

# Market Monitor Report

MC Webinar  
07.31.2025

IMM



Monitoring Analytics

# CURRENT ISSUES



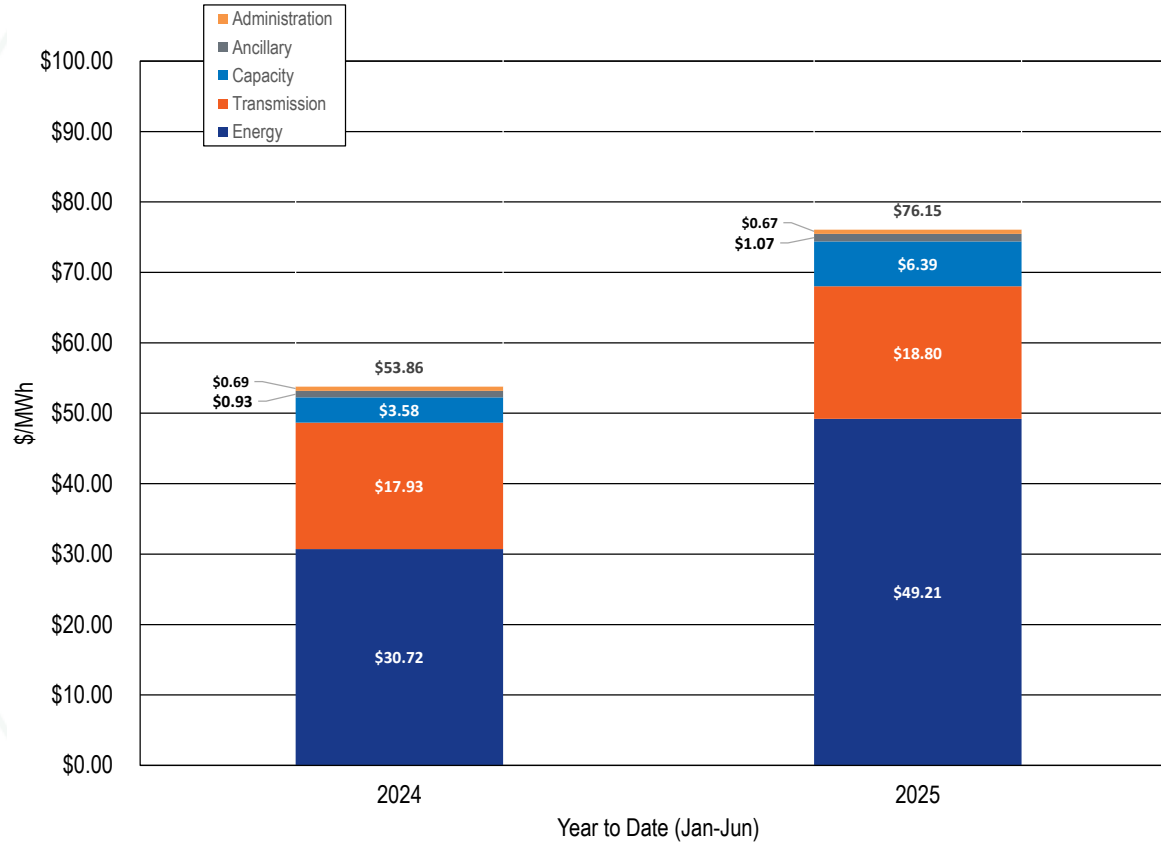
## 2026/2027 BRA Results

- **PJM capacity market cleared capacity was 208.7 MW short of the reliability requirement.**
- **Reliability requirement used in the auction clearing:**
  - **134,519.5 MW**
- **Cleared MW in the auction plus PRD:**
  - **134,310.8 MW**
- **Difference:**
  - **(208.7) MW**

## BRA Results

- **FRR plan MW minus obligation MW (excess) do not offset the shortfall in the PJM capacity market.**
- **In PJM's BRA Report, PJM netted the capacity market shortfall of 208.7 MW against FRR excess of 347.7 MW to conclude that procured capacity was 139.0 MW above the reliability requirement.**
- **FRR excess MW are added by FRR entities per tariff requirement associated with the Threshold Quantity requirement for FRR entities to sell capacity in an auction.**
- **Any MW owned by FRR entity in excess of FRR plan committed MW can be sold.**

