

ColumbiaGrid
8338 NE Alderwood Rd., Suite 140
Portland, OR 97220
Sent by email to: paul@columbiagrid.org

Attention: Paul Didsayabutra

RE: Draft 2017 System Assessment comments

Dear ColumbiaGrid/Paul-

On behalf of a large number of residents that live in the Puget Sound Area, I have a number of comments and questions on your Draft 2017 System Assessment as follows:

1. At page 12 you state as follows: *"The projects in the plan have been studied and reviewed in a variety of regional planning forums ranging from earlier System Assessments (labelled ColGrid SA in Table D-1), WECC regional planning (WECC RP), sub-regional planning groups such as Puget Sound Area Study Team (ColGrid PSAST), Northern Mid-C Study Team (ColGrid NMCST), Woodland Study Team (ColGrid WoodlandST), or by individual planning participant studies."*

Your Table D-1 contains the following:

Number	Project Name	Sponsor	Date	Cost (Million)	Regional Planning Forum
PS3	Eastside Project: Lakeside 230/115 kV Transformer and Sammamish-Lakeside-Talbot Line Rebuilt to 230 kV	Puget Sound Energy	2018	\$80	ColGrid PSAST

Questions on these matters are:

Q1: Are you saying that this project was studied by ColumbiaGrid and the ColumbiaGrid sub group PSAST? If so, where can we find the load flow studies performed for this project?

Q2. Please provide the detail behind the \$80 Million cost of this project.

2. At page 12 you also state as follows: *"Please note that even though BPA had recently announced its decision not to build the Castle Rock – Troutdale 500 kV transmission line project, this project was included in the 10 year cases for this year's System Assessment. This is due to the fact that the scope and base cases for ColumbiaGrid's 2017 System Assessment were developed back in January 2017 when this project was still considered as a committed project. However, in the future, this project will be removed from the base cases in the 2017 Sensitivity Studies and 2018 System Assessment unless the status of this project is change."*

Q3. It seems that when ColumbiaGrid includes certain proposed projects in its System Assessments that ColumbiaGrid is well aware that those proposed projects may not be built, correct?

Q4. PSE has not yet filed for a conditional use permit to build its Energize Eastside line. If that project is not built, will ColumbiaGrid find more regional problems that must be dealt with?

3. Figure D-1 indicates in a triangle that there is a project B14. Yet there is nothing in the report that says what project B14 is. Please explain what project B14 is.
4. Your attachment A indicates what resource generation level assumptions you include in your studies. We have compared those resource assumptions with those used by PSE in the load flow studies performed by Quanta for PSE in the PSE Eastside Needs Assessment. That comparison is as follows:

Generation Plant Name	ColumbiaGrid Dispatch 2017 Sys Assess Heavy Winter	PSE/Quanta Dispatch Heavy Winter
Enserch	180	125
Sumas	138	0
Ferndale	290	0
Whitehorn	162	0
Fredonia	349	0
March Point	150	134
FredricksonCCCT	249	0
FredricksonSCCT	162	0
Total	1680	259

Q5. ColumbiaGrid is running all PSE gas fired generation in a winter peak scenario which seems to make sense. Why would PSE/Quanta decide to study the adequacy of the transmission system by shutting down 1,400 MW of their Puget Sound Area generation?

5. At Page 22 you state as follows: *"The Canadian Entitlement return is the predominant south to north commitment on this path and is critical during winter conditions. Although the total amount of commitment varies, 1,350 MW of firm transmission service commitments are projected for the ten-year studies." ... "The Puget Sound Area Study Team has been planning the system in the Puget Sound area to maintain 1,500 MW in the north to south direction to cover these firm transfers."*

Q6. Our research cannot find that there is a Firm Commitment on the part of BPA or anyone else in the United States to deliver Canadian Entitlement power to the Canada border. BC Hydro states in its IRP that it does not count on that delivery under winter peak conditions. BC Hydro has expressed a preference to sell their Canadian Entitlement power in the U.S. and have money delivered to Canada rather than power deliveries to the Canadian Border. BPA has stated that BC Hydro has never made a request to BPA to have its Canadian Entitlement delivered to the Canadian Border on a Firm Basis. Please provide any evidence that ColumbiaGrid has that there is a Firm Commitment to deliver Canadian Entitlement power to the Canadian border.

Q7. Please point us to any study that the Puget Sound Area Study Team (PSAST) has provide you on how they will be able to deliver 1,500 MW to Canada under an extreme winter peak.

6. At page 36 you state that when you tried to make load flow runs with these assumptions you found several cases that had voltage stability issues and unsolved outages. You state as follows: *"The technical studies that were performed as part of the 2017 System Assessment also identified a list of cases where **power flow failed to converge**."* One of areas you found these problems in was the Puget Sound Area in western Washington. Regarding these problems you state as follows: *"Joint Areas of Concern Joint areas of concern (those that occurred between systems or that involve the bulk grid) are the primary focus of ColumbiaGrid's System Assessment. These areas were identified when multiple planning parties had outages that caused overloads and/or had facilities that overloaded as a result of such outages. ColumbiaGrid will organize study teams as necessary to resolve these system deficiencies between ColumbiaGrid members."*

Q8. Please indicate the organized study team you have identified to address these problems in the Puget Sound area and how CENSE can participate in those study teams.

7. The following entry is included in your attachment B - Transmission Expansion Projects

Project Name	Region	Description	Sponsor	Parties Im	Project Stag	Project Comr	Schedule	Cost Estima
Eastside Project: Lakeside 230/115 kV Transformer and SammamishLakeside-Talbot Line Rebuilt to 230 kV	Puget Sound	Rebuild the Sammamish-LakesideTalbot 115 kV lines and energize one at 230 kV and install a new 230/115 kV transformer at Lakeside.	PSE	BPA, SCL	Project identified in PSAST Expansion Plan	Utilities have negotiated cost allocation	2018	\$65-\$80 M

Q9. Please provide the basis for the cost estimate of \$65-\$80 Million

Q10. It only makes sense for BPA and SCL to help pay for this project in the negotiated cost allocation agreement if the project benefits them in addition to PSE. Why would this project not be a ColumbiaGrid jurisdictional project if it is benefiting three utilities in the ColumbiaGrid footprint?

8. CENSE has previously commissioned a load flow study for heavy load conditions for the winter of 2018. That study has found that a load flow model run using the WECC and ColumbiaGrid Base case for winter 2018 will not converge when flow to Canada is increased from 500 MW to 1,500 MW ...even with all Puget Sound area generation running. Further the study also shows that if the assumptions are changed to deliver only 500 MW to Canada but shut down 1,400 MW of Puget Sound area generation again it will not converge indicating a voltage problem in the Puget Sound region with these assumptions.

Q11. Please provide any load flow study performed by ColumbiaGrid that shows that under a heavy winter load condition (and with PSE's Lakeside project in place which ColumbiaGrid indicates is the case in all of its load flow studies) that the load flow study will converge with 1,400 MW of Puget Sound Generation off line and 1,500 MW being delivered to the Canadian Border.

Q12. If ColumbiaGrid has not run this study, does ColumbiaGrid have any studies in its possession that would indicate that such a load flow study might converge? If so, please provide that study.

On behalf of a large number of citizens that have strong interest in decisions regarding transmission needs in the Puget Sound area, we will greatly appreciate your response to the comments and questions that have been provided in this letter.

Sincerely,



Richard Lauckhart
Energy Consultant
Davis, California