Consider the cost-effectiveness of Energize Eastside

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On the subject of project cost, the Draft EIS for Energize Eastside says "PSE has a legal obligation to deliver safe, dependable power, and an obligation to do so at a reasonable cost." (section 2.2.2.4)

Although the DEIS does not consider project cost in its evaluation of alternatives, after the EIS process is complete, cost will become an important selection criterion. In some cases, unrealistic costs will preclude the consideration of certain alternatives studied in the DEIS. For example, underground solutions would not be financially feasible given the current WUTC tariff requiring local jurisdictions to cover most of the additional cost.

The DEIS gives a favorable nod to PSE's preferred alternative: "PSE has concluded that the most effective and cost-efficient solution to meet its objectives is to site a new 230 kV transformer in the center of the Eastside, which would be fed by new 230 kV transmission lines from the north and south (Stantec, 2015)." [emphasis added]

Since the DEIS does not consider cost, PSE's conclusion is stated but not challenged. This seeming bias is disturbing because it emphasizes cost when the EIS should be focused on the environmental impacts of the alternatives and using those as the primary decision factors. But it's even more disturbing that there is no careful evaluation of PSE's objectives. Are they reasonable? Do they really serve the needs of the Eastside?

As stated in PSE's Eastside Needs Assessment, one of the top five objectives PSE is trying to meet is "Winter peak Northern Intertie transfers [of] 1,500 MW exported to Canada."[1]

We have questions about this:

1. Is this a capability that exists today, or is this amount of electricity transfer an increase over current capability levels?
2. Under what conditions is this transfer required? Does it happen 24 hours a day, 7 days a week? Is it seasonal? Is it likely to occur during winter peak loads in our region?
3. Is this transfer mandated even when two major components of PSE's electric grid are out of service during a winter peak demand scenario?
4. What role does the Peak Reliability group located in Vancouver, Washington play?

[1] *http://energizeeastside.com/Media/Default/Library/Reports/Eastside_Needs_Assessment_Final_Draft_10-31-2013v2REDACTEDR1.pdf, p.8*

These questions are of paramount importance. CENSE has long questioned the role of Canadian transfer in the need for Energize Eastside. The first hint of its importance was revealed when Bellevue's independent analyst, Utility System Efficiencies, conducted a load flow study that excludes the Canadian transfer. That study showed 4 out of 5 overloads in PSE's grid disappeared when flow to Canada was eliminated. The remaining overload was minor. If it weren't for the Canadian transfer, a smaller, less environmentally impactful, less costly solution would become a potential option for the Eastside.

The DEIS attempted to address these concerns in section 2.4.2:

> *Several changes and adjustments to the electrical transmission system were proposed as potential solutions. Several related to discontinuing the flow of electricity through the Eastside to Canada during some peak demand periods. These were described in comments received during scoping regarding renegotiation of the Columbia River Treaty (which relates to river flows and electrical supply across the U.S. - Canada border), diverting power flowing from the south toward Canada to other transmission lines, or simply cutting off power flow to Canada altogether. Disconnecting the system from the region or not providing power to the rest of the region during peak periods is not included as an alternative because it was not considered viable for the following reasons:*

- *PSE has statutory and regulatory obligations that require being interconnected to the electric grid and that cannot be violated without penalties. Those obligations are with the FERC, NERC, WECC, ColumbiaGrid, and UTC (electrical criterion #1).*