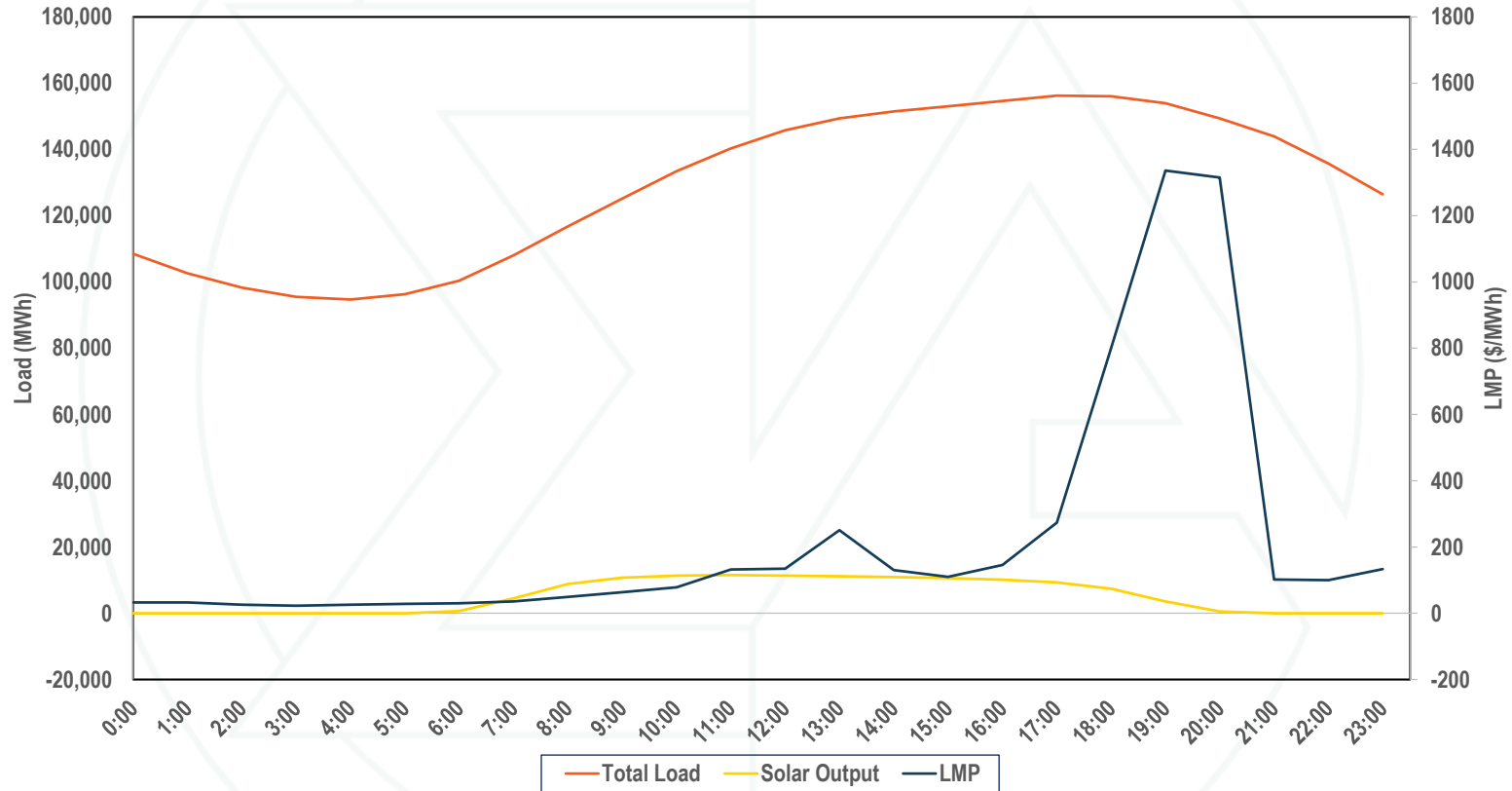
# Total Cost of Wholesale Power



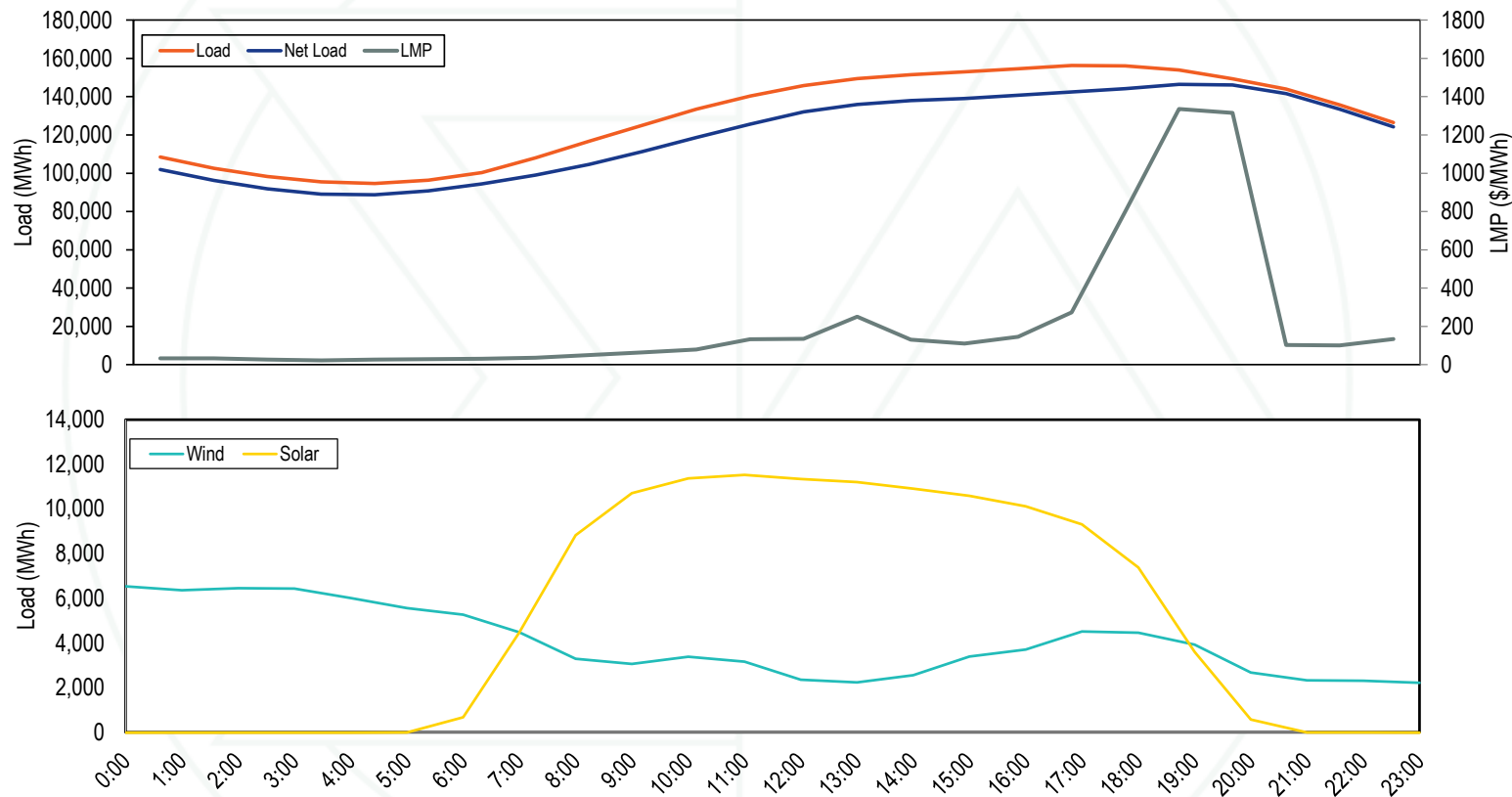
# Total Cost of Wholesale Power

Category	2024 (Jan-Jun) \$/MWh	2024 (Jan-Jun) (\$ Millions)	2024 (Jan-Jun) Percent of Total	2025 (Jan-Jun) \$/MWh	2025 (Jan-Jun) (\$ Millions)	2025 (Jan-Jun) Percent of Total	Percent Change
Energy	\$30.72	\$11,776	57.0%	\$49.21	\$19,431	64.6%	60.2%
Day Ahead Energy	\$31.26	\$11,981	58.0%	\$49.09	\$19,382	64.5%	57.0%
Balancing Energy	\$0.62	\$239	1.2%	\$1.17	\$461	1.5%	87.6%
ARR Credits	(\$1.30)	(\$497)	(2.4%)	(\$1.47)	(\$580)	(1.9%)	13.2%
Self Scheduled FTR Credits	(\$0.41)	(\$158)	(0.8%)	(\$1.26)	(\$499)	(1.7%)	205.9%
Balancing Congestion	\$0.42	\$160	0.8%	\$0.76	\$302	1.0%	82.7%
Emergency Energy	\$0.00	\$0	0.0%	\$0.01	\$6	0.0%	0.0%
Inadvertent Energy	\$0.01	\$4	0.0%	(\$0.01)	(\$6)	(0.0%)	(238.8%)
Load Response - Energy	\$0.01	\$4	0.0%	\$0.04	\$15	0.0%	256.0%
Emergency Load Response	\$0.00	\$0	0.0%	\$0.00	\$0	0.0%	0.0%
Energy Uplift (Operating Reserves)	\$0.44	\$168	0.8%	\$1.44	\$567	1.9%	227.2%
Marginal Loss Surplus Allocation	(\$0.40)	(\$154)	(0.7%)	(\$0.67)	(\$266)	(0.9%)	67.5%
Market to Market Payments	\$0.07	\$28	0.1%	\$0.12	\$47	0.2%	60.5%
Capacity	\$3.58	\$1,372	6.6%	\$6.39	\$2,524	8.4%	78.5%
Capacity (Capacity Market and FRR)	\$3.49	\$1,336	6.5%	\$6.32	\$2,497	8.3%	81.4%
Capacity Part V (RMR)	\$0.09	\$36	0.2%	\$0.07	\$27	0.1%	(28.7%)
Load Response - Capacity	\$0.00	\$0	0.0%	\$0.00	\$0	0.0%	0.0%
Transmission	\$17.93	\$6,874	33.3%	\$18.80	\$7,424	24.7%	4.8%
Transmission Service Charges	\$15.20	\$5,826	28.2%	\$15.94	\$6,293	20.9%	4.8%
Transmission Enhancement Cost Recovery	\$2.64	\$1,012	4.9%	\$2.77	\$1,094	3.6%	4.9%
Transmission Owner (Schedule 1A)	\$0.09	\$36	0.2%	\$0.09	\$37	0.1%	1.1%
Transmission Seams Elimination Cost Assignment (SECA)	\$0.00	\$0	0.0%	\$0.00	\$0	0.0%	0.0%
Transmission Facility Charges	\$0.00	\$0	0.0%	\$0.00	\$0	0.0%	0.0%
Ancillary	\$0.93	\$356	1.7%	\$1.07	\$422	1.4%	15.1%
Reactive	\$0.50	\$192	0.9%	\$0.47	\$185	0.6%	(6.3%)
Regulation	\$0.22	\$84	0.4%	\$0.32	\$126	0.4%	45.1%
Black Start	\$0.09	\$35	0.2%	\$0.07	\$29	0.1%	(21.7%)
Synchronized Reserves	\$0.10	\$39	0.2%	\$0.19	\$74	0.2%	82.1%
Secondary Reserves	\$0.00	\$1	0.0%	\$0.01	\$2	0.0%	164.1%
Non-Synchronized Reserves	\$0.01	\$5	0.0%	\$0.02	\$6	0.0%	34.5%
Day Ahead Scheduling Reserve (DASR)	\$0.00	\$0	0.0%	\$0.00	\$0	0.0%	0.0%
Administration	\$0.69	\$263	1.3%	\$0.67	\$266	0.9%	(1.6%)
PJM Administrative Fees	\$0.63	\$243	1.2%	\$0.63	\$248	0.8%	(1.1%)
NERC/RFC	\$0.04	\$16	0.1%	\$0.04	\$17	0.1%	0.9%
RTO Startup and Expansion	\$0.00	\$0	0.0%	\$0.00	\$0	0.0%	0.0%
Other	\$0.01	\$3	0.0%	\$0.00	\$2	0.0%	(45.9%)
Total Price	\$53.86	\$20,641	100.0%	\$76.15	\$30,067	100.0%	41.4%
Total Day Ahead Load	378,338			388,687			2.7%
Total Balancing Load	(4,928)			(6,155)			24.9%
Total Real Time Load	383,266			394,842			3.0%
Total Cost (\$ Billions)	\$20.64			\$30.07			45.7%

