



2032 ADS PVM 2.2

October 26, 2022

Jon Jensen
Staff Engineer

Annual Generation

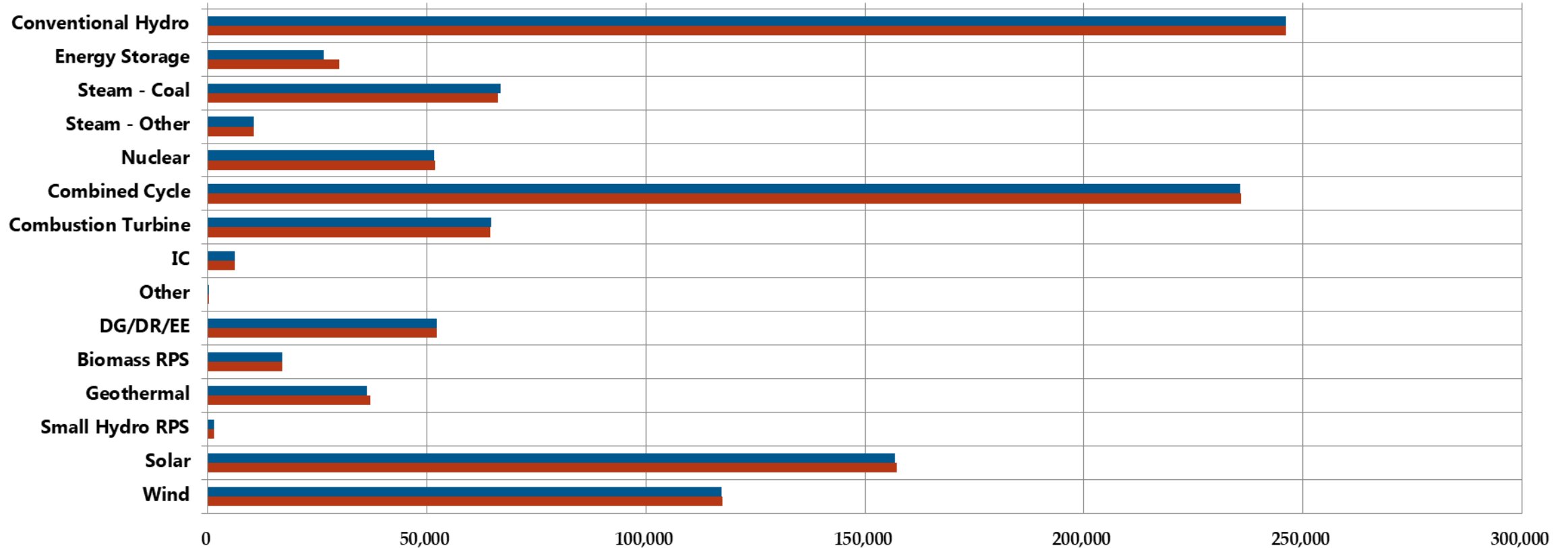
0 MW unserved load

Annual Generation by Category (GWh)

