

## Weekly Headlines

- Natural Gas
- Day-Ahead ERCOT
- The Grid

### POWER PRICING (\$/MWh)

Day-Ahead LMPs		Mon 10/16	Tue 10/17	Wed 10/18	Thu 10/19	Fri 10/20
PJM	On-Peak WESTERN HUB	\$56.20	\$54.43	\$44.23	\$44.22	\$43.74
	Off-Peak WESTERN HUB	\$32.55	\$34.89	\$33.98	\$27.30	\$27.88
	On-Peak N ILLINOIS HUB	\$45.23	\$40.97	\$24.69	\$33.79	\$37.87
	Off-Peak N ILLINOIS HUB	\$25.80	\$29.23	\$12.42	\$18.80	\$23.14
	On-Peak PPL	\$39.69	\$37.69	\$32.51	\$34.63	\$31.45
	Off-Peak PPL	\$23.09	\$24.34	\$24.66	\$22.43	\$22.54
	On-Peak PENELEC	\$48.15	\$47.05	\$40.37	\$41.69	\$42.59
	Off-Peak PENELEC	\$28.03	\$30.11	\$30.09	\$25.52	\$25.75
	On-Peak COMED	\$45.37	\$41.09	\$24.76	\$33.86	\$38.26
	Off-Peak COMED	\$25.88	\$29.30	\$12.38	\$18.80	\$23.16
MISO	On-Peak INDIANA HUB	\$44.84	\$37.89	\$34.36	\$35.33	\$37.61
	Off-Peak INDIANA HUB	\$22.51	\$31.69	\$26.26	\$25.44	\$28.80
	On-Peak MICHIGAN HUB	\$36.55	\$35.69	\$28.90	\$28.45	\$29.55
	Off-Peak MICHIGAN HUB	\$22.45	\$31.13	\$27.26	\$17.98	\$24.89
	On-Peak MINN HUB	\$39.21	\$31.91	\$26.41	\$33.39	\$33.56
	Off-Peak MINN HUB	\$9.40	\$20.28	\$2.48	\$6.29	\$16.73
ERCOT	On-Peak LOUISIANA HUB	\$35.30	\$31.16	\$30.65	\$36.22	\$47.70
	Off-Peak LOUISIANA HUB	\$22.00	\$23.28	\$19.33	\$21.56	\$23.63
	On-Peak NORTH	\$26.52	\$9.82	\$8.44	\$95.12	\$105.35
	Off-Peak NORTH	\$20.79	\$15.28	-\$5.31	\$16.87	\$13.61
ERCOT	On-Peak SOUTH	\$29.34	\$22.26	\$26.86	\$99.55	\$112.84
	Off-Peak SOUTH	\$21.63	\$24.56	\$12.00	\$19.76	\$19.30

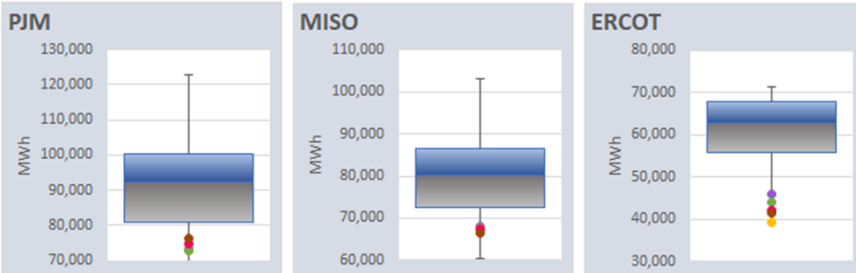
\* Red signifies week over week price change down / Green signifies week over week price change up

Futures	Western Hub		Indiana Hub		North Hub	
	On-Peak	Off-Peak	On-Peak	Off-Peak	On-Peak	Off-Peak
	\$54.70	\$40.86	\$56.07	\$42.18	\$66.30	\$39.77