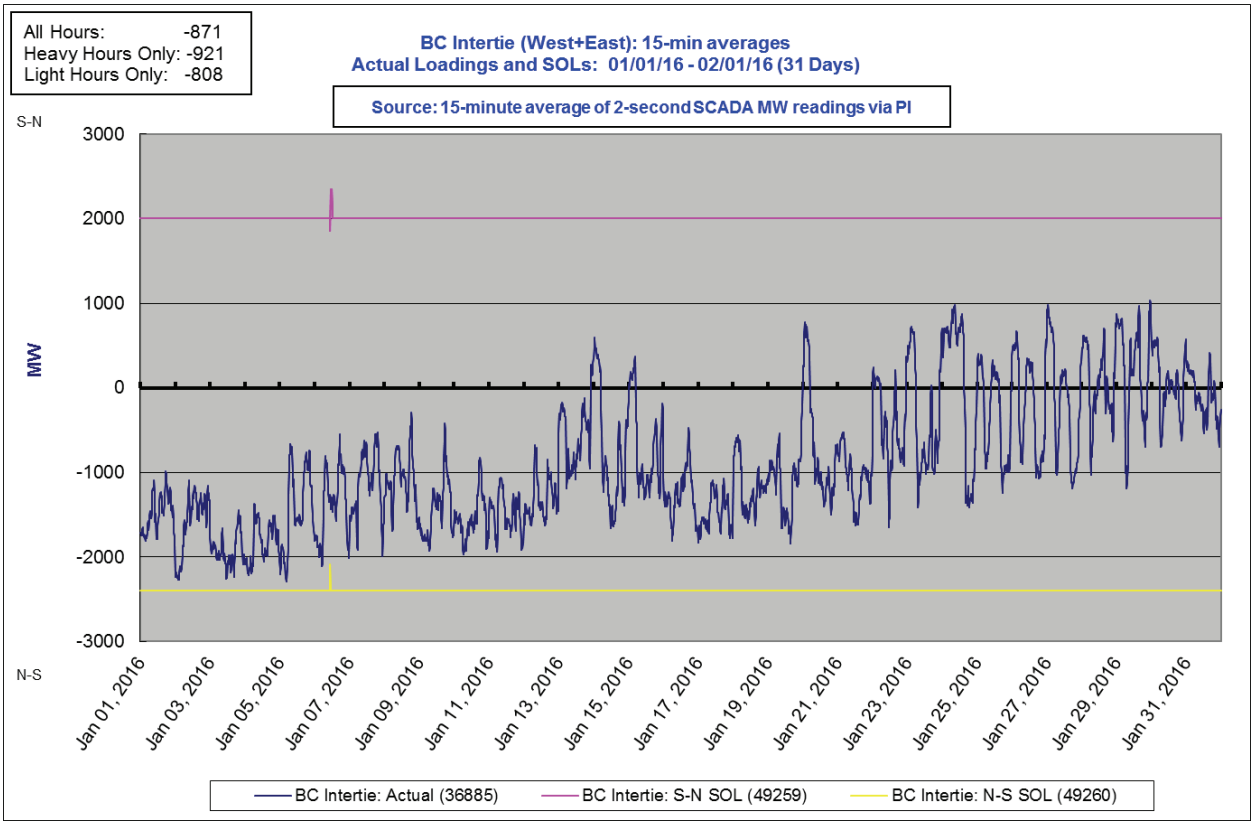
This section grossly mischaracterizes the situation's true facts and CENSEs comments about it. First, it implies that PSE or some other local entity would have to "disconnect from the grid" to discontinue flow to Canada. That is not true. Bulk transfer of electricity is scheduled on a day-ahead and 15-minute basis by Peak Reliability, the NERC reliability coordinator for our region. According to their website, this is what they do:[2]

- Peak system operators act in the interest of reliability for the Western Interconnection overall, before the interest of any single entity;
- They provide an early warning of risks to the stability and security of the system by monitoring to detect Reliability Standard violations;
- Individual Peak system operators have clear, decision-making authority to act and to direct that actions be taken by functional entities to preserve the integrity and reliability of the BES [Bulk Electric System]

2 https://www.peakrc.com/whatwedo/Pages/default.aspx

In most cases, Peak would not allow large transfers to Canada when weather reports predict cold temperatures and the possibility of demand peaks. But if an unanticipated peak happens coincidentally with a large transfer and an N-1-1 failure, system operators would curtail transfers to Canada in 15 minutes or less. With this in mind, section 2.4.2 is nonsense.

