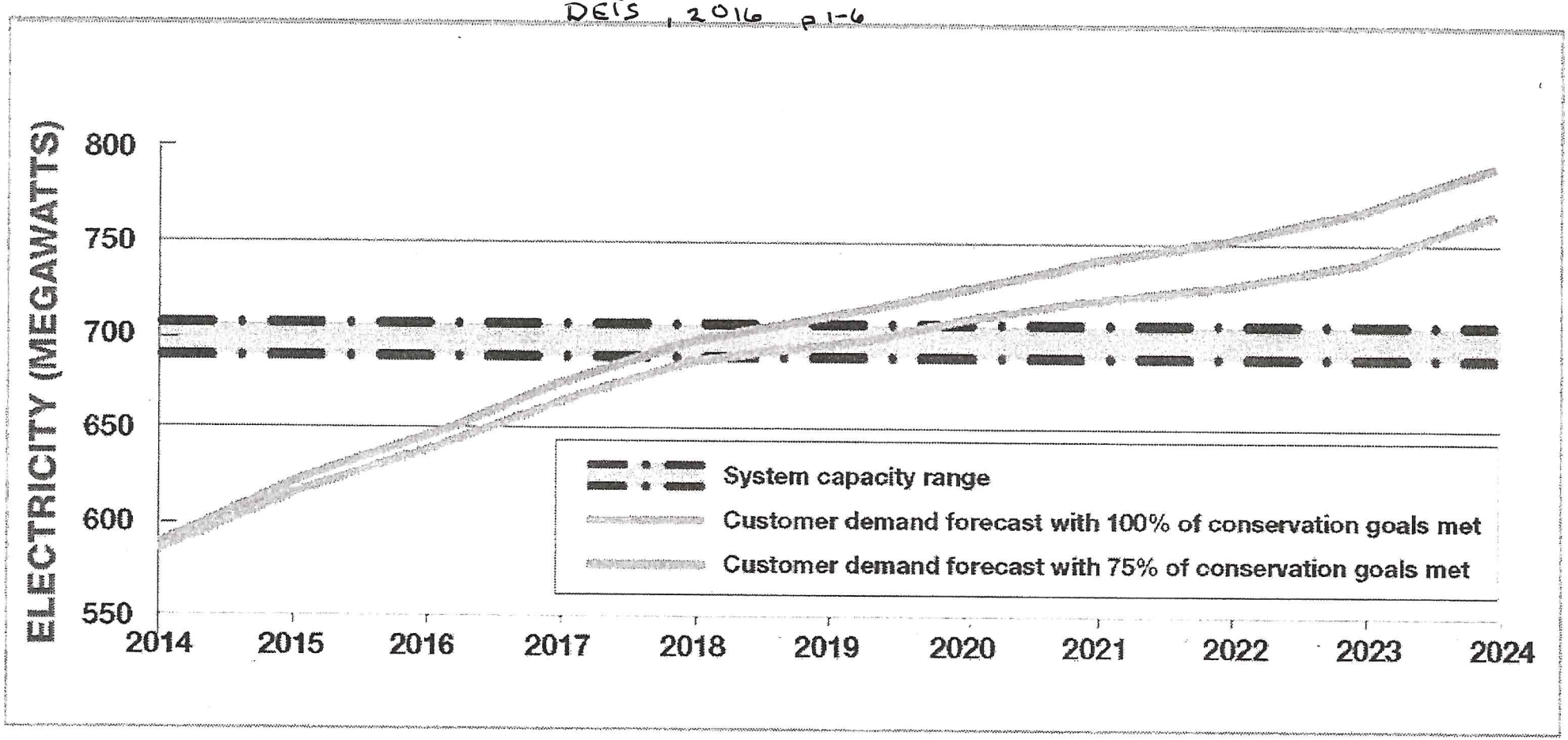
PSE Community Action Group 2014 p.3



*Customer Demand assumes 100% of conservation goals are met.

Figure 1-2. Eastside Customer Demand Forecast

DEIS, 2016 p1-6



Source: Gentile et al., 2015.

