TC Energy

# POWER MARKET UPDATE



# FORWARD PRICES TABLE (INDICATIVE AS OF SEPTEMBER 1<sup>ST</sup>, 2023)

	Flat 7x24 (\$/MWh)	AB - 7x16 On Peak (\$/MWh)	AB – 7x8 Off-Peak (\$/MWh)	AECO Gas (\$/GJ)	Heat Rate
ВоМ	\$162.80	\$200.96	\$86.49	\$2.41	67.50705
October	\$130.50	\$158.25	\$75.00	\$2.42	53.89667
BoY	\$139.83	\$166.82	\$86.05	\$2.83	49.45358
2024	\$87.00	\$101.19	\$59.01	\$3.03	28.66746
2025	\$69.24	\$83.75	\$40.25	\$3.67	18.86803
2026	\$69.50	\$83.13	\$42.25	\$3.83	18.16139

All prices are indicative as of September 1st, 2023. For Firm power price quotes please contact TC Energy's Power Marketing team. See contacts on the last page.

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## **ALBERTA MARKET RECAP — AUGUST 2023**

August 2023 settled at \$186.80/MWh, representing 28% decrease from August 2022's settle of \$257.75/MWh and a 21% increase from July's settle of \$155/MWh. The maximum pool price was \$999.99/MWh for August, compared to \$919.14/MWh in July. The average price between the on-peak and off-peak for August differed by \$119.88/MWh, resulting in on-peak and off-peak price settled of \$226.75/MWh and \$106.88/MWh, respectively. August forwards traded between \$207.42 and \$249, 31 days preceding the month.

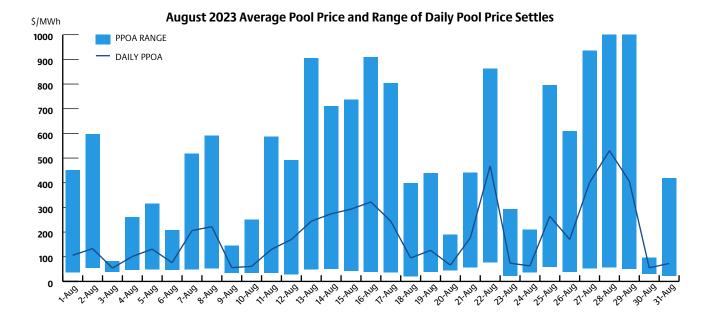
August 2023 had twenty-one triple digit daily settles, occurring all days of the month, except for August 3<sup>rd</sup>, 6<sup>th</sup>, 9<sup>th</sup>-10<sup>th</sup>, 18<sup>th</sup>, 20<sup>th</sup>, 23<sup>rd</sup>-24<sup>th</sup>, and 30<sup>th</sup>-31<sup>st</sup>. These triple digit settles ranged from a 'low' of \$101.12/MWh on August 4<sup>th</sup> to a 'high' of \$529.23/MWh on August 28th. The month saw 297 hours settle above \$100/MWh, with the SMP peaking at \$999.99/MWh on August 28<sup>th</sup> during HE 17-20 and August 29<sup>th</sup> HE 18-20.

August 28th saw the highest daily average and on-peak price settles of \$529.53/MWh and \$674.51/MWh, respectively, whereas August 27<sup>th</sup> saw the highest off-peak price settle

of \$307.72/MWh. On August 28<sup>th</sup>, power prices settled in the triple digits from HE 10 through the end of the day, reaching the market cap during the evening peak, which sparked the AESO to declare an Energy Emergency during that period. Temperatures above 30°C in parts of the province contributed to a robust load profile, which peaked at 11,118 MW. Low wind generation was observed, dropping to double-digit generation for a large part of the afternoon, and averaging at 6% for the day. The AB/MATL interties were on outage, limiting any flows prior to the Energy Emergency declaration, at which point moderate imports began flowing during the evening peak.

Conversely, August 3rd saw the lowest daily average price settle of \$53.53/MWh, August 23rd saw the lowest on-peak price settle of \$39.86/MWh and August 18th saw the lowest off-peak price settle of \$42.14/MWh. On all these days renewable generation was robust, higher than the monthly average. No major thermal outages contributed to a healthy baseload fleet. Load was moderately low, with the daily average around 9,700-9,900 MW on these days. Alberta was a minor net exporter on August 3<sup>rd</sup>, and relatively quiet on the interties on the 18<sup>th</sup> and 23<sup>rd</sup>.





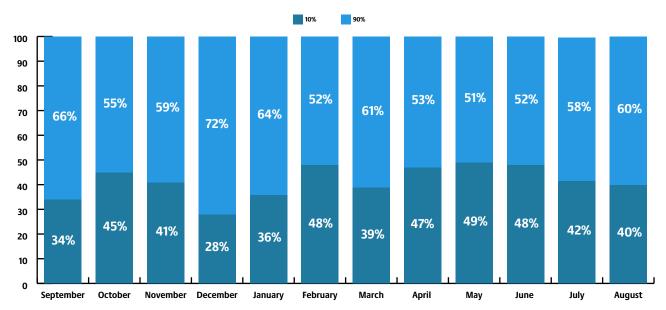
Average Alberta Internal Load (AIL) for the month was 9,739 MW, with hourly peak load hitting 11,332 MW on August 29th HE 17. This represents a 1.0% decrease from August 2022's average AIL of 9,840 MW and an 1.2% increase from its hourly peak load of 11,202 MW.

