

Comments by James Adcock on PSE 2019 Progress Report UE-180607  
11/19/2019

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Received  
Records Management  
11/20/19 09:13  
State Of WASH.  
UTIL. AND TRANSP.  
COMMISSION

Before reviewing the PSE 2019 Progress Report, as it applies towards CETA 2030, let me just reiterate the concerns that I have expressed to Commissioners several times recently:

To my eyes, it does not appear to me that PSE is intending to fairly and faithfully make progress to meet the “Non-Emitting” requirements of CETA “80% 2030” but rather intend to defeat the law by engaging in foot-dragging.

In practice, meeting these requirements would require PSE building about 15 very large solar or wind farms, or their equivalents by long-term contract, which I see no signs that PSE actually intends to do.

Instead, what I see PSE trying to do is to inflate their needs – if any – for new additional “Emitting” fossil fuel generating plants, primarily Peakers, planning to build these out \*prior\* to building any substantial [if any] new “Non-Emitting” facilities.

In this case, even if PSE does eventually build the “Non-Emitting” facilities, PSE has successfully engaged in “Portfolio Churning” – where they are building more new “Emitting” facilities than they need, because some, if not all, of that need will eventually be replaced by the new “Non-Emitting” facilities. AKA “Stranded Assets.”

I ask that Commissioners NOT ALLOW PSE to “Overbuild” these new Emitting Fossil Fuel Plants by delaying their build-out of new Non-Emitting facilities, and by inflating their Peak needs, but rather prevent PSE from “Portfolio Churning” by requiring that Non-Emitting plants be built out simultaneously, or prior to, new Emitting plants. By PSE’s own analysis, conducted by independent analysts, PSE only needs 100 MW nameplate of Emitting resources per 600 MW nameplate of Non-Emitting resources. Please do not allow PSE to waste our money on “White Elephant” Emitting “Stranded Resources!”

Further, the overbuild of new Emitting Natural Gas plants requires PSE committing new ratepayer monies to new regional natural gas pipelines, \*and\* requires yearly purchase of Emitting on-site liquid fossil fuel reserves – which PSE then “burns off” every year during the yearly Spring high-hydro season – just when that burn-off is least needed!

With the closure of Coal Power Plants happening “soon”, PSE must start building new Non-Emitting resources \*immediately\* to avoid these expensive and needless duplication of resources!

Detailed Review of the PSE 2019 Progress Report:

While PSE discusses what meetings they held [or didn’t hold] at the end of the report, I’m going to bring this on-going issue to the forefront here. Contrary to PSE’s representation in their Progress Report, the

reality (as reconstructed from PSE’s submitted Work Plans, and my personal calendar) is that PSE cancels about ½ of all the public participation (TAG and IRPAG) meetings that they schedule. In particular, the general public participation IRPAG meetings have been extremely badly hit by PSE cancelations. Initially about 130 members of the public indicated that they wanted to participate. PSE immediately began the “Freeze Out” of public participation by inventing a new “TAG” restriction on participation. And then PSE systematically began to cancel public participation meetings, particularly IRPAG meetings. At the last meetings held public participation had been “Frozen Down” to about two dozen participants. And then PSE acted to cancel the final two public meetings resulting in:

**100% Freeze-Out of Public Participation!**

Scheduled Meetings Held vs. Canceled:

HELD	05/30/18	IRPAG
HELD	07/26/18	TAG
HELD	08/28/18	IRPAG
CANCELED	09/25/18	TAG
HELD	10/11/18	IRPAG
CANCELED	10/30/18	TAG
CANCELED	11/13/18	TAG
HELD	11/27/18	TAG
CANCELED	12/06/18	TAG
CANCELED	12/11/18	TAG
HELD	01/09/19	TAG
HELD	02/07/19	TAG
CANCELED	02/12/19	TAG
CANCELED	04/23/19	IRPAG
CANCELED	05/21/19	IRPAG
HELD	05/22/19	IRPAG
HELD	05/29/19	TAG
CANCELED	05/30/19	TAG
CANCELED	08/06/19	TAG
HELD	09/19/19	TAG
CANCELED	11/26/19	IRPAG
CANCELED	12/11/19	TAG

You can imagine how difficult it is for “average ratepayers” to participate when PSE is constantly canceling meetings – often “at the last moment!” This constant “meeting churn” results in lost days of productivity, canceled family vacations, etc.