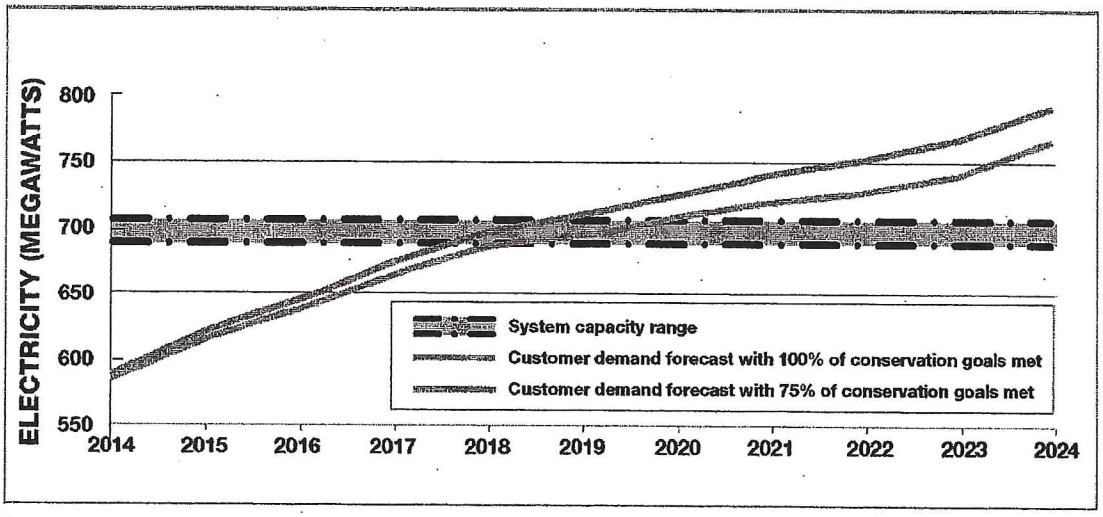
Statistics and Bureau of Economic Analysis, and local organizations such as the Washington Builders Association (Gentile et al., 2015).

This forecast is based on the assumption that economic activity has a significant effect on energy demand. Given the nature of expected development, PSE has projected that electrical demand will grow at an annual rate of 2.4 percent. As described in PSE's Eastside Needs Assessment, this growth rate takes into account population and employment growth as well as expected "block load" growth that PSE is aware will be coming in the next 10 years (Gentile et al., 2014, 2015).

What is a block load? A block load is the expected increase in energy demand from a specific customer or group of customers. PSE regularly asks its largest customers if they anticipate substantial increases in their electrical demand, to help estimate energy consumption growth expected to occur independent of employment or population growth rates.

Without adding at least 74 megawatts (MW) of transmission capacity for local peak periods in the Eastside, a deficiency could develop as early as winter of 2017 - 2018 or summer of 2018, putting customers at risk of *load shedding* (forced power outages) (Stantec, 2015). According to PSE projections, the 74 MW would marginally meet the demand through 2018 (Gentile et al., 2015). Figure 1-2 shows PSE's projected growth in load for the eastside from 2014 to 2024 and the capacity of its transmission system.

Figure 1-2. Eastside Customer Demand Forecast



Source: Gentile et al., 2015.

Based on these projections, load demand could increase to a point where, if adverse weather conditions occur and one or more components of the system are not operating for any reason, load shedding could be required in order to protect the Eastside and the rest of the regional grid. This is because, once the threshold is crossed, the physical limitations of the system are such that even the slightest overload will produce overheating that can damage equipment, and larger overloads will produce overheating more quickly. Once equipment is in an overload condition, the options are to let it fail or take it out of service. Both conditions leave the Eastside in a vulnerable state where the system is incapable of reliably serving customer

Bellevue
www.bellevuewa.gov
IT'S YOUR CITY
FALL 2017

Getting 'smart' about energy conservation

By Brad Harwood, Deputy Communications Officer

The city is making strides in energy conservation thanks to two successful programs, spearheaded as part of the Environmental Stewardship Initiative.

In 2015 to 2016, the city participated in the Georgetown University Energy Prize – a national competition for cities to reduce energy use. During the two-year span, Bellevue's per capita residential energy use decreased by respectable 3.6 percent from 2015 to 2016. Nearly 700 residents took the "Smart Energy Pledge," and 818 students participated in the program.

"Urban Smart Bellevue" is a partnership between Puget Sound Energy and the city that aims to make the downtown core a smarter, more efficient, more sustainable place to work. The goal is for businesses to reduce collective annual electricity use by 5 percent.

Participating companies have cut energy usage by inspiring friendly competition and prizes for employees, who:

- take the stairs instead of the elevator;
- power off or safely unplug computers and other workstation devices at the end of the work day;
- turn off the lights in all common rooms and work spaces when not in use; or
- power off or safely unplug unused equipment in common areas.

Over 100 businesses have signed up for the program so far, with an average electricity savings of 7 percent for large companies and 11 percent for smaller ones.

"We're encouraged by the positive community response to these energy-saving programs," said Jennifer Ewing, Environmental Stewardship program manager. "Bellevue embraces the value of conservation and is leading with innovation and collective action."

