

Minutes for Fuels Advisory Committee May 16, 2025

Steve Simmons, NWPCC, began the meeting at 2:00 by reviewing the agenda. Chad Madron, NWPCC, explained how to best interact with the Zoom Webinar platform. Simmons took attendance.

Forecast Status & Method Review

Paul Dietz, Grant County PUD, approved of producing a weather normalized forecast integrated with future expected weather [Slide 6]. He asked if there is any plan to include price sensitivity in the model. Dietz pointed to WA State carbon allowances going up and making it into official decisions that will drive electrification and increase power prices.

Simmons said staff incorporated limited price elasticity based on expected economic conditions. He pointed to some elasticity in the resource model for example in the hydrogen load but was not sure how much would appear for other resources. Simmons offered to explore and get back to Dietz.

Nicolas Garcia, WPUDA, said that [Slide 7] suggests that this focuses on average or normal weather and not the hot/cold extremes the region has experienced in the last five years. He wondered what the heat dome or extreme cold snap would look like and how they would be incorporated.

Simmons confirmed that extreme weather events are in fact incorporated into the data sets. Simmons said the normalized TMY is not a smooth average weather curve but includes some extremes. Tomás Morrissey, NWPCC, dropped this link to confirm Simmon's statement.

Dietz noted large differences in class three chargers versus class one chargers for electric vehicles [Slide 8]. He said it's 10 to 1 (1 average MWh served takes 10 MW of reserved capacity). He wondered if staff noticed this differentiation between 115 sockets versus 230 versus a full class three charger.

Simmons said he didn't have a ton of detail but did have an assumption about the allocation of residential level 1 and 2 charging. He explained that it's a rough approximation based on NREL data. Morrissey posted this link for more information. Simmons offered to give more details offline.

Dietz pointed to a potential federal clarification of a rule that CA and WA have signed on to [Slide 14]. He thought it would present an issue and asked if staff have this on their radar. Simmons said staff represent policy as it is today. He pointed to some lower transportation curves in the demand forecast where the policy is met but vehicles sales are slowed.

Dietz said the growth rates on [Slide 21 and 22] look reasonably modest, but voiced concern about how it squares with CCA allowance policy. Dietz said the trajectory of state-limited allowances show the secondary market is pricing allowances well above auction results. He was concerned with measuring the sensitivity of the pressure to substitute electricity for gas where allowance prices are substantially high enough to justify spending capital on new equipment like heat pumps or new furnaces.

Dietz concluded by saying these numbers look modest and wondered if there was a case for acceleration.

Simmons answered not for building electrification adding that electrification is only considered for OR and WA. He added that this slide represents additional aMW over the mixed bag case and there is no plan on running anything higher. Simmons asked Dietz if this wasn't high enough.

Dietz replied that allowances could get to \$150-\$200 which will put a lot of pressure on vehicles. He added that natural gas will be significantly higher meaning there could be very high allowance pricing over the time period. Dietz thought there will be very few allowances in the marketplace by 2045 and GC PUD thought that was a very strong force for substituting gas, natural gas, and diesel for electric applications.

Dietz continued, saying if there is no high case these results will not be useful to the state as a feedback mechanism for their public policies. Simmons pointed to the high demand case which includes building electrification and data center demands. He offered to post model runs as they become available.

Dave Clement, NEEA, was curious about the high and mid case for data center demand [Slide 25] wondering about the variation. Morrissey said the mid case looks largely at four years of historical trends including firm and under construction projects while the high forecast is based on utility and BPA planning documents. Clement wondered if the high forecast includes data centers shopping different utilities. Morrissey didn't have data on that but felt that was probably true.

Garica said that made sense as large customers often shop around. He pointed to interconnection and transmission challenges that may mute this phenomenon. Garcia understood the graph up until 2030 but was not convinced there would be so much flattening after that with so many electricity demands coming.

Morrissey said a lot of that came from current utility forecasts that showed strong growth in the first five to seven years that tails off. Morrissey speculated that might be due to the nature of an industry that has better information in the short term. Morrissey said he tried different approaches, but this seemed more reasonable. He agreed that the industry is dynamic.

Garcia called the upper and lower band reasonable, but thought the midpoint should be higher post 2030 due to the explosion of Al. Morrissey called this a fair point.

Dietz asked about expected population growth as WA is forecasting growing from 8 to 9.5 million over the time period on [Slide 27]. He noted that new housing will be more electrified and wondered if this is captured. Simmons answered yes pointing to a past DFAC about housing/building stock. He said Idaho Power's territory is also growing and offered to post the forecast on the DFAC page.

Stephanie Price, PSE, wondered if staff could do some smoothing to remove choppiness [Slide 28]. Simmons answered yes.

