PCDS Meeting

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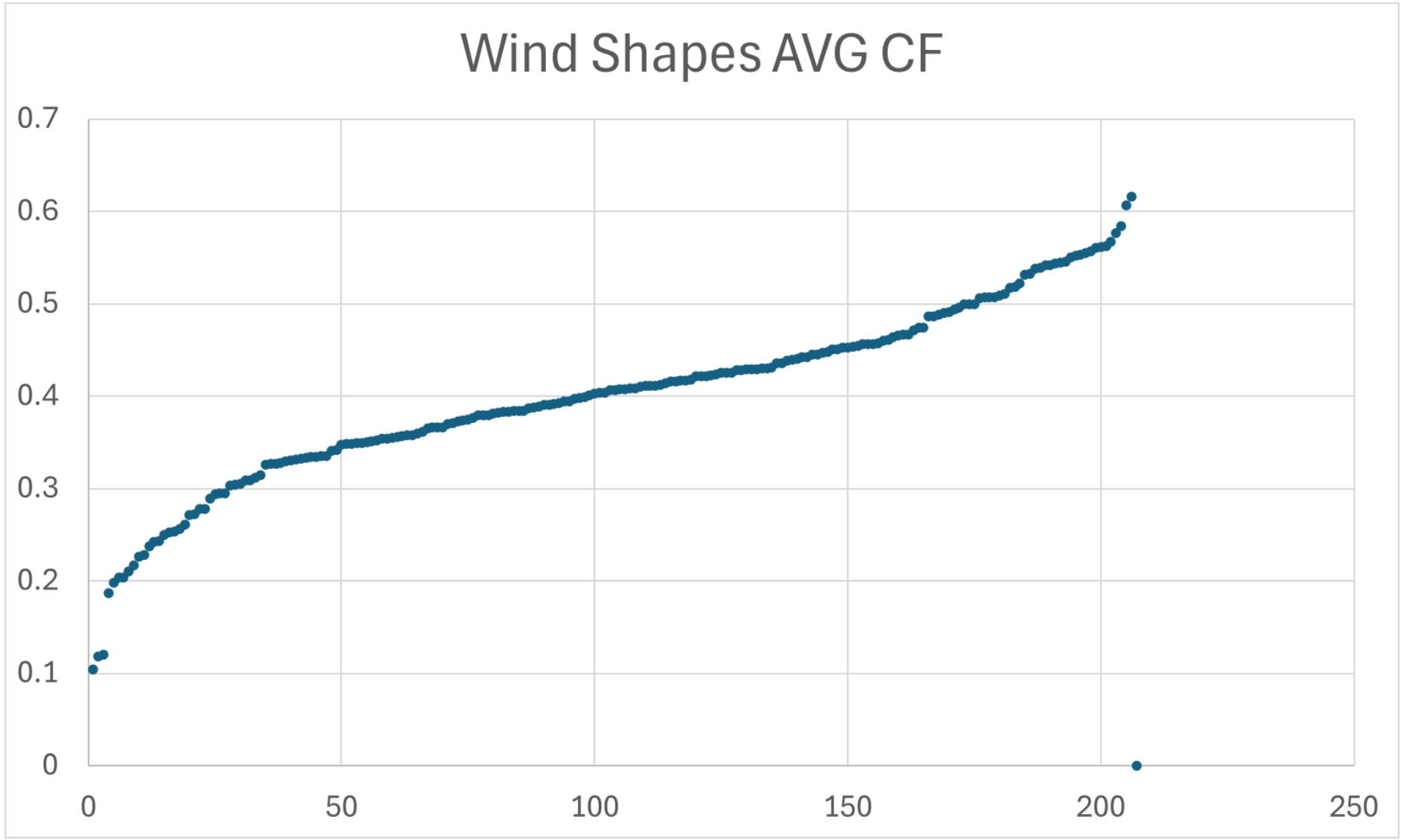
Electric Reliability
& Security for the West

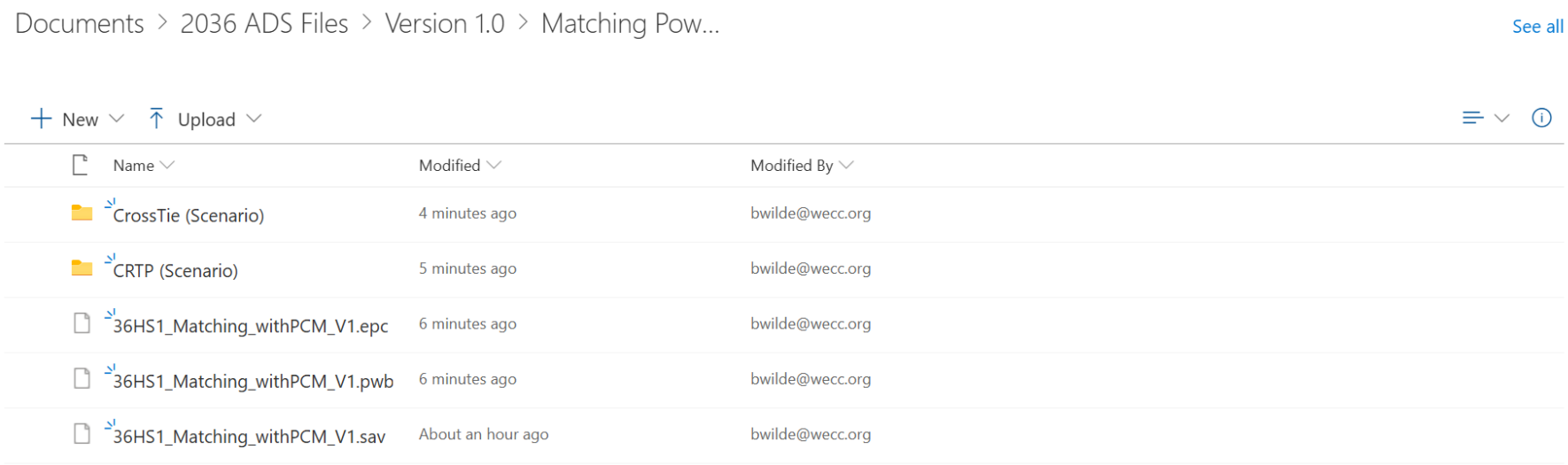
May 27, 2026

Updated Wind Shapes From PNNL



2036 ADS V1.0 Items

- V1.0 matching Power Flow
  - Posted
    - Documents→2036 ADS Files → Version 1.0 → Matching Power Flow



2036 ADS V2.0 Items

- Big Eddy-Quenette Creek Rating
- Mercer Load- Non Conforming
- 2036 ADS_2PF – Only PF enabled
  - Out for review
- 2036 ADS_2LnR – Only LnR units enabled
  - Out for review
- CIPB Load clipping add 25 aMW
- Add Klamath – Should have been in PF (Dev Status “Other Added Projects”)
- Future meetings

Items in progress

- Generation placement feedback
- Case Cleanup
  - Double check L&R units are correctly represented
  - Duplicates
  - Congestion
  - Gen placement
  - Gen distributions
  - Gens status’
  - Hybrids
  - Ref Busses
  - Contracted units

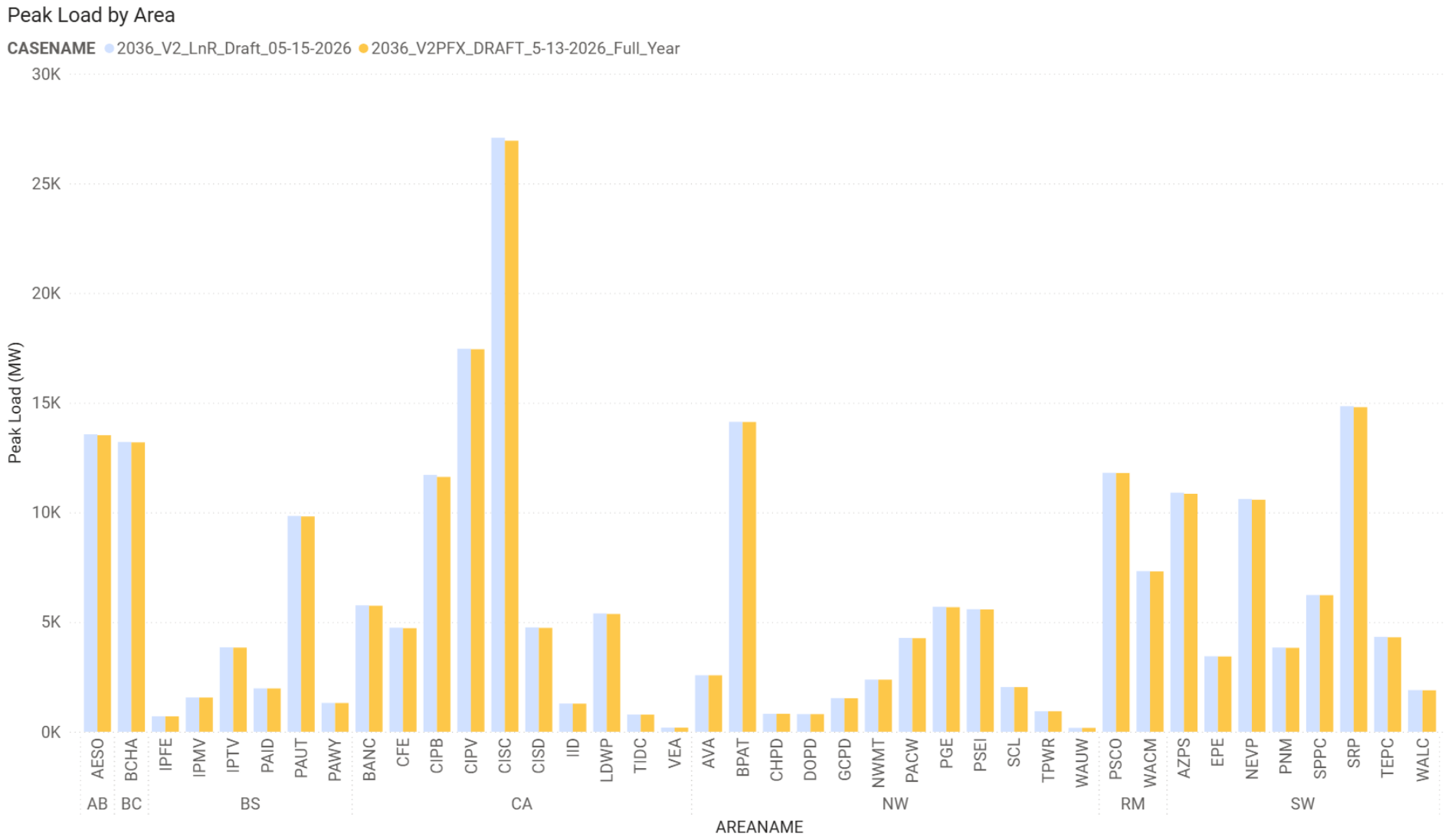
Summary of “Add-on” Transmission/Gen Projects

- Cascade Renewable (CRTP): V1 and V2
  - Not included, but a scenario to add in
- CrossTie: V1 and V2
  - In case, default to status off. Scenario to turn on
- SWIP (N/S): V1 and V2
  - In case, default to status online
- TransWest Express: V1 and V2
  - In case, default to status online
- SunZia Gen (on Bus 15080): V1 and V2
  - In case, default to status online
- GERP 1.0 and 2.0 (f.k.a. Evolving Grid): V2
  - 1.0-In case, default to status online
  - 2.0-In case, default to status online
- VEA (Sloan and Trout Canyon): V1 and V2
  - In case, default to status online
- North Plains Connector (as a generator turned off): V2
  - In case, default to status off

