

1. Welcome, Call to Order

Jamie Austin, Production Cost Data Subcommittee (PCDS) Chair, called the meeting to order at 9:04 a.m. MT on July 13, 2022. A quorum was present to conduct business. A list of attendees is attached as Exhibit A.

2. Review WECC Antitrust Policy

Tyler Butikofer, System Adequacy Engineer, read aloud the WECC Antitrust Policy statement. The meeting agenda included a link to the posted policy.

3. Approve Agenda

Ms. Austin introduced the proposed meeting agenda.

On a motion by Chifong Thomas, the PCDS approved the agenda.

4. Review and Approve Previous Meeting Minutes

Ms. Austin introduced the minutes from the meeting on June 21, 2022.

On a motion by Chifong Thomas, the PCDS approved the minutes from June 21, 2022.

5. Process used to develop and model the hourly loads

Mr. Butikofer presented the process used to develop and model the hourly loads. Concern was expressed about the codes being used and if behind the meter (BTM) is being counted twice.

Mr. Butikofer will present the code spreadsheet. Foot notes will be added to distinguish codes 18 and 19. There was a difference in every area for February 2022 that might have been caused by a leap year. The PCDS discussed whether PacifiCorp loads, and resources (L&R) was used since it did not align with the presentation and has shape problems. There was not a large difference but a few discrepancies in peak and energy.

Mr. Butikofer presented the summary of monthly BTM data from the L&R versus the 2032 Anchor Data Set (ADS), at the balance authority area (BAA) level. The capacity was verified although Alberta did not have county level profiles. The issues will be resolved offline. The PCDS discussed that the biggest concern is making sure that the L&R is accurate for the 2032 ADS case.

Ms. Austin presented the net loads submitted from PacifiCorp and the loads entered into GridView by WECC. The shapes and loads will be researched further. There will be an offline meeting to discuss loads.

The presentation is posted to the [WECC website](#).

6. Validating BAA Loads submitted to WECC through the L&R process

Mr. Butikofer gave an update on the validation of the BAA loads submitted through the L&R process. Information is still needed from Bonneville Power Administration (BPA).

7. Comparison of Generators at the BAA level, by technology, 2030 ADS versus the 2032 ADS

Jin Zhu, Hitachi-ABB, presented the comparison of generators at the BAA level by technology for 2030 ADS versus the 2032 ADS. It included the results of the simulation and is not the final version but showed the differences between the cycle. The distributed energy resources (DER) are in the 2030 case but not in the 2032 case. It needs to be researched determined if the DER needs to be modeled. Overall, there is good progress with the new cycle.

The presentation is posted to the [WECC website](#).

8. Addressing BC Hydro Data Issues

Jon Jensen, System Adequacy Engineer, gave an update on the British Columbia (BC) hydro data issues with path three which dropped around July. The top six BC hydro units have the same pattern. The PCDS discussed the differences in the loads, and they are being researched. There will be an offline meeting held to discuss BC hydro.

Kevin Harris, Pacific Northwest National Laboratory (PNNL), presented that the BC hydro generation was balanced with load, by including the area wind and solar generation. No more than three units were allocated with no more than 50% allocation. 100% of the proportional load following (PLF) was allocated.

Mr. Zhu presented the 2032 ADS development summary. There is no loss being seen in the simulation and BC hydro is using the monthly hydro data. The weekly load and then the hourly generation was reviewed. The hourly is higher and dominates the power flow.



9. Discuss future PCDS meeting start time

The PCDS discussed future PCDS meeting date and time. Concern was expressed that starting at 8:00 a.m. PT was early and may cause issues for presenters being able to attend the meeting. A suggestion was made to stay with the current schedule through the quarter. Public Comment No comments were offered.

10. Review New Action Items

- Define the 18 and 19 L&R codes used for the monthly peak energy.
 - Assigned To: Tyler Butikofer
 - Due Date: July 20, 2022
- Hold an offline meeting to discuss the load progress identified issues.
 - Assigned To: Tyler Butikofer, Jamie Austin, Steven Wallace, Yi Zhang, Michael Granados, and Jon Jensen
- Discuss Hydro offline.
 - Assigned To: Jin Zhu, Jamie Austin, Kevin Harris, Yi Zhang, Steven Wallace, Tyler Butikofer, and Jon Jensen
 - Due Date: July 20, 2022
- Compare the resources by technology and area, and report findings at the next meeting.
 - Assigned To: Jon Jensen and Tyler Butikofer
 - Due Date: July 20, 2022

11. Upcoming Meetings

July 20, 2022.....Virtual
 July 27, 2022.....Virtual
 August 3, 2022.....Virtual

12. Adjourn

Ms. Austin adjourned the meeting without objection at 10:44 a.m.



Exhibit A: Attendance List

Members in Attendance

Jamie Austin PacifiCorp
Michael Granados..... Los Angeles Department of Water and Power
Kevin Harris Pacific Northwest National Laboratory
Hank McIntosh San Diego Gas and Electric
Effat Moussa..... San Diego Gas and Electric
Chifong Thomas Thomas Grid Advisor
Steven Wallace Comprehensive Power Solutions, LLC
Stan WilliamsBonneville Power Administration—Transmission
Yi Zhang.....California Independent System Operator
Jin Zhu..... Hitachi-ABB

Members not in Attendance

Lee Alter..... Tucson Electric Power
Hazel Aragon California Energy Commission
Jose Diaz..... Los Angeles Department of Water and Power
Christopher Fecke-Stoudt..... Arizona Public Service Company
Jonathon Flores Los Angeles Department of Water and Power
Monica Garcia El Paso Electric Company
Manuel Gomez..... El Paso Electric Company
Chris Hagman..... American Transmission Company
Bill Hosie..... PSI Power System Innovation Corp.
Tito Inga-Rojas British Columbia Hydro and Power Authority
Anders Johnson.....Bonneville Power Administration—Transmission
Harris LeeSalt River Project
Amy Li..... Southern California Edison Company
John Liang..... Public Utility District No. 1 of Snohomish County
Peter Mackin..... GridBright, Inc.



Akhil Mandadi..... Arizona Public Service Company
John D. Martinsen..... Public Utility District No. 1 of Snohomish County
Kimberly McClaffertyNorthWestern Energy
Ahlmahz Negash Tacoma Power
Daniel Ramirez..... Energy Strategies
Matthew StajcarNorthWestern Energy
Sirisha TanneeruPublic Service Company of Colorado (Xcel Energy)
Emily TozierSalt River Project
Xiaobo Wang.....California Independent System Operator
Di Xiao..... Southern California Edison Company

Others in Attendance

Tyler ButikoferWECC
Jon Jensen.....WECC
Mark Kootstra California Energy Commission
Nicole LeeWECC
Chelsea Loomis..... WPP
Kravchuk Lyubov.....California Independent System Operator
Christopher Mclean..... California Energy Commission
Katie RogersWECC
Louis Vigil..... El Paso Electric Company
Byron WoertzWECC

