



PCDS Meeting

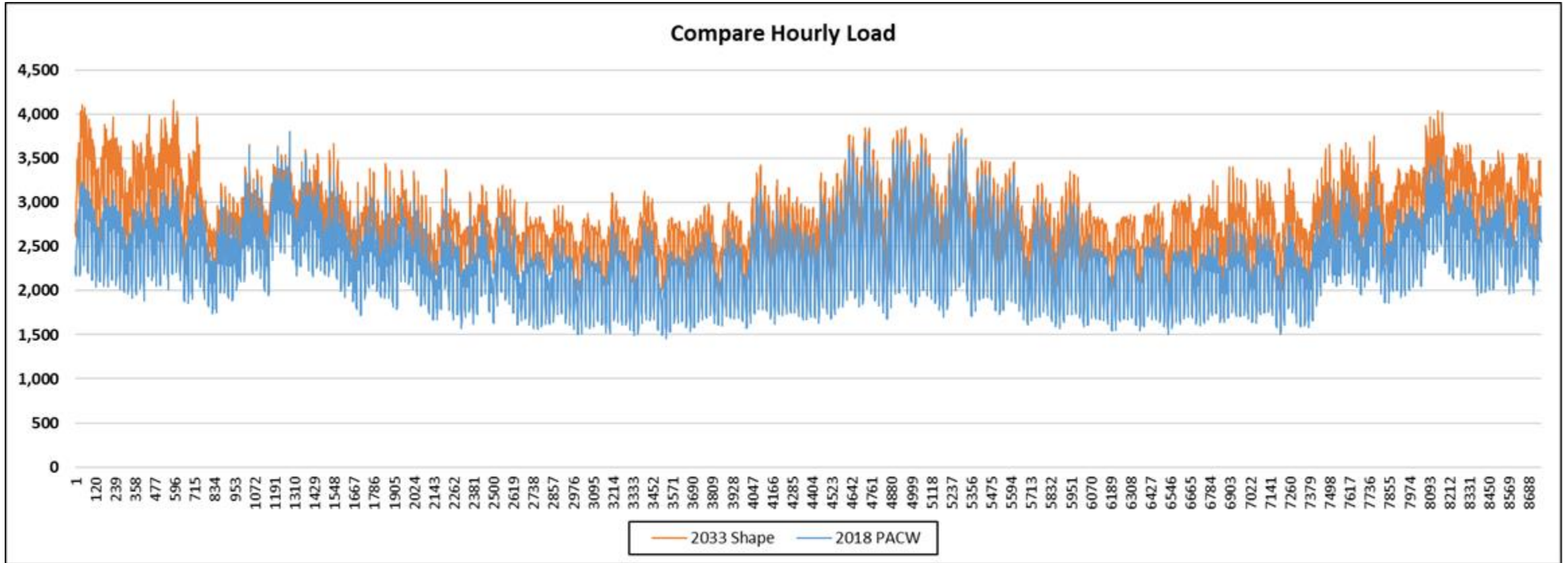
February 14, 2024

WECC Staff

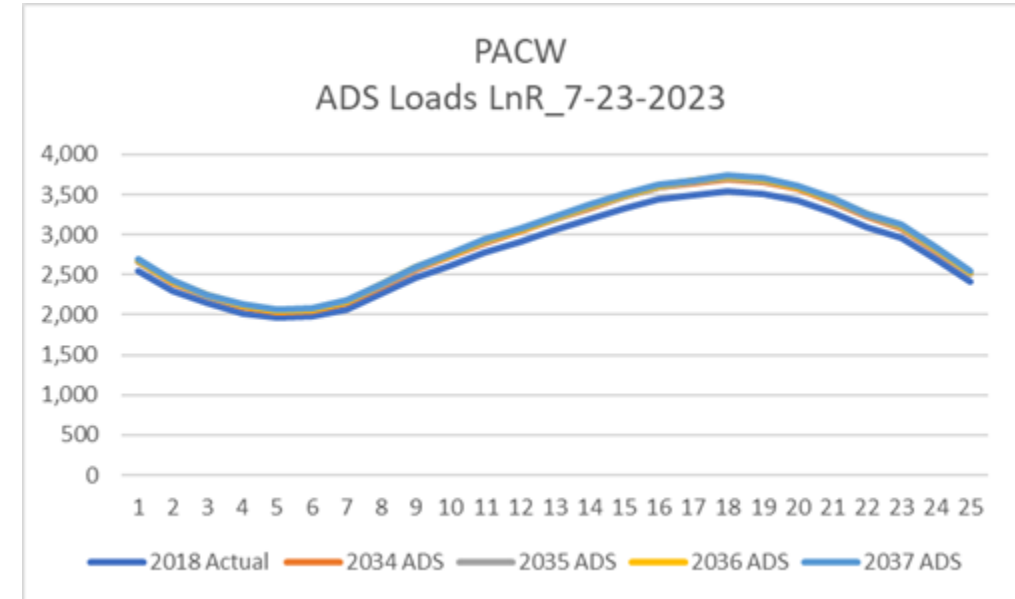
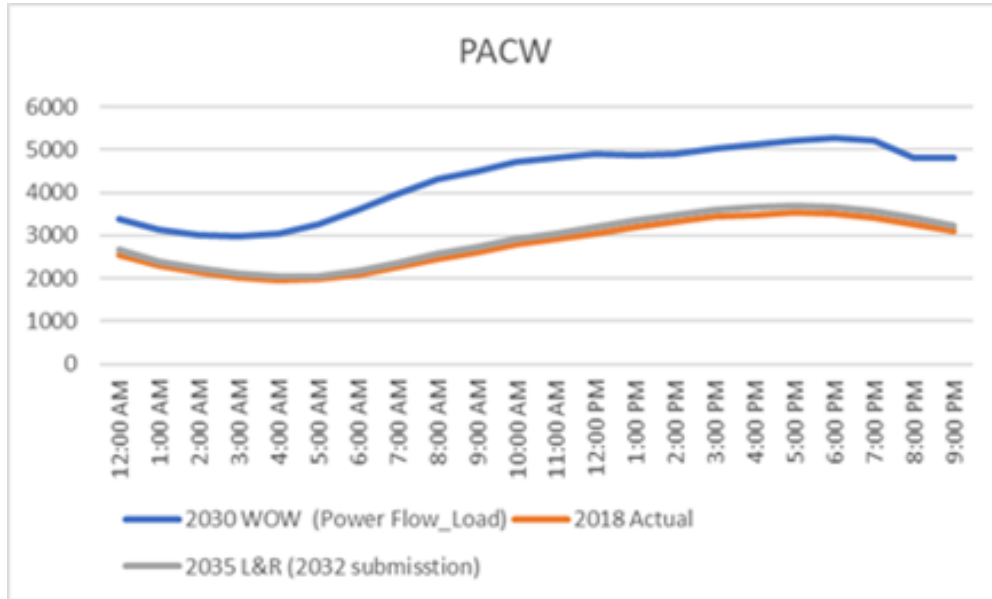
Announcements

- Happy Valentine's Day!
- 2034 ADS PCM V1—Status update
- Received latest data from Intertek (VOM, etc.)
- Haven't received any new hydro data from BC Hydro
- BTM PV—Received the county information from PNNL, now sent to NREL for BTM PV ratios/weightings for each bus
- Ownership 2034
 - Definitions
 - Bus
 - Branch
 - Nomogram*
 - Generation—In progress
- 2034 L&R Update