Would you like further proof? Consider this graph from BPA, which tracks bulk transfers on the Northern Intertie that connects Washington and British Columbia:



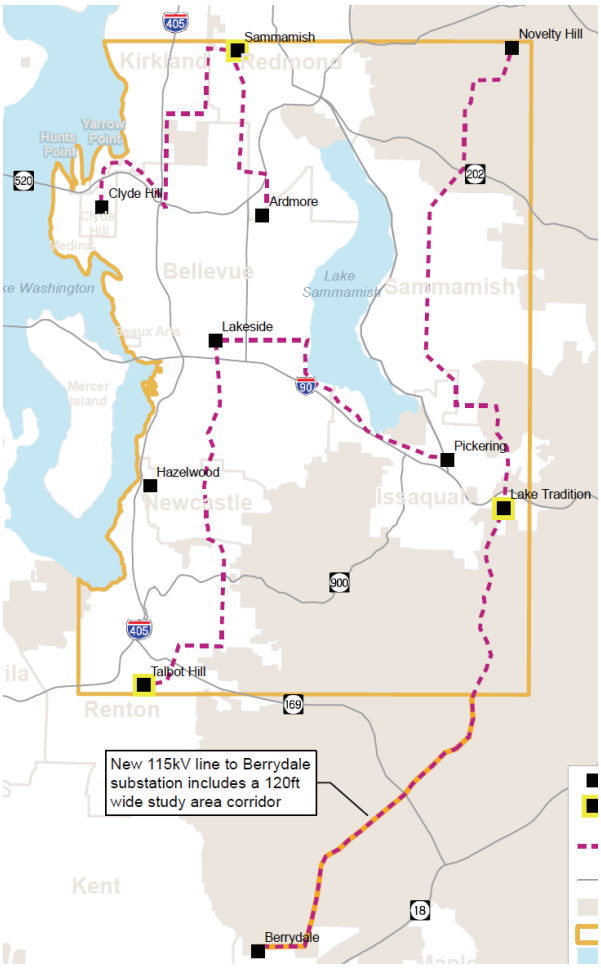
Wherever the squiggly blue line is below the zero line, electricity is flowing from Canada to the US. From January 1-22, 2016, Canada sent the US about 1500 MW on average, with only three brief transfers during that period interrupting the southward flow.

If the US has a firm commitment to send Canada electricity, why weren't we honoring the agreement during this time period? The answer is because it was relatively cold. The Puget Sound region needed extra electricity, and Canada was happy to provide it. This was an economic decision. Perhaps buying electricity from Canada was less expensive during this period than running our own local gas generation plants.

Energize Eastside will cost ratepayers over one billion dollars (calculated over the 40+ year lifetime of the Energize Eastside project) to avoid a reliability problem that has already been solved using smart monitoring and scheduling of bulk electricity transfers. PSE and certain EIS consultants are misinterpreting or misapplying the Columbia River Treaty, leading the public

to believe that it creates obligations that do not actually exist. These imaginary commitments are easily proven false by the historical record of relatively fluid energy transfers across the border.

Every alternative in the DEIS is attempting to solve this difficult problem, and becoming more complicated and expensive as a result. For example, look at the map of transmission lines proposed for Alternative 3:



Why is there a very long transmission line running north and south on the east side of Lake Sammamish? Does that serve Eastside need, when the Eastside is located west of Lake Sammamish? No, this line exists only to transfer increasing amounts of electricity to Canada, when there is no requirement to do so.

CENSE would like to understand who benefits from this eastern line. Is it Canadians? PSE's investors? BPA? Those who are benefiting from this construction should be the ones who pay for it.

In order to determine the appropriate scale and timeline for each alternative, it is important for us to understand PSE's objectives and agree on those that truly serve the Eastside. If transmission of 1,500 MW to Canada is not a real requirement, it should be removed from the objectives and the need studies. Then all alternatives should be scaled appropriately to meet the reduced need.