Charlie Grist, NWPCC, began the meeting at 1:00pm with a review of the agenda. Grist pointed to the posted minutes and asked for comments and corrections. There were none. He then called for introductions and noted that the CRAC charter requires updated membership every two years. Grist asked that members look for emails about future membership.

**Conservation Supply Curve Results**

**NWPCCC staff**

Mohit Chhabra, NRDC, confirmed that [Slide 15] represents the time when the measure saves and not necessarily the sector. Grist confirmed, saying they are just bundled by sector not by measure.

Deborah Reynolds, WA UTC, asked to see the table behind [Slide 16.] Grist said yes. Tina Jayaweera, NWPCC, stated that there is a file called “Baseline EE” that doesn’t have charts, but said they could be added. Grist stated that the charts can be accessed by downloading the presentation.

Danielle Walker, BPA, asked how FMY data impacts these charts. Grist said the impact is minor, noting that there will be slides on the topic later in the presentation.

**Estimated Impact of Climate Change on EE Savings**

**NWPCCC Staff**

Gurvinder Singh, PSE, asked about the criteria for picking a typical month [Slide 4.] Jayaweera explained that NREL picked the typical month using a variety of criteria.

Frank Brown, BPA, asked if the examples on [Slide 14] are of the difference for 2041 or an average over the 20-year planning period. Jayaweera answered that she’s not looking at a time variance for the savings but choosing a single, representative year for the whole 20-year period, moving back to [Slide 6] to explain further.

Chhabra asked if the same FMY data is used to model hydro availability and supply-side resources [Slide 18.] Jayaweera answered that GCM data are used for the hydro availability. Chhabra confirmed that the precipitation data lines up for both. Jayaweera confirmed, saying further information can be found in Hua’s November presentation to the Power Committee. Jennifer Light, NWPCC, also pointed him to an RTF presentation.

Grist thanked him for his question, stating that the impacts of climate change on hydro flows and availability is bigger than temperature changes alone. Chhabra mused about what would replace that summer resource, noting that gas or other fossil fuels might be constrained by
carbon reduction laws in Washington and Oregon. Jayaweera agreed, saying policy is modeled
and will be a big driver.

Walker stated that these savings will take effect on year one. She then asked if any thought was
given to the evolving relationship with load forecast. Jayaweera answered that load forecasts
also incorporate the GCMs but agreed that the savings are not varied with time as any given
year could be hot, cold or average.

Walker was still unsure about what it means to claim more summer savings in 2022 when the
load forecast doesn’t capture more loads until later on. Jayaweera pointed to “elasticity” in the
RPM that provides a relationship between loads and available efficiency. J. Light added that the
Regional Technical Forum will not adopt these numbers on the first day of the Plan, but instead
plans to update numbers over time.

Walker voiced concern for utilities that use these supply curves as foundations for their IRPs
and CPAs, saying there is opportunity for misalignment between measures going into the model
and the need the model is selecting for. She stated that BPA’s resource program is still looking
for winter-saving measures and worried about big swings from winter to summer that may
impact utilities that don’t incorporate climate change.

Jayaweera agreed that consistency is needed. Chhabra called Walker’s point important but
called this work a terrific start, adding that if the RTF uses the same weather files the region will
get to consistency.

BREAK

Update on Plan Process and Scenarios
NWPCC Staff

Wendy Gerlitz, NW Energy Coalition, asked if other measures will be considered for fuel
switching [Slide 10.] Kevin Smit, NWPCC, answered yes adding that commercial cooking may be
included too. Grist said Massoud Jourabchi, NWPCC, is looking at replacement equipment as an
opportunity.

Gerlitz asked for a list of technologically feasible measures for fuel switching. Chhabra offered
to send a list from NRDC’s deep decarb team. Smit said he’s also wrestling with the Industrial
sector and will need input.

Nicholas Garcia, WPUDA, noted that increased electricity use will require a beefed-up
transmission system. He asked if the transition will be constrained based on present day
transmission limits or if the assumption will include a simultaneously expanded transmission
network. Smit did not know but thought cost must be considered.
Walker voiced surprise that fuel switching was an option. She asked if this scenario is a sensitivity, hoping that it wouldn’t be incorporated into the potential. Grist clarified that this is not fuel switching as energy efficiency but a look at deep decarbonization.