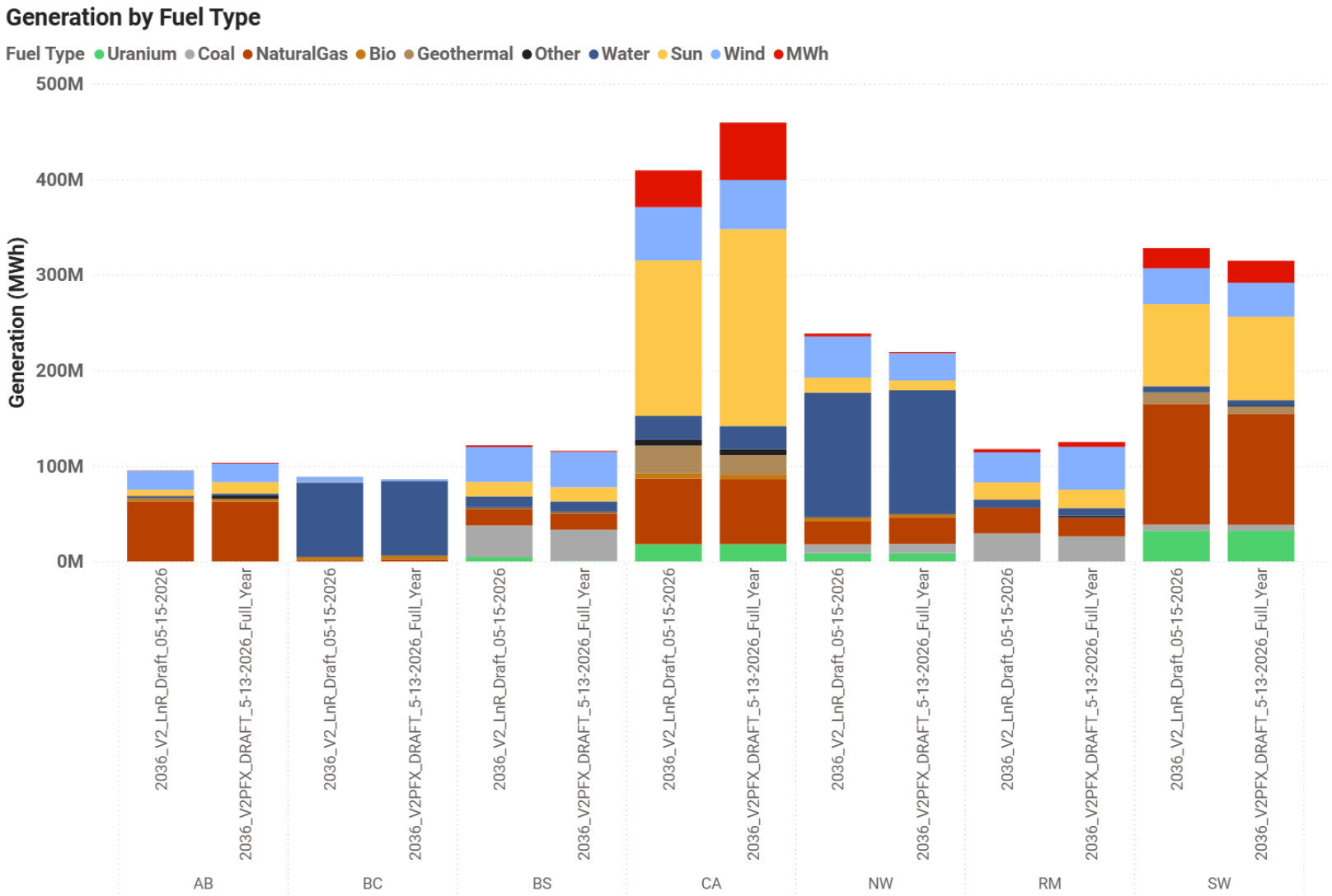
2036 ADS PCM V2 (PF and LnR cases)

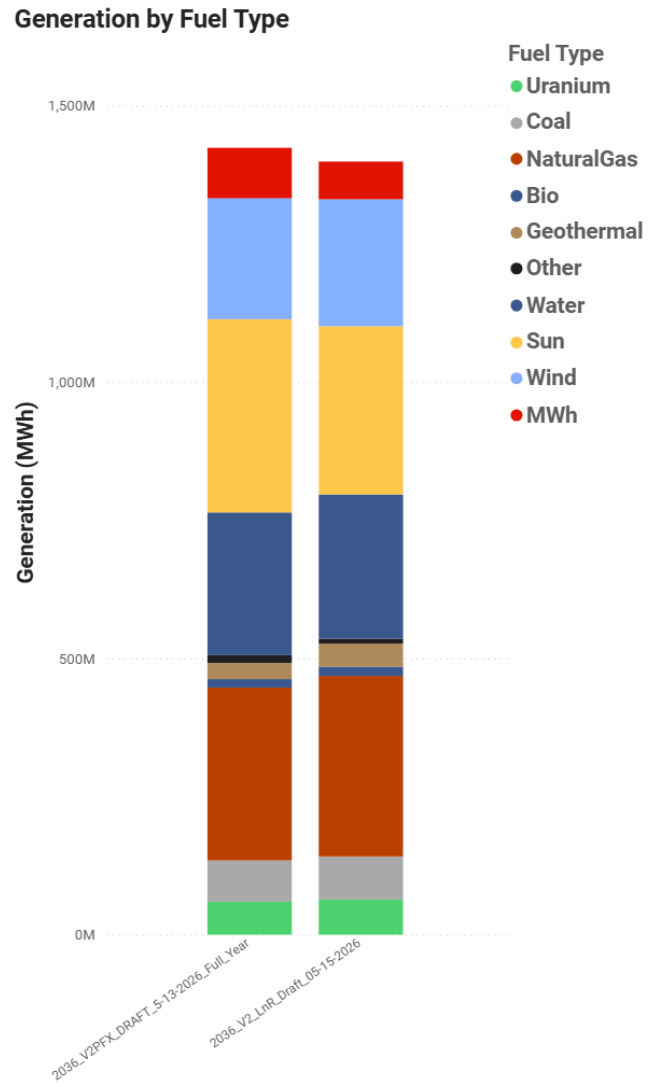
Cases out for review (posted on PCDS Team Site)

Peak Load


Peak Load by Area
CASENAME 2036_V2_LnR_Draft_05-15-2026 2036_V2PFX_DRAFT_5-13-2026_Full_Year
30K
25K
20K
15K
10K
5K
0K
Peak Load (MW)
AESO BCHA IPFE IPMV IPTV PAID PAUT PAWY BANC CFE CIPB CIPV CISC CISD IID LDWP TIDC VEA AVA BPAT CHPD DOPD GCPD NWMT PACW PGE PSEI SCL TPWR WAUW PSCO WACM AZPS EPE NEVP PNM SPPC SRP TEPC WALC
AB BC BS CA NW RM SW
AREANAME