# June 23, 2025 Load, LMP and Solar

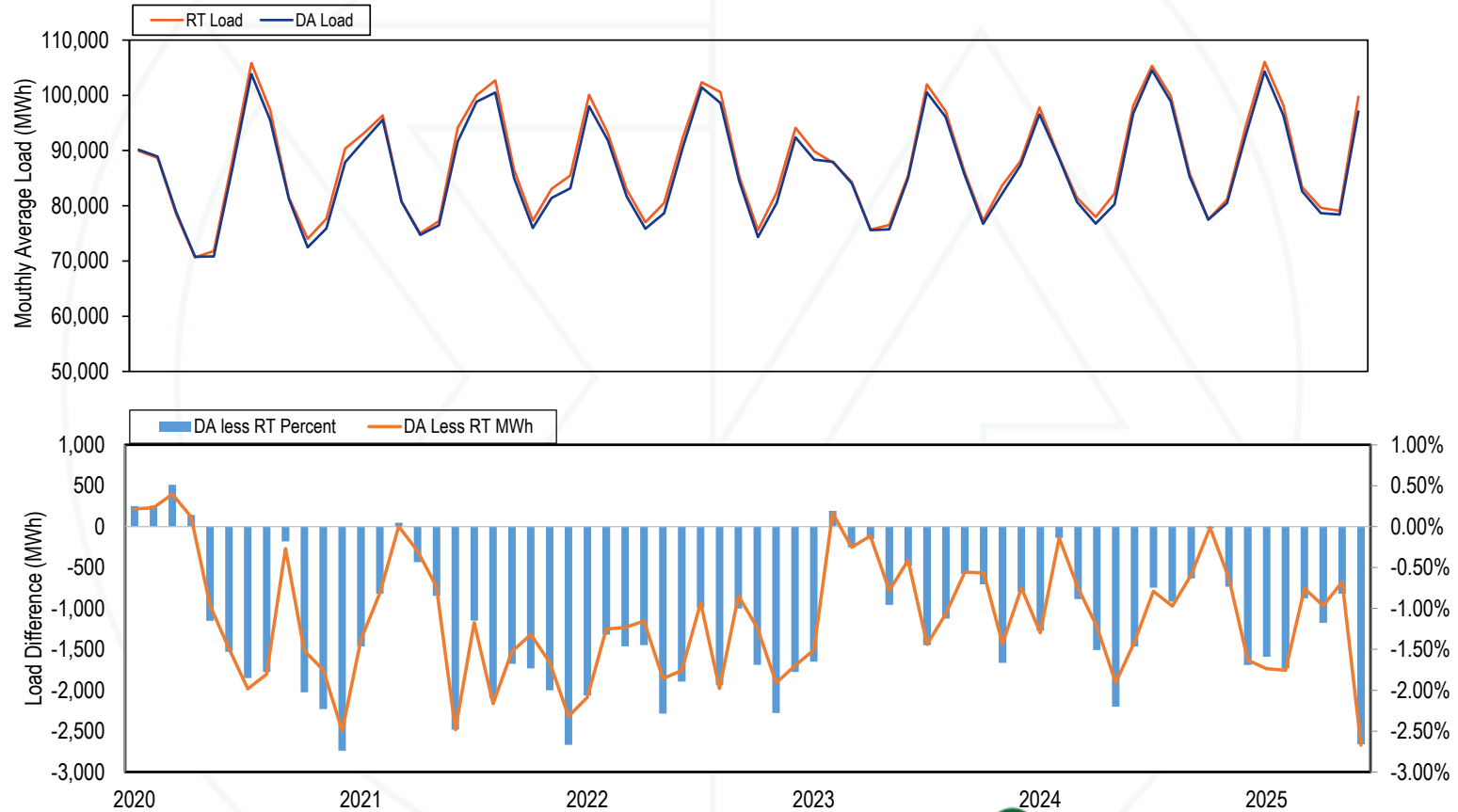


# Jun 23, 2025 Net Load, LMP, Solar and Wind

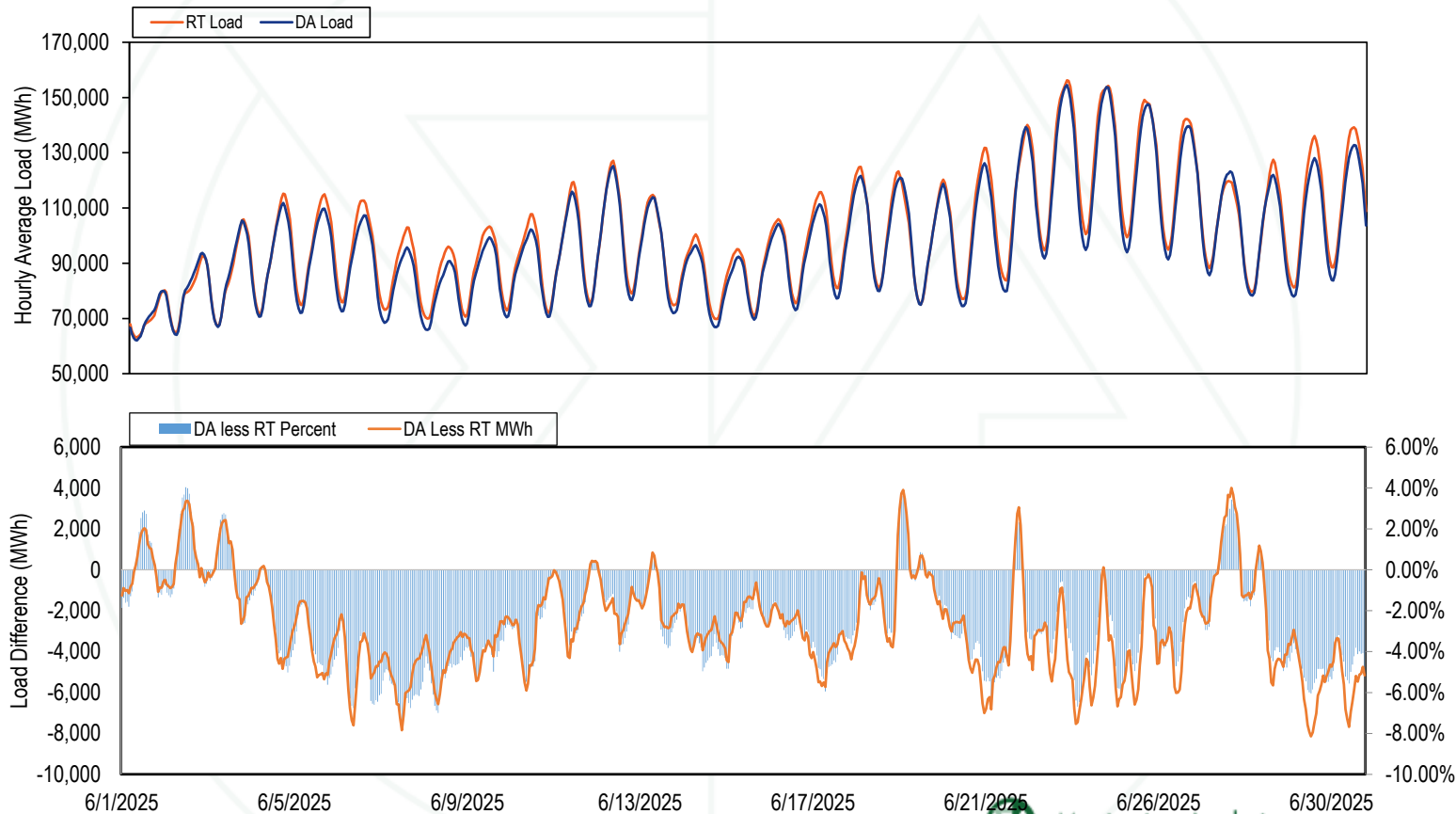




# DA vs RT Load Bidding Difference History



# DA vs RT Hourly Load Bidding Difference, June 2025



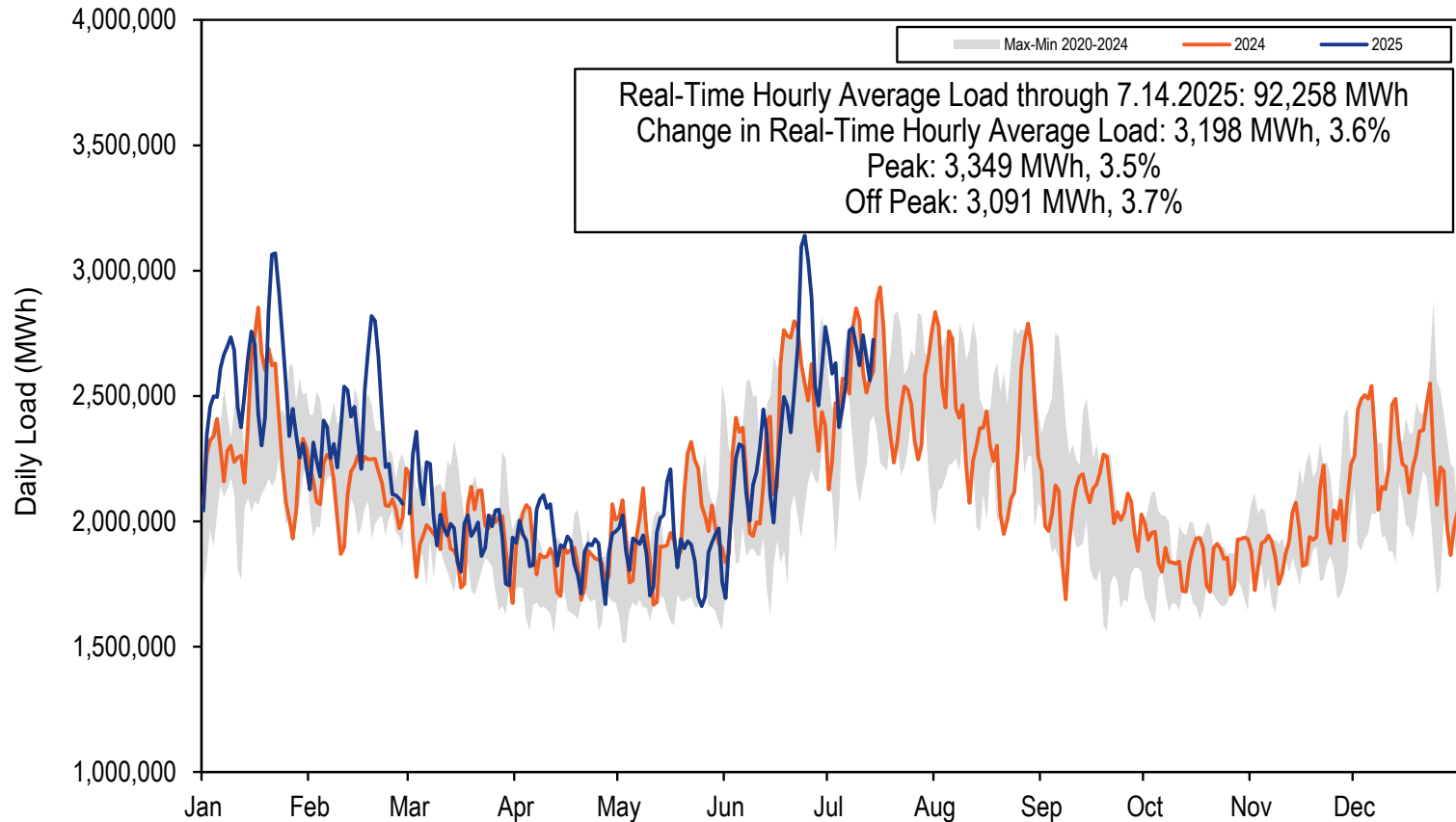
# YEAR TO DATE UPDATE



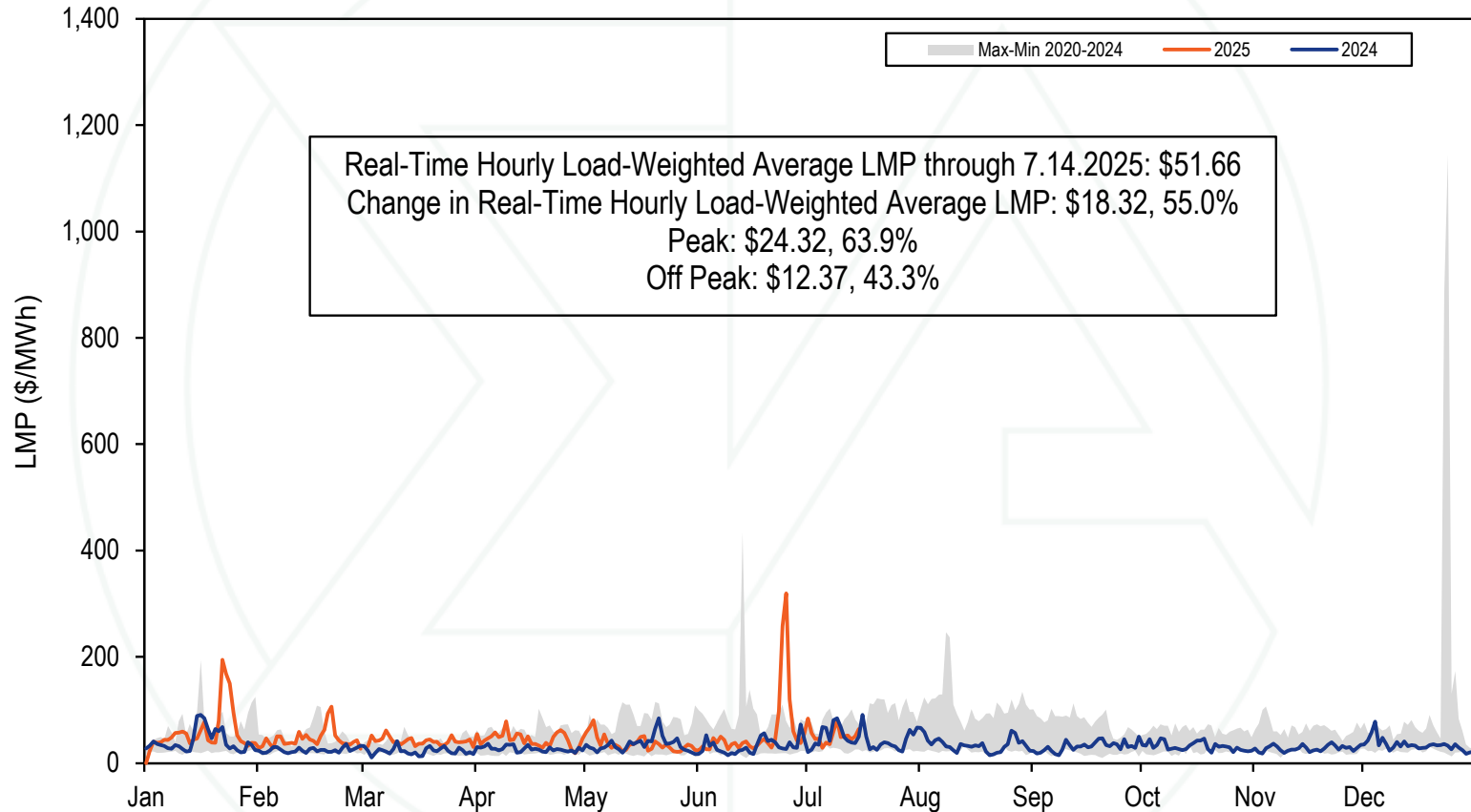
# Peak Load by Season

Peak Load by Season												
Summer Peak Load Hour							Winter Peak Load Hour					
Year	Date	Hour Ending	RT Load (MWh)	Net Export (MWh)	RT Generation (MWh)	LMP (\$/MWh)	Date	Hour Ending	RT Load (MWh)	Net Export (MWh)	RT Generation (MWh)	LMP (\$/MWh)
2004	Tuesday, August 3, 2004	17	77,950	435	78,666	\$90.55	Monday, December 20, 2004	19	96,838	1,796	98,797	\$129.90
2005	Tuesday, July 26, 2005	16	134,017	(2,206)	131,975	\$156.02	Wednesday, December 14, 2005	19	110,632	(376)	110,406	\$163.45
2006	Wednesday, August 2, 2006	17	144,904	(782)	143,957	\$404.80	Friday, December 8, 2006	19	106,866	873	108,002	\$83.17
2007	Wednesday, August 8, 2007	16	136,368	404	140,170	\$471.98	Monday, February 5, 2007	20	119,072	(3,964)	115,252	\$178.18
2008	Monday, June 9, 2008	17	127,216	2,862	125,804	\$155.67	Thursday, January 3, 2008	19	109,239	(641)	112,339	\$130.11
2009	Monday, August 10, 2009	17	123,900	163	127,229	\$85.64	Friday, January 16, 2009	19	114,765	(2,316)	115,093	\$80.73
2010	Tuesday, July 6, 2010	17	133,297	(247)	136,442	\$194.02	Tuesday, December 14, 2010	19	113,121	(1,688)	115,284	\$137.02
2011	Thursday, July 21, 2011	17	154,095	(5,906)	151,790	\$162.28	Monday, January 24, 2011	8	108,156	(1,218)	109,394	\$176.49
2012	Tuesday, July 17, 2012	17	150,879	(4,825)	149,582	\$203.72	Tuesday, January 3, 2012	19	119,450	109	122,802	\$67.07
2013	Thursday, July 18, 2013	17	153,790	(7,607)	149,806	\$244.92	Tuesday, January 22, 2013	19	123,473	(3,412)	123,283	\$119.20
2014	Tuesday, June 17, 2014	18	138,448	(7,382)	134,914	\$113.51	Tuesday, January 7, 2014	19	136,932	(9,127)	131,731	\$386.36