■ 2032 ADS PCM V2.1

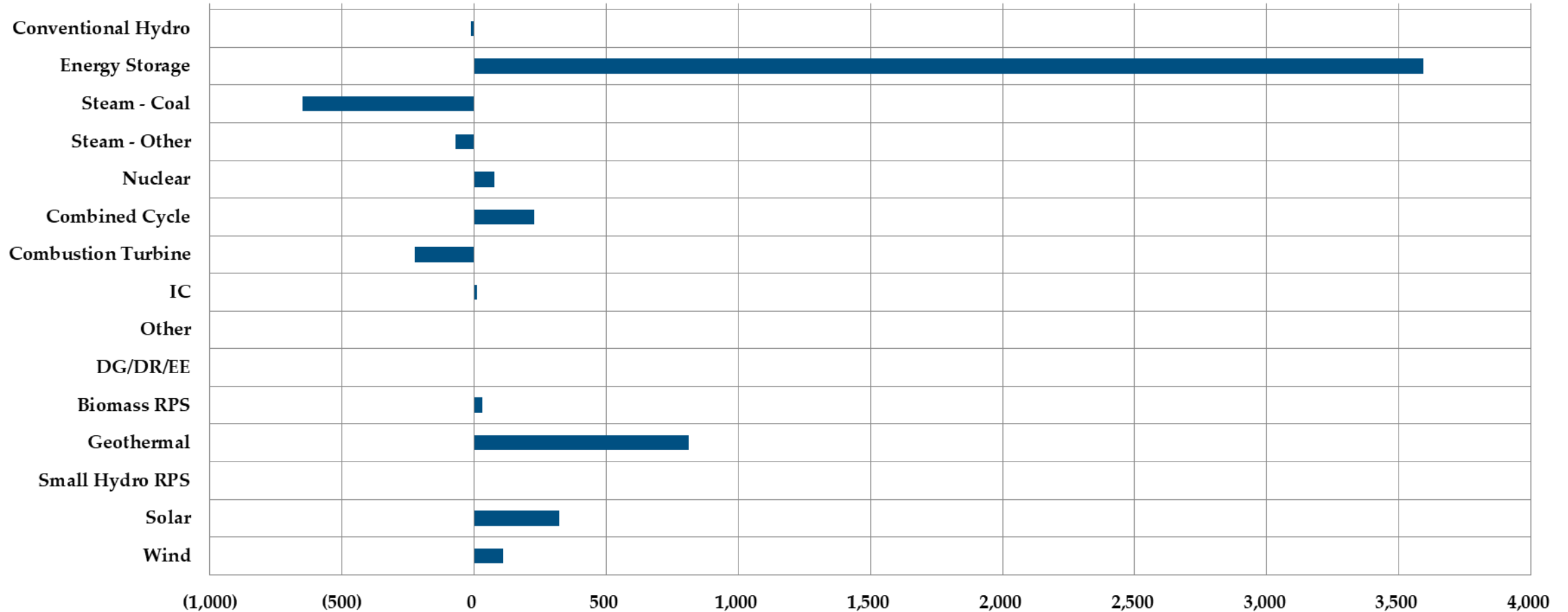
■ 2032 ADS PCM V2.2 GV10.3.39

Total Increase = 4,225 GWh

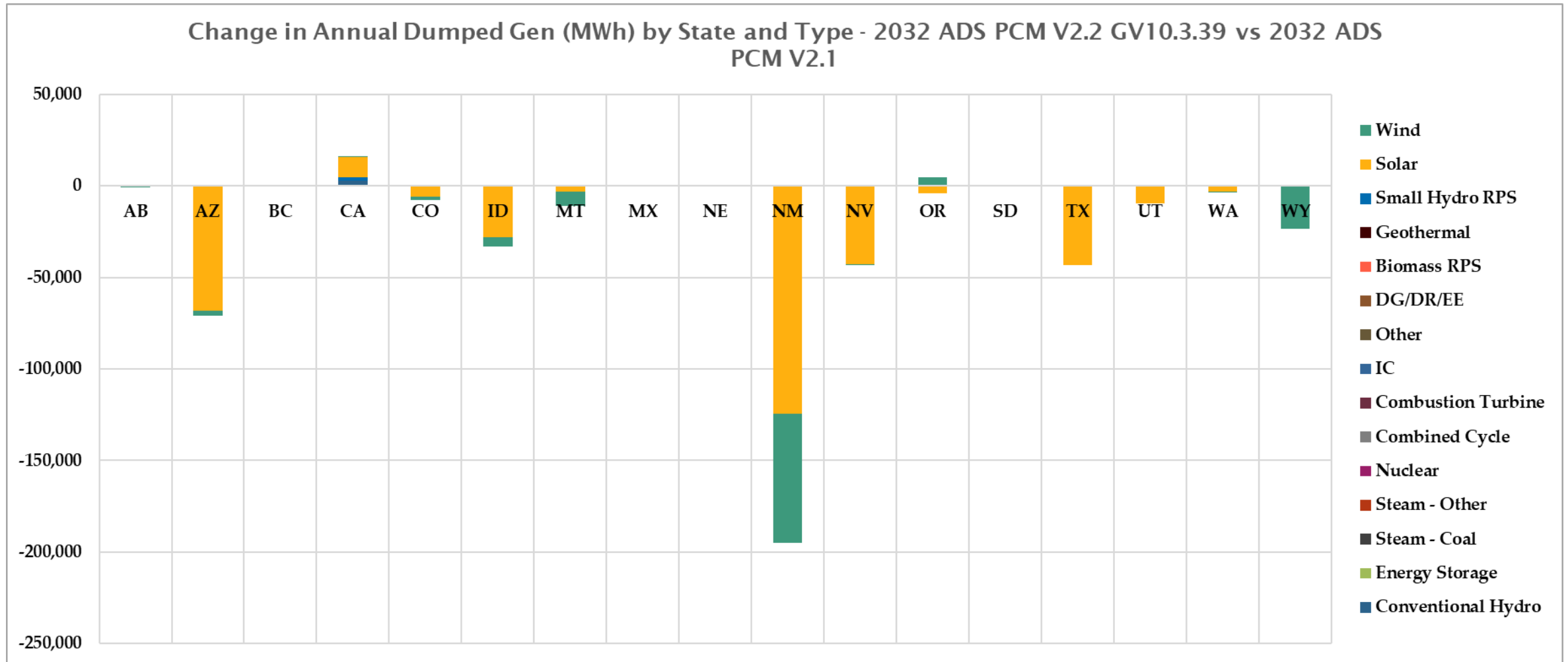


Difference

Annual Energy Difference (GWh): 2032 ADS PCM V2.1 vs 2032 ADS PCM V2.2 GV10.3.39



Less Spill



V2.2 Maximum LMP by Area (\$/MWh)

