

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

Kevin Harris, Production Cost Data Subcommittee (PCDS) Chair, called the meeting to order at 10:04 a.m. MT on April 10, 2024. A quorum was present to conduct business. A list of attendees is attached as Exhibit A.

## **2. Review WECC Antitrust Policy**

Ashton Davis, Staff Reliability Modeling Specialist, read aloud the WECC Antitrust Policy statement. The meeting agenda included a link to the posted policy.

## **3. Approve Agenda**

Mr. Harris introduced the proposed meeting agenda.

**By consensus, the PCDS approved the agenda.**

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

Mr. Harris introduced the minutes from the meeting on March 27, 2024.

**On a motion by Chelsea Loomis, the PCDS approved the minutes from March 27, 2024**

## **5. Review Previous Action Items**

Mr. Harris, reviewed action items carried over from the PCDS meeting on March 27, 2024. Action items that are not closed and will be carried forward can be found [here](#).

## **6. Announcements**

Mr. Harris reviewed the announcements. The 2034 Anchor Data Set (ADS) Production Cost Model (PCM) V1 has been posted to the website.

## **7. C-page hour that PCDS would like to see from 3032 ADS Case**

Mr. Davis pointed out that PNNL is working on a software model C-page hour, in which they analyze an hour from the ADS case, and that they are working on a heavy summer hour/heavy winter hour. It was explained that the C-page takes a one-hour simulation and makes a power flow case. Then it goes through a program that adds voltage and other components that are then cut up with the staple system so that a power flow case can be made from that data. A

caution was given about using data from off-peak hours because the generation will be showing for the complete plant, and there may be some generators shut down at that time. He asked whether there were any hours that the PCDS would like to see in the round trip. No specific hours were suggested.

## 8. Hydro Resources

Nathalie Voisin presented on the WECC ADS 2034 hydropower scope update. She began by reviewing the 2032 workflow providing data and methods for selection of median year, weekly targets, daily fluctuations, and evaluation. Next, she reviewed the 2034 workflow. The first step is to review fixed schedule plants. Then update the datasets. Review the mode of operations, followed by extending into Canada and, finally, evaluation. It was decided for Ms. Voisin to move forward with this project.

## 9. Wind/Solar Capacity Factor Review

Kellen Romero, Staff Reliability Assessment Engineer, reviewed the wind and solar capacity factor (CF). He showed charts for CF yearly averages by solar and wind units and by areas 1–36. He also showed a chart for behind-the-meter (BTM) rooftop solar CF yearly averages and how they have lower CF but are as expected. The approval item he presented was based on the wind CF under 20%. The PCDS discussed the validity of the under-20% CF and the need to look at above 40 MW in some of the areas. It is necessary to identify units whose actual CF does not line up with historical information and review the shapes for improvements. Mr. Romero needs to contact NREL to resolve the issue of CF being significantly lower. The PCDS added two action items and called for approval of the shapes for the resources under 40 MW, further review from NREL on identified shapes for those above 40 MW, then final review from the PCDS after the NREL analysis.

**On a motion by Ms. Loomis, the PCDS approved the wind and solar shapes as presented under 40 MW.**

## 10. Keeping Track of GridView Issues

Ms. Loomis pointed out two issues she wanted to make sure were addressed. One: make sure the interfaces are consistent with the WECC definitions and that there are not extra interfaces. Two: she believes there needs to be a high-level review of Load Buses in subareas to ensure they are marked to the correct area.

## 11. Public Comment

No comments were made.



## 12. Review New Action Items

- Ensure Puget Sound LNR update is included.
  - Assigned To: Ashton Davis
  - Due Date: April 24, 2024
- If the wind and solar shape is substantially lower, what can be done? Contact NREL to see whether this issue can be resolved.
  - Assigned To: Kellen Romero
  - Due Date: April 24, 2024
- Review wind and solar shapes with issues over 40 MW. Get review from NREL.
  - Assigned To: Kellen Romero
  - Due Date: April 24, 2024
- Work with Chelsea to review the “area load” definition.
  - Assigned To: Jon Jensen
  - Due Date: April 24, 2024
- Review non-WECC path interfaces.
  - Assigned To: Jon Jensen
  - Due Date: April 24, 2024
- Resource retirement updates are reflected in the L&R data.
  - Assigned To: Shaton Davis and Gary Simonson
  - Due Date: April 24, 2024

## 13. Upcoming Meetings

April 24, 2024..... Virtual

May 8, 2024..... Virtual

May 22, 2024..... Virtual

## 14. Adjourn

Mr. Harris adjourned the meeting without objection at 11:37 a.m.



## Exhibit A: Attendance List

### Members in Attendance

Tyler Butikofer ..... Energy Strategies  
Renchang Dai ..... Puget Sound Energy, Inc.  
Jose Diaz..... Los Angeles Department of Water and Power  
Sylvia Gard ..... Puget Sound Energy, Inc.  
Michael Granados..... Los Angeles Department of Water and Power  
Kevin Harris ..... Pacific Northwest National Laboratory  
Eliana Ibarra ..... Imperial Irrigation District  
Richard Jensen..... California Energy Commission  
Chelsea Loomis ..... Western Power Pool  
Kimberly McClafferty ..... NorthWestern Energy  
Effat Moussa..... San Diego Gas and Electric  
Gary Simonson..... PacifiCorp  
Chifong Thomas ..... Thomas Grid Advisor  
Yi Zhang..... California Independent System Operator

### Members not in Attendance

Jennifer Galaway ..... Portland General Electric Company  
Manuel Gomez..... El Paso Electric Company  
Chris Hagman ..... American Transmission Company  
Jon Jensen..... WECC  
Anders Johnson..... Bonneville Power Administration—Transmission  
Akhil Mandadi..... Arizona Public Service Company  
Nader Samaan..... Pacific Northwest National Laboratory  
Jonathan Stahlhut ..... TransCo Energy, LLC  
Emily Tozier ..... Salt River Project  
Bharat Vyakaranam..... Pacific Northwest National Laboratory  
Stan Williams ..... Bonneville Power Administration—Transmission



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Di Xiao..... Southern California Edison Company

### Others in Attendance

Jose Castaneda ..... Imperial Irrigation District

Ashton Davis..... WECC

Joshua Hurst..... Los Angeles Department of Water and Power

Joey Jones..... WECC

David Meyer..... Puget Sound Energy, Inc.

Anuj Patil ..... WECC

Jacob Richardson ..... Western Resource Advocates

Kellen Romero..... WECC

David Tover..... El Paso Electric Company

Melissa Villa ..... Imperial Irrigation District

Nathalie Voisin ..... USDOE