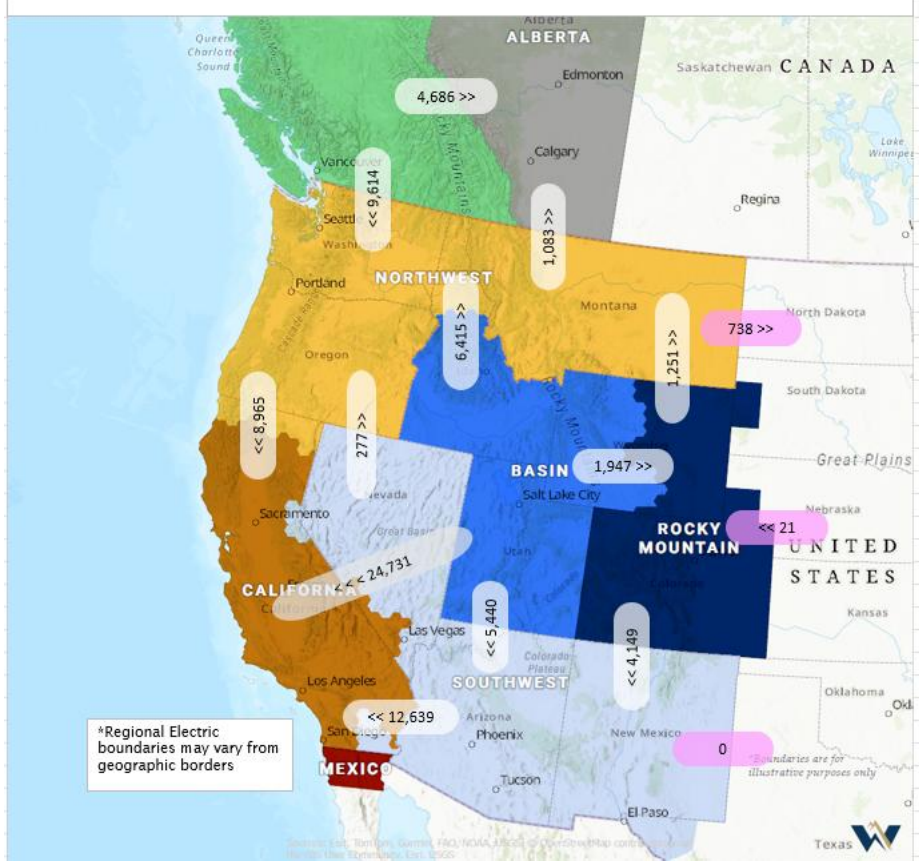
Annual Energy



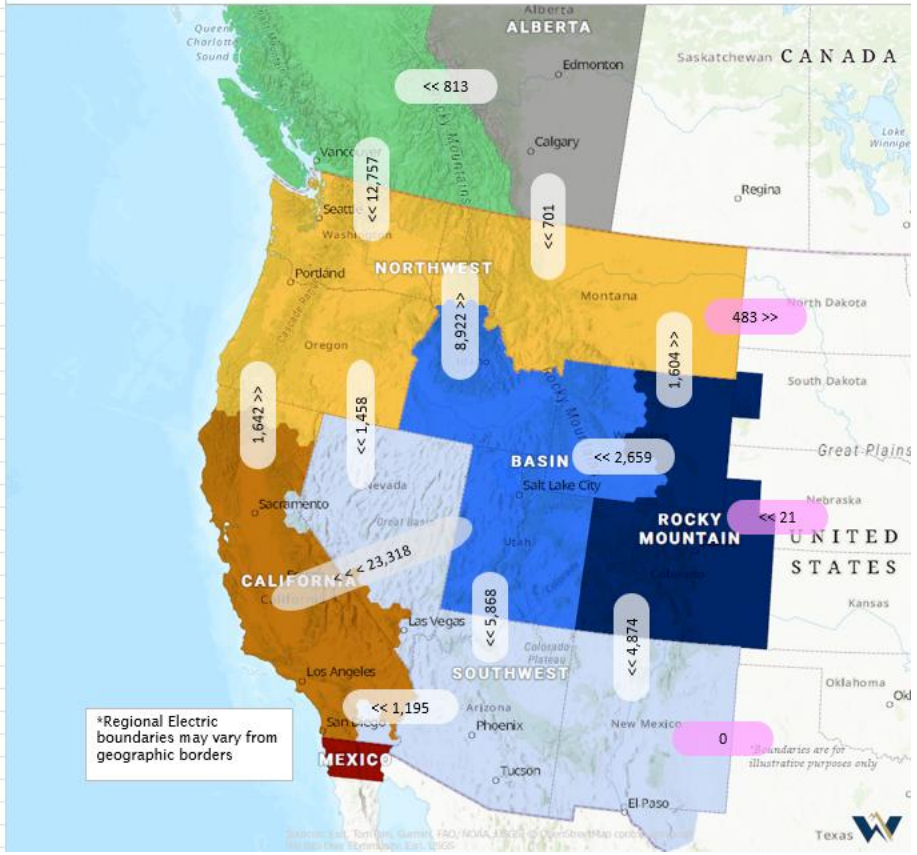


Regional Net Transfers

Regional Transfers*
Annual Net GWh
2036_V2_LnR_Draft_05-15-2026



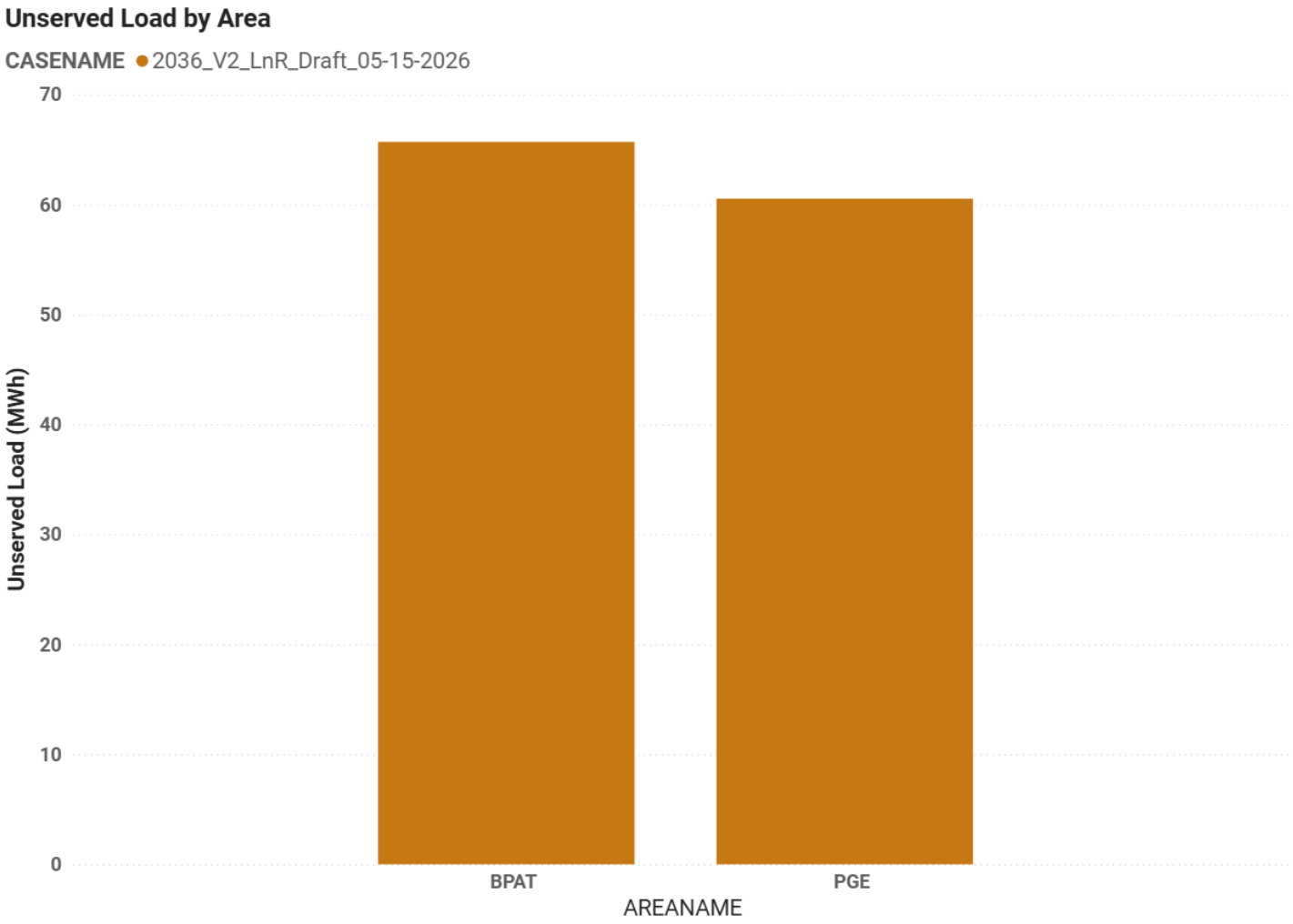
Regional Transfers*
Annual Net GWh
2036_V2PFX_DRAFT_5-13-2026_Full_Year

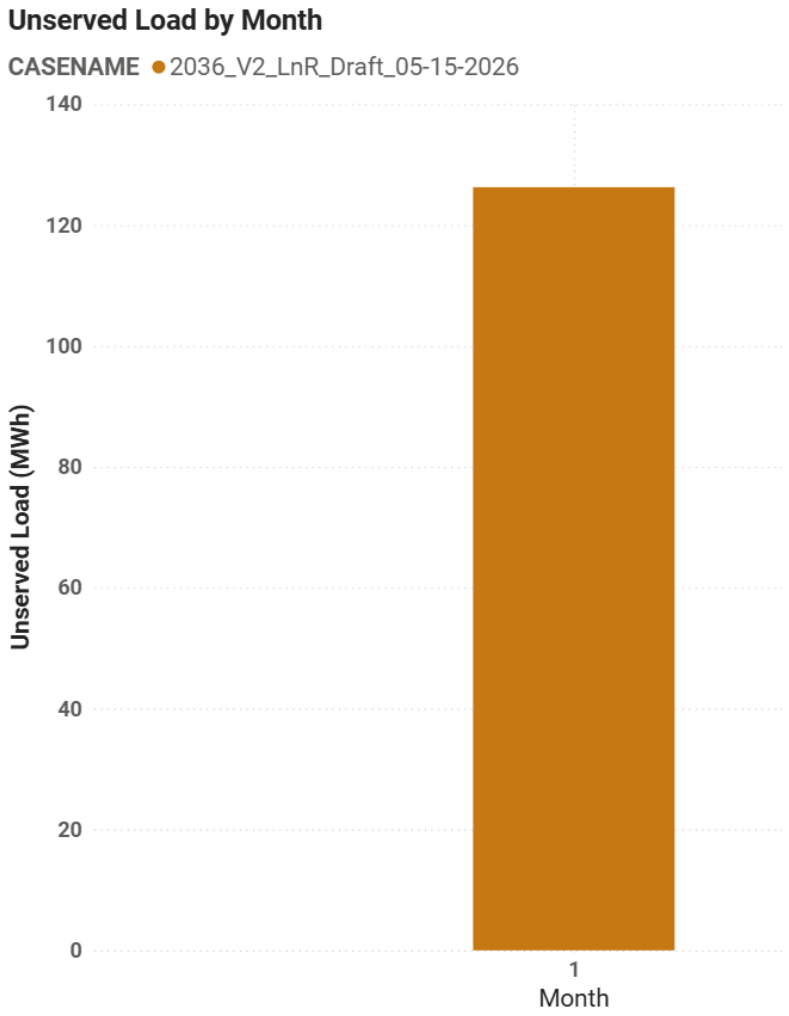


Regional Net Transfers

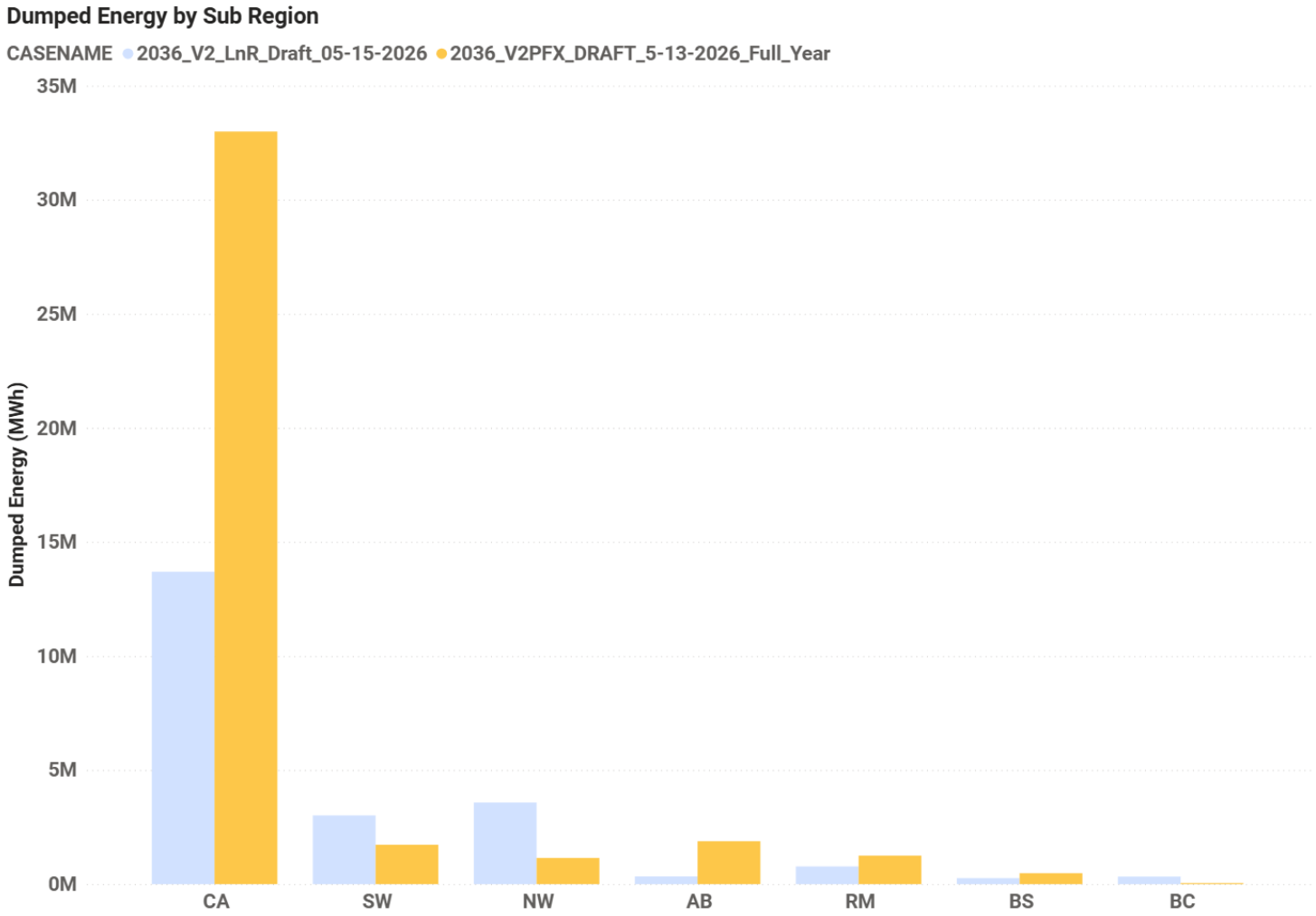
CASENAME	INTERCHANGE	Flow (GWh)	FLOW	Max Flow (MW)	Min Flow (MW)	Positive Flow (GWh)	Positive Flow Hours (%)	Negative Flow (GWh)	Negative Flow Hours (%)
2036_V2_LnR_Draft_05-15-2026	AB_EAST	0	0 >>	0.0	0.0	0.0	100.0	0.0	0.0
2036_V2PFX_DRAFT_5-13-2026_Full_Year	AB_EAST	0	0 >>	0.0	0.0	0.0	100.0	0.0	0.0
2036_V2_LnR_Draft_05-15-2026	BC_AB	4686.3	4,686 >>	1,200.0	-1,000.0	5,304.3	77.9	618.0	22.1
2036_V2PFX_DRAFT_5-13-2026_Full_Year	BC_AB	-812.9	<< 813	1,200.0	-1,000.0	1,981.5	38.2	2,794.4	61.8
2036_V2_LnR_Draft_05-15-2026	BS_NW	6414.6	6,415 >>	3,839.4	-2,536.6	9,725.6	68.1	3,311.0	31.9
2036_V2PFX_DRAFT_5-13-2026_Full_Year	BS_NW	8922.4	8,922 >>	3,789.3	-2,357.3	10,701.4	79.1	1,778.9	20.9
2036_V2_LnR_Draft_05-15-2026	BS_RM	1946.6	1,947 >>	2,353.7	-1,794.7	3,550.7	55.7	1,604.1	44.3
2036_V2PFX_DRAFT_5-13-2026_Full_Year	BS_RM	-2659.4	<< 2,659	2,247.5	-2,058.0	1,563.6	29.6	4,223.1	70.4
2036_V2_LnR_Draft_05-15-2026	CA_BS	-24731	< < < 24,731	814.4	-5,537.3	48.9	3.9	24,779.9	96.1
2036_V2PFX_DRAFT_5-13-2026_Full_Year	CA_BS	-23318.1	< < < 23,318	1,400.0	-5,537.3	107.5	6.0	23,425.6	94.0
2036_V2_LnR_Draft_05-15-2026	CA_NW	-8965.2	<< 8,965	4,461.2	-7,804.8	2,774.8	32.4	11,740.0	67.6
2036_V2PFX_DRAFT_5-13-2026_Full_Year	CA_NW	1642.3	1,642 >>	4,737.6	-5,701.4	7,152.5	56.3	5,510.2	43.7
2036_V2_LnR_Draft_05-15-2026	CA_SW	-12639.1	<< 12,639	10,169.0	-12,105.4	7,823.9	34.5	20,463.0	65.5
2036_V2PFX_DRAFT_5-13-2026_Full_Year	CA_SW	-1194.5	<< 1,195	12,232.6	-10,234.0	12,901.7	47.7	14,096.3	52.3
2036_V2_LnR_Draft_05-15-2026	NW_AB	1082.9	1,083 >>	313.5	-300.0	1,382.3	76.5	299.4	23.5
2036_V2PFX_DRAFT_5-13-2026_Full_Year	NW_AB	-701.2	<< 701	313.5	-300.0	490.7	34.4	1,191.9	65.6
2036_V2_LnR_Draft_05-15-2026	NW_BC	-9614.1	<< 9,614	1,470.2	-3,150.0	776.2	19.1	10,390.3	80.9
2036_V2PFX_DRAFT_5-13-2026_Full_Year	NW_BC	-12757.3	<< 12,757	1,776.8	-3,150.0	468.9	11.2	13,226.2	88.8
2036_V2_LnR_Draft_05-15-2026	NW_EAST	737.8	738 >>	204.6	-143.1	812.8	84.0	75.0	16.0
2036_V2PFX_DRAFT_5-13-2026_Full_Year	NW_EAST	483.1	483 >>	55.0	55.0	483.1	100.0	0.0	0.0
2036_V2_LnR_Draft_05-15-2026	RM_EAST	-21.1	<< 21	497.0	-476.7	265.8	42.2	286.9	57.8
2036_V2PFX_DRAFT_5-13-2026_Full_Year	RM_EAST	-21.1	<< 21	497.0	-476.7	265.8	42.2	286.9	57.8
2036_V2_LnR_Draft_05-15-2026	RM_NW	1250.9	1,251 >>	285.0	-215.9	1,349.1	82.7	98.3	17.3
2036_V2PFX_DRAFT_5-13-2026_Full_Year	RM_NW	1604.3	1,604 >>	285.0	-231.4	1,663.3	88.9	59.1	11.1
2036_V2_LnR_Draft_05-15-2026	SW_BS	-5439.5	<< 5,440	1,590.9	-2,487.3	822.8	21.8	6,262.3	78.2
2036_V2PFX_DRAFT_5-13-2026_Full_Year	SW_BS	-5867.6	<< 5,868	1,245.6	-2,620.3	509.9	15.5	6,377.5	84.5
2036_V2_LnR_Draft_05-15-2026	SW_NW	277.3	277 >>	285.0	-285.0	883.4	56.0	606.1	44.0
2036_V2PFX_DRAFT_5-13-2026_Full_Year	SW_NW	-1457.6	<< 1,458	285.0	-285.0	163.3	17.2	1,620.9	82.8
2036_V2_LnR_Draft_05-15-2026	SW_RM	-4149	<< 4,149	882.6	-1,579.2	310.9	13.3	4,459.9	86.7
2036_V2PFX_DRAFT_5-13-2026_Full_Year	SW_RM	-4874.2	<< 4,874	807.6	-1,484.3	153.6	7.9	5,027.8	92.1