2015	Tuesday, July 28, 2015	17	140,266	(3,942)	139,450	\$101.40	Friday, February 20, 2015	8	139,647	(6,994)	137,504	\$381.93
2016	Thursday, August 11, 2016	16	148,577	1,235	153,820	\$128.83	Thursday, December 15, 2016	19	127,759	(2,946)	128,979	\$107.06
2017	Wednesday, July 19, 2017	18	142,387	3,166	148,409	\$59.49	Monday, January 9, 2017	8	124,210	(1,054)	126,761	\$67.72
2018	Tuesday, August 28, 2018	17	147,042	3,238	154,067	\$131.36	Friday, January 5, 2018	19	133,851	(403)	137,173	\$164.15
2019	Friday, July 19, 2019	18	148,228	3,253	154,542	\$37.47	Thursday, January 31, 2019	8	134,060	1,077	138,744	\$85.21
2020	Monday, July 20, 2020	17	141,449	6,013	150,667	\$74.91	Wednesday, January 22, 2020	8	116,761	4,230	123,609	\$31.76
2021	Tuesday, August 24, 2021	17	145,563	2,984	151,708	\$243.98	Friday, January 29, 2021	9	114,457	3,200	120,648	\$27.87
2022	Wednesday, July 20, 2022	18	144,356	3,190	151,620	\$204.29	Friday, December 23, 2022	19	131,474	3,340	136,132	\$2,011.80
2023	Thursday, July 27, 2023	18	144,215	7,211	151,896	\$110.52	Friday, February 3, 2023	20	117,705	746	121,952	\$56.22
2024	Tuesday, July 16, 2024	18	148,890	508	152,864	\$384.56	Wednesday, January 17, 2024	9	130,293	9,291	143,324	\$103.66
2025	Monday, June 23, 2025	18	156,256	2,533	162,599	\$273.39	Wednesday, January 22, 2025	9	140,043	7,660	151,437	\$355.76

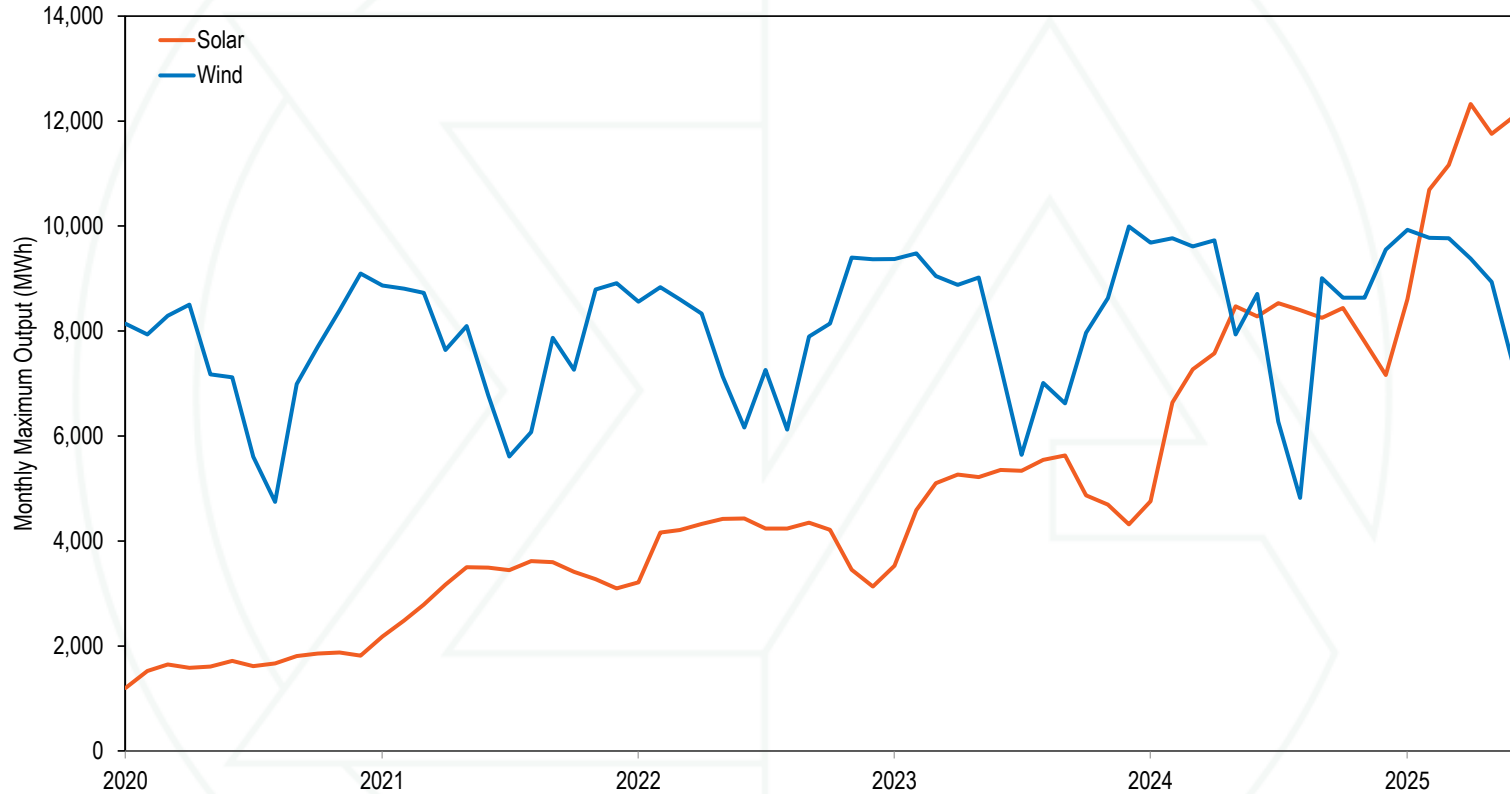
# 2024 YTD PJM Real-Time Daily Load



# 2024 YTD PJM Real-Time Daily LMP



# Monthly Maximum Solar and Wind Hourly Output



# Annual Maximum Hourly Solar and Wind Output

Year	Solar Maximum Hourly Output			Solar Percent of All Generation For The Year	Wind Maximum Hourly Output			Wind Percent of All Generation For The Year
	Maximum Hourly MWh	Change	Percent Change		Maximum Hourly MWh	Change	Percent Change	
2020	1,879			0.4%	9,095			3.3%
2021	3,617	1,739	92.5%	0.9%	8,911	(184)	(2.0%)	3.3%
2022	4,429	812	22.4%	1.1%	9,402	491	5.5%	3.8%
2023	5,630	1,201	27.1%	1.4%	9,993	592	6.3%	3.5%
2024	8,532	2,901	51.5%	2.1%	9,768	(226)	(2.3%)	3.7%
2025	12,325	3,794	44.5%	2.9%	9,929	161	1.7%	4.5%



