



**Production Cost Data Subcommittee**  
**Meeting Minutes**  
**July 19, 2023**  
**Virtual**

**1. Welcome, Call to Order**

Kevin Harris, Production Cost Data Subcommittee (PCDS), Co-Chair, called the meeting to order at 10:08 a.m. MT on July 19, 2023. A quorum was present to conduct business. A list of attendees is attached as Exhibit A.

**2. Review WECC Antitrust Policy**

Jon Jensen, Reliability Modeling Engineer, 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**

The minutes from the meeting on July 12, 2023, will be reviewed for approval during the next PCDS meeting.

**5. Review Previous Action Items**

Nicole Lee, Administrative Coordinator, reviewed action items carried over from the PCDS meeting on July 12, 2023. Action items that are not closed and will be carried forward can be found [here](#).

**6. Phase Shifters**

Chelsea Loomis, Western Power Pool (WPP), presented on Power BI and gave an overview of how to use Power BI to set up and develop charts.

**7. Loads Overview and Update**

Mr. Jensen presented an overview and update for loads. The PCDS responses will be reviewed and evaluated.

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



## 8. Follow-up Items from Last Week

Mr. Jensen provided updates from questions pertaining to the previous PCDS meeting.

- The V1—demand response shapes;
  - The PCDS agreed to continue using the same process.
- V1—energy efficiency;
- V1—electric vehicle loads, and electrification loads Anchor Data Set (ADS) build items;
- V1—transmission contingencies; and
- V1—phase shifter transformers.

The PCDS discussed how to treat and review the V1—phase shifter transfers. California Energy Commission (CEC) has the highest electrification in separate hourly shapes, and it needs to be reported separately in the future. Mr. Jensen will contact Richard Jensen, CEC, to discuss the CEC load data such as EE, AAEE, EV, and electrification. Mr. Jensen will follow up with Hitachi to see whether it can distribute generation to conforming load busses only by area. Emily Tozier, Salt River Project (SRP), will check SRP's behind-the-meter (BTM) energy storage and provide the information to the PCDS.

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

## 9. ADS Build Items

Mr. Jensen presented ADS build items:

- V1—transmission contingencies; and
- V1—phase shifter transformers.

Mr. Jensen will present what was previously used for phase shifters and what analysis was done. Mr. Jensen will update the 2032 Production Cost Model (PCM) with known errors and will ensure that power flows (PF) are in sync. Maria Moore, Hitachi Energy (ABB), will provide data issues in the PCM, and Mr. Jensen will contact Nick Hatton, Reliability Modeling Engineer, for PF information. Mr. Jensen will identify whether the BTM can be pulled out of the composite load model.

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

## 10. Public Comment

No comments were made.

## 11. Review New Action Items

- Discuss the CEC load data such as EE, AAEE, EV, and electrification.
  - Assigned To: Richard Jensen



## PCDS Meeting Minutes—July 19, 2023

- Due Date: August 2, 2023
- Follow up with Hitachi to see whether it can distribute generation to conforming load busses only by area.
  - Assigned To: Jon Jensen
  - Due Date: August 2, 2023
- Check SRP's BTM energy storage and provide information to the PCDS.
  - Assigned To: Emily Tozier
  - Due Date: August 2, 2023
- Present the previous phase shifters presentation.
  - Assigned To: Jon Jensen
  - Due Date: August 2, 2023
- Update the 2032 PCM with known errors and ensure that power flows (PF) are in sync (Maria will provide data issues in the PCM and contact Nick Hatton for prior information).
  - Assigned To: Jon Jensen
  - Due Date: August 2, 2023
- Identify BTM and composite load model and see whether it can be pulled out for base load shape.
  - Assigned To: Jon Jensen
  - Due Date: August 2, 2023

## 12. Upcoming Meetings

August 2, 2023..... Virtual  
August 16, 2023..... Virtual  
August 30, 2023..... Virtual

## 13. Adjourn

Mr. Harris adjourned the meeting without objection at 11:30 a.m.



## Exhibit A: Attendance List

### Members in Attendance

Jamie Austin.....PacifiCorp  
Kevin Harris.....Pacific Northwest National Laboratory  
Jon Jensen.....WECC  
Anders Johnson.....Bonneville Power Administration—Transmission  
John Liang.....Public Utility District No. 1 of Snohomish County  
Chelsea Loomis.....Western Power Pool  
Kimberly McClafferty.....NorthWestern Energy  
Effat Moussa.....San Diego Gas and Electric  
Chifong Thomas.....Thomas Grid Advisor  
Emily Tozier.....Salt River Project

### Members not in Attendance

Jose Diaz.....Los Angeles Department of Water and Power  
Jonathon Flores.....Los Angeles Department of Water and Power  
Monica Garcia.....El Paso Electric Company  
Michael Granados.....Los Angeles Department of Water and Power  
Eliana Ibarra.....Imperial Irrigation District  
Harris Lee.....Salt River Project  
Amy Li.....Southern California Edison Company  
Peter Mackin.....GridBright, Inc.  
Ahlmahz Negash.....Tacoma Power  
Kenny Poon.....British Columbia Hydro and Power Authority  
Daniel Ramirez.....Energy Strategies  
Nader Samaan.....Pacific Northwest National Laboratory  
Brian Thomas.....PowerGEM, LLC  
Xiaobo Wang.....California Independent System Operator  
Di Xiao.....Southern California Edison Company



## PCDS Meeting Minutes—July 19, 2023

Yi Zhang.....California Independent System Operator

### **Others in Attendance**

Arkadeep Das.....WECC

Ashton Davis.....WECC

Jennifer Galaway .....Pacific Gas and Electric

Richard Jensen.....California Energy Commission

Nicole Lee .....WECC

Katie Rogers .....WECC

