Northwest Power and Conservation Council
Conservation Resources Advisory Committee
December 17, 2020

Kevin Smit, NWPCC, began the meeting at 9 by calling for attendance. Chad Madron, NWPCC, gave an overview on how to use Go-to-Webinar. Madron then discussed the updated 2021 Power Plan work schedule.

2021 Power Plan Conservation Program and Emerging Themes
Jennifer Light, NWPCC
Light continued the discussion around the Plan's conservation program. Light reviewed the current framing and considerations for the conservation program, roughly outlined content and highlighted some emerging themes for consideration including targeted approaches for EE, the need for more research and reliability and the growing importance of codes and standards. Light noted that once results start rolling in, specifics for the program can be better discussed.

Nicolas Garcia, WPUDA, asked how building and equipment use may change due to impacts from COVID-19 and if those changes might impact cost effectiveness. Jim Lazar, independent, posed a similar question about the need to have much better filtration in indoor cooling and heating systems, due to COVID (and surely this legacy will linger), possibly hampering their capacity for efficiency gains.

Smit suggested holding this topic until the end of the meeting or pushing it to a future meeting if there is no time. Lazar offered his presentation on COVID-19 impacts on utilities at: https://www.youtube.com/watch?v=oW7UPi43XSc

David Hewitt, New Buildings Institute, asked if electrification will be covered as he predicted some amount of that will happen. J. Light pointed to a deep decarbonization scenario Council staff plan to run. She stressed that the Council does not see electrification as conservation as per the act.

Quentin Nesbitt, Idaho Power, asked if the Plan identifies details like programs or measures [Slide 9.] Light answered that the Council has discretion in putting a program together but stressed that staff are not implementors. She said there may be a place to highlight specific cost-effective measures as an area of interest.

Jennifer Finnigan, SCL, wanted to talk more about electrification versus conservation. She said her utility sees a rise in electrification as a need for conservation to also rise and wondered how this relationship will be reflected in the Plan. Light explained that the act of moving from gas to electricity is not in and of itself conservation so its potential will not be captured. Light then said the supply curves for the deep decarb scenario converts units to the market average electric choice. Light said those cases will have potential to go to more efficient.

Smit suggested this for a future agenda topic.

Lazar pointed to the relationship between electrification and a targeted approach to EE [Slide 14.] He predicted that the electric system will inherit a disproportionate number of poorly weatherized, fossil-fuel-heated building. Lazar called these structures a probable underserved market.

Anna Kim, Oregon PUC, said her organization is very interested in seeing the quantification of missed opportunities, like the value of EE in terms of DEI. She said research makes prioritizing this work easier. Light agreed, saying it ties into the call for more research and reliability.

Tanya Barham, Community Energy Labs, called for a more equitable approach to behind-the-meter solar for low-income residents, multi-family buildings and shared resources like storage and community solar. She asked how the Council views these as they relate to conservation of load and DEI. Light said the Council doesn't consider behind-the-meter solar as conservation but will flag her comment as part of considering DEI in the Plan.

Hewitt pointed to localized generation and resiliency planning, wondering if these topics fit into reaching underserved markets. He called for thinking about how to value resiliency. Light said this question is bigger than her presentation and a DEI presentation is coming later in the day.

Jeff Harris, NEEA, asked if the Systems Integration Forum would be an appropriate place for these topics, adding that resiliency is specifically alluded to in the Power Act. Light answered yes, saying there will be a SIF to continue that conversation.

Nesbitt likened Idaho Power's struggle with cost-effective residential weatherization to finding needles in haystacks. He said the lack of broad brushstrokes make program administration not cost effective. Nesbitt lamented that the same is true of Ductless Heat Pumps. Light agreed that targeting the rare home is challenging and is why it is highlighted for support.

Nesbitt asked for clarity around the difference between addressing lagging markets, which addresses existing scenarios, and codes, which addresses new structures [Slide 15.] Light pointed to some backsliding in codes that could be looked at. Smit added that because appliance standards come into effect at the end-of-life they help the existing markets.

Nesbitt agreed that the overall market gets more efficient but the old appliance is often handed down, particularly in lower income areas. Light agreed that reaching this secondary market is an issue to think about.

Danielle Walker, BPA, asked for a discussion about the difference between the need for research outlined on [Slide 16] and the work to research and quantify momentum savings. Light thought that BPA's momentum savings research should be highlighted along with the RETAC's and other evaluation work.

Walker pointed BPA's robust, valuable research program, noting the budget is not very constrained due to the importance of capturing and quantifying momentum savings. She said this speaks to the importance of momentum savings and the value it brings to the target framework. Light said she understands the connection and agrees that it brings a lot of value.

Garcia again pointed to how building use has changed and how that might change cost-effectiveness.

Craig Patterson, independent, pointed to his past experience doing evaluation work and said subcontractors pose major credibility problems that make conducting reliable research and evaluation hard. He asserted that his experience is not unique and said a higher level of integrity is needed.