October 2, 2017

Integrated Resource Plan (IRP) Advisory Group
Ms. Michelle Kvam, Sr Commercial Development Manager
10885 NE 4th St #118
Bellevue Wa 98004

Re: "2017 Draft IRP" & Mr. Jen's Nedrud email concerning Energize Eastside

Fellow members of the Advisory Group:

Having participated in nearly all of the 2017 IRP meetings, I want to thank PSE and the many outstanding technical stakeholders for their significant contributions. For all of us, it has been an informative and educational sharing which hopefully improves PSE's planning process and ultimately provides reliable and prudent energy solutions for tomorrow. Thank you!

The energy industry is challenged as never before. There have been significant changes in technology and "competitive inroads", as well as a significantly changing marketplace where there now is a cross elasticity of product solutions. All this is taking place in a declining growth market.

With these trends in mind, it is prudent, in fact, critical to examine Transmission Planning particularly Energize Eastside in the 2017 IRP (Chapter 8 does not meet this standard nor REC 19.280.030 and WAC 480-100-238-2). Energize Eastside is an enormous project with tremendous economic and environmental consequences both for today and decades to come. An honest and in depth examination is essential. Many unanswered questions remain. These include:

1. What is the occupancy (load flow) on the proposed Energize Eastside corridor? (Provide quantitative load flow studies; analysis and assumptions for 2017)

2. What is the 2017 - 2027 "Eastside Customer Demand Forecast"? (Provide 10 year graphs like those provided in 2013 and 2015; numerics; analysis and assumptions; Also 10 years of history for context)

3. What is the size of these energy deficiencies? What are the alternative solutions that would meet the needs of the Eastside corridor? (Provide an analysis and a suite – a combination of 21st Century solutions plus conservation to meet the sizing and need versus a transmission only solution)

2017 IRP versus EIS P2

Only with information based upon data and a "granular analysis" which answer these types of questions can we come to the "truth".(1) As one rate payer once asked: "If we need a four lane energy highway through the Eastside is it wise to construct a sixteen lane super highway?" Sound Transit and our Eastside neighbors didn't think so and now we will have a 21st century light rail solution for traffic.

IRP versus EIS

Many of us have participated in the Energize Eastside processes and asked questions, but for the most part, the hard questions have never been answered. They have been unanswered at the Community Action Group meetings, unanswered at open houses and unanswered at the Environmental Impact Statement sessions. Even when technical experts from groups like CENSE acquired CEII security clearance, PSE has denied access to information. Like me, many of my colleagues have had brief conversations but never anything in depth with PSE or Mr. Nedrud. A few casual words at the beginning or end of a public group meeting cannot pass for meaningful two way dialogue, discussion or in depth examination.

Thus, Energize Eastside issues cannot be deflected to a vague and somewhat flawed Environmental Impact Statement process. The client and audience for an EIS are far different than those of an IRP, therefore, the purpose, needs and questions are also different. Unlike Environmental Impact Statements, the IRP process provides for an analytical and data driven analysis versus a generic descriptive one (1). Unlike the EIS process, the IRP process is a forum providing for an exchange of information and open debate. It is interactive. It is a place to ask the hard granular, questions and get clear definitive answers. As one of PSE's former consultants stated in a recent EIS presentation, the EIS starts with a "No- Action" alternative which most everyone will reject and then the facilitator continually narrows the scope until the preferred solution is selected (with mitigation).

(1) PSE "2017 IRP Advisory Group; June 22, 2017 pgs 1-12, esp p 8 Prudence Test .

"The Record" P3

At a minimum, the record needs to address:

1. At the initial Energize Eastside Community Action Group meetings and open houses in 2013, Mr. Nedrud presented the **"Eastside Customer Demand Forecast"(** 2012-2022) which predicted capacity issues i.e. being in trouble in early 2017. (2) In the 2015 EIS, an updated **"Eastside Customer Demand Forecast"** (2014-2024) was provided and highlighted. It alerted the public by stating "a deficiency could develop .... as early as winter of 2017 – 2018 or summer of 2018". In both cases, there was no comparison of actual versus forecast; no quantification; no analysis; and no statement of underlying assumptions. These are PSE's assertions. The EIS further states that we will have a **74MW shortfall** unless action is taken.(3) Lingering questions continue to go unanswered. For example, why is there a 80+/- MW difference in the 2013 and 2015 graphs for 2014?

   A 2017 "Eastside Customer Demand Forecast" has not been provided, nor answers to previous questions. Furthermore, the 2015 graph was removed from the Energize Eastside website (www.energizeeastside.com/need) in 2016 and no replacement has appeared.