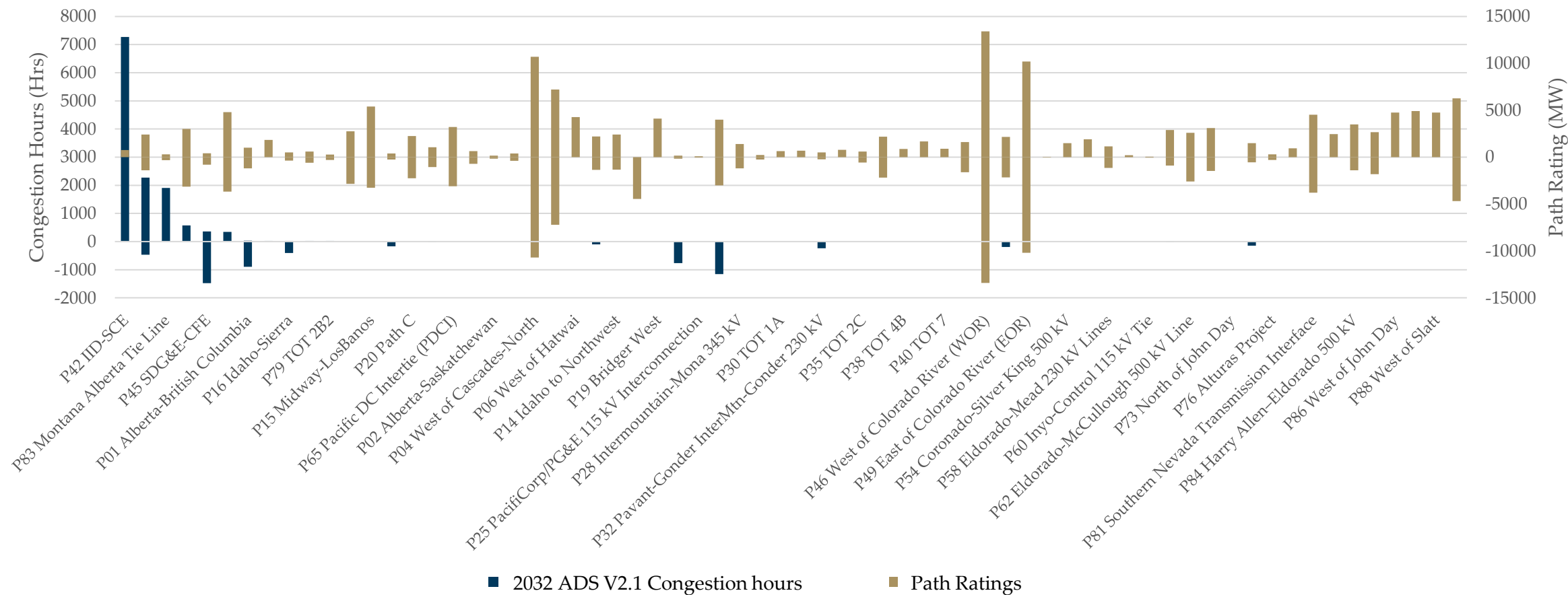
Area	LMP Load Weighted	LMP Gen Weighted	LMP Simple Average	Count >\$100	Count >\$250
WAUW	55	10,114	55	80	38
TH_PV	63	7,357	64	6	4
PACW	62	2,017	62	1	1
IPFE	62	317	61	2	1
PSCO	277	281	275	13	1
CIPB	91	147	90	2	0
WACM	144	118	144	1	0
AESO	117	116	116	1	0

