

Weekly Headlines

- HAPPY NEW YEAR
- PJM Load
- Gas Storage

POWER PRICING (\$/MWh)

Day-Ahead LMPs		Mon 12/25	Tue 12/26	Wed 12/27	Thu 12/28	Fri 12/29
PJM	On-Peak WESTERN HUB		\$28.92	\$27.79	\$27.14	\$28.92
	Off-Peak WESTERN HUB	\$18.86	\$16.57	\$18.43	\$18.64	\$21.38
	On-Peak N ILLINOIS HUB		\$25.19	\$26.47	\$24.70	\$27.00
	Off-Peak N ILLINOIS HUB	\$12.35	\$11.13	\$16.90	\$17.33	\$18.96
	On-Peak PPL		\$24.25	\$24.87	\$22.65	\$23.25
	Off-Peak PPL	\$16.58	\$15.56	\$16.84	\$15.99	\$17.31
	On-Peak PENELEC		\$28.57	\$28.58	\$26.69	\$27.06
	Off-Peak PENELEC	\$20.45	\$16.70	\$17.89	\$18.00	\$19.62
	On-Peak COMED		\$25.24	\$26.55	\$24.77	\$27.07
	Off-Peak COMED	\$12.35	\$11.14	\$16.94	\$17.37	\$19.00
MISO	On-Peak INDIANA HUB		\$28.00	\$28.86	\$27.66	\$27.93
	Off-Peak INDIANA HUB	\$17.42	\$18.03	\$23.12	\$22.64	\$23.35
	On-Peak MICHIGAN HUB		\$28.92	\$29.41	\$28.08	\$28.19
	Off-Peak MICHIGAN HUB	\$17.15	\$18.33	\$23.23	\$22.73	\$22.70
	On-Peak MINN HUB		\$28.63	\$28.63	\$23.82	\$25.02
	Off-Peak MINN HUB	\$14.82	\$17.80	\$24.04	\$22.49	\$15.56
ERCOT	On-Peak LOUISIANA HUB		\$29.18	\$28.34	\$32.02	\$29.29
	Off-Peak LOUISIANA HUB	\$23.32	\$19.73	\$22.78	\$23.47	\$25.86
	On-Peak NORTH	\$19.18	\$21.26	\$17.25	\$23.33	\$18.48
	Off-Peak NORTH	\$12.80	\$19.04	\$15.59	\$23.20	\$16.20
On-Peak SOUTH	\$21.44	\$23.25	\$21.35	\$25.13	\$20.94	
Off-Peak SOUTH	\$17.26	\$19.54	\$18.64	\$23.99	\$22.67	

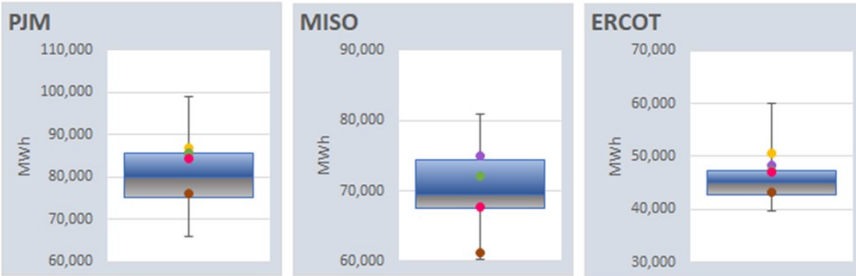
* Red signifies week over week price change down / Green signifies week over week price change up

Futures	Western Hub		Indiana Hub		North Hub	
	On-Peak	Off-Peak	On-Peak	Off-Peak	On-Peak	Off-Peak
	\$48.48	\$37.75	\$48.63	\$38.08	\$50.34	\$30.83

* Forward 12 month strip

DAILY RTO LOAD PROFILE (MWh)

● -12/25 ● -12/26 ● -12/27 ● -12/28 ● -12/29



* Current week daily load plotted with past 3 months daily load

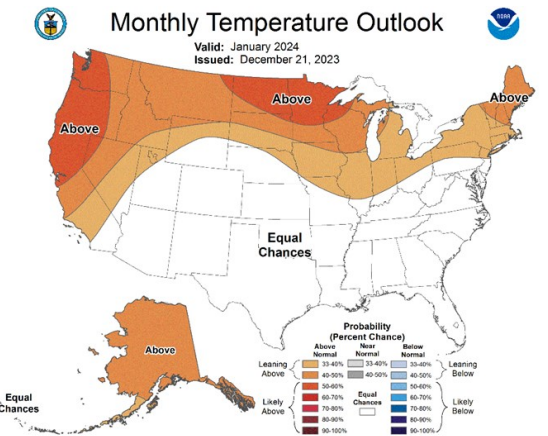
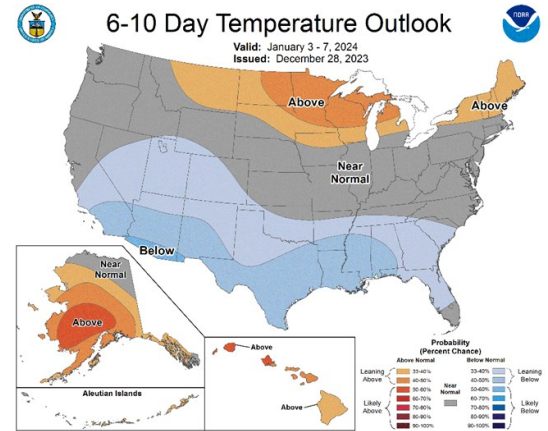
COMMENTARY

A few weeks ago, we quoted from a report from Grid Strategies predicting the electrical load for the US will grow at 4.7% next year. Not to be outdone, PJM released their [zonal projections](#) this week. While the report doesn't go into deep commentary, looking at the numbers, PJM is calling for RTO load growth of 2.4% annualized over the next ten years. That works out to roughly a 28 GW for summer peak and 30 GW for winter peak over ten years.

Yesterday morning on CNBC Squawk Box, VPP was introduced with as a possible solution for things like reliability, emissions reduction, lower costs, and helping meet demand. While we like the idea of VPP, especially saying Virtual Power Plant because it sounds cool, given the FERC and PJM forecasts, we'd like to see pen to paper with some numbers showing how demand response, EVs charging, and smart thermostats are going to make up those load numbers.

Roughly a year ago we stated on these pages that we don't make market predictions, we just try to comment on what we see and hear in the markets. Fast forward a year, and we've confirmed why we are better staying out of the prediction game. If a year ago we were forced to make a natural gas, and thus electricity call, we would have had prices much higher thinking it was likely that a repeat of a shortage in Europe would replay much as it did in late 2022. After the LNG armada filling up European storage in late 2022 and a mild 2022-23 winter in Europe, storage has remained relatively high abroad and in the US.

It's more of a trend prediction than a market or price prognostication. In our view, 2024 will be the year of the transmission discussion. To be fair, we aren't really going out on a limb here as the discussion is well under way. Also, to be fair, we have no real deep thought-out reasoning on why this will be the trend except for some form of Occom's Razor. Simply put, we've reached the point where transmission upgrades and build out are the answer for a lot of grid reliability questions. If we want to retire baseload generation and replace it with extra intermittent capacity and lower power density, transmission has to be in place to divert and deliver.



COMMODITIES PRICING (\$/MMBtu)

Henry HUB Nat Gas	12/29/2023	\$2.54
WTI Crude Oil	12/29/2023	\$72.11