# Real-Time Load-Weighted Average LMP

	2024				2025			
	Off Peak	On Peak	Difference	Percent Difference	Off Peak	On Peak	Difference	Percent Difference
Jan	\$38.50	\$47.10	\$8.60	22.3%	\$55.29	\$70.54	\$15.25	27.6%
Feb	\$24.49	\$25.23	\$0.74	3.0%	\$43.75	\$54.12	\$10.37	23.7%
Mar	\$21.64	\$24.79	\$3.15	14.6%	\$38.89	\$45.68	\$6.79	17.5%
Apr	\$23.99	\$30.03	\$6.04	25.2%	\$38.15	\$52.08	\$13.93	36.5%
May	\$28.99	\$42.74	\$13.75	47.4%	\$27.32	\$45.53	\$18.21	66.7%
Jun	\$26.66	\$40.04	\$13.38	50.2%	\$39.62	\$94.51	\$54.89	138.5%
Jul	\$32.20	\$60.78	\$28.58	88.7%				
Aug	\$26.71	\$44.99	\$18.28	68.5%				
Sep	\$24.53	\$39.42	\$14.89	60.7%				
Oct	\$26.60	\$36.49	\$9.89	37.2%				
Nov	\$23.80	\$33.18	\$9.38	39.4%				
Dec	\$31.60	\$38.70	\$7.10	22.5%				

# FAST START



# Fast Start Pricing: DLMP and PLMP

- **PJM implemented fast start pricing in both the day-ahead and real-time markets on September 1, 2021.**
- **The goal of fast start pricing is to allow inflexible resources to set prices based on the sum of their commitment costs per MWh and their marginal costs.**
- **The pricing run LMP (PLMP) is now the official settlement LMP in PJM, replacing the dispatch run LMP (DLMP)**

# Fast Start Pricing: DLMP and PLMP

- **Fast start pricing employs a new LMP calculation called the pricing run.**
- **The pricing run calculates LMP using the same optimal power flow algorithm as the dispatch run while simultaneously reducing (“relaxing” or ignoring) the economic minimum and maximum output MW constraints for all eligible fast start units.**

## Fast Start Pricing: DLMP and PLMP

- The price signal no longer equals the short run marginal cost and therefore no longer provides the correct signal for efficient behavior for market participants making decisions on the margin.
- The differences between the actual LMP (DLMP) and the fast start LMP (PLMP) distort the incentive for market participants to behave competitively and to follow PJM's dispatch instructions.

# Fast Start Pricing: DLMP and PLMP

- **PJM also uses the pricing run for capping the system marginal price at \$3,700 per MWh.**
  - **This was last used during Winter Storm Elliott.**
  - **The cap applies to the marginal energy component of LMP, but the congestion and loss components of LMP can exceed the cap.**
- **PJM uses a lower default transmission constraint penalty factor in the pricing run in the day-ahead market.**
  - **\$30,000 per MWh in the dispatch run**
  - **\$2,000 per MWh in the pricing run**

# Monthly Average Load-Weighted DLMP and PLMP

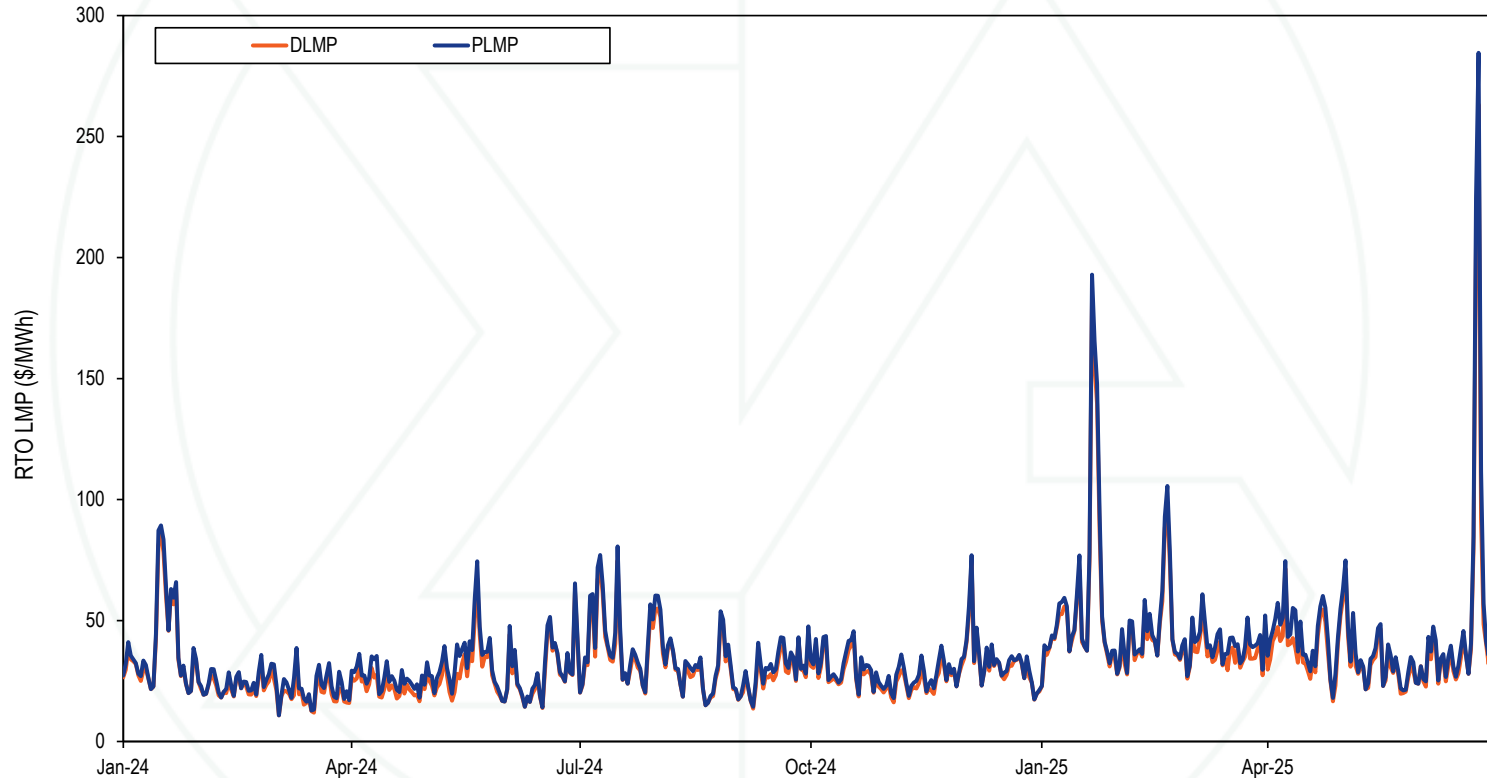
Year	Month	Day-Ahead Load-Weighted				Real-Time Load-Weighted Average			
		DLMP	PLMP	Difference	Percent Difference	DLMP	PLMP	Difference	Percent Difference
2024	Jan	\$48.45	\$48.65	\$0.20	0.4%	\$40.82	\$42.78	\$1.95	4.8%
2024	Feb	\$23.67	\$23.70	\$0.03	0.1%	\$23.20	\$24.86	\$1.66	7.2%
2024	Mar	\$21.89	\$21.93	\$0.04	0.2%	\$20.30	\$23.15	\$2.85	14.0%
2024	Apr	\$26.73	\$26.75	\$0.02	0.1%	\$23.29	\$27.17	\$3.87	16.6%
2024	May	\$32.92	\$32.90	(\$0.02)	(0.1%)	\$31.70	\$36.16	\$4.46	14.1%
2024	Jun	\$32.59	\$32.62	\$0.03	0.1%	\$31.95	\$33.35	\$1.40	4.4%
2024	Jul	\$44.51	\$44.69	\$0.18	0.4%	\$44.12	\$47.17	\$3.04	6.9%
2024	Aug	\$36.34	\$36.31	(\$0.03)	(0.1%)	\$34.37	\$36.29	\$1.92	5.6%
2024	Sep	\$30.63	\$30.77	\$0.14	0.4%	\$29.32	\$31.81	\$2.48	8.5%
2024	Oct	\$33.18	\$33.26	\$0.08	0.2%	\$29.85	\$31.87	\$2.02	6.8%
2024	Nov	\$29.78	\$29.82	\$0.04	0.1%	\$25.70	\$28.26	\$2.55	9.9%
2024	Dec	\$36.98	\$37.05	\$0.06	0.2%	\$33.62	\$34.98	\$1.36	4.0%
2024	Jan-Jun	\$36.95	\$37.08	\$0.12	0.3%	\$32.71	\$34.53	\$1.82	5.6%
2024		\$33.72	\$33.79	\$0.07	0.2%	\$31.31	\$33.74	\$2.43	7.7%
2025	Jan	\$67.53	\$67.74	\$0.21	0.3%	\$59.93	\$62.87	\$2.94	4.9%
2025	Feb	\$48.85	\$49.02	\$0.16	0.3%	\$46.27	\$48.90	\$2.62	5.7%
2025	Mar	\$40.76	\$40.74	(\$0.03)	(0.1%)	\$37.82	\$42.11	\$4.30	11.4%
2025	Apr	\$44.36	\$44.35	(\$0.01)	(0.0%)	\$40.07	\$45.42	\$5.35	13.4%
2025	May	\$37.56	\$37.40	(\$0.16)	(0.4%)	\$33.98	\$36.34	\$2.36	6.9%
2025	Jun	\$53.01	\$53.14	\$0.13	0.2%	\$62.53	\$68.13	\$5.60	9.0%
2025	Jan-Jun	\$59.01	\$59.20	\$0.19	0.3%	\$53.71	\$56.51	\$2.80	5.2%

