From: James Adcock
To: <u>UTC DL Records Center</u>

Subject: James Adcock Comments on Commission"s Acknowledgement Attachment to UE-160918 of May 07, 2018, re

Mid-C Pricing

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Docket UE-160918

Title: James Adcock Comments on Commission's Acknowledgement Attachment to UE-160918 of May 07, 2018, re Mid-C Pricing

Re: Puget Sound Energy's 2017 Electric Integrated Resource Plan Docket UE-160918, and specifically Commission's Acknowledgement Attachment of May 07, 2018

This letter comments on Commission's analysis of the issue of Mid-C prices and "reliance on market" as discussed by Commission in Commission's Acknowledgement Attachment of May 07, 2018

I have reviewed recent years of Mid-C prices and find possibly, an extremely slight increase in the risk of Mid-C price-spikes in recent years. These price-spikes happen in August, corresponding to a "Summer Peaking" aspect, in practice, of the Mid-C market, they do not represent a "Market Risk" that PSE has, at least for the last 10 years (the period of my involvement in their IRPs) assumed represents a "Winter Peaking" risk to PSE. If PSE were to switch their assumption to a "Summer Peaking" risk -- a switch I believe is warranted if PSE were to make-current their so-called "Weather Modelling" efforts [which is actually "Climate" Modelling" but PSE doesn't want to acknowledge it as such, because then they would have to incorporate the effects of climate change in their "Weather Modelling] -- if PSE were to switch to an assumption of "Summer Peaking" then the August Mid-C price peaks would be relevant to PSE's analysis. But if PSE is truly "Winter Peaking" then August Peaks in the Mid-C prices do not represent a "lights out" risk to ratepayers, but rather simply represent a "marketing opportunity" for PSE to sell even more NG generated power out of region down to California. And again, Washington State generates twice as much power from NG plants in August than in peak winter months, so as a state the NG part of our generation is already extremely strongly "Late Summer Peaking." We know that this generation is not for "local" needs since the California AC/DC interties continue to flow strongly in the From-the-PNW-down-to-California

direction during ALL of these time periods.

I believe the error in PSE's analysis is simply that which I have been complaining about for the last 10 years, namely that they are using what they call "Weather Data" [Actually: "Climate Data"] which is now 100 years out of date, by the end of the IRP analysis period. During this time period "Coldest Winter Days" have warmed by about 15 degrees, meaning that the peak winter power that PSE needs to provide is now actually about 20% lower than that shown in PSE's 100-years-outdated modelling efforts. Every IRP PSE says "maybe next time" -- and then stone-walls the 100-years-outdated-data problem yet-again. Note for comparison, that NOAA, when developing their regional Climate Models, only uses the most recent 10 years of weather data -- because NOAA acknowledges that due to Climate Change older Weather Data simply does not apply anymore! I have been proposing that PSE use the most recent 20 years, or even 30 years of weather data "just to be on the safe side" while at the same time using however many years of hydro data that they like -- the hydro data is very weakly related to daily weather patterns, and thus when modelling it is fair to "mix and match" weather vs. hydro years -- weather and hydro draws do not have to be from the same calendar years. As such, say 30 years of most-recent weather draws and 100 years of hydro data would represent 3000 separate data runs which PSE could simply and easily be using in their modelling. And PSE excuse for not fixing this problem is simply that they do not have the programming competence to fix this problem in their modeling efforts for Peak generating requirements. If PSE does not have such basic programming competence in their modeling group, then they need to hire an actual computer programmer to help clean up their modeling software -rather than waste 100's of millions of dollars of ratepayer monies due to bad modeling!

Let us briefly go over what happens if PSE were to add a brand-new Peaker plant to their generation mix. Ratepayers get to pay the overnight cost of that plant - 100's of millions of dollars. That plant is not actually necessary to "keep the lights on" -- in fact We Lose Power All The Time -- and not for lack of generation, but because PSE refuses to do reasonable Tree Management. Some small part of the cost of the plant is recouped for ratepayers because at least for the first couple years the brand-new plant will have leading thermal efficiency [for a Peaker], which means it will dispatch into the Californian Energy Imbalance Market. It will also occasionally be "in the money" a couple hours a year re Mid-C pricing, during which time that energy (on the margin) will also be sent down to California, and that will also slightly reduce the sunk-costs the ratepayers are paying re the "Overnight Cost" investment. The new plant also will mean that PSE oldest and least efficient Peaker plant will sit idle even more while the more efficient new plant runs instead, so the result will be NG generation gas costs will go down ever so slightly. But, the overwhelming result of the new plant is that PSE ratepayers will be paying the sunk cost for yet-another brand-new NG plant which this region does not need, which almost never runs, and which in practice, will be used to "insure" not PSE ratepayers, but rather Californian ratepayers -- who will be reaping the benefits at our expense. If the Californian AC/DC Interties were to run in the direction from California-to-thePNW even 10% of the time -- as they have in decade's past and done so "safely" -- then we would know it would be time to start considering new Washington State NG generation.

In Summary: Let California Build Their Own NG Plants!

Sincerely,

James Adcock Electrical Engineer