The weighted average temperature across the province for August was 17.59°C representing a 1.70°C decrease from last August when the average was 19.29°C. August 2023 temperatures in Alberta ranged from a high of 37°C

in Lethbridge on August 17th HE16-17 to a low of 3°C seen in Red Deer on August 20th HE 4.

The top 10% of high-priced hours for August averaged \$750.26/MWh, contributing 40% to the monthly settle, while the bottom 90% of hours averaged \$124.56/MWh.

### Hours contributing to monthly average price

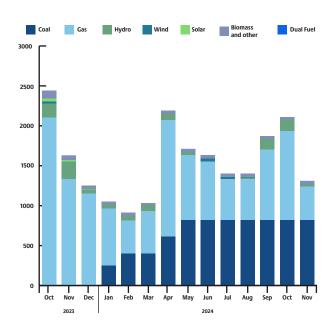


# **MONTHLY OUTAGES**

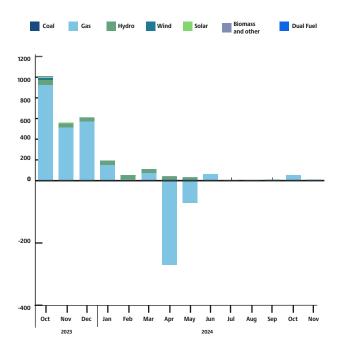
Since last month's outage report, there have been noteworthy changes in gas outages. Several large asset notices were released by the AESO in August. These new assets have impacted the short- and long-term outage graphs due to commissioning and testing activities. With that in mind, gas outages increased by 920 MW in October 2023, 510 MW in November 2023, 570 MW

in December 2023, and 150 MW in January 2024. Gas outages also decreased by 270 MW in April 2024.

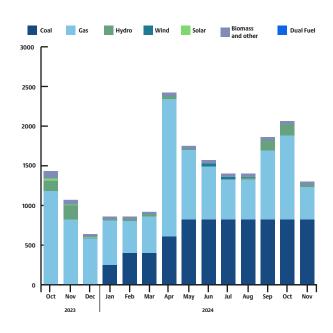
### AESO monthly outages (as of September 2023)



# Month-over-month change in outages (September 2023 over August 2023)



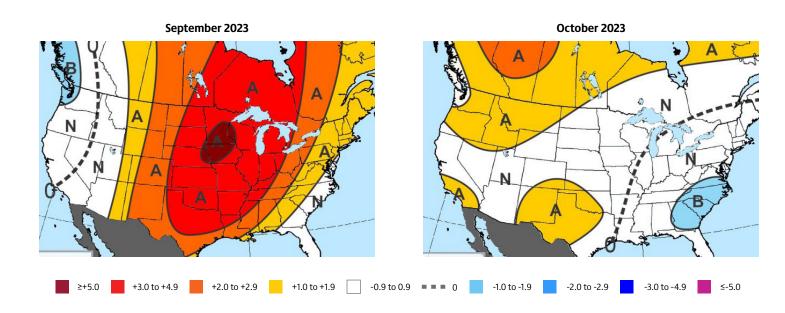
### **AESO monthly outages (as of August 2023)**



## MAXAR'S 30-60 DAY OUTLOOK

Maxar's final September monthly outlook undergoes large warm changes versus previous expectations from the Interior West to the Midwest and Mid-South. These changes are a result of an amplified pattern at the start of the month that features near-record heat in areas of the Midwest and Mid-Atlantic. Beyond the medium range, above normal temperatures are expected to persist across the Central US through the latter part of the month, with influence gleaned from the MJO (Madden-Julian Oscillation) in Phases 7-8 and the long term +AMO (Atlantic Multidecadal Oscillation). The forecast of 235 PWCDDs (Population-Weighted Cooling Degree Days) ranks 4th warmest since 1950. However, uncertainty from potential influences of Atlantic and/or Western Pacific tropical activity limits confidence.

October remains unchanged, maintaining belows in the Southeast and Mid-Atlantic while aboves are noted in the Northwest, SoCal, and Texas. The forecast is based in part on sea surface temperatures including El Niño, +AMO, and -PDO (Pacific Decadal Oscillation). El Niño suggests a cool risk, as it correlates broadly cooler across the Central and Eastern US. However, the -PDO, which is not common during El Niño, carries an opposite correlation, with these conflicting signals limiting confidence. A composite of the 20 most recent CFS (Climate Forecast System) monthly model runs is warmer with widespread aboves in the West, Plains, and South with greater intensity of aboves in the Northwest, Rockies, and Plains.



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