# Real Time Fast Start Impact

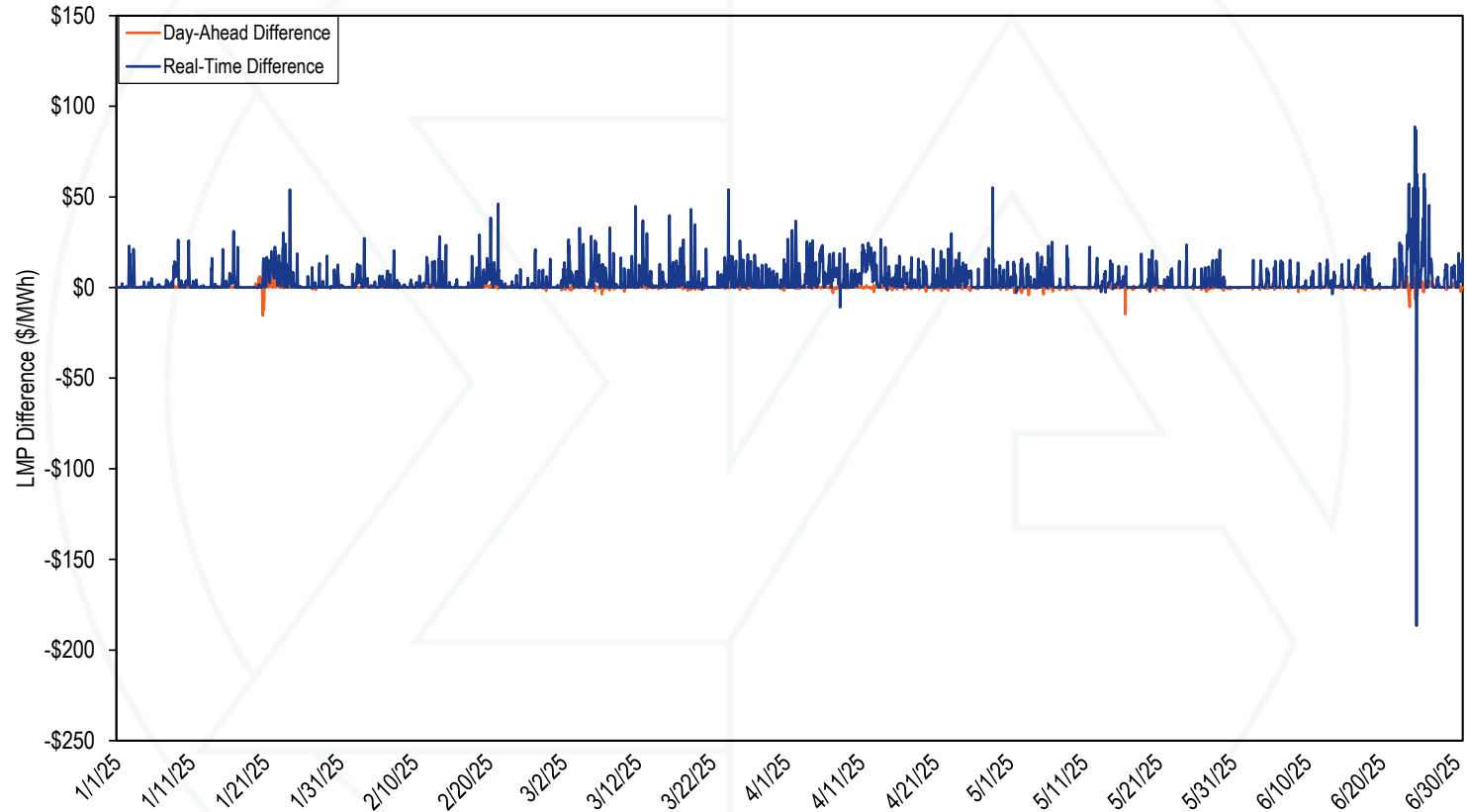
Month	2022 (In Millions)	2023 (In Millions)	2024 (In Millions)	2025 (In Millions)
Jan	196.33	72.89	142.06	232.11
Feb	52.11	33.74	103.17	173.03
Mar	106.74	53.11	172.59	266.16
Apr	195.22	121.28	217.50	306.90
May	247.03	143.80	272.73	138.96
Jun	429.42	98.31	98.74	402.22
Jul	643.44	217.56	238.39	
Aug	602.88	112.21	142.81	
Sep	259.08	137.94	153.65	
Oct	204.26	239.25	116.28	
Nov	122.77	152.91	149.38	
Dec	(99.68)	104.53	95.35	
Total	2,959.60	1,487.52	1,902.66	



# Daily Average Real-Time DLMP and PLMP



# Hourly Difference: PLMP – DLMP



# Fast Start Units as a Percent of Marginal Units

Dispatch Run							Pricing Run				
Year	Month	CT	Diesel	Wind	Solar	All Fast Start Units	CT	Diesel	Wind	Solar	All Fast Start Units
2024	Jan	0.7%	0.6%	0.0%	0.0%	1.3%	3.5%	1.1%	0.0%	0.0%	4.7%
2024	Feb	0.4%	0.1%	0.1%	0.0%	0.5%	2.2%	0.1%	0.1%	0.0%	2.4%
2024	Mar	0.7%	0.2%	1.2%	0.0%	2.1%	4.1%	0.8%	1.3%	0.0%	6.2%
2024	Apr	1.5%	0.2%	0.2%	0.0%	1.9%	6.5%	0.7%	0.1%	0.0%	7.3%
2024	May	0.6%	0.2%	0.1%	0.0%	1.0%	5.1%	0.6%	0.1%	0.0%	5.8%
2024	Jun	0.5%	0.3%	0.1%	0.0%	0.8%	3.5%	0.4%	0.1%	0.0%	4.0%
2024	Jul	0.8%	0.5%	0.0%	0.1%	1.4%	7.4%	1.0%	0.0%	0.1%	8.5%
2024	Aug	0.6%	0.5%	0.0%	0.0%	1.1%	5.0%	1.0%	0.0%	0.0%	6.0%
2024	Sep	1.0%	0.1%	0.0%	0.0%	1.1%	7.1%	0.4%	0.0%	0.0%	7.6%
2024	Oct	1.2%	0.1%	0.0%	0.0%	1.3%	6.4%	1.3%	0.0%	0.0%	7.7%
2024	Nov	1.0%	0.2%	0.0%	0.1%	1.4%	6.2%	0.6%	0.0%	0.1%	7.0%
2024	Dec	0.5%	0.2%	0.0%	0.0%	0.7%	2.2%	0.6%	0.0%	0.0%	2.9%
2024	Jan-Jun	0.7%	0.3%	0.3%	0.0%	1.3%	4.1%	0.6%	0.3%	0.0%	5.1%
2024		0.8%	0.3%	0.2%	0.0%	1.2%	4.9%	0.7%	0.2%	0.0%	5.8%
2025	Jan	0.8%	0.6%	0.1%	0.0%	1.5%	4.5%	2.1%	0.1%	0.0%	6.8%
2025	Feb	1.5%	0.1%	0.4%	0.0%	2.0%	3.7%	0.6%	0.3%	0.0%	4.6%
2025	Mar	0.5%	4.5%	0.1%	0.2%	5.2%	3.4%	5.0%	0.1%	0.2%	8.6%
2025	Apr	1.9%	1.8%	0.3%	0.1%	4.1%	7.1%	2.2%	0.3%	0.1%	9.7%
2025	May	0.6%	0.3%	0.0%	0.0%	1.0%	3.9%	1.5%	0.0%	0.0%	5.4%
2025	Jun	1.4%	0.2%	0.0%	0.0%	1.6%	6.2%	0.8%	0.0%	0.0%	7.0%
2025	Jan-Jun	1.1%	1.3%	0.1%	0.1%	2.6%	4.8%	2.0%	0.1%	0.0%	7.0%

# Fast Start Impacts: Zone Average Differences

Zone	2025 Jan-Jun							
	Day-Ahead				Real-Time			
	Average DLMP	Average PLMP	Difference	Percent Difference	Average DLMP	Average PLMP	Difference	Percent Difference
ACEC	\$32.21	\$32.27	\$0.06	0.2%	\$30.26	\$32.26	\$2.00	6.6%
AEP	\$35.75	\$35.80	\$0.05	0.1%	\$33.51	\$36.23	\$2.72	8.1%
APS	\$36.89	\$36.95	\$0.06	0.2%	\$34.41	\$37.24	\$2.83	8.2%
ATSI	\$35.99	\$35.98	(\$0.00)	(0.0%)	\$33.17	\$35.82	\$2.65	8.0%
BGE	\$44.86	\$44.94	\$0.08	0.2%	\$41.34	\$44.74	\$3.40	8.2%
COMED	\$28.00	\$28.07	\$0.07	0.3%	\$25.66	\$27.87	\$2.22	8.6%
DAY	\$36.83	\$36.89	\$0.06	0.2%	\$34.03	\$36.84	\$2.81	8.2%
DUKE	\$35.42	\$35.48	\$0.05	0.2%	\$32.61	\$35.29	\$2.68	8.2%
DOM	\$43.85	\$43.89	\$0.04	0.1%	\$41.38	\$44.46	\$3.08	7.4%
DPL	\$35.57	\$35.66	\$0.09	0.3%	\$32.39	\$35.12	\$2.73	8.4%
DUQ	\$35.08	\$35.12	\$0.04	0.1%	\$32.83	\$35.43	\$2.61	7.9%
EKPC	\$34.90	\$34.95	\$0.06	0.2%	\$32.71	\$35.38	\$2.67	8.2%
JCPLC	\$32.41	\$32.47	\$0.07	0.2%	\$30.55	\$32.61	\$2.06	6.7%
MEC	\$33.98	\$34.04	\$0.06	0.2%	\$31.31	\$33.60	\$2.29	7.3%
OVEC	\$34.04	\$34.10	\$0.05	0.2%	\$31.30	\$33.87	\$2.57	8.2%
PECO	\$31.61	\$31.68	\$0.06	0.2%	\$29.71	\$31.63	\$1.92	6.5%
PE	\$37.32	\$37.36	\$0.03	0.1%	\$34.43	\$37.02	\$2.59	7.5%
PEPCO	\$43.28	\$43.35	\$0.07	0.2%	\$40.19	\$43.41	\$3.22	8.0%
PPL	\$31.35	\$31.42	\$0.07	0.2%	\$29.22	\$31.33	\$2.10	7.2%
PSEG	\$32.63	\$32.70	\$0.07	0.2%	\$31.02	\$33.12	\$2.10	6.8%
REC	\$35.22	\$35.29	\$0.07	0.2%	\$33.21	\$35.46	\$2.24	6.8%