PACW Load



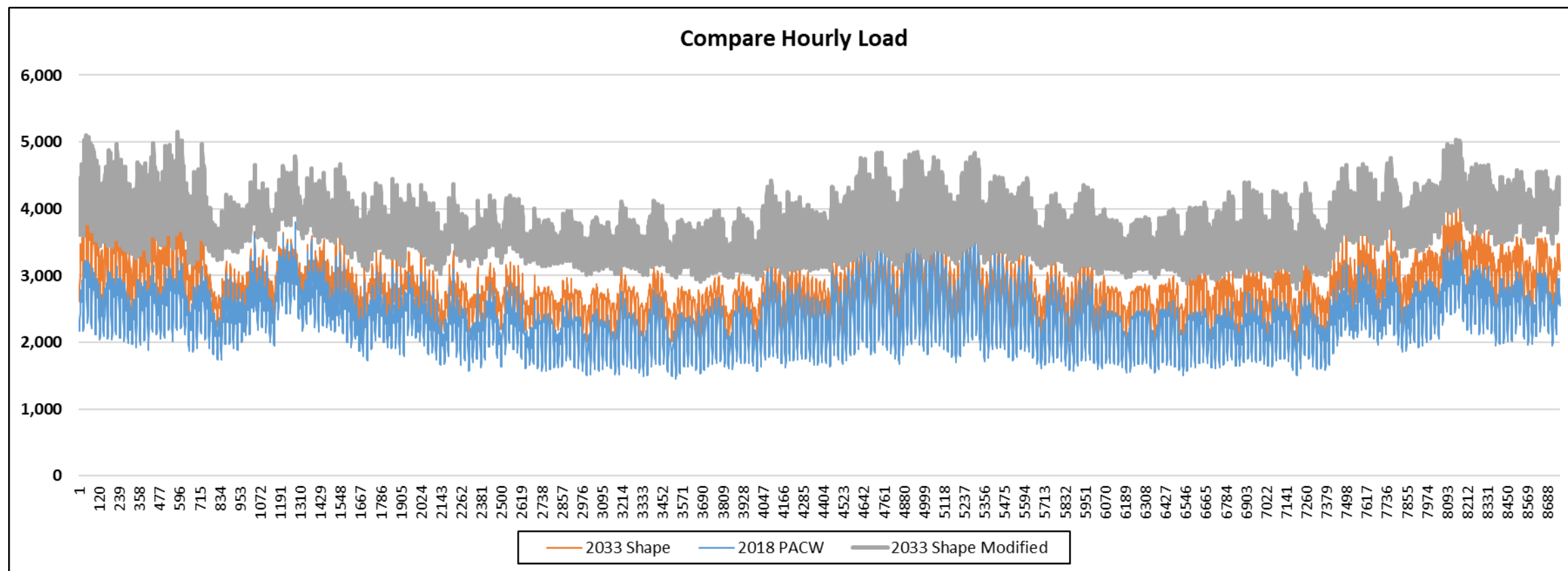
PACW Load



PACW (MW)	2034 ADS		2024 L&R		PNNL - WOW	
	Summer	Winter	Summer	Winter	Summer	Winter
2034	3,868	4,076	4,744.60	4,824.91		
2035					5,278	

Modified PACW Load

Peak = 5,155 MW



Start Costs—Intertek

2020 Dollars

Unit Types	Coal - Small Sub Critical	Coal - Large Sub Critical	Coal - Super Critical	Gas - Steam	Gas - Large Frame CT	Gas - Aero Derivative CT	Typical CC [GT+HRSG+ST]	High Eff. - CC [GT+HRSG+ST]	Fast Start - CC [GT+HRSG+ST]	Gas - Recip. [per Engine]
Typical Cold Start Data										
-C&M cost (\$/MW cap.)										
Median	144	114	126	67	57	28	75	84	72	10
~25th_centile	92	66	85	57	20	11	41	46	39	6
~75th_centile	333	159	154	104	138	66	117	157	112	15

2024 Dollars

Unit Types	Coal - Small Sub Critical	Coal - Large Sub Critical	Coal - Super Critical	Gas - Steam	Gas - Large Frame CT	Gas - Aero Derivative CT	Typical CC [GT+HRSG+ST]	High Eff. - CC [GT+HRSG+ST]	Fast Start - CC [GT+HRSG+ST]	Gas - Recip. [per Engine]
Typical Cold Start Data										
-C&M cost (\$/MW cap.)										
Median	177	155	163	90	73	35	108	111	93	14
~25th_centile	113	99	116	76	26	14	59	61	50	8
~75th_centile	408	238	210	139	177	83	169	207	145	21

VOM Costs—Intertek

2020 Dollars

Unit Types	Coal - Small Sub Critical	Coal - Large Sub Critical	Coal - Super Critical	Gas - Steam	Gas - Large Frame CT	Gas - Aero Derivative CT	Typical CC [GT+HRSG+ST]	High Eff. - CC [GT+HRSG+ST]	Fast Start - CC [GT+HRSG+ST]	Gas - Recip. [per Engine]
Typical Non-cycling Related Costs										
- Baseload Variable Cost (\$/MWH)										
Median	1.79	2.40	3.76	0.29	0.56	0.45	2.10	1.80	1.72	0.00
~25th_centile	1.14	1.62	3.15	0.24	0.47	0.18	1.65	1.27	1.30	0.00
~75th_centile	2.70	3.42	4.79	1.74	1.10	0.66	4.42	4.40	4.53	0.00

