



# Findings in the ADS PCM June 24 version

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Yi Zhang

# Quick observations in database

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- Critical issues that may impact simulation results
  - BTM flag needs to be set for BTM PV, DR, and other BTM resources
    - This flag impacts the spinning reserve calculation
  - DG-BTM of some areas have zero capacity and zero multipliers, mainly in NW, IPC, and AZ. Need to check L&R data to verify.
- Data management issues that may impact reporting and analyzing
  - Inconsistent SubType
    - Motor Load vs Pump\_Motor Load
    - Units “NonEmitting Peaker - Utah North” and “NonEmitting Peaker – Wyoming” at bus 66050 subtype is “NA”, but modeled as thermal generators
  - Path 49 and Path 46 missed the Delaney – Colorado River 500 kV line

# 2009 or 2005 Profiles are still used

GeneratorName	Profiles
Crescent Dunes	PV_NV_Nye_Crescent Dunes_38.25-117.37_C[09]
Nevada Solar One	PV_NV_Clark_Nevada Solar One_35.80-114.98_C[09]
Solana 1	PV_AZ_Maricopa_Solana 1_32.92-112.96_C[09]
Solana 2	PV_AZ_Maricopa_Solana 2_32.92-112.96_C[09]
GeneratorName	CommitmentShapeName
CouleePump1-2	Pump_Coulee_2028[09]
CouleePump3-4	Pump_Coulee_2028[09]
CouleePump5-6	Pump_Coulee_2028[09]
GrandCouleePG07	PumpStorage_GrandCoulee_BPA_2028[09]
GrandCouleePG08	PumpStorage_GrandCoulee_BPA_2028[09]
GrandCouleePG09	PumpStorage_GrandCoulee_BPA_2028[09]
GrandCouleePG10	PumpStorage_GrandCoulee_BPA_2028[09]
GrandCouleePG11	PumpStorage_GrandCoulee_BPA_2028[09]
GrandCouleePG12	PumpStorage_GrandCoulee_BPA_2028[09]
ONeill_1	Pump_Oneill_2028[09]
W_R_Gianelli_1	PumpStorage_WRGianelli_2028[05]
W_R_Gianelli_2	PumpStorage_WRGianelli_2028[05]
W_R_Gianelli_3	PumpStorage_WRGianelli_2028[05]
W_R_Gianelli_4	PumpStorage_WRGianelli_2028[05]
W_R_Gianelli_5	PumpStorage_WRGianelli_2028[05]
W_R_Gianelli_6	PumpStorage_WRGianelli_2028[05]
W_R_Gianelli_7	PumpStorage_WRGianelli_2028[05]
W_R_Gianelli_8	PumpStorage_WRGianelli_2028[05]

# Solar or Wind labeled as Other

GeneratorName	Type	CommitmentShapeID	CommitmentShapeName	CommitmentMultiplier
SevenMileHill2	Others	5497	WT_Sevenmile Hill 213WT33.25 A-1_[18]	0.002
Tule Wind	Others	5290	WT_Tule Wind1WT127.6 A-1_[18]	127.6
OR Solar 5 LLC (Merrill Solar)0PV-T8	Others	4903	PV_OR Solar 5 LLC (Merrill Solar)0PV-T8_[18]	8

SevenMileHill2 is a 20MW wind generator, the multiplier should use 20

# Resource mismatch

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- Some L&R resources were not found in the ADS PCM
  - May be modeled differently
  - Generator review may be needed.
    - Compare capacity by type by area between ADS PCM and L&R to find all mismatch
- May be a lesson learned
  - Such mismatch seems because L&R resources information, specifically generator bus allocation, does not match power flow generator model exactly
    - L&R resources are normally submitted at plant level, power flow generator modeled at unit level
    - Transmission topology and Bus ID of the WECC power flow case may be different from the ones used by L&R submitters

# Sanity check

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- Nonexistent units in hydro table
- Unused hydro curves
- Nonexistent units in pumped storage table
- Nonexistent units in hourly resource table
- Syntax error (missing operator) in query expression “ShapeID=” when checking hourly resource

# Sanity check

## Interface Data Checking...

Action: Delete INVALID Branch ID '639' for interface: zzz N Path 22\_part1  
Warning: Monitoring NODEFINE interface: zzz N Path 22\_part1  
Action: Delete INVALID Branch ID '666' for interface: zzz N Path 22\_part2  
Action: Delete INVALID Branch ID '667' for interface: zzz N Path 22\_part2  
Warning: Monitoring NODEFINE interface: zzz N Path 22\_part2  
Action: Delete INVALID Branch ID '12658' for interface: Pth IPC Midpoint West  
Action: Delete INVALID Branch ID '12744' for interface: Pth IPC Midpoint West  
Action: Delete INVALID Branch ID '12837' for interface: Pth IPC Midpoint West  
Action: Delete INVALID Branch ID '37908' for interface: Pth IPC Midpoint West  
Action: Delete INVALID Branch ID '873' for interface: Pth 05 Desert Basin - Pinal Central  
Action: Delete INVALID Branch ID '14401' for interface: Pth 09 GW Seg 1A Windstar-Bridger  
Warning: Monitoring NODEFINE interface: Pth 09 GW Seg 1A Windstar-Bridger  
Warning: Monitoring NODEFINE interface: Pth 12 GW Seg E Midpoint-Hemingway  
Warning: Monitoring NODEFINE interface: Pth 14 I-5 Reforce Castle Rock-Troutdale  
Action: Delete INVALID Branch ID '15964' for interface: Pth 17 Northwest TL  
Warning: Monitoring NODEFINE interface: Pth 20 Pinal Central-Tortolita  
Action: Delete INVALID Branch ID '53290' for interface: Pth 01 Hemingway-Longhorn  
Warning: Monitoring NODEFINE interface: Pth 01 Hemingway-Longhorn  
Warning: Monitoring NODEFINE interface: Pth 06 Paloverde - Colorado River  
Action: Delete INVALID Branch ID '7018' for interface: Pth BPA North of Hanford  
Action: Delete INVALID Branch ID '49336' for interface: P71 BPA South of Allston  
Action: Delete INVALID Branch ID '49337' for interface: P71 BPA South of Allston  
Action: Delete INVALID Branch ID '6425' for interface: P05 BPA West of Cascades-South  
Action: Delete INVALID Branch ID '6648' for interface: Pth BPA North of Echo Lake  
Action: Delete INVALID Branch ID '12652' for interface: Pth 5575 TotBEast wB2H  
Action: Delete INVALID Branch ID '12653' for interface: Pth 5575 TotBEast wB2H  
Action: Delete INVALID Branch ID '12654' for interface: Pth 5575 TotBEast wB2H  
Action: Delete INVALID Branch ID '12684' for interface: Pth 5575 TotBEast wB2H  
Warning: Monitoring NODEFINE interface: P37 TOT 4A

## Nomogram Data Checking...

Action: Delete INVALID Generator ID '13394' for nomogram: TEP Local Gen  
Action: Delete INVALID Generator ID '13395' for nomogram: TEP Local Gen



## Contact:

Yi Zhang

[yzhang@caiso.com](mailto:yzhang@caiso.com)