Mohit Chhabra, NRDC, said using demand savings to help avoid a gas build could be an emerging theme. Light said that was first seen in the Seventh Plan and may emerge in this Plan as well. Chhabra then said BPA's great market research should be done whether or not you want to claim momentum savings as it's part of doing good EE.

Kim wondered how well their evaluation and savings quantification work aligns with the need to understand the Resource Adequacy aspect of EE. She thought an emphasis on reliability could make evaluations even more helpful. Light agreed that this is important pointing to the regional End-Use Load Research project comes in part from Plan work.

Lazar noted an earlier comment about downward changes in commercial building use. Lazar stated that this may lead to an upward change in residential usage and both should be measured in terms of conservation potential. He posted a link to his work on COVID's impact on utilities at: https://www.youtube.com/watch?v=oW7UPi43XSc

Garcia agreed with Lazar's comment.

Discussing Diversity, Equity, and Inclusion at Power Advisory Committees
Tina Jayaweera, NWPCC
Jayaweera began with a note about next steps for continuing the discussion around diversity, equity, and inclusion considerations in the power plan, including encouraging continued submission of comments via email and phone, a SIF tentatively scheduled for late January/early February, and EE-related items to be discussed at future CRAC meetings as we develop the conservation program. Jayaweera then recapped the discussions had and feedback received at other advisory committee meetings, highlighting specific take-aways.

DISCUSSION
Patterson asked for examples of how "least cost is not necessarily the most equitable" bullet on the GRAC slide. Jayaweera said community solar might go in the least-cost area that is most accessible but lower income customers may not benefit.

Patterson asked for an example using conservation and not renewables. Jayaweera pointed to the weatherization issue where there are hard-to-find, poorly-weatherized homes that bump up the program administration costs but they need the efficiency because they have the highest energy burden.

Shani Taha, UCONS, noted her work with manufactured homes which use 5% of total energy consumption but get barely 2% of energy conservation programs. She said these homes are very high bill and residents tend to stay. Taha said this population doesn't have money for a DHP which would be helpful and utility programs will serve them with one lightbulb measure. She called for a rethink on delivering services as a one-stop measure to achieve conservation resources.

Garcia thanked Taha for her comments about manufactured homes. He noted that the Council delivers a regional plan but looking at equity forces a drill down into specific communities. He wondered if this represents a fundamental shift in the historically regional direction of the Plan. Jayaweera did not see individual communities or utilities being called out. She said this could highlight areas that need research or focus attention on certain parts of the Plan.

Chad Ihrig, Franklin Energy, addressed the difficulty in administering programs in an equitable manner. He thought this may be overly simplistic, but wondered if consideration had been made to add a savings 'kicker' for those areas of concern. He thought a kicker of 15% or so would encourage implementers and administrators to spend the additional time and resources in those areas. Jayaweera asked if kicker meant attributing more savings to those areas. Ihrig answered yes, saying it's a way to provide more incentive without diminishing cost effectiveness.

Jayaweera said EE is a resource so it's important to get accurate savings. She agreed a more nuanced look could lead to specific savings but there are challenges. Chhabra suggested that, instead of savings kicker, there could be suggestions to the PUC on how to balance the cost-effectiveness of equity-focused programs with resource programs.

Lazar addressed rate design, saying it needs to be examined. He said the DR and rate design piece is also important in the commercial sector. He noted that utilities have non-coincident demand charges instead of critical peak pricing that work against DR goals. Lazar suggested the CRAC and DRAC work together on developing model conservation standards on rate design.

Jayaweera said the DR supply curves have rate-based DR programs that use critical peak pricing and she is waiting for model results to see DR's roles and bins acquired. Lazar pointed to seeing 30-40% peak load reductions for utilities that implement critical peak pricing with technology support or peak time rewards with technology support. Lazar also preferred the term rate-driven over rate-based as rate-based has a different meaning.

BREAK

Analysis of Remaining Weatherization Potential in Homes with relatively Poor Shells

Christian Douglas, RTF CAT
Douglass presented a data-heavy look at remaining weatherization potential in residential single family and manufactured homes with relatively poor shells.

Patterson asked if UA is the inverse of the R value in the analysis [Slide 7.] Douglas answered that the inverse of R is U and UA is the U value multiplied by area.

Nesbitt asked if the RBSA characterized no floor insulation to mean no perimeter insulation. Douglas said he took crawlspace walls into account but not below ground rigid foam foundation insulation because it is too hard to verify.

Charles Grist, independent, addressed the last bullet on [Slide 10] which finds these poorly-insulated homes consume 45% more total electricity per square foot and 65% more heating electricity per square foot. He wondered if that assumptions came from billing data or modeled results. Douglas answered that it came from the VBDD billing from RBSA II.

Amy Wheeless, NW Energy Coalition, asked if there is any data on who pays the energy bills in rentals [Slide 11.] Douglas thought that RBSA II captured a need for billing assistance.

Hewitt called the UA break out on [Slide 13] good and referred to his home as a huge, mediocre 1969 Chevy Impala. He was amazed that there are others out there that still need help.

