

**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 Williams .....Bonneville Power Administration—Transmission  
 Yi Zhang.....California Independent System Operator  
 Jin Zhu..... Hitatchi-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 Lee .....Salt 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 McClafferty .....NorthWestern Energy  
Ahlmahz Negash ..... Tacoma Power  
Daniel Ramirez..... Energy Strategies  
Matthew Stajcar .....NorthWestern Energy  
Sirisha Tanneeru .....Public Service Company of Colorado (Xcel Energy)  
Emily Tozier .....Salt River Project  
Xiaobo Wang.....California Independent System Operator  
Di Xiao..... Southern California Edison Company

**Others in Attendance**

Tyler Butikofer .....WECC  
Jon Jensen.....WECC  
Mark Kootstra ..... California Energy Commission  
Nicole Lee .....WECC  
Chelsea Loomis ..... WPP  
Kravchuk Lyubov .....California Independent System Operator  
Christopher Mclean..... California Energy Commission  
Katie Rogers .....WECC  
Louis Vigil..... El Paso Electric Company  
Byron Woertz .....WECC

