

# Summary of April 8, 2025 Real-time LMP

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Market Implementation Committee  
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- On April 8, 2025, system factors contributed to multiple reserve shortages, detected across reserve products in both the PJM RTO and Mid-Atlantic/Dominion (MAD) reserve sub-zone by the Real-time Security Constrained Economic Dispatch (RTSCED) engine which reflected in the Locational Pricing Calculator (LPC) pricing for that interval.
  - Drastic increase of load during colder than usual morning pick-up
  - Limited ramping capability of generation
  - Loss of approximately 900 MW of imports
- Reserve shortages were declared by the real-time market clearing engine (MCE) for LPC pricing interval (07:00– 7:10) resulting in a system energy component of LMP equal to \$897.78/MWh.

- Three shortage pricing intervals approved by Dispatch between 0700 and 0710 on April 8
- All intervals reviewed and validated during LMP verification on April 9

LPC Interval (Beginning)	Reserve Penalty Factors	Energy LMP
07:00	Subzone PR, RTO PR, RTO SR	\$3,586.99
07:05	Subzone SR, Subzone PR, RTO PR, RTO SR	\$3,700.00
07:10	Subzone PR, RTO PR, RTO SR	\$2,786.10

Active Subzone = MAD

LPC Interval (Beginning)	Locale	Service	Requirement (MW)	Deficit (MW)	Penalty Factor (\$/MW)
07:00	RTO	SR	1920.3	199.4	850
07:00	RTO	PR	2785.4	792.6	850
07:00	MAD	PR	2372.5	379.7	850
07:05	MAD	SR	1645.0	114.2	300
07:05	MAD	PR	2372.5	569.8	850
07:05	RTO	SR	1920.3	389.5	850
07:05	RTO	PR	2785.4	982.7	850
07:10	RTO	SR	1920.3	200.1	850
07:10	RTO	PR	2785.4	793.3	850
07:10	MAD	PR	2372.5	380.4	850

- <https://www.pjm.com/-/media/DotCom/markets-ops/energy/real-time/reserve-shortage-pricing-paper.pdf>
- M-11, section 4
- OA, Schedule 1, Section 2.5

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