Northwest **Power** and **Conservation** Council

Minutes for Conservation Resources Advisory Committee
June 25, 2025

Kevin Smit, NWPCC, began the meeting at 3:00pm. Christian Douglas, NWPCC, took roll.

Energy Efficiency Emerging Technologies for the 9th Power Plan

Jim Lazar, independent, asked if Council models will treat generating emerging technologies, like modular nukes, the same as emerging energy efficiency technologies and skip over them [Slide 3]. Jennifer Light, NWPCC, explained that it's not that the model would skip over these technologies, but more of a matter of interpreting the results to prioritize cost effective resources. She said staff want to do this with both generating and supply-side resources because of a desire to balance supply and demand-side resources in an apples-to-apples way.

Lazar wrote: When we get to EVs, I want to raise the parallel issue to efficiency of bidirectional charging. That was not evaluated by GRAC, and if we don't do it, nobody will. A new study out of UCS shows a gigantic benefit, $10b/year for California alone, half of which is distribution capacity cost savings. https://www.ucs.org/resources/harnessing-power-electric-vehicles in the chat.

Larar said he looked at the column "cost to build/renovate" on [Slide 9] and thought that $150 a square foot was a massive renovation. He was pleased with the last column saying it answered his questions.

Lazar noted that states are in the process of adopting the 2024 International Code [Slide 10]. He asked about the size of the gap between current standard and the Passive House standard and what that might do for the incremental costs, particularly in new construction. Douglas said he was curious about that too, guessing that it was not a huge step.

Ted Light, Lighthouse Energy, related a story of touring a Passive House retrofit in his neighborhood and pointed to the need to construct a separate outside wall to make the existing walls thick enough for the needed insultation. He said the project was hugely expensive, far more expensive than the numbers represented on the slide. T. Light asked if staff retrofit numbers included adding new walls. Douglass said the data on the existing spec is much thinner than the new one. Douglass said he added on a big factor, but this comment makes him think he might have to add a bigger one.

T. Light wondered why Passive House is binned in emerging tech and not in expensive EE with a slow ramp rate. Douglass called that a good question saying the technology is on the edge.

Douglass said they are out there but not meaningfully at scale, so staff decided to treat it as emerging.

Smit added that this issue is still in internal discussions, so T. Light's input is well received. Smit also said staff were not as sure about Passive House costs, making it harder to label the technology as reliable and available.

Lazar pointed to costs of $110-220 saying his assumption is that is the low end is new construction while the high end is retrofit. He couldn't conceive of launching a Passive House retrofit measure but new construction, at $110, is equivalent to a many new generating resources while the $220 is close to the cost of small modular nuclear.

Lazar thought the new construction deserved a chance to move ahead, talking about his time with Super Good Cent$. He noted that the process of moving Super Good Cent$ forward took 10 years and suggested doing the same thing here.

Lazar wrote: In the 1980's, the Council adopted a residential model conservation standard, based on the lessons learned from Super Good Cent$. Should we be considering a recommendation for adoption of Passive House standard as a model conservation standard for this plan? In the chat [Slide 8]. Smit replied: We can certainly consider this when it comes to talking about the MCS. The MCS must be cost-effective, so we will need to wait to see some modeling results before we know the cost-effective limits.

Lazar wrote: On [Slide 15], the differences in EUI for Restaurants between the states is GIGANTIC. Enough to be suspicious. Also, not clear why Oregon Lodging and School would be so much higher than WA. Seems like there are lessons already learned in some states applicable to other states, in the chat. Smit indicated that these are good observations, and he will double check those values.

Lazar spoke about a hotel in Hawaii where the heat pump dryer is part of the chilled water system for the air conditioning [Slide 17]. Lazar said the hotel is getting double value out of the technology as it improves both the cooling and heating functions. Smit reported that NEEA found the technology works well with towels but not as well with bedding adding that it requires more testing.

Lazar wrote: Seattle made the decision to up the voltage on their distribution system as part of the Energy 2025 project, in which they chose to avoid investment in WPPSS 4/5. They now have ~40 years of experience operating at higher voltage and may be able to educate us on the character and quantity of cost and benefits in the chat [Slide 25]. Lazar then stated that Seattle increased voltage in the 1980s, saying they have 40 years of experience and plenty of good data feeding the current study. Smit said he will explore this.

Lazar suggested looking at EVs more holistically saying smart charging is a Demand Response measure, the storage value of bi-directional charging is looked at by the Generating Resources

Advisory Committee, and efficacy is being looked at by the CRAC. Lazar said the value of getting smart about EVs brings value across the spectrum.

Lazar suggested that the Council convene a multi committee task force for EVs and the grid of the future, adding that California is excited about their utility-scale batteries, but they have twice as much storage available through EVs. Smit said the Council's hourly models give a lot of flexibility and will yield a lot of useful information about the value of EV storage.

Nolan Kelly, BPA, thought it was good to look at individual EVs but argued that fleet orchestration and management has a lot more variety for potential utility applications. Kelly agreed with Lazar's comment adding that looking at different applications is also a good strategy.

Smit replied that the RTF is planning a market study for EV fleets to gather data and information for EE and DR purposes.

Emily Gilroy, WA UTC, wrote I agree with Jim--as VGI becomes more commercially viable it seems like using bidirectional EV charging capability as DR/arbitrage is a no-brainer. Incentivizing a reduction in EVMT to ensure capacity availability to do that is worth considering, in the chat. Smit replied, Yes, our DR and modeling folks are modeling this more as a flexible load and from that I think we will see some interesting results. Thanks.

J. Light reminded the room that this work is a demand side proxy to test if the model will pick up these kinds of resources [Slide 34]. She reminded the CRAC that this work is meant to guide decisions and is part of a longer-term resource strategy.

Lazar wrote, Has anybody sited a data center adjacent to a food processor or paper mill, to use the waste heat from the data center for productive purposes? in the chat. There was no response.

Smit asked that more comments and data be sent to him soon. Smit ended the meeting at 4:00pm.

Attendees via Zoom Webinar

Jennifer Light	NWPCC	Nicolas Garcia	WPUDA
Kevin Smit	NWPCC	Frank Brown	BPA
Christian Douglass	NWPCC	Andrew Grant	Cadmus
Laura Thomas	NWPCC	Bonnie Watson	BPA
Jim Lazar	Independent	Nolan Kelly	BPA
Emily Gilroy	WA UTC	Aquila Velonis	Cadmus
Elizabeth Daykin	Resource Innovations	Kyle Morrill	Energy Trust of Oregon
Mary Kulas	Consultant Public Power	Debie DePetris	Clark PUD
Jennifer Snyder	WA UTC	Brandy Neff	PNGC Power
Ryan Bottem	Public Generating Pool	Angus Duncan	independent
Jeff Harris	NEEA	Billie McWinn	Idaho Power
Robert Hughes	Avista Corp	Lori Hermanson	Avista Corp
Kim Boynton	Avista Corp	Leann Bleakney	NWPCC
Ted Light	Lighthouse Energy	Amanda Welch	ODOE
Jason Talford	Idaho PUC		