Jess Kincaid, BPA, called this work excellent on a per home basis but said bill collecting may not be the best way to characterize potential for these homes as there is some self-selecting to participate in the RBSA. She noted the large segment of non-English speakers who don't opt into energy programs or participate in the RBSA even though their homes may have a lot of potential. Because of this Kincaid reported that BPA thinks these numbers may be skewed.

Light agreed that it could be an issue. Douglas agreed the numbers could be fuzzy.

Garcia asked if poorly insulated homes in disrepair were weeded out or included in the analysis [Slide 17.] Douglas lamented that he didn't have the data to weed out those home. Garcia thought it might be prudent to include a footnote that some homes may not be worth weatherizing. Douglas agreed, particularly in the Manufactured Home segment but said the potential number remains the same even if programming changes.

Rich Arneson, Tacoma Power, said his and other utilities share concern on how to attract owners and renters to programs [Slide 22.] He said they can target market these customers but they still do not participate in their fully-funded program. Arneson said Tacoma Power is launching a multi-language, non-participant study to learn more.

Kim said Oregon and Energy Trust use different partners, like CAP agencies and other community-based organization, to help identify opportunities. She praised the presented analysis and said it supports the PUC's approach.

Ted Light, Lighthouse Energy, referenced the 2021 Plan's supply curve estimates for both SF and MH weatherization and found that both were about a third of regional potential. He said the presentation suggests limited potential for the remaining homes and wondered what that might mean. Douglas moved to [Slide 8] explaining that there is still potential in the large "limited Wx potential" group.

Hewitt called for the need to better understand and market to rental owners. He then addressed electrification, saying that will make limited potential homes more attractive. Hewitt said effort should be spent on electrification equipment by making sure it is the most efficient with the best controls and, in the case of water heaters, is the best size. He said this gets away from the shell but could be a quick win.

Douglass said the data shows a strong correlation between poor insulation and inefficient heating systems which may make it more cost effective to tackle both.

Patterson asked how to determine if energy savings is a function of conservation or the economics of not being able to afford heating energy. He then said BPA's fact sheet shows 4% of residential OR electricity is regulated through the PUC while 96% is not and the rate structure of the COUs reflect that in spades. Smit answered that Patterson's concerns are noted and some are being passed on to the SIF.

Smit asked the CRAC to think further on this and email thoughts and comments.

Public Comment

Lazar commented on the effects of COVID on air filtration, noting that telecommuting is increasing residential loads about 7% nationally while decreasing commercial/industrial ones by 10%. He predicted that this will persist and said we need to take stock in energy consumption and conservation opportunities.

Smit stated that the end use load working group is doing research on homes and there will be a impacts of COVID summary coming out next year.

Garcia echoed Lazar saying this will change the cost-effective calculation.

Barham confirmed that many of these complex, multi-disciplinary issues like electrification, resiliency, building performance in WA, etc. will be addressed in the SIF. Smit answered that staff is in listening mode right now and said all of those concerns will not be addressed in a SIF but said all of these topics will be included in laying out the framing of the SIF.

Hewitt said he was willing to serve on a subcommittee to help shape and frame the SIF's agenda.

Light addressed Barham's comment, saying the SIF will specifically address the DEI piece and move more broadly from there. She stressed the importance of keeping the CRAC conversations focused on Conservation. Barham asked where these other items should be discussed. Light said she, Jayaweera, and Smit will take concerns and comments to the rest of the staff to find a place for these conversations.

Barham voiced interest in helping and supplementing staff work as needed and thanked staff for all of their good efforts. Smit thanked her. He added that electrification will be explored in the deep decarb scenario and he will present more on that in coming meetings.

Smit adjourned at 12:00pm.

Attendees via Go-to-Webinar

Kevin Smit	NWPCC
Tina Jayaweera	NWPCC
Jennifer Light	NWPCC
Rich Arneson	Tacoma Power
Tanya Barham	Community Energy Labs
Stephen Bicker	Tacoma Power
Leann Bleakney	NWPCC
Aaron Bush	PPC
Mohit Chhabra	NRDC
Michael Coe	Snohomish PUD
Warren Cook	ODOE
Jennifer Finnigan	SCL
Lakin Garth	Cadmus
Nicolas Garcia	WPUDA
Charles Grist	independent
Jeff Harris	NEEA
David Hewitt	New Buildings Institute
Chad Ihrig	Franklin Energy
Chris Johnson	Benton PUD
Anna Kim	Oregon PUC
Jess Kincaid	BPA
Jim Lazar	independent
Ted Light	Lighthouse Energy
Kerry Meade	NEEC
John Morris	DNR International
Eli Morris	Applied Energy Group
Brandy Neff	PNGC Power
Quentin Nesbitt	Idaho Power
Heather Nicholson	
Craig Patterson	independent
Deborah Reynolds	WA UTC

Gurvinder Singh	PSE
Peter Stiffler	BPA
Shani Taha	UCONS
Zeecha Van Hoose	Clark PUD
Aquila Velonis	Cadmus Group
Danielle Walker	BPA
Amy Wheeless	NW Energy Coalition
Brian Dekiep	NWPCC
Jessica Aiona	BPA
Chad Madron	NWPCC
Poppy Storm	2050 Institute