And when meetings were held, PSE made those meetings unproductive by wasting inordinate amounts of time on constantly failed sound/telephone conference facilities, and on “process” issues rather than actual “technical discussions.” I’ve been doing PSE IRP meetings for about 10 years now, and while the meetings were never very efficient, every IRP cycle PSE becomes \*less\* efficient in how they hold the meetings, allowing for less and less real “technical discussions.” I can only conclude that this is a deliberate ploy on PSE’s part to defeat, in practice, the IRP requirement for real and meaningful “public participation.”

Page Discussion:

Page 4: Demand Response: We have yet to get PSE seriously engaged in the issue of “Demand Response.” We keep pushing PSE to get serious on this issue, and PSE keeps blowing us off.

Page 4: Energy Storage: The time for little Dog and Pony demo projects is long gone. PSE should have done those a decade ago. PSE should now be engaging in the actual build-out of “utility scale” Energy Storage on the scale of 100s of Megawatts.

Page 5: All-Source RFP: Any Resources that PSE is obtaining in this time frame are in practice uninformed by public input, since PSE just canceled the public input. In particular I want to stress just how extremely unhappy the public participants will be if PSE builds new Emitting Fossil Fuel facilities after canceling all public input!

Page 5-6: Develop Options to Mitigate Risk, etc.: I support efforts by PSE to develop meaningful strategies to mitigate risk without pre-building new Emitting Fossil Fuel facilities prior to actual demonstrated need. PSE continues to inflate peak winter need by using 100-year-old “weather data” [actually: 100 year out-of-date “climate data”] and by inflating market growth. One “obvious” option is to purchase or option “pre-siting” of facilities, so, for example, if Mid-C market reliability actually deteriorates – if demonstrated by \*a lot\* of frequent and high market prices – then a new Peaker plant (such as a frame unit) can quickly be built-out at the pre-siting option. IE please re-address the quick-build options!

As PSE and other utilities build more new non-emitting facilities, that will (temporarily) displace hydro, leading to greater hydro reserves behind the pools, lower Mid-C (hydro) market costs, greater market availability, and hydro availability later into the late-summer/early-fall season.

Page 7: Californian Energy Imbalance Market (EIM)

I am very concerned that part of what motivates PSE to Overbuild Emitting Peaker Plants is the desire to be a “Player” in Californian EIM. PSE Ratepayers \*should not\* be paying to build new Peaker Plants to secure power to Californian Ratepayers! Further, UTC has yet to establish “the rules of the road” in terms of CETA emissions/requirements in terms of the Californian EIM market. Should PSE be allowed to buy new Emitting Peaker Plants at the expense of WA Ratepayers in order to be a Player in the Californian EIM market? Should PSE be allowed additional WA CETA emissions in order to be a player in the Californian EIM market? These CETA rules are not established, and thus it is premature to be allowing PSE to purchase new Emitting NG power plants. However, if new Emitting plants were to be allowed, then the competitively superior heat rates of these brand new Emitting plants would allow them to “win the bid” in the EIM markets – meaning that they \*will\* dispatch excessively -- for the first

couple years while they are “brand new”. And then PSE will use that “brand new Excessive dispatch” to say “See, we needed those new Emitting Peaker plants.”

Page 9: Regional Transmission: I agree with PSE that Regional Transmission needs to be “Paused” while PSE re-examines the need for such transmission in light of CETA. The Regional Transmission which needs to be “Paused” includes Energize Eastside. Please tell PSE to “Pause” it now!

Page 11-15: Peak Capacity Need: This has been a source of major disagreement between myself and PSE for the last 10 years, as PSE continuous to use “100 years out of date” “weather data” [actually: climate modeling data] using incorrect improper mathematically modeling – the incorrect use of Monte Carlo methods on NON-stationary “weather data” – where the PSE-region’s coldest winter days have already warmed 15 degrees due to climate change, representing a 20% reduction in HDD and peak demand. IE the Peak Capacity needs in Fig. 1 Page 12 are about 20% too high. For example, instead of 6,000 nominal MW in 2020 the chart should be showing 5,000 nominal MW in 2020. And then PSE also always exaggerates load growth, and understates potential conservation, etc.

The predicted loss of Coal by 2026 \*does\* point out the \*crying need\* to get major new Non-Emitting resources online \*prior to 2026\* in order to not needlessly “portfolio churn” by building new Emitting resources to meet a short term need – Emitting resources which will simply become Stranded resources – wasting 100s of millions of WA ratepayer dollars!

