

1. Welcome, Call to Order

Kevin Harris, Production Cost Data Subcommittee (PCDS) Chair, called the meeting to order at 10:02 a.m. MT on December 18, 2024. A quorum was present to conduct business. A list of attendees is attached as Exhibit A.

2. Review WECC Antitrust Policy

Jon Jensen, Senior Reliability Modeling Engineer, read aloud the WECC Antitrust Policy statement. The meeting agenda included a link to the posted policy.

3. Approve Agenda

Mr. Jensen introduced the proposed meeting agenda.

The agenda was amended to remove the approval item in topic 7, 2034 ADS PCM V2 Follow-up. The PCDS is not ready to approve this item.

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

4. Review and Approve Previous Meeting Minutes

Mr. Harris introduced the minutes from the meeting on December 11, 2024.

On a motion by Chelsea Loomis, the PCDS approved the minutes from December 11, 2024.

5. Review Previous Action Items

Mr. Jensen reviewed action items carried over from the PCDS meeting on December 11, 2024. He spoke to BC Hydro about the Kemano units, and they said they do cover the load on Bus 80766. They updated the Kemano units to cover the load, and there is no unserved load in BC Hydro. Action items that are not closed and will be carried forward can be found on the WECC website.

6. Announcements

Mr. Harris made a comment on the non-conforming loads, he has been doing research on that and has found that Alberta has 90% of its load as non-conforming load and Sierra Pacific has about 50% of its load as non-conforming, which is a significant change from previous cases.

7. 2034 ADS PCM V2 Follow-up

WECC gave a follow-up on the 2034 Anchor Data Set (ADS) Production Cost Model (PCM) V2 and the runs they have done. The latest case, 12-13 case, is posted to the team site for review. They implemented updates to the 12-13 case. He showed a presentation with comparisons between V2 and 12-13 cases on annual generation by category, annual dump generation, regional transfers, transmission utilization, and hourly transmission for P03, P26, P66, P65, P46, and P01. There was also a chart to show retirement date extensions for some T3 resources to address the unserved loads for PAWY, PSCO, and WACM. The presentation is available on the WECC website.

8. Aggregated Energy Storage / Pump Storage Methodology/Process/ Results

Anuj Patil, Senior Reliability Modeling Engineer, gave a presentation on the aggregated energy storage, pump storage methodology, the process, and the results. He spoke to Hitachi who suggested to decrease the number of pump storage units to decrease the run time of the 2034 ADS PCM. He worked with Chelsea Andrews (WECC GIS Specialist), who was able to map the latitude and longitude of a lot of the pump storage units which made him able to create clusters of smaller units, therefore changing the number of units from 462 units in service to 259 units. By doing this he has decreased the run time from 27 hours to 19 hours and 25 minutes. It was discussed that, to use lookahead, there is not enough RAM to do six section runs, so he needs to break it down into 2 to 4 sections at a time. The presentation is available on the WECC website.

9. Future Inflator Discussion

This topic will be discussed in a future meeting.

10. Keeping Track of GridView Issues

Mr. Jensen said that whenever they import the hourly resource monthly variable schedule it would reduce the number of entries in the pump storage plant monthly variable schedule, causing the case not to run. Hitachi knows about the issues and is looking into it.

11. Public Comment

Jin Zhu commented that the congestion is very high in the 12-9 case. He believes it needs to be investigated and reach out to Bonneville Power Administration (BPA) and see whether it makes sense to them.

12. Review New Action Items

- Separate the change files into individual change files.



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- Assigned To: WECC
 - Due Date: January 8, 2025
- Review congestion in BPA.
 - Assigned To: WECC
 - Due Date: January 8, 2025
- Review Hydro difference in Pmin/Pmax is <1MW, review with PNNL.
 - Assigned To: WECC
 - Due Date: January 8, 2025
- Ask BC if hydro gen forecast for Kemano is included.
 - Assigned To: WECC
 - Due Date: January 8, 2025
- Ask EPE whether it still wants nomogram in case.
 - Assigned To: WECC
 - Due Date: January 8, 2025
- Reach out to VEA/GridLiance for VEA system update change file for CAISO-approved upgrades.
 - Assigned To: WECC
 - Due Date: January 8, 2025
- Next agenda include discussion on Non-conforming Loads (Possibly model Non-conforming loads as Load modifiers).
 - Assigned To: WECC
 - Due Date: January 8, 2025

13. Upcoming Meetings

January 8, 2025 Virtual

January 15, 2025 Virtual

January 29, 2025 Virtual

14. Adjourn

Mr. Harris adjourned the meeting without objection at 11:40 a.m.



Exhibit A: Attendance List

Members in Attendance

Stephen Benchluch Accelergen Energy
Jose Diaz..... Los Angeles Department of Water and Power
Lance Felleson PacifiCorp
Kevin Harris Pacific Northwest National Laboratory
Richard Jensen..... California Energy Commission
Jon Jensen..... WECC
Anders Johnson..... Bonneville Power Administration—Transmission
Bhavana Katyal Portland General Electric Company
Chelsea Loomis Western Power Pool
Effat Moussa..... San Diego Gas and Electric
Chifong Thomas Thomas Grid Advisor
Di Xiao..... Southern California Edison Company
Yi Zhang..... California Independent System Operator

Members not in Attendance

Tyler Butikofer Energy Strategies
Max Code..... Pattern Energy Group LP
Renchang Dai Puget Sound Energy, Inc.
Sylvia Gard Puget Sound Energy, Inc.
Michael Granados..... Los Angeles Department of Water and Power
Martin Green Pattern Energy Group LP
Kimberly McClafferty NorthWestern Energy
Eliana Orta..... Imperial Irrigation District
Nader Samaan..... Pacific Northwest National Laboratory
Bharat Vyakaranam..... Pacific Northwest National Laboratory
Stan Williams Bonneville Power Administration—Transmission



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Others in Attendance [Only for technical committees]

Anna Edwards Puget Sound Energy, Inc.
Andrew Fay WECC
Joey Jones WECC
Anuj Patil WECC
Jacob Richardson Western Resource Advocates
Ian Schomer Newton Energy Group, LLC
Jin Zhu Hitachi