J. Light added that this is an attempt to model policy that encourages this kind of change and tries to reveal what it would take to reach such a target. She added that Council members will look across all of the scenarios to inform the target.

Garcia stated that in Washington State public utilities are constitutionally prohibited to support fuel switching. Smit called this a good point, adding that these assumptions are not part of efficiency.

Walker emphasized that these are not achievable potential units for BPA. Grist called this point well taken.

Singh summed up that this scenario as an electric load forecast that then looks at the impact of fuel switching on that load and other resources. Smit called that close, saying it looks at appliances turning over to electric and how that will drive resource needs. Singh asked if peak and energy will be examined. Smit answered yes. Grist added that this does not look at switching from gas to electric resistance, but gas to heat pumps and other highly efficient equipment.

Singh asked about cost considerations. Grist said the primary look-see is about how low the carbon footprint can go across more than the electric sector. Jayaweera added that costs for decarbonization will be part of the story, saying that the scenario will look at what it takes and how much it costs to get to 90% decarbonization.

Chhabra asked if this is trying to reveal the best way to get to that 90%. Jayaweera agreed. Chhabra added that this is a policy tool.

Deb Young, Northwestern, noted that different areas have different policies and asked how these differences will be taken into consideration. Smit stated that this is to inform policy makers on the best, least-cost path.

Garcia stressed that policy makers need to know all the steps needed to reach these goals and how many extra resources will be required just for peak periods. He said there must be perspective about what will be required to move and provide power at the moment of demand.

Model Conservation Standards—Background for the 2021 Plan
NWPCCC Staff
Garcia asked for more explanation about the rate penalty BPA can recommend [Slide 11.] Grist stated that the Council recommends action to the BPA Administrator, and the Administrator decidea what to do.
Target-Setting Principals: Background for the 2021 Plan
NWPCCC Staff
Walker thanked staff for sharing their thoughts [Slide 18.] She stated that BPA wants to participate in the conversation but felt the approach crosses the boundaries into the implementation role. She thought this is better left to Bonneville’s experts and called for more thought and discussion around the role of the Council and the role of implementors. Walker stressed that she didn’t want to lose the flexibility of reaching conservation goals in the lowest cost, most efficient ways.

J. Light agreed that this needs more discussion. She assured Walker that the goal is not to guide towards a more expensive or overly prescriptive path.

Garcia asked if the effects of the Covid-19 pandemic will be considered for the early parts of the Plan, as utilities are concerned about immediate financial effects. Smit said this and other pandemic considerations will be discussed at the next Council meeting on May 12-13.

Grist closed the meeting at 4:00pm.

Attendees via Webinar
Charlie Grist        NWPCCC
Shani Taha          UCONS
Kevin Smit          NWPCCC
Aaron Bush          PPC
Brandy Neff         PNGC Power
Jack Cullen         Applied Energy Group
Brian Dekiep        NWPCCC
Jennifer Light      NWPCCC
Tina Jayaweera      NWPCCC
Ted Light           Lighthouse Energy
Aaron Leatherwood   Evergreen Efficiency
Debbie DePetris     Clark PUD
Joan Wang           Cadmus
Chris Johnson       Benton PUD
Aquila Velonis      Cadmus
Eli Morris          Applied Energy Group
Leann Bleakney      NWPCCC
Wendy Gerlitz       NW Energy Coalition
Danielle Walker     BPA
Deborah Reynolds    WA UTC
Bo Downen           NWPCCC
Michael Coe         Snohomish PUD
Deb Young           Northwestern
Elizabeth Osborne   NWPCCC
Jessica Aiona       BPA
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<tr>
<td>Frank Brown</td>
<td>BPA</td>
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<td>Mohit Chhabra</td>
<td>NRDC</td>
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<td>Chuck Murray</td>
<td>Washington Dept of Commerce</td>
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<td>Nicholas Garcia</td>
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