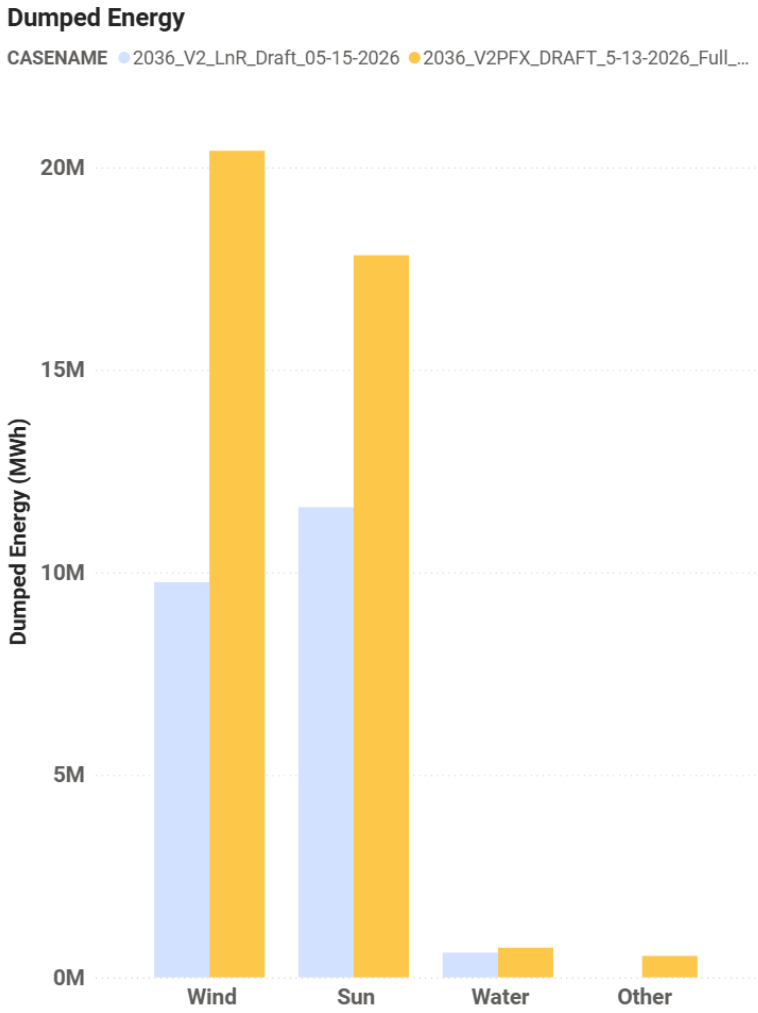
Unserved Load



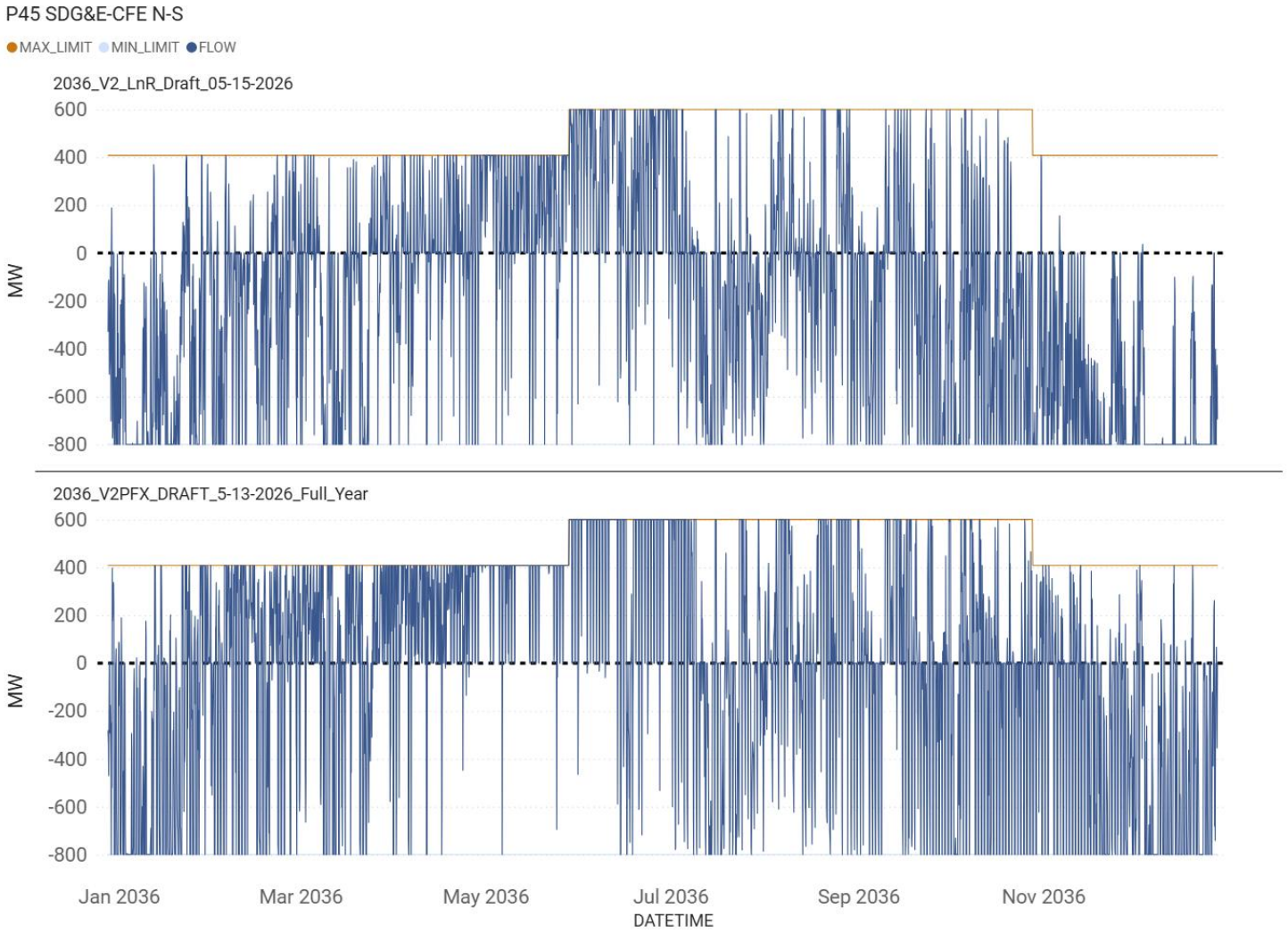


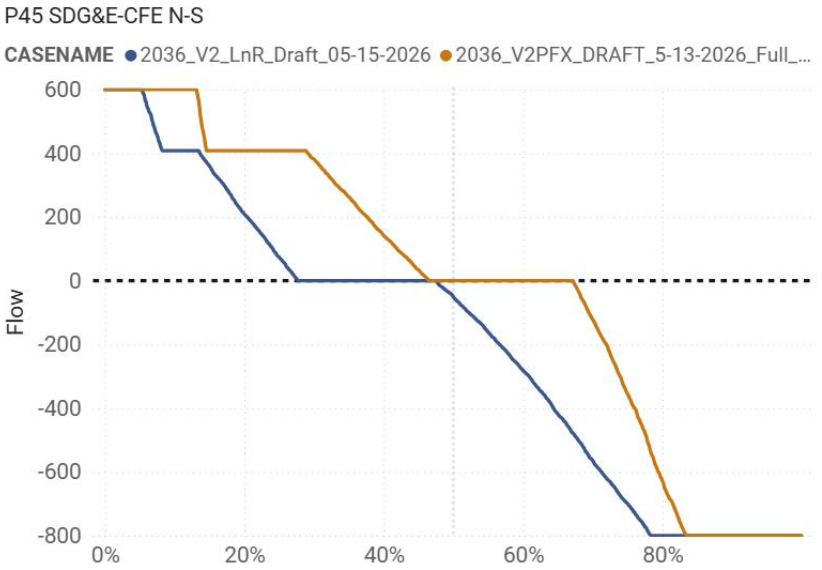
Dumped Energy



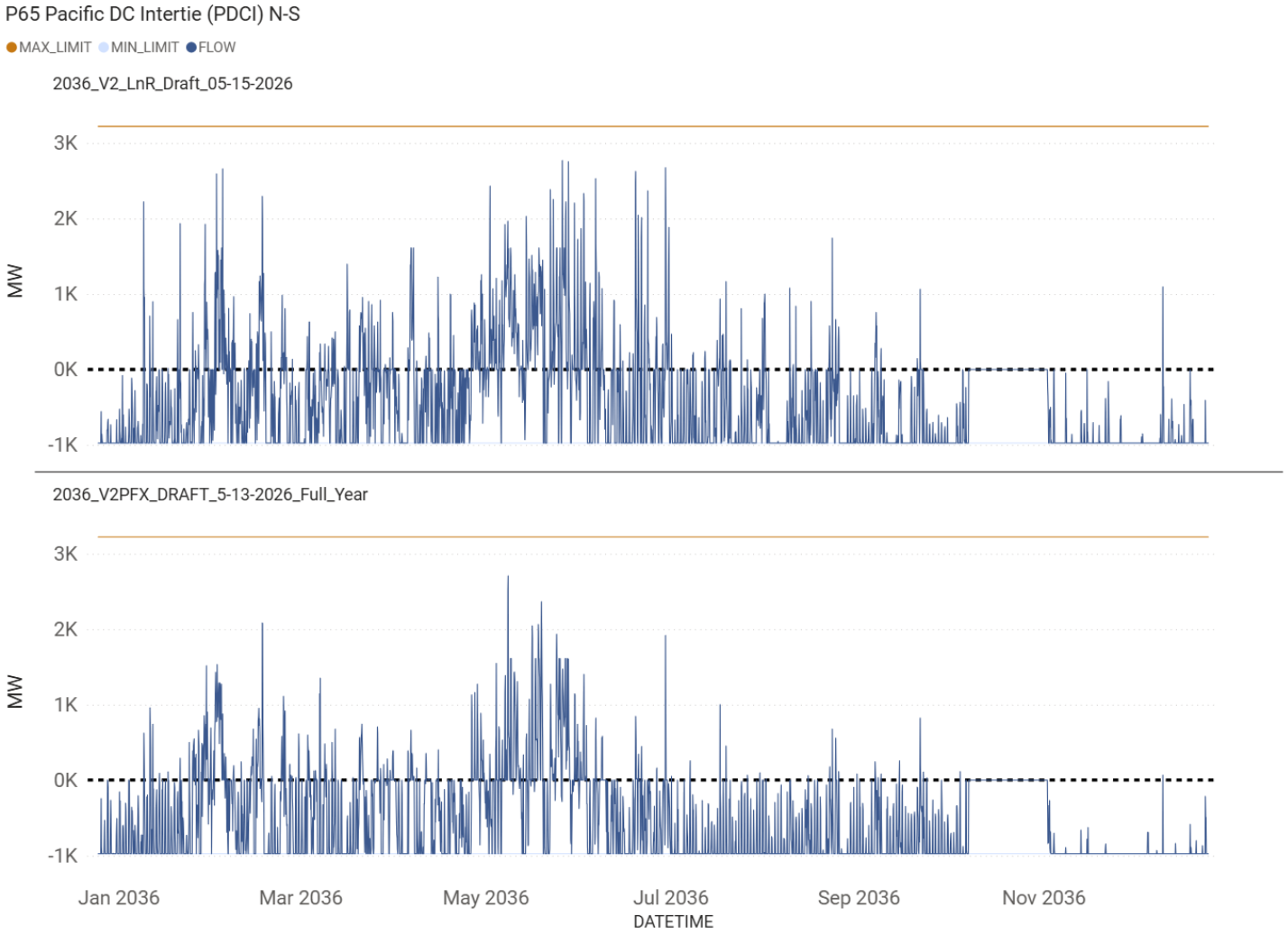


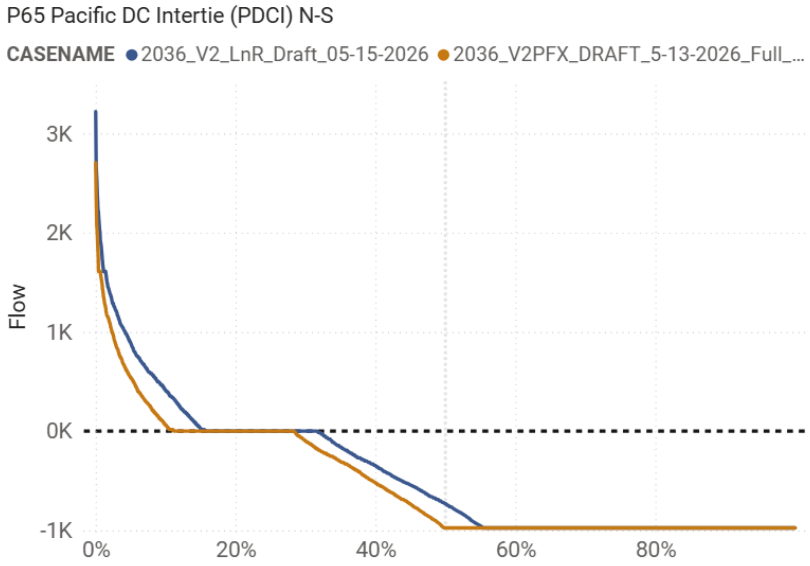
Paths


P45 SDG&E-CFE N-S
MAX_LIMIT
MIN_LIMIT
FLOW
2036_V2_LnR_Draft_05-15-2026
2036_V2PFX_DRAFT_5-13-2026_Full_Year
MW
600
400
200
0
-200
-400
-600
-800
Jan 2036
Mar 2036
May 2036
Jul 2036
Sep 2036
Nov 2036
DATETIME

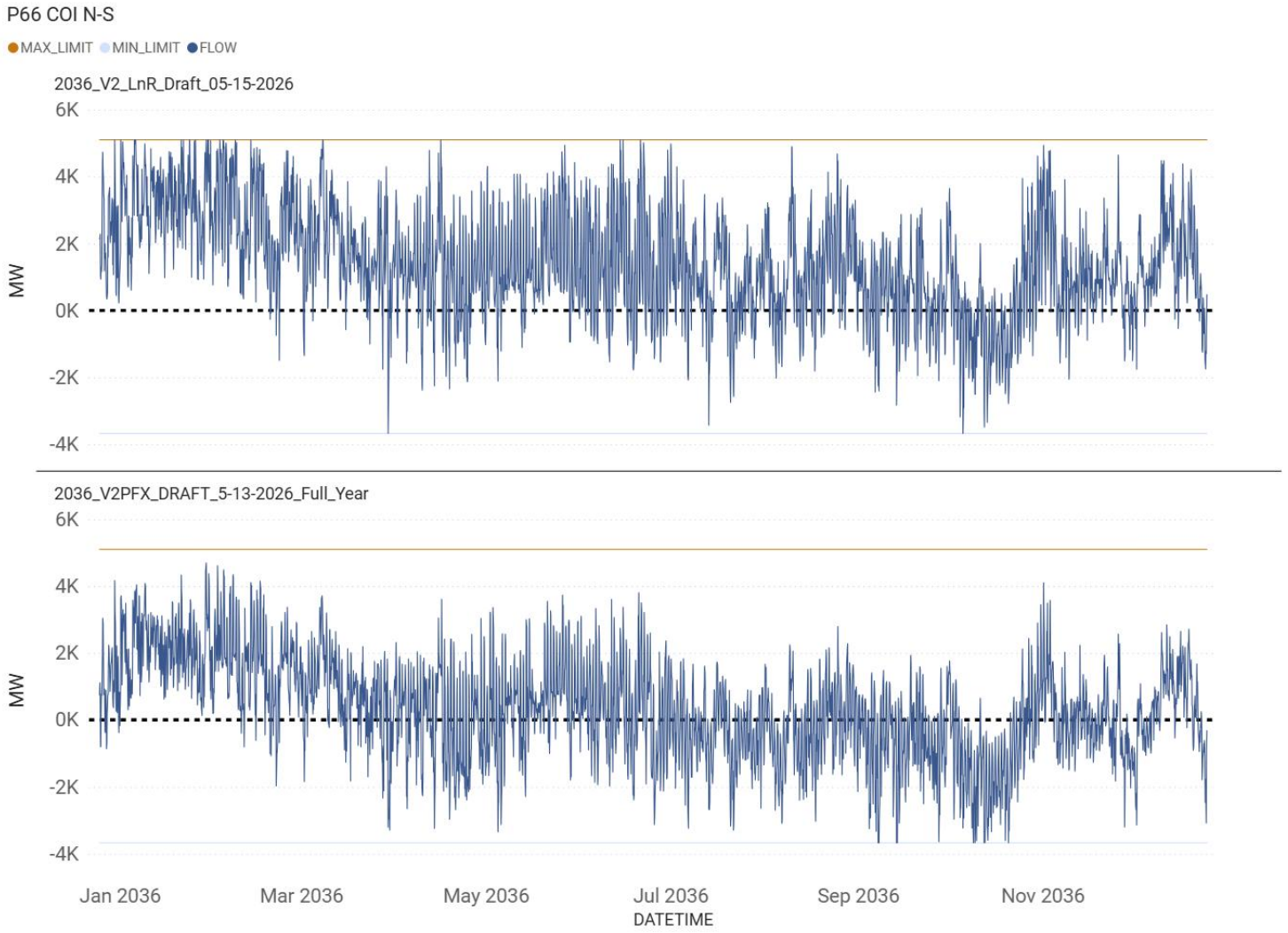

P45 SDG&E-CFE N-S
CASENAME
2036_V2_LnR_Draft_05-15-2026