Page 13: Fig. 3 is a naïve analysis which does not include the positive effect of new Non-Emitting resources displacing hydro, making more hydro reserves available to the market at later points in time. Thus the contributions from Wind end up being displayed in the “Hydro” categories in this chart. One can examine the BPA “spill flag” data to see how extremely rare it is that Wind causes (potential) Hydro power to be wasted. Rather, Hydro operators are nearly 100% of the time able to use the Hydro pools (reservoirs) as “storage” – holding back water resources in order to be able to generate that Hydro at a later, more useful, point in time.

Page 14: Planning Margin: I support the idea that PSE should \*actually\* be designing to a 1-in-20-year shortfall, also expressed as a 5% LOLP. It is extremely expensive to build enough Emitting resources so that there can “never” be a shortfall. It is appropriate that “once in 20 years” that utilities have to perform “not normal” operations to cover shortfalls – including for example, interrupting commercial customers who have agreed to be interruptible. Or even short-term residential rolling power losses. We Lose Power All The Time! I bet I’ve had to “reset the clocks” 20 times in this year – and I live in a neighborhood with underground power lines – so \*why\* are we losing power All The Time??? If we were to lose power one more time in 20 years, frankly, no one would even notice!

But, again, PSE exaggerates what they need to \*actually\* meet 5% LOLP by exaggerating how cold the coldest days are (ignoring the reality of PSE-region coastal climate change), exaggerating load growth, exaggerating the unreliability of Mid-C market, exaggerating how little power can be purchased from California over the California Interties, etc.

Page 17: CETA need, Fig. 6 shows by PSE’s own analysis that they have an “immediate” need for about 15,000,000 Annual MWh of Non-Emitting Resources. Start Building It Now!

15,000,000 Annual MWh can be re-expressed as 1,700 Average Megawatts. Assuming the Non-Emitting Resources have about a 33% Capacity Factor, this in turn can be expressed that PSE needs to build about 5,000 MW Nameplate of New Non-Emitting resources. Assuming, for example, this is built-out using Wind Farms of 100 turbines each of the largest 3 MW Nameplate capacity – or 300 MW Nameplate per wind farm, this then corresponds to 17 new Wind Farms that PSE needs to build – or about 3 Wind Farms per two year cycle from now to 2030 -- if PSE were to start building \*immediately\* and not [as they have indicated at IRP meetings] continue to foot-drag another four years before even starting! If PSE waits four years, then they need to build a highly implausible 5-6 wind farms per two-year cycle – which isn't going to happen. Thus, given that PSE is planning to “foot drag” for another four years lies my belief that PSE isn't actually planning in good faith to meet 2030 CETA requirements, but rather is planning to deliberately fail the law's requirements – and then ask Commissioners “So What Are You Going to Do About It?” And Commissioners \*will not\* in practice be in a position to demand penalties from PSE large-enough to compensate for the degree of PSE short-fall! Thus, if UTC allows PSE to persist in foot-dragging then UTC in turn is not faithfully executing CETA law.

Page 18: Fig. 7: As has become traditional over the last 10 years, PSE continues to exaggerate future Mid-C prices. If an estimate is always wrong-high, year after year after year, then it \*isn't\* an “estimate.” Rather it is a \*ploy\*. If PSE were making a good-faith estimate, then they would fix the continual high-side biases in their estimates. Fix It!

Page 22: Public Participation. I disagree with PSE's representation of this cycle's “public participation” which I would better characterize as being a “nightmare” – culminating with PSE suddenly without warning pulling the plug 100% on \*all\* public participation! I would encourage UTC to reach out to participants, perhaps with a survey, to get a better idea of how all of the 130 original participants feel about the “reality” of opportunity for public participation PSE has given this IRP cycle. See for example my opening remarks about how half of scheduled meetings (from the work plans) have been canceled.

“Time for Discussion at the start of the meetings” is generally \*not\* helpful – except to allow participants to continually complain that PSE has not meaningfully answered questions from prior meetings. What has been useful – in years past – is when PSE schedules enough time during the \*body\* of the meeting that participants can ask clarifying questions, or voice concerns, as PSE presents slides. But PSE doesn't want participants to actually participate, so PSE instead increasingly using a format of “We \*Present\* and You Listen” – but \*Presentation\* is not \*Participation\* nor is it the \*Explanation\* explicitly required by WA IRP Law. When we ask questions, PSE is \*required\* to “Explain” – it says so right in the IRP Law – but PSE refuses to do so. For example, when PSE “turns on” SCC during parts of their Base Case analysis and then “turns off” SCC during other parts of their Base Case analysis I asked PSE “Why are you doing that? Doesn't CETA Law explicitly require you to use SCC? How can you say you are using SCC when you have turned it off?” And PSE's explanation? “That's The Way We Do It.” IE PSE “Presents.” PSE does not “Explain!”