V2.1 Maximum LMP by Area (\$/MWh)

Area	LMP Load Weighted	LMP Gen Weighted	LMP Simple Average	Count >\$100	Count >\$250
AESO	303	299	299	1	1
IPFE	88	396	89	1	1
IPMV	179	108	167	146	0
CFE	487	486	487	6	6
CIPB	90	441	89	8	2
CIPV	106	83	86	101	0
LDWP	92	85	141	61	0
PACW	59	204	59	3	0
WAUW	85	19,930	93	95	41
PSCO	285	287	284	17	6
WACM	215	165	202	12	0
EPE	78	927	204	1,463	1,463
TH_PV	64	194	59	4	0

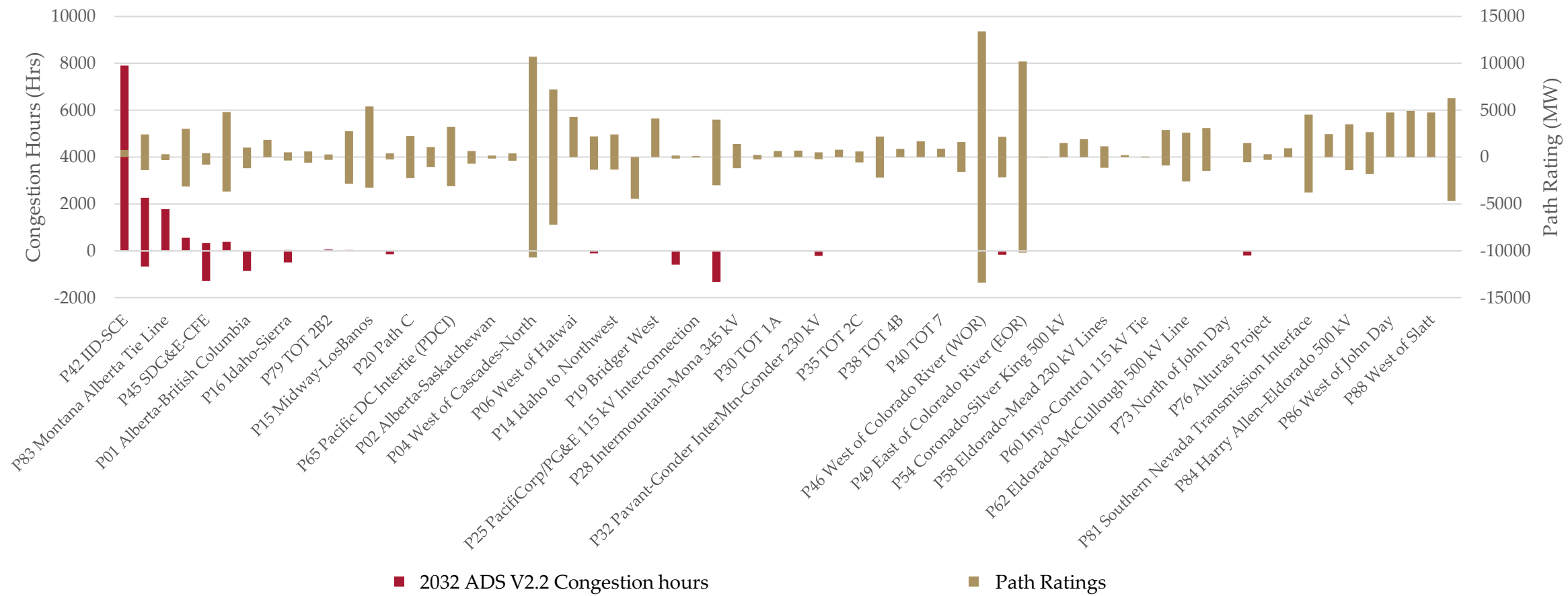
Congestion 2032 ADS V2.1

Congestion 2032 ADS V2.1

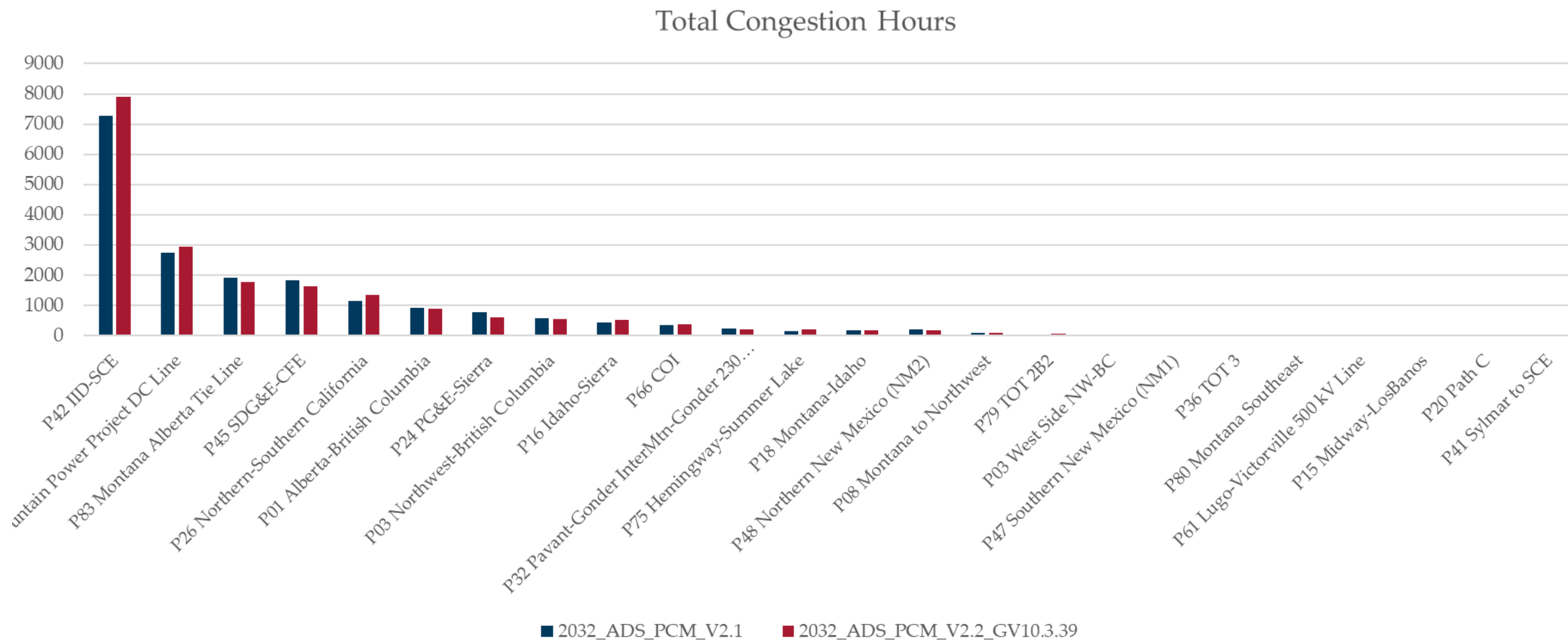


Congestion 2032 ADS V2.2

Congestion 2032 ADS V2.2



Congestion V2.1 vs V2.2



Follow up “Assessment of the 2032 ADS PCM 2.1 & Next Steps”

Yearly Summary Report Changes

Units	Observation	Resolution
Harquahala units	300 starts/yr.	Modeling is correct and consistent with other CC G
Huntington Beach CC units	CC F low operation	Generic CCF
Lange	Avg starts per day 1.01	Generic - LM6000
LAX Airport Agg	Avg starts per day 2.16	Generic - LM6000
Magnolia1	Avg starts per day 2.15	Generic E
NV Geothermal Portfolio1	Non-dispatchable supply?	Geo change file – Changed Geo Must Run
OLSchinoCC-Total	Avg starts per day 1.07	Generic E