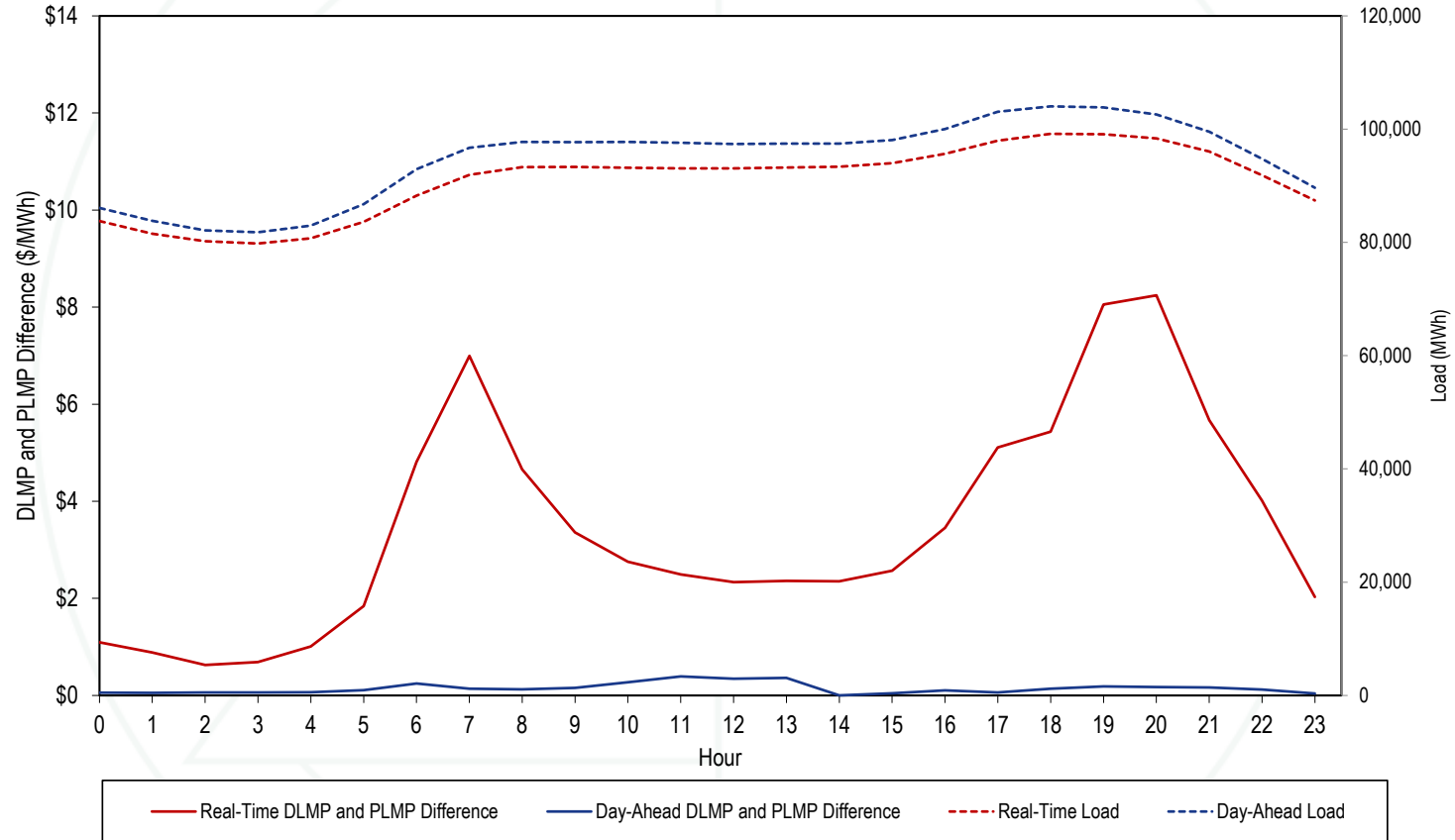
# Fast Start Impacts: Hub Average Differences

Hub	2025 Jan-Jun							
	Average DLMP	Day-Ahead			Average DLMP	Real-Time		
		Average PLMP	Difference	Percent Difference		Average PLMP	Difference	Percent Difference
AEP GEN HUB	\$33.98	\$34.01	\$0.03	0.1%	\$31.34	\$33.93	\$2.59	8.3%
AEP-DAYTON HUB	\$35.17	\$35.20	\$0.03	0.1%	\$32.48	\$35.13	\$2.66	8.2%
ATSI GEN HUB	\$35.44	\$35.43	(\$0.00)	(0.0%)	\$32.38	\$34.97	\$2.59	8.0%
CHICAGO GEN HUB	\$27.34	\$27.42	\$0.08	0.3%	\$24.74	\$26.97	\$2.22	9.0%
CHICAGO HUB	\$28.23	\$28.26	\$0.03	0.1%	\$25.82	\$28.04	\$2.22	8.6%
DOMINION HUB	\$39.46	\$39.48	\$0.03	0.1%	\$36.88	\$39.84	\$2.96	8.0%
EASTERN HUB	\$35.50	\$35.56	\$0.06	0.2%	\$32.26	\$34.98	\$2.72	8.4%
N ILLINOIS HUB	\$27.90	\$27.99	\$0.09	0.3%	\$25.66	\$27.88	\$2.22	8.7%
NEW JERSEY HUB	\$32.48	\$32.53	\$0.04	0.1%	\$30.70	\$32.77	\$2.07	6.7%
OHIO HUB	\$35.16	\$35.19	\$0.03	0.1%	\$32.49	\$35.14	\$2.65	8.2%
WEST INT HUB	\$36.99	\$36.99	\$0.00	0.0%	\$34.40	\$37.16	\$2.76	8.0%
WESTERN HUB	\$38.52	\$38.55	\$0.03	0.1%	\$35.58	\$38.42	\$2.84	8.0%

# Zonal Real-Time PLMP-DLMP Difference Frequency

Zone	2025 Jan-Jun									
	< (\$50)	(\$50) to (\$10)	(\$10) to \$0	\$0	\$0 to \$10	\$10 to \$20	\$20 to \$50	\$50 to \$100	\$100 to \$200	>= \$200
PJM-RTO	0.0%	0.1%	0.9%	43.8%	44.1%	6.9%	3.6%	0.6%	0.1%	0.0%
ACEC	0.0%	0.1%	5.4%	44.0%	42.2%	4.9%	2.8%	0.6%	0.1%	0.0%
AEP	0.0%	0.0%	1.6%	43.9%	43.0%	6.9%	3.9%	0.6%	0.1%	0.0%
APS	0.0%	0.0%	1.2%	43.8%	43.0%	6.9%	4.2%	0.7%	0.1%	0.0%
ATSI	0.0%	0.0%	1.6%	43.8%	43.5%	6.7%	3.7%	0.6%	0.1%	0.0%
BGE	0.0%	0.1%	2.7%	43.7%	40.0%	7.1%	5.1%	1.1%	0.2%	0.0%
COMED	0.0%	0.0%	7.3%	45.1%	38.7%	5.4%	2.8%	0.5%	0.1%	0.0%
DAY	0.0%	0.1%	1.9%	43.9%	42.7%	6.8%	3.9%	0.7%	0.1%	0.0%
DUKE	0.0%	0.1%	2.0%	44.0%	42.7%	6.7%	3.7%	0.6%	0.1%	0.0%
DOM	0.1%	0.3%	2.6%	43.8%	40.5%	6.8%	4.8%	1.0%	0.2%	0.0%
DPL	0.0%	0.2%	7.9%	44.0%	38.9%	4.9%	3.0%	0.8%	0.3%	0.0%
DUQ	0.0%	0.0%	1.8%	43.8%	43.4%	6.7%	3.6%	0.6%	0.1%	0.0%
EKPC	0.0%	0.0%	1.9%	43.9%	42.9%	6.9%	3.7%	0.6%	0.1%	0.0%
JCPLC	0.0%	0.0%	3.2%	44.0%	44.3%	5.0%	2.8%	0.6%	0.1%	0.0%
MEC	0.0%	0.1%	2.8%	43.8%	43.5%	5.8%	3.3%	0.6%	0.1%	0.0%
OVEC	0.0%	0.2%	2.2%	44.0%	42.7%	6.6%	3.6%	0.6%	0.1%	0.0%
PECO	0.0%	0.1%	7.2%	43.9%	40.6%	4.8%	2.7%	0.6%	0.1%	0.0%
PE	0.0%	0.1%	1.8%	43.6%	43.1%	6.7%	3.9%	0.6%	0.1%	0.0%
PEPCO	0.0%	0.1%	2.6%	43.9%	40.3%	7.0%	5.0%	0.9%	0.2%	0.0%
PPL	0.0%	0.0%	2.8%	43.8%	44.6%	5.3%	2.8%	0.6%	0.1%	0.0%
PSEG	0.0%	0.0%	2.9%	43.9%	44.5%	5.1%	2.9%	0.6%	0.1%	0.0%
REC	0.0%	0.1%	2.8%	43.7%	44.0%	5.6%	3.1%	0.6%	0.1%	0.0%