Dietz said his schedule one and two electric vehicles are charged at the residence and would be obscured [Slide 30]. He asked if staff are backing schedule one and two out of the residential baseline. Simmons said the residential baseline is complex and includes home charging, but added that this baseline has the EVs pulled out. Simmons said there is an overall residential peak that includes EVs and this baseline plus EV.

Dietz asked about class three. Simmons said it includes some commercial and fleet charging as well as a public charging profile that is not in residential sector.

Garica noted that EV efficiency declines in the cold, using his past three EVs as evidence [Slide 31]. Garcia said the decline could be as much as 20-25% and wondered if that is included on the energy side as it could create a bump in the winter. Simmons said staff discussed this and landed on entering average annual energy which would include that bump. Simmons also pointed to seasonal sensitivity on the charging profile as well, stressing that it's not 25%. He offered to look at them again.

Dietz thought this bump might have to do with heating the car in the winter. Garcia counted that he rarely used the heater and drives with mittens to wring more miles out of each Watt. Garcia reiterated that there is a significant difference in miles per watt when it's cold that will add up with tens or hundreds of thousands of cars.

Simmons said he will direct Garcia and Dietz to the profiles staff used.

Price wondered about challenges staff experienced due to the shifting profile of hourly peak with different emerging technologies [Slide 32]. Simmons asked if she meant how having more heat pumps would shift the hourly. Price said PSE saw unmanaged EV shifting peak to hour ending 20 which created a challenge in lining everything up. She wondered how Council staff coped.

Simmons said staff kept the same EV charging profile overall but changed over time i.e. workplace charging. He said incorporating TOU rates could even out the evening charging rate. Morrissey said the model does output layers by hour, so they automatically line up.

Price wondered if staff had any feedback from internal Council discussions on how these profiles might change with solar and batteries. Simmons answered no, saying solar was an early input. He said there is a conservative rooftop solar forecast and batteries are in the demand forecast as there is a bit of uncertainty on how the technology will be deployed.

Simmons pointed to the supply curve that will be in the resource model adding that it is substantial. He said it is not in the demand forecast now. Jennifer Light, NWPCC, added that the Demand Response side will look at batteries in the home as well as the resource side.

Morrissey said there is a possibility that some peak times will shift after all the products are incorporated.

Dietz questioned the data center load on [Slide 33] saying it looked small to him considering it's a regional number. Morrissey explained that the loads are incremental, and they are estimating 2000 MW in the baseline.

Dietz confirmed that staff will add an additional 1929 MW in 2029. Simmons said it would be an additional 800MW. Dietz asked if it's incremental to what's already existed. Morrissey said yes.

Clement asked if the EV forecast looks at the loss of any federal financial incentives [Slide 36]. Simmons said no as forecasts are based on current policy. Clement pointed to the "Big Beautiful Bill" that would strip EV incentives away.

Dan Kirschner, NWGA, addressed staff's methodology of planning toward existing policy. He asked if staff is prepared to pivot if existing policy changes in the next few months. Light talked about the EV load forecast, which meets state policy/goals. She said there is no assumption about the cost of the EVs. Light pointed to the lower forecast that dampens EVs but still meets goals. Light said there may be a pull out that makes it harder to meet state goals, but staff are not in the position to say goals/policies will not be met.

Light moved to federal level policies saying there is a scenario that will explore that changing landscape. Kirschner said his question was answered and called this approach reasonable.

Garcia agreed that the approach made sense but had questions about whether or not a CA standard will be allowed to continue. Garcia noted that the WA standard dovetails off of this standard. He thought having a way to pivot if policy goes away is a prudent backup plan.

Light said staff discussed this deeply and pointed to the lower forecast as the best lower range. She heard everyone's comment and said staff will continue to think about the topic.

Simmons asked for questions/comments to be emailed to him. He ended the meeting at 3:40.

Attendees via Zoom Webinar

Nicolas Garcia **WPUDA** Jennifer Light **NWPCC** Tomás Morrissey **NWPCC** Stephanie Price **PSE** Steven Simmons **NWPCC Chad Severson** Idaho Power Jake Kennedy **NWPCC** Tom Pardee Avista Corp

Chad MadronNWPCCLorin MolanderPSEEmma Taylor-ChapmanPSEAmber RiterPGEAliza SeeligPNUCCMarciana RosalesEWEB

Dan Kirschner NWGA Fred Heutte NW Energy Coalition

David Clement NEEA Glen Booth **BPA** Frank Brown BPA Zeecha Van Hoose Clark PUD Clallam PUD **Grant Forsyth** Avista Corp John Purvis Nick Gemperle PSE Daniel Hua **NWPCC**

Craig Patterson independent Mary Kulas Consultant for PPC
Jeff Jordan independent Landon Snyder Snohomish PUD

Tara Maynard GH PUD Kelly Xu PSE

Paul Dietz GC PUD Jeffrey Freeman Chinook Guide