

## **1. Welcome, Call to Order**

Jamie Austin, Production Cost Data Subcommittee (PCDS) Chair, called the meeting to order at 10:09 a.m. MT on November 9, 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 Kevin Harris, the PCDS approved the agenda.**

## **4. Review and Approve Previous Meeting Minutes**

Nicole Lee, Administrative Coordinator, introduced the minutes from September 28, October 12, October 26, and November 2, 2022.

**On a motion by Chelsea Loomis, the PCDS approved the minutes from September 28, October 12, October 26, and November 2, 2022.**

## **5. Review Capacity Differences Between Resources in the 2032 ADS and the L&R**

Steven Wallace, Comprehensive Power Solutions (CPS), presented the capacity differences between resources in the 2032 Anchor Data Set (ADS) and the Loads and Resources (L&R). He created a workbook that uses L&R data that references the power flow (PF) and the production cost model (PCM). Mr. Wallace encouraged the members to review the workbook and provide feedback.

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

Mr. Wallace also presented the cross-platform for generator reconciliation. The PCDS discussed addressing max capacities if the difference is greater than the lesser of 5% or 25 MW and ignoring the differences less than or equal to 1 MW. Retired dates need to be added to help with

counting generators. A discussion was held about keeping Colstrip Unit 4 turned on with the retirement of Unit 3 in the year 2025. Mr. Wallace mentioned that there are Pmax discrepancies with some generators. The PCDS discussed that there could be a discrepancy with how accounting of capacity is being done. There are multiple generators in the L&R represented by one unit in the PCM and PF, and vice versa. More generators and a bigger capacity are being seen in the reference PF. Pacific Northwest National Laboratory (PNNL) is assigning the load side. Generating mapping and counting should be avoided in the future by submitting accurate information. The PCDS would like this to be an approval item during the upcoming PCDS meeting.

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

## 6. Added Changes from Version 2.1 to Version 2.2

Mr. Butikofer gave an update on the differences between ADS version 2.1 to version 2.2. He indicated that there is not better data for storage duration of generic pump storage from California Independent System Operator (CAISO). What is in the model will be used for generic pump storage from CAISO. San Diego Gas and Electric's (SDGE) Big Rock Solar generators will be moved and included in the next release of the case.

Kevin Harris presented on modeling hybrid batteries and how to set up linear constants (two nomograms). A hybrid for battery storage will be available to use going forward.

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

Ms. Austin, presented on adding Boardman to Hemingway (B2H) transmission project data in the 2032 ADS. The PCDS discussed adding the data and that Bonneville Power Administration (BPA) has not wanted it added during past ADS cases. The PCDS did not dispute the modification, but it will need to be verified internally with WECC, and BPA will need to confirm they agree with the project being included in the ADS.

Note: In a follow-up email, dated 2022-11-9, Anders Johnson from BPA wrote, "I believe it is reasonable to include B2H in the 2032 ADS PCM case with an increase to the Idaho–Northwest path limit, given the permitting milestones that it has met, provided that IPC and PAC also agree with its inclusion." Tyler Butikofer was copied on the email. IPC and PAC do concur.

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

## 7. Phase Shifter Operation and Settings

Ms. Austin presented the phase shifter operation settings and committees to contact with questions. She expressed that nothing needs to be done with it in the ADS.

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



**8. 2032 ADS V2.2 Release**

Jon Jensen, System Adequacy Engineer, presented an update for the 2032 ADS v2.2 release. The changes include updates for SDGE Big Rock Solar location and the DC Intertie. The PCDS discussed Pmax discrepancies; there will be an offline meeting to decide how to proceed.

**9. Public Comment**

No comments were offered.

**10. Review New Action Items**

- Hold offline call to discuss the PCM vs. L&R capacity differences.
  - Assigned To: Tyler Butikofer, Jamie Austin, Steven Wallace, and Chelsea Loomis
  - Due Date: November 16, 2022
- Verify adding B2H to the 2032 v2.2 ADS with BPA.
  - Assigned To: Jamie Austin
  - Due Date: November 16, 2022
- Determine how to handle Colstrip 3 and 4.
  - Assigned To: Jamie Austin, Steven Wallace, Jon Jensen, and Chelsea Loomis.
  - Due Date: November 16, 2022

**11. Upcoming Meetings**

November 16, 2022 .....Virtual  
November 30, 2022 .....Virtual  
December 7, 2022 .....Virtual

**12. Adjourn**

Ms. Austin adjourned the meeting without objection at 11:35 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  
Chelsea Loomis ..... Western Power Pool (formerly Northwest Power Pool Corporation)  
Steven Wallace ..... Comprehensive Power Solutions, LLC  
Yi Zhang..... California Independent System Operator

### 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.  
Eliana Ibarra ..... Imperial Irrigation District  
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



Hank McIntosh ..... San Diego Gas and Electric  
Effat Moussa..... San Diego Gas and Electric  
Ahlmahz Negash ..... Tacoma Power  
Daniel Ramirez..... Energy Strategies  
Matthew Stajcar .....NorthWestern Energy  
Sirisha Tanneeru .....Public Service Company of Colorado (Xcel Energy)  
Chifong Thomas ..... Thomas Grid Advisor  
Emily Tozier .....Salt River Project  
Xiaobo Wang .....California Independent System Operator  
Stan Williams .....Bonneville Power Administration—Transmission  
Di Xiao..... Southern California Edison Company

**Others in Attendance**

Tyler Butikofer .....WECC  
Arkadeep Das.....WECC  
Jon Jensen.....WECC  
Nicole Lee .....WECC  
Katie Rogers .....WECC  
Byron Woertz .....WECC

