



WECC Anchor Data Set (ADS) 2032 ADS Validation

October 26, 2022

Jamie Austin, Chair

Overview

2032 ADS _V2.1

- Validating PacifiCorp Generator Dispatch
 - NG
 - Wind
 - Solar
 - Battery Storage
- Missing Eastern DC Ties Data

PAC NG Units

Questionable Dispatch Results

CC's start average: 100/yr.,
At (\$15k/start)

Pmax diff (MW)	CPMX	Generation	Spill	CF	Fact	Starts	Type	Unit Name	Load Area	SubType	MaxCap (MW)
5.5	58.5	10,759	0	2%	3%	61	ST-NG	Gadsby_1	PAUT	ST-NatGas	64.0
5.4	63.6	6,001	0	1%	2%	48	ST-NG	Gadsby_2	PAUT	ST-NatGas	69.0
6.7	97.8	43,855	0	5%	5%	92	ST-NG	Gadsby_3	PAUT	ST-NatGas	104.5
2.5	39.5	152,731	0	41%	51%	341	GT Aero	Gadsby_4	PAUT	CT-NatGas-Aero	42.0
2.7	39.3	139,620	0	38%	46%	333	GT Aero	Gadsby_5	PAUT	CT-NatGas-Aero	42.0
3.1	38.9	117,721	0	32%	43%	324	GT Aero	Gadsby_6	PAUT	CT-NatGas-Aero	42.0
21.5	509.5	478,047	0	10%	24%	16	ST-NG	Jim_Bridger_1	PAWY	ST-NatGas	531.0
9.4	517.6	375,623	0	8%	20%	16	ST-NG	Jim_Bridger_2	PAWY	ST-NatGas	527.0
0.9	11.1	3,240	0	3%	3%	270	GT Aero	Murray GT 1	PAUT	CT-NatGas-Aero	12.0
0.8	11.2	3,120	0	3%	3%	260	GT Aero	Murray GT 2	PAUT	CT-NatGas-Aero	12.0
0.8	11.2	3,204	0	3%	3%	267	GT Aero	Murray GT 3	PAUT	CT-NatGas-Aero	12.0
9.6	140.4	258,632	0	20%	25%	212	CC Aero	NeboPwrStaCC-Total	PAUT	CCWhole-NatGas-Aero	150.0
0.3	5.1	206	0	0%	0%	20	ST-NG	Roseburg Biomass	PACW	ST-NatGas	5.4
0.1	1.5	0	0	0%	0%	0	ST-NG	Wasatch Integrated Waste Manag1ST1.6	PAUT	ST-NatGas	1.6
3.2	40.8	5,234	0	1%	3%	62	GT Aero	West_Valley3	PAUT	CT-NatGas-Aero	44.0
3.3	40.7	3,430	0	1%	2%	51	GT Aero	West_Valley4	PAUT	CT-NatGas-Aero	44.0
3.2	40.8	3,880	0	1%	2%	45	GT Aero	West_Valley5	PAUT	CT-NatGas-Aero	44.0
221.5											

PAC Wind

Wind plants with CF less than 30%

Max Cap (MW)	%Spill	CF	Unit Name	Load Area	State
240	0.0%	27%	Bowler Flats_Wind	PAWY	MT
10	0.0%	19%	ChopinWind	PACW	WA
42	0.1%	26%	Horse Butte Phase II	PAID	ID
57	0.0%	26%	HorseButteWind1	PAID	ID
400	0.7%	19%	IPCO IRP Generic 66315 Wind	PAWY	WY
119	0.1%	23%	MeadowCreek_5P	PAID	ID
130	0.1%	21%	Utility Wind - Portland North Coast1 WT130	PACW	OR
450	0.1%	5%	Utility Wind - Portland North Coast1WT450	PACW	OR
615	0.0%	4%	Utility Wind - Willamette Valley1WT615	PACW	OR
160	0.4%	8%	Utility Wind+Storage - Yakima1WT160	PACW	WA
151	0.2%	22%	Wind Goshen	PAID	WY