2036_V2PFX_DRAFT_5-13-2026_Full_...
Flow
600
400
200
0
-200
-400
-600
-800
0%
20%
40%
60%
80%

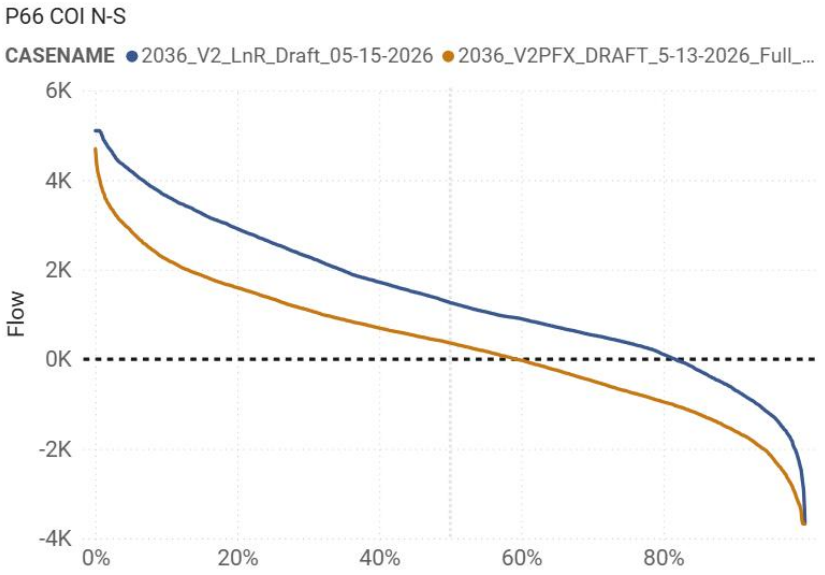
Paths


P65 Pacific DC Intertie (PDCI) N-S
MAX_LIMIT MIN_LIMIT FLOW
2036_V2_LnR_Draft_05-15-2026
3K
2K
1K
0K
-1K
MW
2036_V2PFX_DRAFT_5-13-2026_Full_Year
3K
2K
1K
0K
-1K
MW
Jan 2036
Mar 2036
May 2036
Jul 2036
Sep 2036
Nov 2036
DATETIME

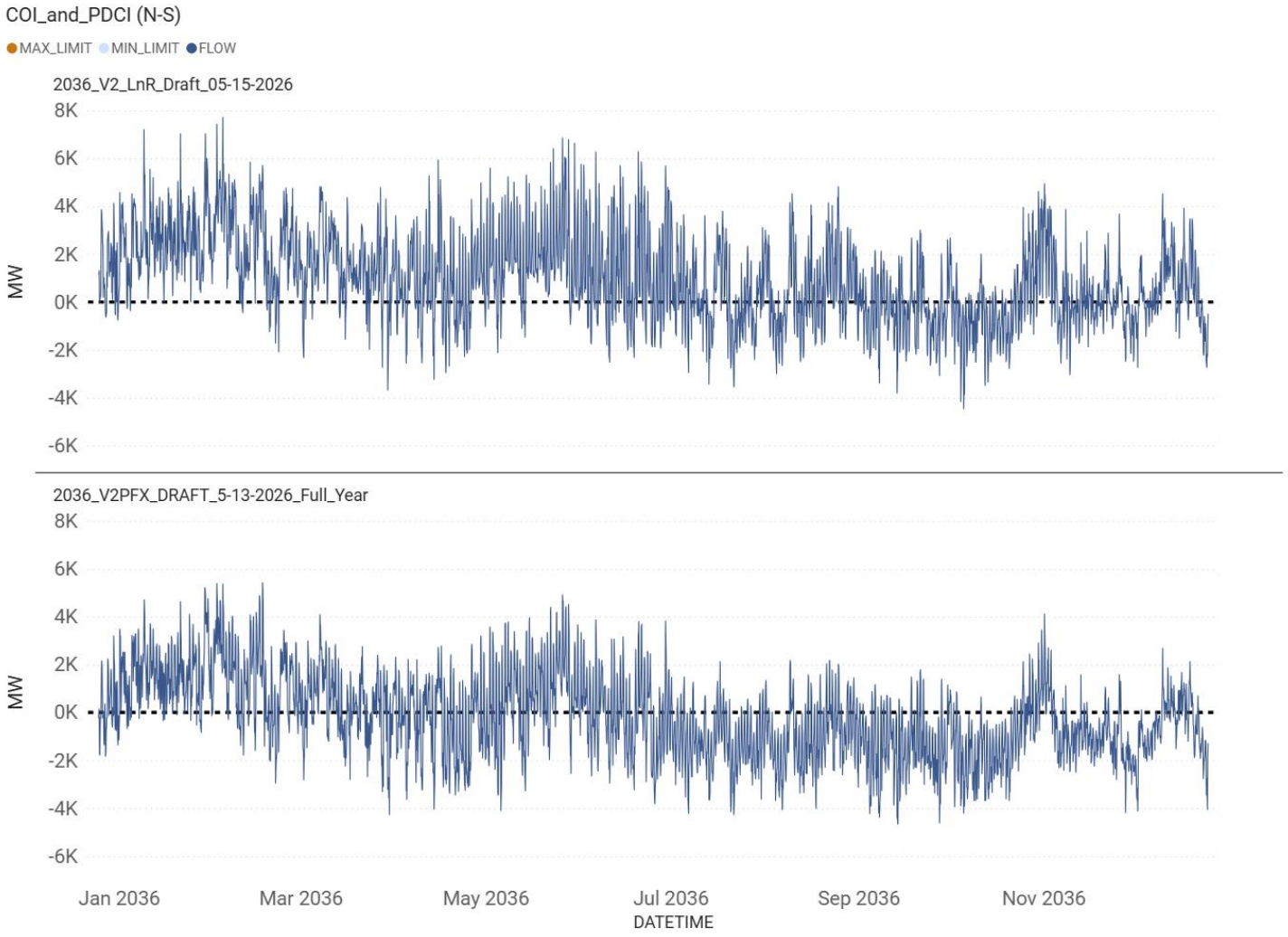

P65 Pacific DC Intertie (PDCI) N-S
CASENAME 2036_V2_LnR_Draft_05-15-2026 2036_V2PFX_DRAFT_5-13-2026_Full_...
3K
2K
1K
0K
-1K
Flow
0%
20%
40%
60%
80%

