

PCDS

July 12, 3023

WECC

#### **Overview**

- Overview of loads and methodology. We are not quite ready to approve, (still waiting to hear back from some entities)
- Discuss how we modeled EE, EV, DR, electrification in the 2032
  ADS case and how we want to model them in the 2034 ADS case



# Codes

Peak Demand		
Code	Category	Description
1	Firm demand	Firm demand, excluding station use
2-I	DSM — Expected available	Interruptible demand
2-L	DSM — Expected available	Load management
2-P	DSM — Expected available	Critical peak pricing with control
2-R	DSM—Expected available	Load as a capacity resource
3-IT	DSM—Total enrolled	Interruptible demand
3-LT	DSM—Total enrolled	Load management
3-PT	DSM—Total enrolled	Critical peak pricing with control
3-RT	DSM—Total enrolled	Load as a capacity resource
14	Unavailable capacity	Scheduled maintenance
15	Unavailable capacity	Inoperable capacity
16	Unavailable capacity	Forced outages, Actual Year only
18	Rooftop solar	Expected installed capacity
19	Rooftop solar	Expected demand served by rooftop solar
70	Conservation/Energy Efficiency	Conservation and Energy Efficiency
73	Standby Demand	Standby demand under contract

Energy		
Code	Description	
1	Firm energy	
2	Non-firm energy	
70		



### Load Updates—Responses

- AVA Revised demand submittal, used peak codes on energy portion, double checking
- DOPD Larger load due to data centers confirmed
- NEVP- Revised demand submittal, very similar to original
- CPUD Energy is almost twice as high in the later years and peaks reach 45% higher by ~2027 compared to the previous forecast due to load centers.
  - This is also what we see in the submittal
- GCPD Submittal was in Average Mw, we converted to Mw



#### Load Updates—Responses

- NWMT Revised demand submittal
- SCL Note, it was accidentally submitted in MWhs instead of GWhs. Also, the peak monthly load forecast codes in their submission were applied to the monthly energy forecasts so we agreed to change the 70 codes for energy efficiency and conservation to '1"s for firm energy.



### **Loads Updates**

- PAID, PAUT, PAWY average look good, very similar to last cycle.
- CIPV The super low hours were fixed (averaged with surrounding hours)
- SPPC The super low hour was fixed (averaged with surrounding hours)



## Loads—Waiting for Response

- Still waiting to hear from:
  - AESO-Codes 18 and 19 are the same
  - BPA-High Load Factor (LF) and Unitized Peak (UP)
  - PGE-Feb and April weird LF
  - TPWR High UP and Low LF
  - PSEI Weird UP and Low LF



#### How to Model EE, DR, EV, Electrification

- How to model the following in the 2034 ADS? Same or different
  - Energy Efficiency (EE), Additional Achievable Energy Efficiency (AAEE)
    - EE and AAEE were not modeled in the 2032 ADS PCM
  - Demand Response (DR)
    - LBNL DR Dispatch Tool is used to determine when to dispatch the Demand Response for each area,
      which is used to create the hourly Demand Response shape
  - Electrification Load
    - o Not included in 2023 L&R submittal as separate load
    - Not modeled in the 2032 ADS PCM as separate load
  - Electric Vehicle Loads
    - Not included in 2023 L&R submittal as separate load
    - o Not modeled in the 2032 ADS PCM as separate load



## Something to Think About

- Distributed Generation (DG)
  - DG-BTM (rooftop) solar shapes were created for each county and BA combination
  - Each county-level generator was distributed to each bus in the county,
    based off data from the NREL dGen model for the amount on each bus



### **Next Meeting Discussion**

- V1\_Transmission Contingencies
- V1\_Phase Shifter Transformers: how to treat, and review





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