PAUT Solar

Questionable Dispatch Results

Cpmax	%Spill	CF	Unit Name	Installation Date
45.5	0.3%	26%	BASELINE_SG	11/22/2016
3.0	0.7%	23%	Beryl Solar LLC	8/1/2015
20.0	0.5%	29%	CHAUT_SG	12/30/2016
160.0	0.2%	29%	Escalante Solar I II LLC	8/31/2016
80.0	0.2%	29%	Escalante Solar III LLC	8/31/2016
80.0	1.0%	29%	Graphite Solar I LLC (PV-65953-01)	5/17/2022
99.0	0.1%	30%	Milford Solar I LLC (PV-69730-01)	11/19/2020
2.7	0.5%	30%	Panguitch Solar PV	3/9/2020
66.0	0.2%	27%	Red Mesa Tapaha Solar	6/1/2022
40.0	0.4%	27%	Steel Solar	6/1/2023
95.0	0.0%	28%	Utility Solar - Utah-S	1/1/2024
820.0	0.3%	26%	Utility Solar+Storage - PV - Utah-N1	1/1/2031
45.0	0.4%	26%	Utility Solar+Storage - PV - Utah-N2	1/1/2024
498.0	0.0%	29%	Utility Solar+Storage - PV - Utah-S2	1/1/2024
455.5	0.2%	30%	Utility Solar+Storage - PV - Utah-S3	1/1/2025
45.5	0.3%	29%	znPAVANT SOL-1	12/30/2015

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Solar, Continued

Questionable Dispatch Results

Pmax (MW)	%Spill	CF	Unit Name	State	Installation Date
10	0.3%	25%	Chiloquin Solar LLC (Saturn P0PV-T9.9	OR	1/26/2018
200	0.2%	18%	E Washington Solarn/aPV-NT200	WA	1/1/2026
3	0.6%	28%	Klamath Falls Solar 2 LLC	OR	12/16/2017
20	0.3%	29%	Muddy Creek Solar	WY	6/1/2023
5	0.6%	29%	Old Mill Solar2PV-NT5	OR	4/1/2016
10	0.4%	24%	OR Solar 2 LLC (Agate Bay Solar) (PV-45158-01)	OR	10/22/2020
10	0.5%	28%	OR Solar 3 LLC (Turkey Hill Solar)1PV-T10	OR	12/30/2017
10	0.7%	29%	OR Solar 8 LLC (Dairy Solar)0PV-T10	OR	3/14/2018
100	0.0%	31%	SE Oregon Solar n/aPV-NT100	OR	1/1/2026
5.0	0.1%	25%	Sunnyside Solar LLCPV4.99	WA	9/30/2023
80.0	0.6%	26%	SWEETWATER	WY	12/28/2018
600.0	0.1%	26%	Utility Solar+Storage - Borah Pop1PV600	ID	1/1/2025
209.0	0.4%	25%	Utility Solar+Storage - PV - S-Oregon1PV209	OR	1/1/2024
377.0	0.4%	28%	Utility Solar+Storage - PV - S-Oregon1PV377	OR	1/1/2030
83.0	0.4%	25%	Utility Solar+Storage - PV - S-Oregon1PV83	OR	1/1/2028
180.0	0.2%	25%	Utility Solar+Storage - PV - Yakima1PV180	WA	1/1/2030
8.0	0.4%	28%	Woodline Solar LLC1PV-T8	OR	12/28/2017

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Battery Storage

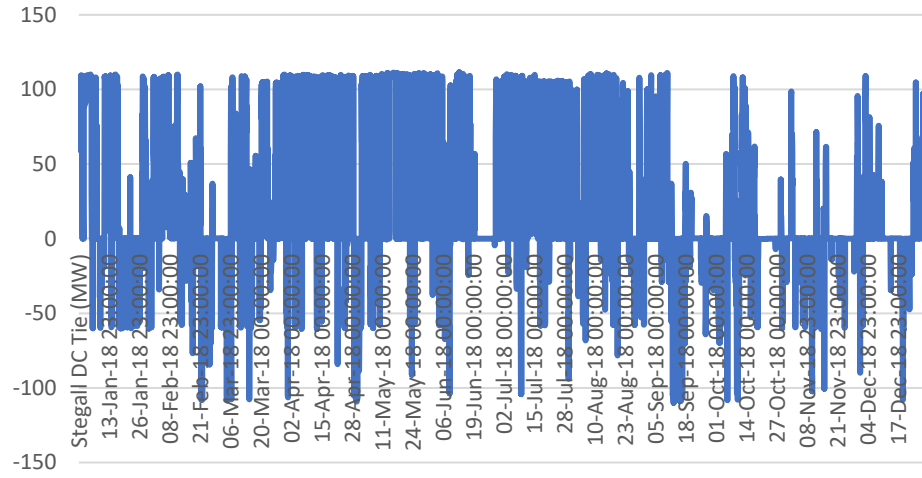
Questionable Dispatch
Results

Typical CF for Batteries:
15% to 30% ;
(a 4-hour device has an
expected capacity factor of
16.7% ($4/24 = 0.167$))