2. PSE refers to and justifies Energize Eastside based upon USE's "Independent Technical Analysis of Energize Eastside" (Apr 28, 2015) in their email. This may be somewhat correct but is very misleading. It is true that an Independent study was requested by neighborhood and community groups but the study basically took all its information from PSE documents; reviewed it and confirmed that the methodology used followed industry practices (4). It was termed more of "a review or an audit" but did not provide for current load flow studies; updated forecasts; or sizing of solutions to fit need (5)(6). Many observers had and still have lingering questions. (7) It should be noted that some of these, shortcomings were due to inadequate stakeholder involvement and funding limitations.

(2) PSE, Initial Community Action Group Presentation by L. Kostek/J. Nedrud,"We need to act now" 'Eastside Customer Demand Forecast' p. 5, January 22, 2014
(3) City of Bellevue, "Phase 1 Draft EIS", Introduction and Summary p1-6
(4) "Independent Technical Analysis of Energize Eastside" April 28, 2015, Utility System Efficiencies Inc. See Exec Summary pages 3-5.
(5) Bellevue City Council Meeting December 8, 2014 RES #8857 Independent Technical Consultant Presentation; transcript thereof)
(6) City of Bellevue, "Independent Technical Analysis May 4th questions and answers" memorandum and presentation to city council
(7) Questions for ITC, CENSE, spring 2015. CENSE response to ITA, USE report, May 2015.

3. After many months and several unsuccessful attempts to meet with PSE's technical teams and executives concerning current **Load Flow studies,** Messrs. Lauckhart and Schiffman conducted a load flow study using data provided to WECC by PSE. It should be pointed out that certain members of CENSE and Mr. Lauckhart went through all of the necessary steps to acquire a CEII clearance. In spite of this, PSE would not assist or provide any information for their study. After the fact, Ms. Booga Gilbertson , VP of Operations, sent a memorandum stating the Lauckhart-Schiffman study was "flawed". There was no conversation, no dialogue and no meeting to discuss Load Flow or correct this study.

4. Mr. Nedrud refers to other studies supporting a transmission line solution for the Eastside. These do deserve examination and a two way dialogue. One must keep in mind these facts: Some cited studies are "dated", limited in scope and/or mere validations of having satisfied industry and regulatory practices.

5. In 2014, 2015 and 2016 – in an attempt to acquire actual data and growth comparisons -- I reviewed PSE's **Form 10K reports** i.e. Annual reports which are submitted to the SEC (8). Anyone on the Eastside can look out a window and visibly see economic activity --"growth" -- around us. But, does this mean energy consumption -- "growth" -- is increasing? If so, at what rate? Conversely, it has been well documented and well publicized that energy usage is flat or declining throughout the United States. What then is happening at PSE? Between 2014 and 2016, energy sales to customers (% yr over yr) decreased -1.6%, -2.9% and -3.0%. At the same time, total customers (% yr over yr) increased +1.0%, +1.1% and +1.5%. (8) *While customer growth is increasing, energy sales are declining.* Obviously, total energy demand, peak demand and 10K numbers are not comparable. BUT, we too know something major is happening in the marketplace – something deserving examination, open dialogue and analysis.

The aforementioned comments and observations are not just mine. I have heard these same things from neighbors, rate payers and colleagues for a number of years. Hopefully, by understanding and correcting the record, we can initiate increased two way communication, openness and discussions based upon hard facts.

(8) PSE 10K SEC filings, 2014, 2015, 2016, Business pages 4-34.

In conclusion P. 5

Having worked for a regulated monopoly in various executive positions throughout my professional career, I fully appreciate the need for stakeholder involvement and strong oversight to protect customers, employees and shareowners. One might suggest that these activities are the "invisible hand" in our private enterprise system. As such, I strongly support the Integrated Resources Process but unfortunately it has fallen short in the 2017 version, particularly as related to Energize Eastside and Transmission planning.

At the same time it is not too late. On behalf of many ratepayers, **WE REQUEST:**

1. PSE perform current Load Flow studies on the distribution/transmission lines on the Eastside that can be reviewed by experts with appropriate clearances;
2. PSE provide a current and accurate "Eastside Customer Demand Forecast" including assumptions and actuals for previous years;
3. PSE re-examine their 1993 Energize Eastside issue and solution, in light of a combination of technological advances and scalable 21st Century solutions in today's environment of declining energy usage;
4. PSE meet with an appropriate stakeholder group -- either the entire IRP Advisory group or interested members or a group such as CENSE -- to review these findings.

Only by fulfilling these responsibilities do we believe the 2017 IRP will fulfill its mission as well as its community obligations and regulatory requirements.

Sincerely,

Warren E. Halverson
40+ year ratepayer and Bridle Trails resident
Board member of CENSE
President of Canter Greens HOA