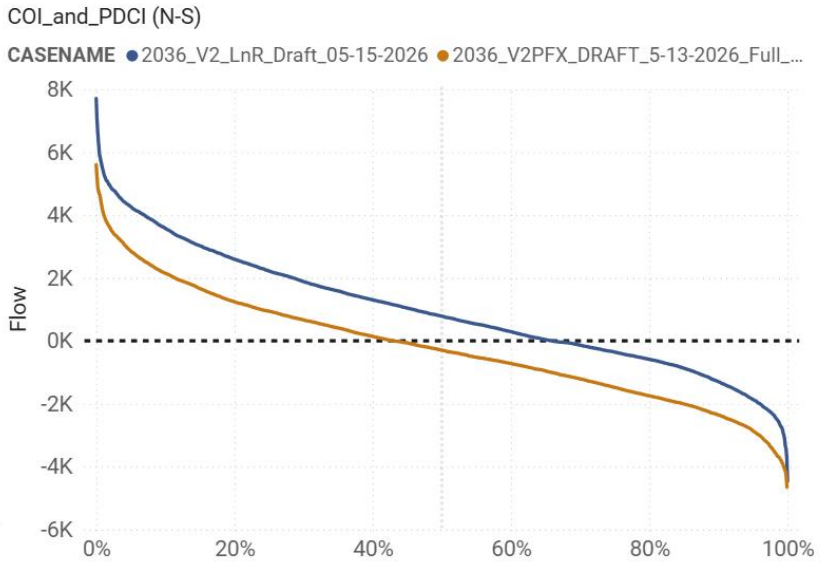
Paths


P66 COI N-S
MAX_LIMIT
MIN_LIMIT
FLOW
2036_V2_LnR_Draft_05-15-2026
6K
4K
2K
0K
-2K
-4K
MW
2036_V2PFX_DRAFT_5-13-2026_Full_Year
Jan 2036
Mar 2036
May 2036
Jul 2036
Sep 2036
Nov 2036
DATETIME

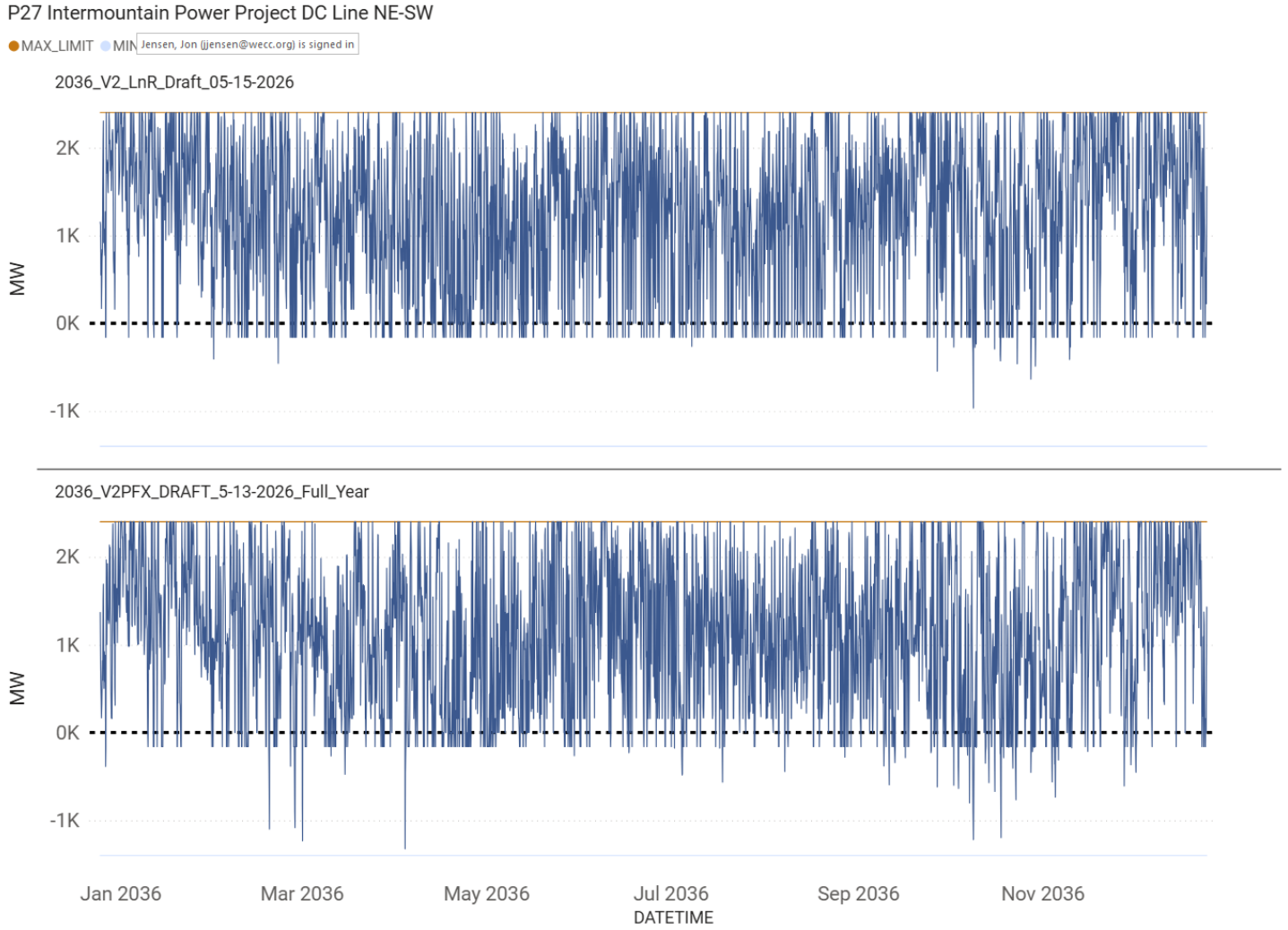

P66 COI N-S
CASENAME
2036_V2_LnR_Draft_05-15-2026
2036_V2PFX_DRAFT_5-13-2026_Full_...
6K
4K
2K
0K
-2K
-4K
Flow
0%
20%
40%
60%
80%

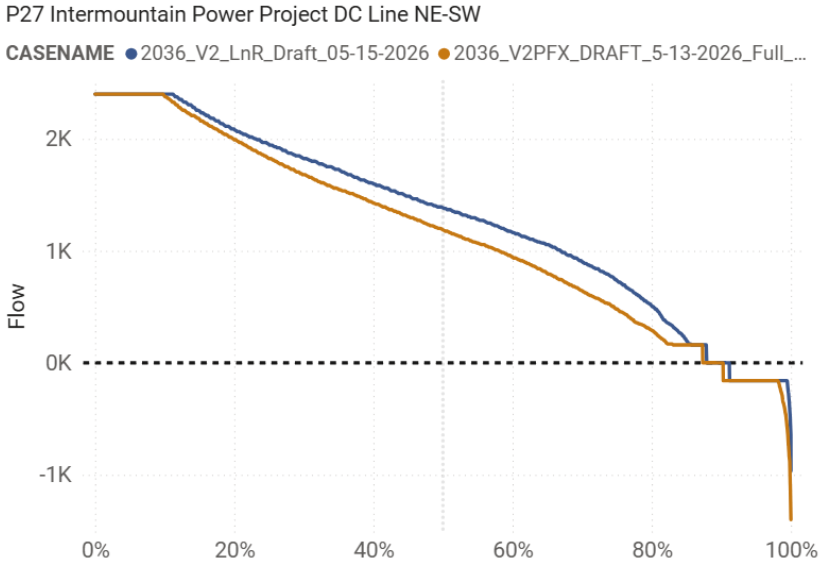
Paths


COI_and_PDCI (N-S)
MAX_LIMIT
MIN_LIMIT
FLOW
2036_V2_LnR_Draft_05-15-2026
8K
6K
4K
2K
0K
-2K
-4K
-6K
MW
2036_V2PFX_DRAFT_5-13-2026_Full_Year
Jan 2036
Mar 2036
May 2036
Jul 2036
Sep 2036
Nov 2036
DATETIME


COI_and_PDCI (N-S)
CASENAME
2036_V2_LnR_Draft_05-15-2026
2036_V2PFX_DRAFT_5-13-2026_Full_...
8K
6K
4K
2K
0K
-2K
-4K
-6K
Flow
0%
20%
40%
60%
80%
100%

Paths


P27 Intermountain Power Project DC Line NE-SW
MAX_LIMIT
MIN
Jensen, Jon (jjensen@wecc.org) is signed in
2036_V2_LnR_Draft_05-15-2026
2K
1K
0K
-1K
MW
2036_V2PFX_DRAFT_5-13-2026_Full_Year
2K
1K
0K
-1K
MW
Jan 2036
Mar 2036
May 2036
Jul 2036
Sep 2036
Nov 2036
DATETIME


P27 Intermountain Power Project DC Line NE-SW
CASENAME
2036_V2_LnR_Draft_05-15-2026
2036_V2PFX_DRAFT_5-13-2026_Full_...
2K
1K
0K
-1K
Flow
0%
20%
40%
60%
80%
100%

Hybrids/Co-located Units

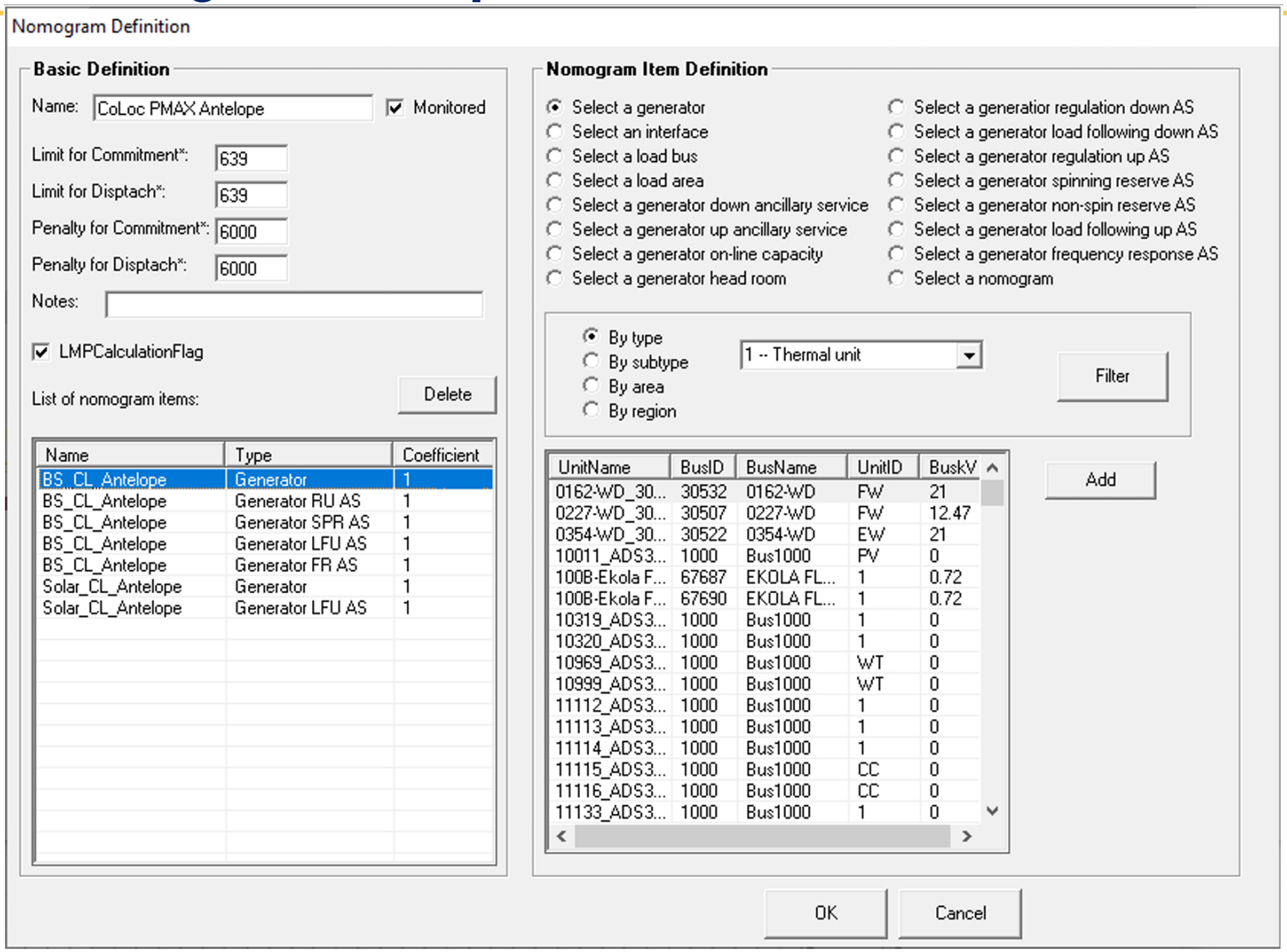
Hybrid/Co-located Modeling

- Hybrid: A co-located configuration where the paired generation and storage are managed as a single, integrated resource in the market. This allows for more flexible market participation, potentially higher capacity value, and unified dispatch control.
- Co-located: Two or more generation assets and/or storage are physically installed at the same site and share a single point of interconnection. They can operate as separate resources in the market, each with its own interconnection agreement and market participation path.