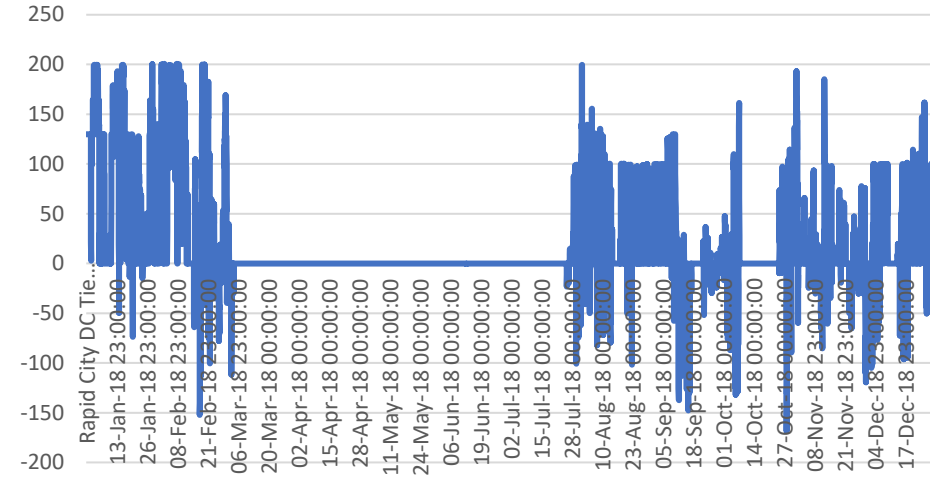
Cpmax	CF	Unit Name	Load Area	State
549	4%	Battery Storage - DJ+Wyodak0BA549	PAWY	ID
200	4%	Battery Storage - Utah-N0BA200	PAUT	UT
20	12%	Battery Storage - Yakima1BA20	PACW	WA
377	12%	Utility Solar + Storage - PV - S-Oregon1BA377	PACW	OR
52	12%	Utility Solar+Storage - PV - S-Oregon1BA52.5	PACW	OR
12	4%	Utility Solar+Storage - PV - Utah-N0BA12.5	PAUT	UT
820	3%	Utility Solar+Storage - PV - Utah-N0BA820	PAUT	UT
174	4%	Utility Solar+Storage - PV - Utah-S0BA174	PAUT	UT
258	4%	Utility Solar+Storage - PV - Utah-S0BA258	PAUT	UT
160	12%	Utility Wind + Storage - Yakima1BA160	PACW	WA