Pueblo Airport 1	Avg starts per day 1.26	Generic LMS100
Pueblo Airport 2	Avg starts per day 1.26	Generic LMS100
Scat CC1	What is it: 2x1? - Avg starts per day 1.74	Generic F Frame
Scattergood CC3	Avg starts per day 1.06	Generic F Frame
W_R Gianelli units	Cannot curtail	Set to not spill

Changes from V2.1 to V2.2

Changes from V2.1 to V2.2

Change File Name	Description
2022-9-26_Delete unused gens that show in DB only	Delete generators that are from previous cycles that appear in database only
2022-9-27_EPE Generator Balance Nomogram Update Gens	Update to include all EPE generators in the EPE balance nomogram
2022-9-28 BESS Charging duration adj	Changed all batteries to have 4 hours of storage (23 batteries only had 1 hour storage)
2022-10-10_Geo Must Run	Made sure all geothermal units are set to must run
2022-10-12_BANC Hydro Spillage update	Adjust BANC hydro spillage from information provided by BANC
2022-10-17_Update AB32 Nomo_AB32 NW and SW Wheeling_TB	- Updated AB32 Nomogram penalty - Updated AB32 import wheeling rate from NW and SW
2022-10-18_UseGenericHeatrateAlamitosCC HuntingtonBeachCC_TB	Updated heat rates from Alamitos CC and Huntington Beach CC units
2022-10-19_EPE TEPC GenBalanceNomo 20Penalty	Updated EPE and TEPC generator load balance nomograms to have a \$20/MWh penalty instead of \$1000/MWh
2022-10-19_PACW out of area Distribution assignment	Assigned PAC generators located in BPAT to PACW in Reserve Capacity Distribution table
2022-10-20_Remote Generator Distribution Assignment_TB	Assigned several generators located in AZPS to correct BAs
2022-10-20_Correct Geothermal Modeling and Fuel_TB	- Update heat rates and fuel for those geo units modeled as combined cycles. - Update FOR for geo units to be 6.88% according to GADS data. - Update other data for geo units.
2022-10-19_EPE_TEPC_GenBalanceNomo_20Penalty	Updated the EPE and TEPC nomogram to \$20 penalty to reduce the high LMPs in those areas
2022-10-20_WRGianelli_NonSpill_JJ	Updated the W_R_Gianelli Pumped Storage units to non spill
2022-10-20_ThermalGenericParam_Fix_JJ	Updated the thermal units with high number of starts to generic data: heat rate, VOM, start cost, Outage rate, Ramp RateMin upDown



Contact:

Jon Jensen

Staff Engineer

jjensen@wecc.org