

Energy Price Circuit Breaker Joint Stakeholder Package

August 15, 2022



Goal of the Issue Charge

- Explore potential “circuit breaker(s)” or other stop loss approach(es) that could limit extreme pricing whose cost likely far exceeds the value of any contribution to preserving grid reliability



FERC Orders 831 and 831-A

Paragraph 7, 831-A

We deny TAPS' request for rehearing of the \$2,000/MWh level of the hard cap. In Order No. 831, the Commission determined that a hard cap was necessary to limit any adverse impact on LMPs due to imperfect information about a resource's short-run marginal costs that might arise during the verification process. The Commission also recognized that a hard cap that is too low might suppress LMPs below the marginal cost of production. In determining the \$2,000/MWh level of the hard cap, the Commission therefore struck a balance between **competing goals**: (1) limiting any adverse impacts on LMPs due to imperfect information during the verification process and (2) reducing the likelihood of suppressing LMPs below the marginal cost of production.

Order No. 831, FERC Stats. & Regs. ¶ 31,387 at P 87.

Id. P 91.



FERC Orders 831 and 831-A

Paragraph 10, 831-A

Based on the record, the Commission set the level of the hard cap to \$2,000/MWh. The Commission determined that **\$2,000/MWh was the level that short-run marginal costs would rarely exceed**. The cost-based incremental energy offer of \$1,724/MWh referenced in Order No. 831, and which TAPS questions, regardless of the methodology by which it was derived, was only one point of reference for the Commission within the context of the broader record. Specifically, the Commission also examined the evidence in the record regarding high natural gas prices that occurred during the Polar Vortex when some resources experienced short-run marginal costs above \$1,000/MWh.

See id. n.200 (citing *Env'tl. Action, Inc. v. FERC*, 939 F.2d 1057, 1064 (D.C. Cir. 1991) (“it is within the scope of the agency’s expertise to make such a prediction about the market it regulates, and a reasonable prediction deserves our deference notwithstanding that there might also be another reasonable view.”). *See also Michigan Consol. Gas Co. v. FERC*, 883 F.2d 117, 124 (1989) (“It is also quite clear FERC may make predictions—“[m]aking ... predictions is clearly within the Commission’s expertise” and will be upheld if “rationally based on record evidence.”) (citing *East Tennessee Natural Gas Co. v. FERC*, 863 F.2d 932, 938-39 (1988) (citing *Associated Gas Distributors v. FERC*, 824 F.2d 981, 1008 (1987))))).

Id. P 92.



Historic Prices in PJM

- Joint Stakeholder package trigger is average LMP over a day or week
- Historic observations of total LMP reviewed for context
- Observation period of data is 2011 through June 2022
- Only reviewed real-time pricing for most extreme price observations
- \$35.11 – average real-time total LMP for a day
- \$35.10 – average real-time total LMP for a week

	Date	Week/Year	LMP (\$/MWh)
Highest Average Week	1/5/2014	2 nd /2014	\$167.74
Highest Average Day	1/7/14	2 nd /2014	\$675.77
Highest Average Hour	6/13/22, 1600	25 th /2022	\$2,642.58



Historic Prices in PJM

Year	Highest Average RT LMP Day	Highest Average RT LMP Week	Average RT LMP Day	Average RT LMP Week
2011	\$196.95	\$87.96	\$42.84	\$42.59
2012	\$113.55	\$54.94	\$33.11	\$33.06
2013	\$119.56	\$78.89	\$36.55	\$36.46
2014	\$675.77	\$167.74	\$48.22	\$48.23
2015	\$191.76	\$129.31	\$33.39	\$33.24
2016	\$61.43	\$41.56	\$27.57	\$27.46
2017	\$109.75	\$91.40	\$29.42	\$30.42
2018	\$230.98	\$159.82	\$35.75	\$35.89
2019	\$110.34	\$39.48	\$26.02	\$25.91
2020	\$50.67	\$33.68	\$20.66	\$20.66
2021	\$108.20	\$74.89	\$38.18	\$37.92
Thru June 2022	\$361.10	\$130.62	\$64.42	\$63.10



Joint Stakeholder Package

Circuit Breaker Trigger

- Energy price, average total LMP over a defined interval
- PJM Discretion to invoke the circuit breaker methodology
- PJM shall not have discretion to prevent the circuit breaker
- Both day-ahead and real-time markets may trigger the circuit breaker
- Once triggered, circuit breaker is deployed immediately – next 5-minute interval
- Notification
 - Stakeholder email communication
 - Addition of Circuit Breaker Status Icon to PJM Markets & Operations landing page and Data Viewer
 - Much like a PAI notice, the CB will be noticed on the Emergency Procedures page for informational purposes



Joint Stakeholder Package

LMP-Based Circuit Breaker Components

- Total LMP is the triggering mechanism
- Trigger level
 - \$1,000/MWh average LMP for any single rolling 24-hour period (aka day)
 - \$850/MWh average LMP for any rolling 168-hour period (aka week)
- Termination – next delivery year
- Methodology – administratively cap total LMP at \$850/MWh
- Settlements - scheduled and committed resources with verified offers above the relevant circuit breaker pricing levels would recover costs via current uplift methodology



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