Page 23: Call-in Numbers. The PSE-provided audio and remote telephone equipment was constantly failing, wasting the time and energy of both in-person and remote participants. PSE should be required to be responsible to vet and have fully functioning audio and remote telephone equipment at these meetings. PSE claims to be competent to spend 100s of millions, even billions of dollars of ratepayer money on new Emitting generating plants, but PSE is not even competent to hold a public meeting.

IRPAG meetings: Just three public meetings during the 2019 IRP cycle is an insult to the 130 people who showed up wanting to participate in this IRP cycle. There is great community interest in getting PSE to actually clean up their act. If you do not actually allow the community to express their interest constructively during the IRP process, then they will be forced to find other forums to express their outrage.

Page 24: TAG Meetings: Again, PSE's summaries do not capture the degree of chaos and constant meeting changes and last-minute meeting cancelations that PSE engaged in. Again, I ask that the meetings be audio-recorded so that Commissioners can hear for themselves what is actually going on – and not going on – at these meetings. The meeting summaries have been expressed from "PSE's point of view." Occasionally I have tried to get PSE to "fix" their meeting summaries when I feel that PSE has been particularly inaccurate in representing what I have said, but I have found it in practice impossible to get PSE to honestly record what I have expressed.

Page 27: Tag 7: There was no need to have canceled this meeting. Other topics than Energize Eastside could have productively been discussed. And an appeal need not stop the Energize Eastside discussion from happening – PSE has held IRP meetings for many years including on-going discussions of Coal while Sierra Club was participating in those meetings – and very vocally and extensively complaining about Coal – while at the same time Sierra Club was engaging in lawsuits against PSE Coal. Rather, in comparison to Sierra Club, PSE seems to take a particularly insulting and dismissive attitude towards members of CENSE and to the affected Eastside ratepayers/homeowners in general. Neither PSE nor UTC should be taking such a cavalier attitude to the "uncompensated taking" and environmental destruction of people's homes. Energize Eastside has been a disaster from day one – right from the first faked Linear Routing Analysis. And in turn the Energize Eastside "public participation" was a complete sham, with the PSE "facilitator" actively "shouting down" residents who disagreed with PSE.

Page 28: Action Items: For the last 10 years, including this IRP cycle, I have asked PSE to fix their problem of using "100 years out of date" weather data [actually: climate modeling data] including the mathematically improper use of Monte Carlo methods on non-stationary data [coldest winter days which have warmed 15 degrees during PSE's analysis period.] PSE refuses to do so, for the last 10 years. As you see from the list here, PSE even refuses to record this request as even having been "asked for."

Page 32: Fig. 12: Please note that this is not "real" data. Rather, it is data which PSE has "weather normalized." The way this works is as follows: PSE says "Oh, the weather was warmer than we expected [because PSE ignores climate change and uses '100 year old [colder] weather data'] therefore we have to 'normalize' the data to show higher peak demand under our assumption that the weather 'should have been' colder." Except that the reality is that the weather wasn't colder, it was warmer – due to climate change. Which means that PSE doesn't actually need that Winter Peak capacity.

Page 33: Same problem for Gas.

Page 34: Economic Normalization – PSE points out how reality conflicts with their continually too high estimates – and so it must be the reality which is wrong. Gosh, the housing starts should have started earlier – except the reality is that they didn't. Gosh, people should have made more babies – except the

reality is that they didn't. PSE \*always\* estimates too high. An estimate which is always biased in one direction \*isn't\* an "estimate." Rather it is a \*ploy\*.

Page 36: PSE claims to be using "latest 30 years of weather data." However, at IRP meetings whenever I have dug into the details of how they do their stochastic analysis, it always turns out that they are still using 1930's weather data – i.e. data which is "100 years out of date" – in terms of the 2030 CETA targets. And I don't believe they have even been updating that data to use the "most recent two years" and getting rid of the oldest two years – at least they hum and haw whenever I push them on this issue and they claim they don't know \*what\* they are using. How can you not even know what data you are using for statistical analysis??? As statisticians say: "Garbage In, Garbage Out."

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