Missing Eastern DC Ties Data

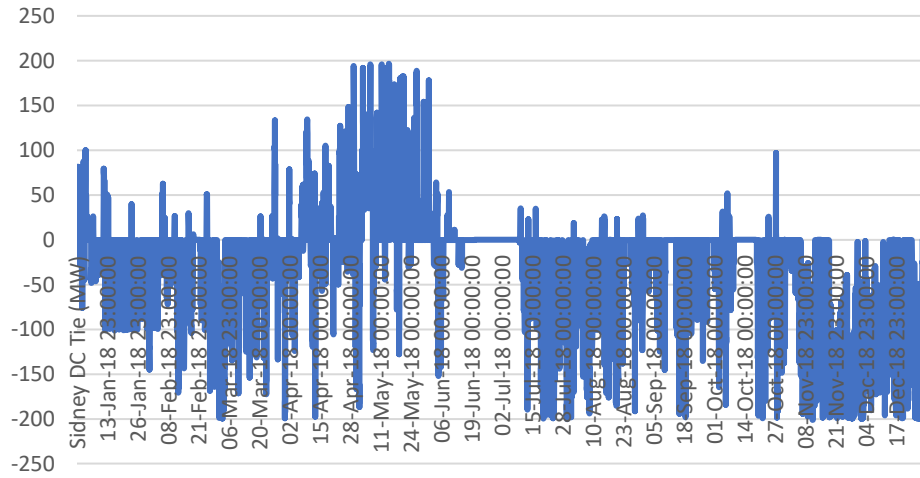
Stegall DC



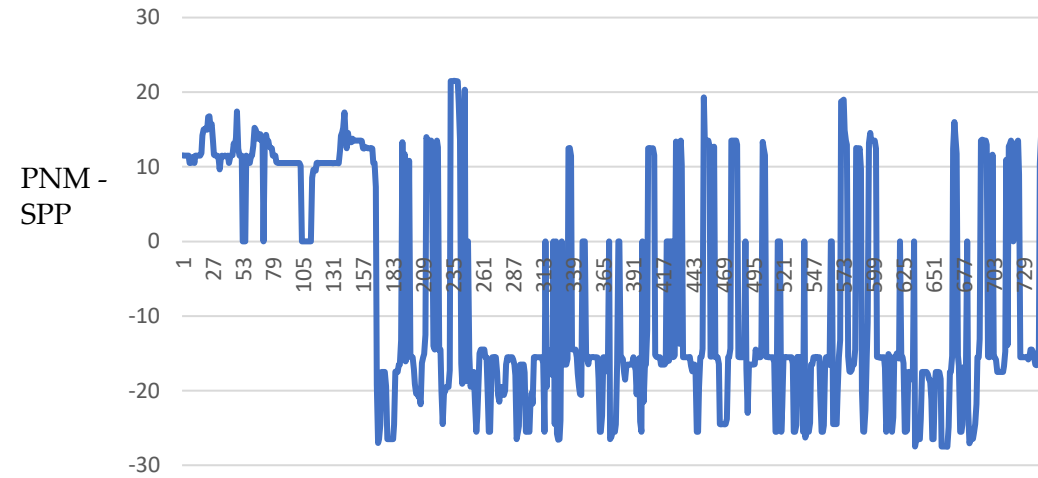
Rapid City DC

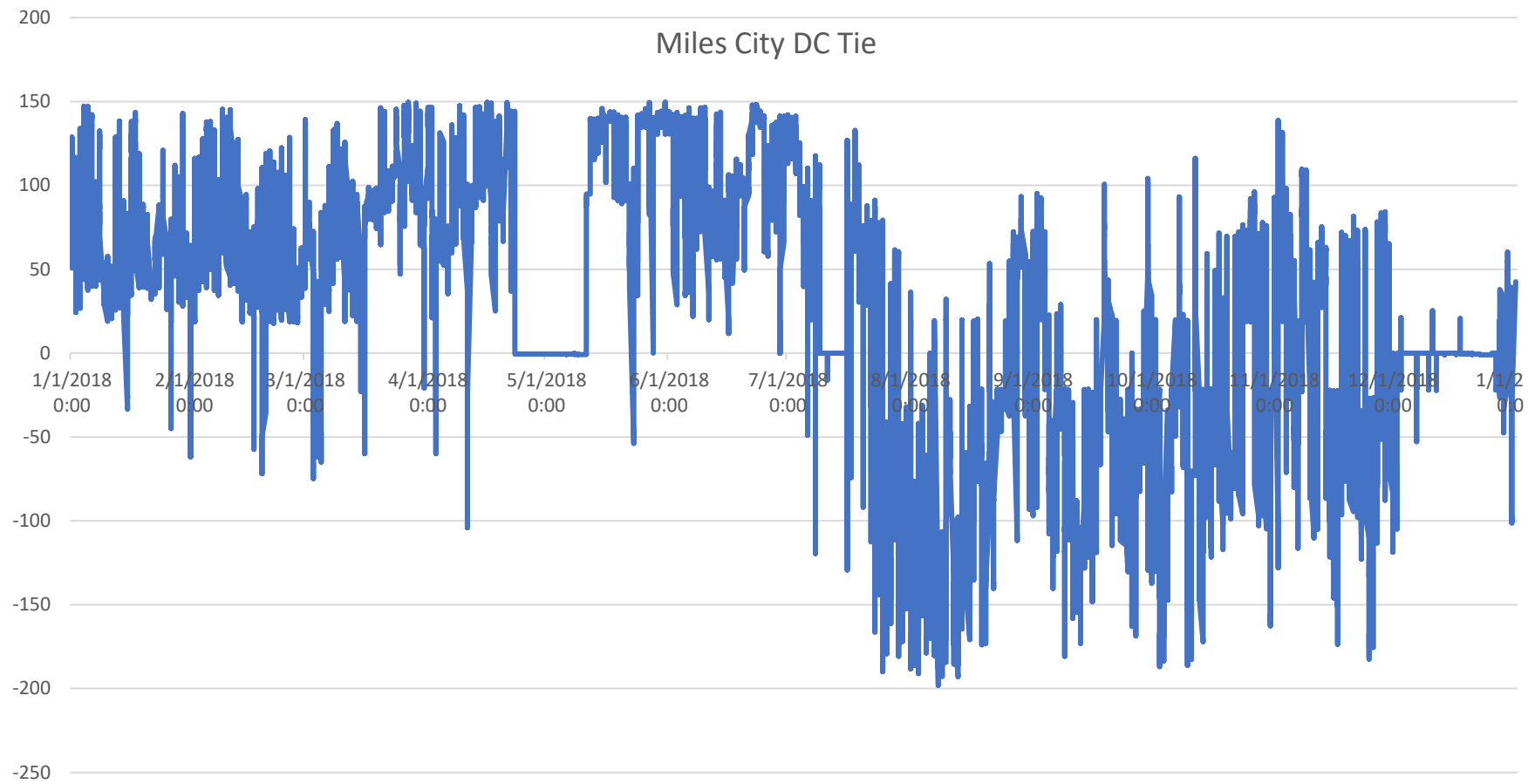


VSCS, Sidney DC



Blackwater DC





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