Hybrid/Co-located Modeling

- ADS Modeling approach
  - No matter if a unit has been designated as a hybrid or co-located. They will all be modeled as a two (or more) separate components.
  - The limit on the transformer or branch will be the Point of Interconnection limit (If provided in LnR) or the wind or solar Pmax.
  - All will be able to charge from grid or from the renewable resource.
  - Modeling in GridView using a Nomogram.

GridView Nomogram Example

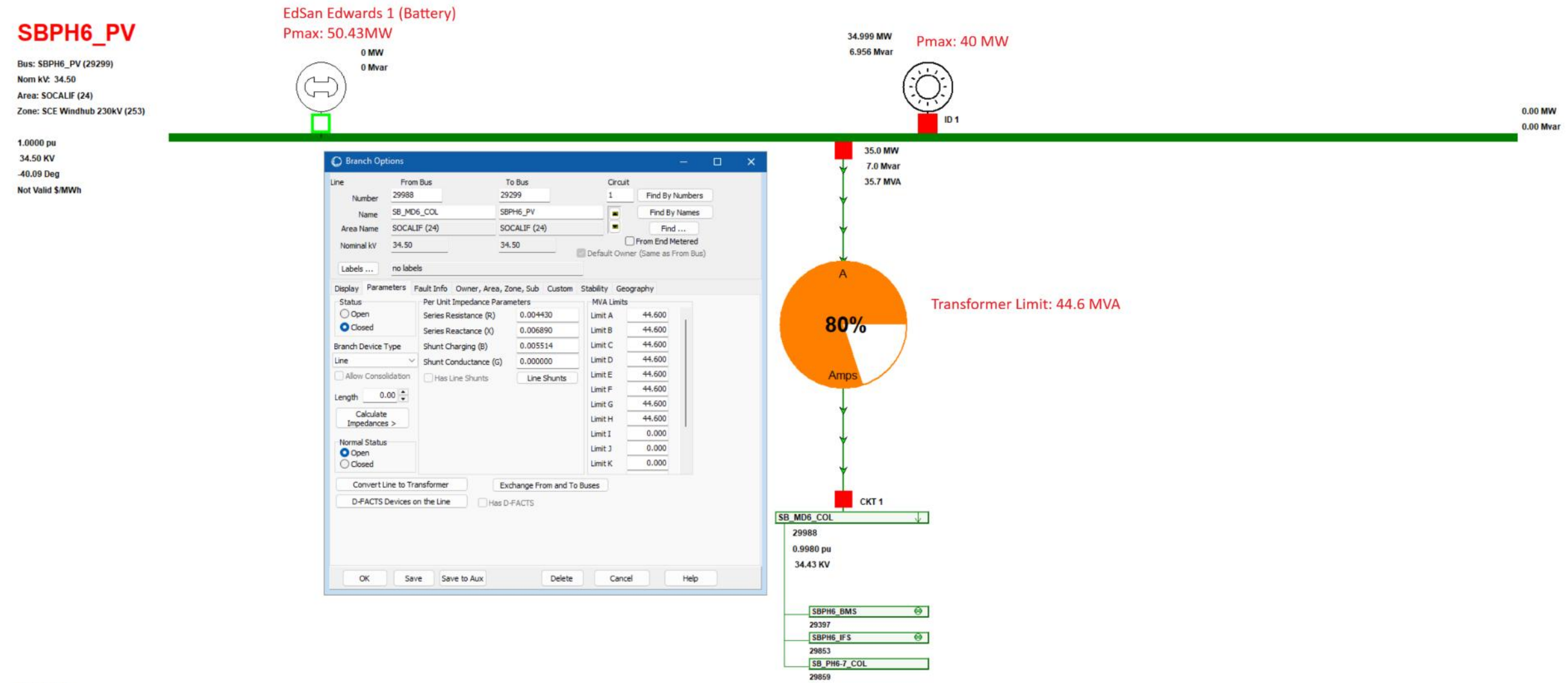


Nomogram Tables

NOMOGRAM_GENERAL							
Name	Monitored	Limit_UC	Limit_ED	Penalty_UC($/MWh)	Penalty_ED($/MWh)	Notes	LMPCalculationFlag
AntelopeHybrid	YES	639	639	6000	6000		#TRUE#

NOMOGRAM			
NomogramName	ItemTypeID	ItemName	ItemCoefficient
AntelopeHybrid	0	BS_CL_Antelope	1
AntelopeHybrid	0	Solar_CL_Antelope	1

Hybrid Example: EdSan 1 Edwards 1



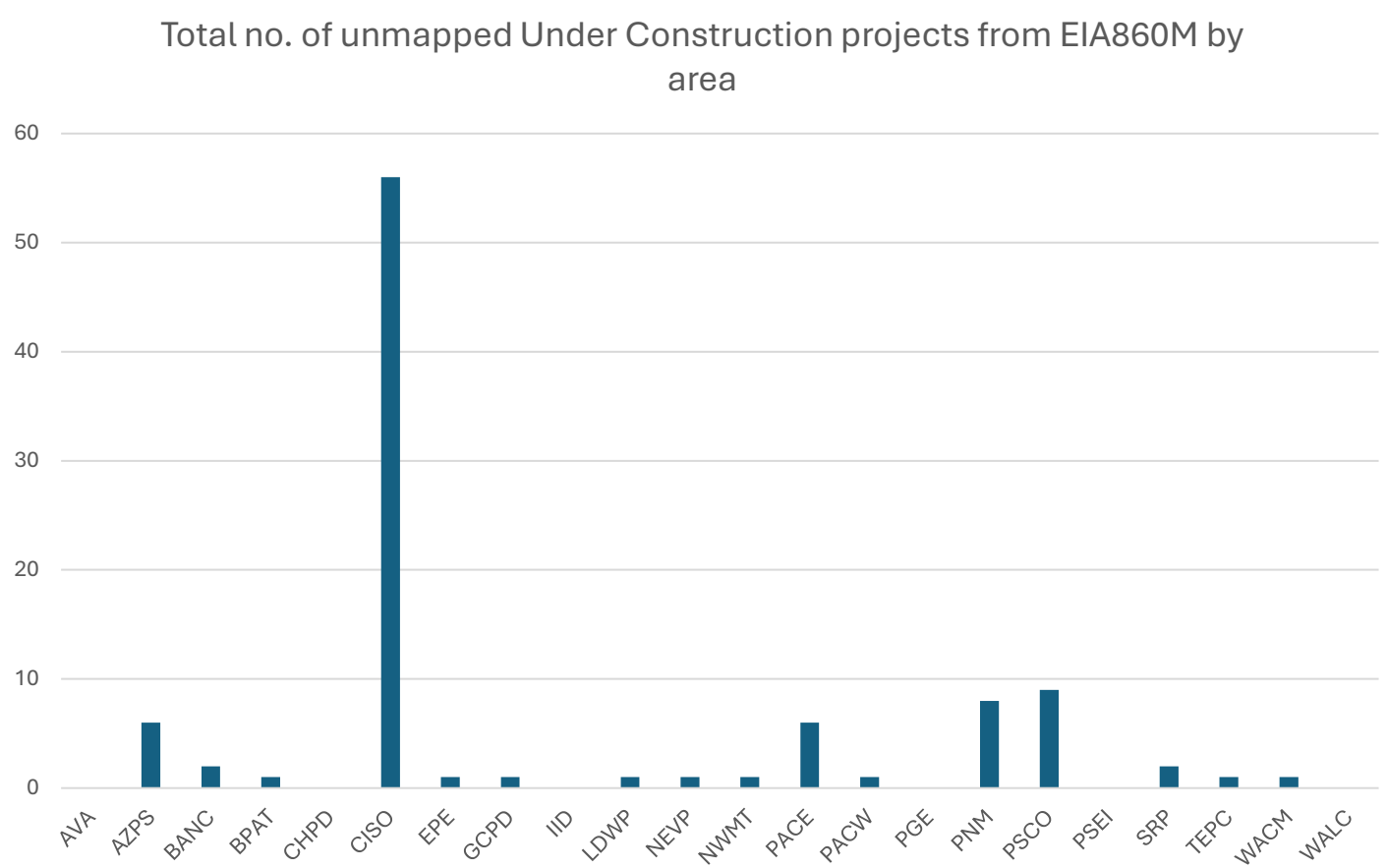
EIA Projects

2026 Jan EIA860M Under Construction Projects Review

- Reviewed the Under Construction projects (TS, U and V statuses) from the Planned inventory of the EIA860M from Jan 2026.
- On comparing with the 2026 L&R Resource list, a total of 98 projects could not be mapped from the EIA Under Construction projects list to the L&R resource list.
- Majority of these unmapped projects from the EIA list were solar and battery units, primarily in the CISO and the Rocky Mountain/Southwest regions.
- These might align/map with the ‘Generic’ or IRP projects in the 2026 L&R resource list.
- Just under half of these projects have a capacity of less than 5 MW (total of 93 MW).

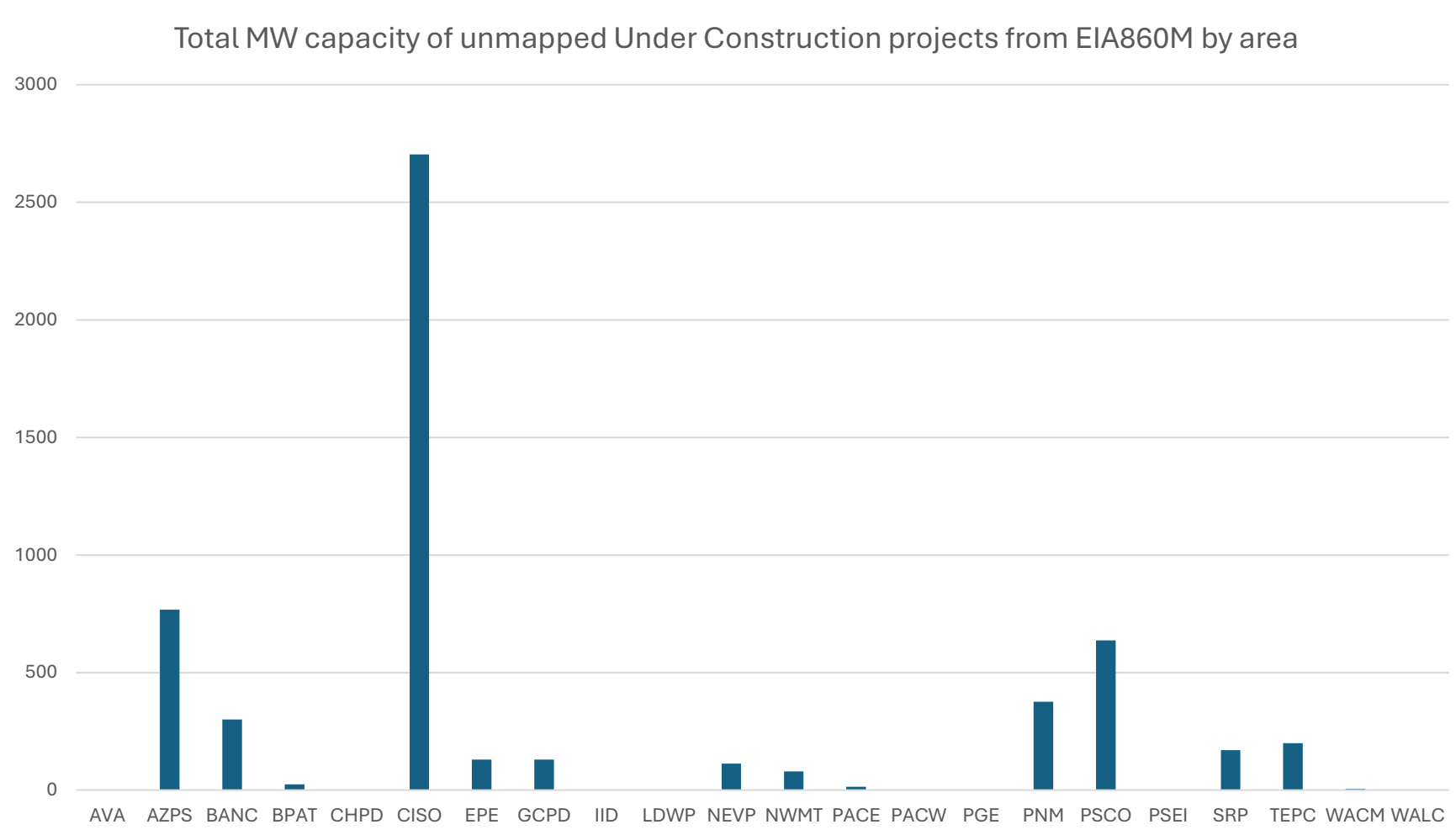
Total no. of Unmapped Under Construction Projects by Area