\* Forward 12 month strip

### DAILY RTO LOAD PROFILE (MWh)

● -10/16 ● -10/17 ● -10/18 ● -10/19 ● -10/20



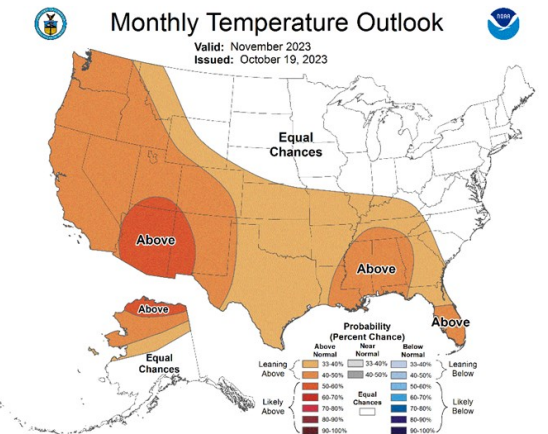
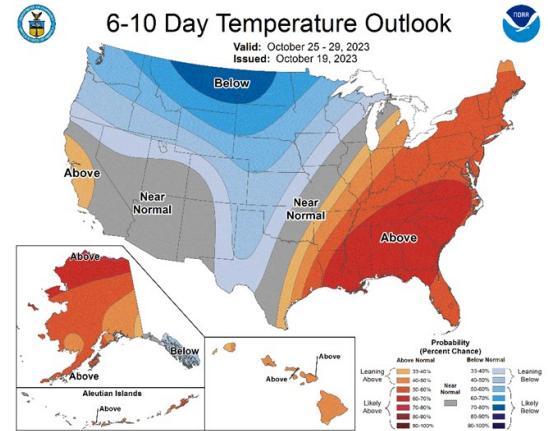
\* Current week daily load plotted with past 3 months daily load

### COMMENTARY

Natural gas has done an impressive round trip that last two weeks as shown in the chart below. Some news of potential strikes and European shortfalls after some pipeline issues got the momentum going to the upside. While the LNG strikes in Australia seem to be back on again, there hasn't been much follow through out of Europe. Yesterday's EIA data seemed to be a final blow as injection of 97 Bcf for the week ending October 13, was well above the 83 Bcf expected. Inventories continue to be roughly 10% above last year's level and about 5% higher than the 5-year average. 12-month strip electricity prices have held pretty steady as most of the movement in the gas curve has been in the front and winter. If we see continued weakness, expect electricity prices to start to back up.

Part of our weekly data above is the day ahead pricing for certain hubs with RTOs. One that caught our eye this week was ERCOT. Looking at the daily pricing, you'll notice that on peak pricing went from single digits mid-week to trading over \$100 for Friday. The snapshot taken from ERCOT's pricing app shows exactly how this happens as prices cleared around \$750 in the evening. We see this in the summer a fair amount on heavy demand days. While today's temps in Texas are warm, they aren't nearly the triple digit humidity laced numbers from the summer. This is something ERCOT is dealing with in the fall as the sun sets earlier and wind hasn't ramped up from lower levels.

Transmission, and the grid, has been one of the key factors into why we think some of the net zero talk and GHG goals are optimistic. We tend to read the International Energy Agency reports and papers with a hint of skepticism as they tend to, using Wall St lingo, talk their book. That said, we found this report to be of great interest. According to this report, to achieve energy & climate goals, the world needs to add or replace 80 million kilometers of power lines by 2040. That's the size of the entire global grid built over the past 100 years and enough to wrap around the Earth roughly 2,000 times. This doesn't even take into account the dollars needed. Some estimates are upwards of \$40-50 trillion to get the grid to a point where it could make net zero a reality.



### COMMODITIES PRICING (\$/MMBtu)

Henry HUB Nat Gas	10/20/2023	\$2.90
WTI Crude Oil	10/20/2023	\$90.36

