## Welcome, Call to Order

Jamie Austin, Production Cost Data Subcommittee (PCDS) Chair, called the meeting to order at 10:30 a.m. MT on May 24, 2022. A quorum was present to conduct business. A list of attendees is attached as Exhibit A.

## Review WECC Antitrust Policy

Tyler Butikofer, System Adequacy Planning Engineer, read aloud the WECC Antitrust Policy statement. The meeting agenda included a link to the posted policy.

## Approve Agenda

Ms. Austin introduced the proposed meeting agenda.

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

## Review and Approve Previous Meeting Minutes

Ms. Austin introduced the minutes from the meeting on May 10, 2022.

**On a motion by Chifong Thomas, the PCDS approved the minutes from May 10, 2022.**

## Development of the 2032 ADS Hourly Loads—Validating the 2018 Gross Load Shapes

Mr. Butikofer presented the development of the 2032 Anchor Data Set (ADS) hourly loads and the 2018 gross load shape validation spreadsheet. The Hourly Shapes were developed with National Renewable Energy Laboratory’s (NREL) dGen model, starting with BAA capacity data from the U.S. Energy Information Administration (EIA)-861 data. The spreadsheet compares the weekly average monthly to historic years. The purpose is to verify if the shapes match historical shapes, prior to adding them to load shapes, leading to the gross hourly loads. There were issues using NREL’s dGen data.

The spreadsheet is posted to the [WECC website](https://www.wecc.org/Administrative/WECC_WKD_Load_Shapes_v01_w2018%20Native%20Load.xlsm).

## Validate BAA level resources in the 2032 ADS: Reference Case PF vs. L&R

Mr. Butikofer presented on validating the balancing authority area (BAA) level resources in the power flow (PF) were added. The new capacity summary will be updated and sent out to show the reference PF and the loads and resources (L&R).

## Using Wind annual Capacity Factor to choose Turbine Type

Yi Zhang, California Independent System Operator (CAISO), presented using wind annual capacity factor to choose turbine types. The existing turbine data is not complete. The ADS production cost model (PCM) can use the NREL profiles. Idaho’s wind capacity will need further review.

Ms. Austin presented validations for PaciCorp’s wind generators using wind annual capacity factor to select turbine types.. The PCDS discussed adding the actual hours and focusing on hours at 95% and above. Ms. Austin will follow up on the loss calculation and capacity factor recommended to summarize greater than 95% instead of one.

The presentation is posted to the [WECC website](https://www.wecc.org/Administrative/NREL%20wind%20profile%20validation%20and%20suggestions%20based%20on%20CF%20comparison.pdf).

## Update on BTM data and application

Ms. Austin presented the behind the meter (BTM) data and the BAA capacity factor profiles. NREL fixed some issues that were encountered. The capacity factors will need to be reviewed. The BAA profiles and load bus mapping problems were fixed. Concern was expressed that there is a difference in the county count mapping of the bus profiles by county.

## Review of Old and New Action Items

Nicole Lee, Administrative Coordinator, reviewed action items carried over from the PCDS meeting on May 17, 2022. Action items that are not closed and will be carried forward can be found [here](https://www.wecc.org/Administrative/PCDS%20Action%20Items%20with%20Approval%20Items.xlsx).

## Public Comment

No comments were offered.

## Review New Action Items

* Post the development of the 2032 ADS hourly loads validating the 2018 gross load shapes to today's WECC calendar.
  + Assigned To: Tyler Butikofer
  + Due Date: May 24, 2022
* Post today's presentations to the WECC calendar.
  + Assigned To: Yi Zhang, and Jamie Austin
  + Due Date: May 31, 2022
* Follow up on the loss calculation and capacity factor recommended to summarize greater than 95% instead of 1.
  + Assigned To: Jamie Austin
  + Due Date: May 31, 2022

## Upcoming Meetings

May 31, 2022 Virtual

June 7, 2022 Virtual

June 14, 2022 Virtual

## Adjourn

Ms. Austin adjourned the meeting without objection at 11:54 a.m.

## **Exhibit A: Attendance List**

### Members in Attendance

Jamie Austin PacifiCorp

Kevin Harris Pacific Northwest National Laboratory

Chifong Thomas Thomas Grid Advisor

Steven Wallace Comprehensive Power Solutions, LLC

Stan Williams Bonneville Power Administration—Transmission

Yi Zhang California Independent System Operator

### Members not in Attendance

Lee Alter Tucson Electric Power

Hazel Aragon California Energy Commission

Ben Brownlee Energy Strategies

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

Michael Granados Los Angeles Department of Water and Power

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

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)

Xiaobo Wang California Independent System Operator

Di Xiao Southern California Edison Company

**Others in Attendance**

Dave Angell Western Power Pool

Tyler Butikofer WECC

Jon Jensen WECC

Richard Jensen Calfornia Energy Commission

Bhavana Katyal WECC

Mark Koostra California Energy Commission

Lyubov Kravchuk California Energy Commission

Nicole Lee WECC

Ave Rais WECC

Nader Samaan Pacific Northwest National Laboratory

Alyssa Tavares California Energy Commission

Emily Tozier Salt River Project

Byron Woertz WECC

Jin Zhu Hitachi