Area	Total projects by area
AVA	0
AZPS	6
BANC	2
BPAT	1
CHPD	0
CISO	56
EPE	1
GCPD	1
IID	0
LDWP	1
NEVP	1
NWMT	1
PACE	6
PACW	1
PGE	0
PNM	8
PSCO	9
PSEI	0
SRP	2
TEPC	1
WACM	1
WALC	0

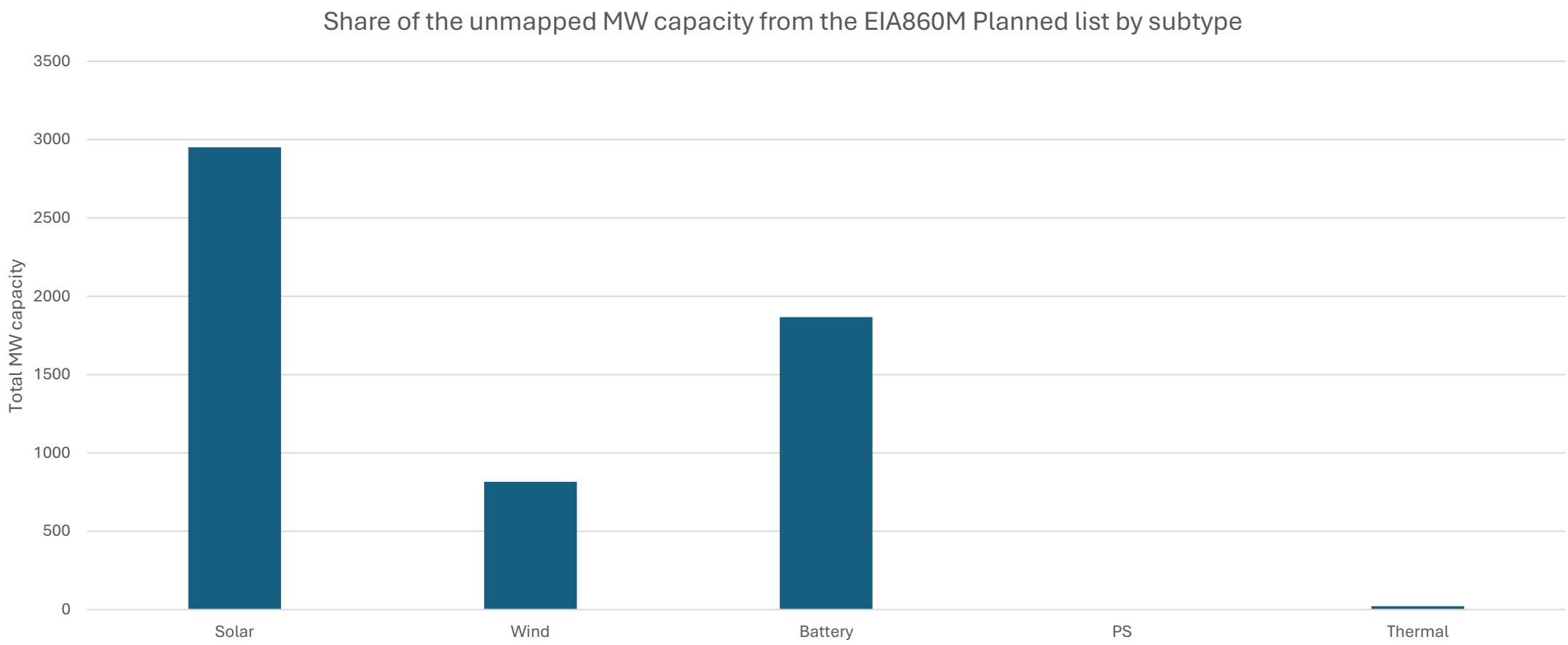


MW Capacity of Unmapped Under Construction Projects by Area

Area	Total MW by area
AVA	0
AZPS	767
BANC	300
BPAT	25
CHPD	0
CISO	2704
EPE	130
GCPD	130
IID	0
LDWP	2
NEVP	113
NWMT	80
PACE	14
PACW	2
PGE	0
PNM	375
PSCO	636
PSEI	0
SRP	170
TEPC	200
WACM	5
WALC	0

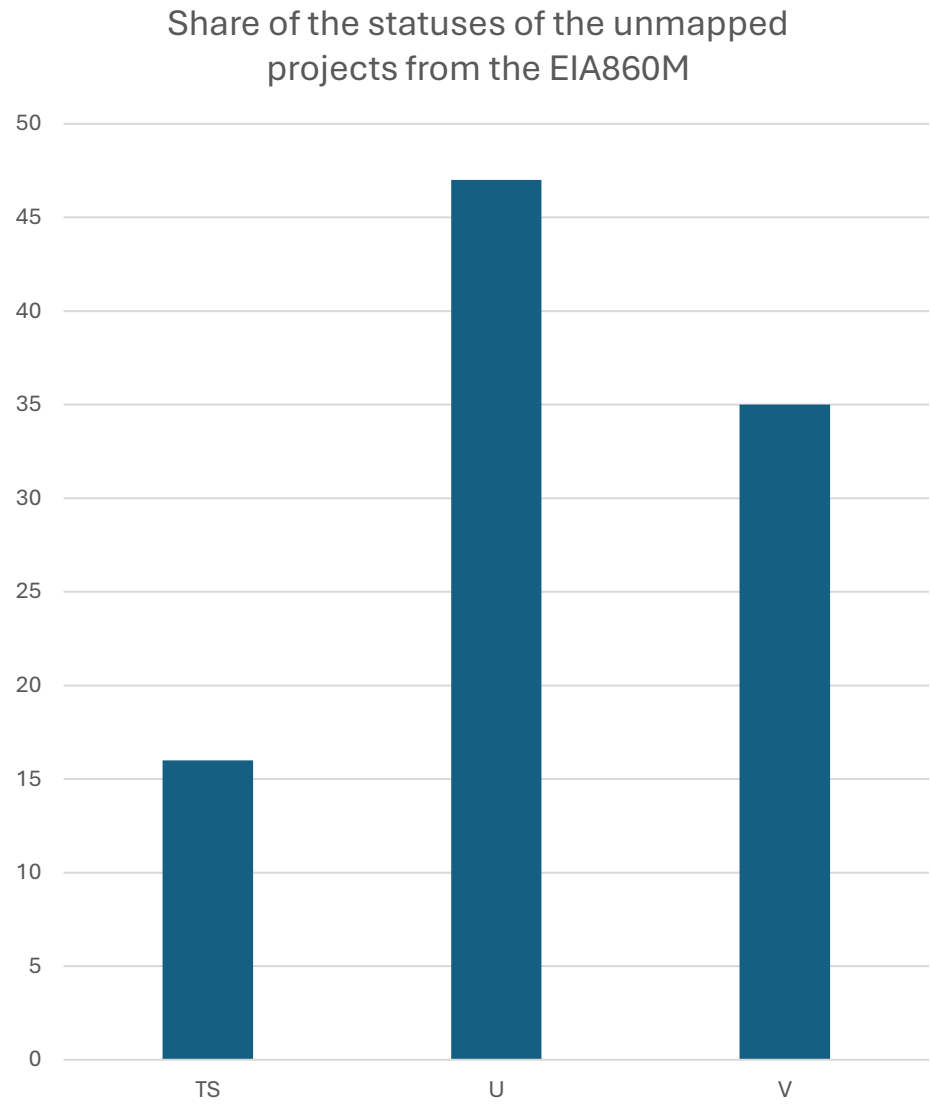


Share of the Unmapped Capacity by Subtype



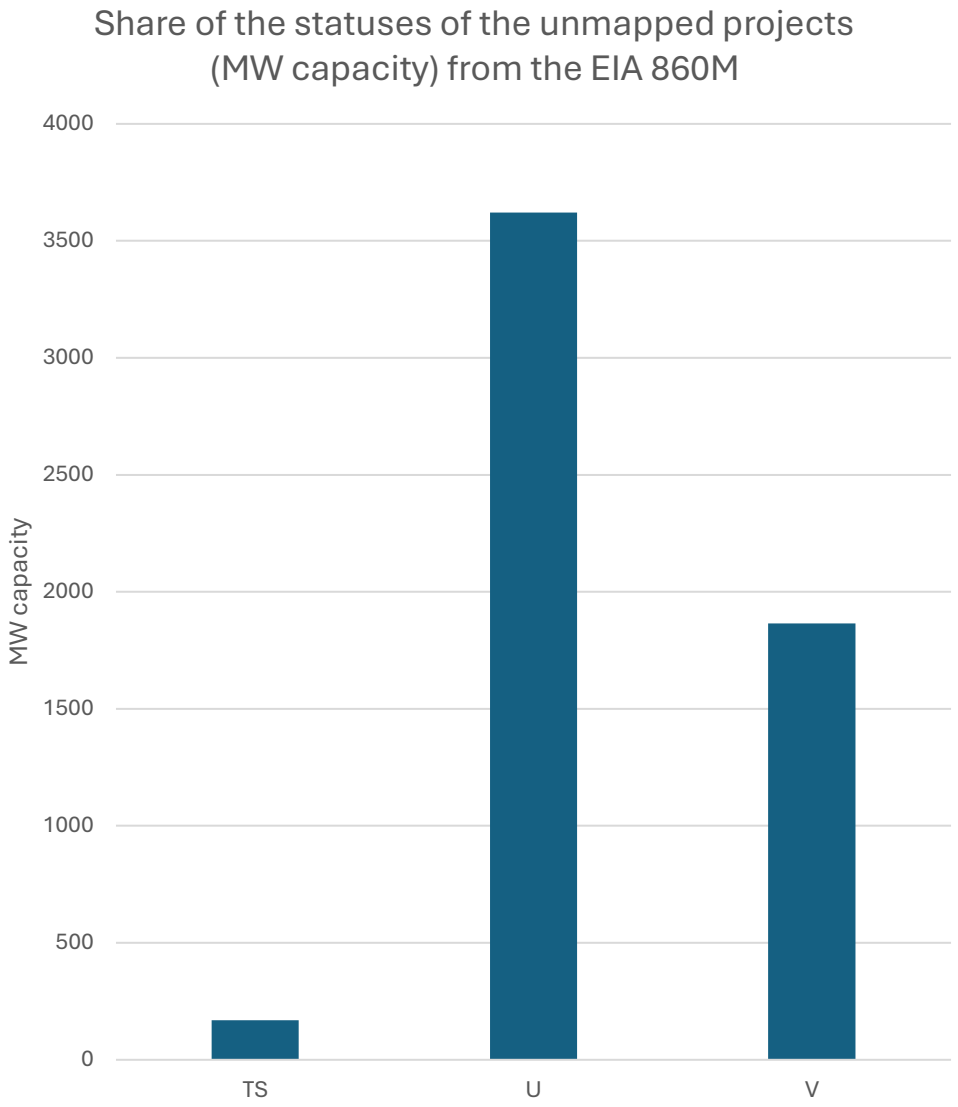
Share of the Statuses

- TS – Construction complete, but not yet in commercial operation
- U – Under construction, less than or equal to 50 percent complete
- V - Under construction, more than 50 percent complete



Share of the Statuses by MW Capacity

- TS – Construction complete, but not yet in commercial operation
- U – Under construction, less than or equal to 50 percent complete
- V - Under construction, more than 50 percent complete



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