2024 Dollars

Unit Types	Coal - Small Sub Critical	Coal - Large Sub Critical	Coal - Super Critical	Gas - Steam	Gas - Large Frame CT	Gas - Aero Derivative CT	Typical CC [GT+HRSG+ST]	High Eff. - CC [GT+HRSG+ST]	Fast Start - CC [GT+HRSG+ST]	Gas - Recip. [per Engine]
Typical Non-cycling Related Costs										
- Baseload Variable Cost (\$/MWH)										
Median	2.20	3.30	5.10	0.40	0.80	0.60	2.80	2.40	2.30	
~25th_centile	1.40	2.20	4.30	0.30	0.60	0.20	2.20	1.70	1.70	
~75th_centile	3.30	4.70	6.50	2.30	1.50	0.90	5.90	5.90	6.10	

AB32

Price penalty on imported GHG to California

NOMOGRAM_GENERAL							
Name	Monitored	Limit_UC	Limit_ED	Penalty_UC(\$/MWh)	Penalty_ED(\$/MWh)	Notes	LMPCalculationFlag
w_AB32_NW_Tier1_Exports	YES	0	0	25.538	25.538		#TRUE#

NOMOGRAM		<Public>	
NomogramName	Item Type	ItemName	ItemCoefficient
w_AB32_NW_Tier1_Exports	0	ArlingtonWind	-1
w_AB32_NW_Tier1_Exports	0	Bonneville	-1
w_AB32_NW_Tier1_Exports	0	Chief Joseph	-1
w_AB32_NW_Tier1_Exports	0	Columbia2	-1
w_AB32_NW_Tier1_Exports	0	Condon Wind	-1
w_AB32_NW_Tier1_Exports	0	DokieWind1	-1
w_AB32_NW_Tier1_Exports	0	DokieWind2	-1
w_AB32_NW_Tier1_Exports	0	DokieWind3	-1
w_AB32_NW_Tier1_Exports	0	DokieWind4	-1
w_AB32_NW_Tier1_Exports	0	DokieWind5	-1
w_AB32_NW_Tier1_Exports	0	DokieWind6	-1
w_AB32_NW_Tier1_Exports	0	EurusCombinHill	-1
w_AB32_NW_Tier1_Exports	0	Grand Coulee	-1
w_AB32_NW_Tier1_Exports	0	Harvest Wind	-1
w_AB32_NW_Tier1_Exports	0	Horseshoe Bend Wind	-1
w_AB32_NW_Tier1_Exports	0	Ice Harbor	-1
w_AB32_NW_Tier1_Exports	0	John Day	-1
w_AB32_NW_Tier1_Exports	0	Klondike Wind 1-2	-0.25
w_AB32_NW_Tier1_Exports	0	Klondike Wind III-1	-0.7763
w_AB32_NW_Tier1_Exports	0	Klondike Wind III-2	-1
w_AB32_NW_Tier1_Exports	0	LindenWind	-1
w_AB32_NW_Tier1_Exports	0	Little Goose	-1
w_AB32_NW_Tier1_Exports	0	Lower Granite	-1
w_AB32_NW_Tier1_Exports	0	Lower Monumental	-1
w_AB32_NW_Tier1_Exports	0	McNary	-1
w_AB32_NW_Tier1_Exports	0	Nine Canyon Wind	-0.3813
w_AB32_NW_Tier1_Exports	0	North Hurlburt Wind	-1
w_AB32_NW_Tier1_Exports	0	PebbleSprings	-1
w_AB32_NW_Tier1_Exports	0	South Hurlburt Wind	-1
w_AB32_NW_Tier1_Exports	0	Star Point Wind	-1
w_AB32_NW_Tier1_Exports	0	The Dalles	-1
w_AB32_NW_Tier1_Exports	0	Tuolumne Wind	-1
w_AB32_NW_Tier1_Exports	0	Vantage	-1
w_AB32_NW_Tier1_Exports	0	White_Creek1	-1
w_AB32_NW_Tier1_Exports	0	WillowCreekEC	-1
w_AB32_NW_Tier1_Exports	0	WindyFlats2	-1
w_AB32_NW_Tier1_Exports	1	P65 Pacific DC Intertie (PDCI)	1
w_AB32_NW_Tier1_Exports	1	P66 COI	1
w_AB32_NW_Tier1_Exports	3	BPAT	1.374308



Electric Reliability and Security for the West

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