# Hourly Average Load and PLMP – DLMP Delta

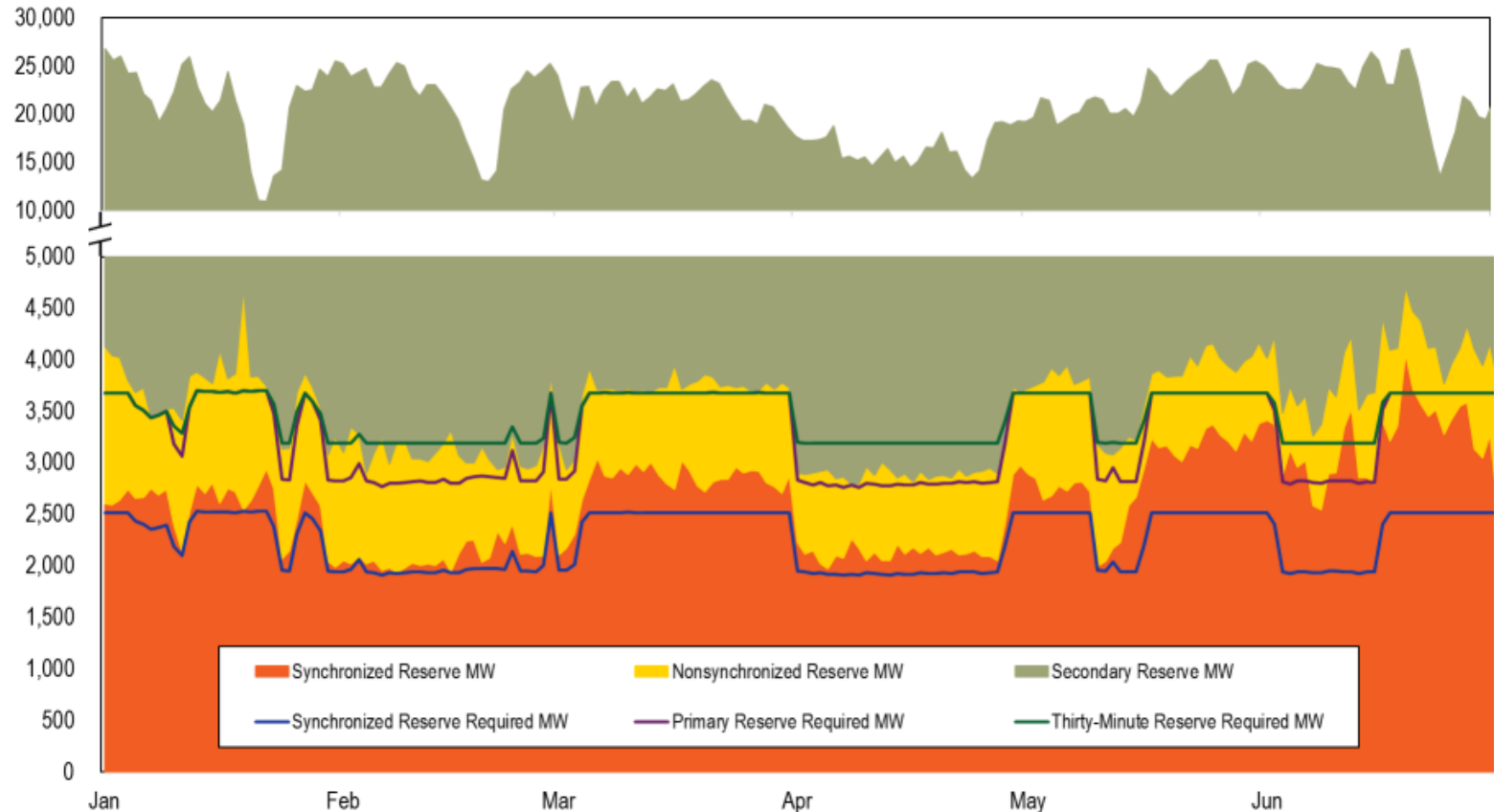


# RESERVES





# Real-Time Average Cleared Reserves and Requirements



# Day-Ahead & Real-Time RTO Average Reserve MW

Year	Month	Average Synchronized Reserve MW		Average Nonsynchronized Reserve MW		Average Total Primary Reserve MW		Average Secondary Reserve MW		Average Total Thirty-Minute Reserve MW	
		DA	RT	DA	RT	DA	RT	DA	RT	DA	RT
2025	Jan	2,637	2,582	1,313	1,130	3,950	3,712	13,079	17,602	17,028	21,313
2025	Feb	2,180	2,111	1,220	1,013	3,400	3,124	13,024	18,628	16,424	21,752
2025	Mar	2,824	2,802	932	881	3,756	3,683	11,763	17,934	15,519	21,617
2025	Apr	2,171	2,183	809	776	2,981	2,959	8,536	13,507	11,517	16,466
2025	May	2,636	2,894	1,021	864	3,657	3,758	11,589	18,348	15,246	22,107
2025	Jun	2,686	3,223	953	734	3,639	3,957	12,801	18,589	16,440	22,546

# Day-Ahead & Real-Time MAD Average Reserve MW

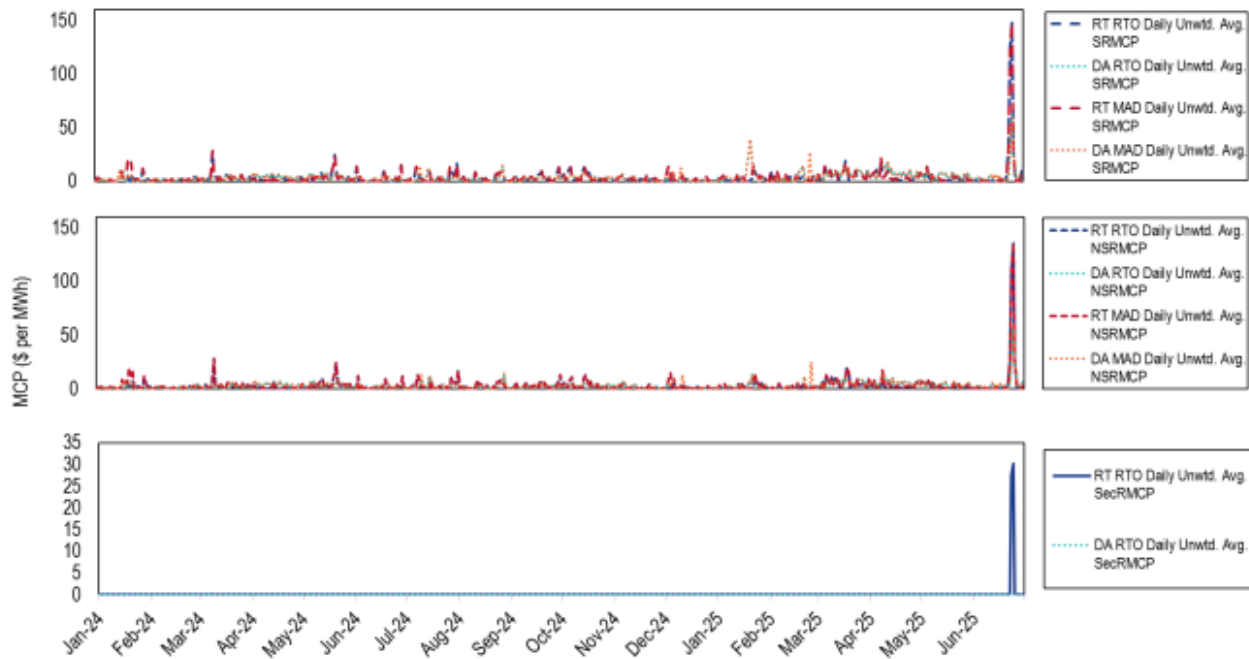
		Average Synchronized Reserve MW		Average Nonsynchronized Reserve MW		Average Total Primary Reserve MW		Average Secondary Reserve MW		Average Total Thirty-Minute Reserve MW	
Year	Month	DA	RT	DA	RT	DA	RT	DA	RT	DA	RT
2025	Jan	2,004	1,985	985	925	2,989	2,909	NA	NA	NA	NA
2025	Feb	1,968	1,971	890	839	2,858	2,810	NA	NA	NA	NA
2025	Mar	2,034	1,966	657	667	2,690	2,633	NA	NA	NA	NA
2025	Apr	1,838	1,783	524	599	2,362	2,382	NA	NA	NA	NA
2025	May	1,819	1,833	592	619	2,411	2,451	NA	NA	NA	NA
2025	Jun	2,036	2,040	575	613	2,611	2,653	NA	NA	NA	NA

# Total Reserve Settlements by Month

Year	Month	Total Day-Ahead Credits			Total Balancing MCP Credits			Total LOC Credits		
		SR	NSR	SecR	SR	NSR	SecR	SR	NSR	SecR
2025	Jan	\$9,766,427	\$1,310,758	\$0	(\$93,903)	(\$807,014)	\$0	\$1,086,575	\$185,652	\$244,917
2025	Feb	\$5,437,781	\$698,931	\$0	(\$126,526)	(\$300,892)	\$0	\$779,549	\$96,940	\$142,489
2025	Mar	\$15,181,061	\$2,079,574	\$0	(\$1,464,818)	(\$446,804)	\$0	\$2,047,630	\$289,671	\$132,092
2025	Apr	\$13,256,012	\$1,984,502	\$0	(\$345,197)	(\$236,456)	\$0	\$1,269,081	\$91,514	\$137,951
2025	May	\$10,685,430	\$1,340,915	\$0	(\$13,056)	(\$142,473)	\$0	\$786,719	\$64,502	\$468,635
2025	Jun	\$15,012,782	\$2,457,199	\$0	(\$4,322,960)	(\$2,281,783)	(\$955,512)	\$4,654,496	\$102,701	\$2,262,656
Year	Month	Total Shortfall Charges			Total Credits					
		SR	NSR	SecR	SR	NSR	SecR			
2025	Jan	\$0	NA	\$0	\$10,759,099	\$689,396	\$244,917			
2025	Feb	\$118,146	NA	\$0	\$5,972,658	\$494,978	\$142,489			
2025	Mar	\$0	NA	\$0	\$15,763,874	\$1,922,440	\$132,092			
2025	Apr	\$0	NA	\$0	\$14,179,896	\$1,839,560	\$137,951			
2025	May	\$0	NA	\$0	\$11,459,093	\$1,262,944	\$468,635			
2025	Jun	\$0	NA	\$0	\$15,344,319	\$278,116	\$1,307,144			

- Only February had a spin event that lasted at least 10 minutes, so only February had synchronized reserve shortfall charges.
- Total credits were higher in June due to dozens of intervals of shortage pricing.

# Reserve Prices: January 2024 through June 2025



- Higher prices in January 2025 during winter storms, cold weather alerts, and conservative operations.
- Higher prices for February 25 due to shortage in DA MAD market.
- Shortage pricing for SR was used on February 5, February 11, Mar 15, April 8, June 22 through June 24, and June 30.
- Shortage pricing for PR was used on February 11, March 12, March 18, March 19, April 8, May 8, and June 22 through June 25.
- Shortage pricing for 30-Minute Reserve was used on June 23 and June 24, so the SecR MCP was non-zero on those days.

**Monitoring Analytics, LLC**

**2621 Van Buren Avenue**

**Suite 160**

**Eagleview, PA**

**19403**

**(610) 271-8050**

**[MA@monitoringanalytics.com](mailto:MA@monitoringanalytics.com)**

**[www.MonitoringAnalytics.com](http://www.MonitoringAnalytics.com)**

