

## TC Energy Power Market update.

### Forward prices table (indicative as of January 4<sup>th</sup>, 2021)

	Flat 7x24 (\$/MWh)	AB - 7x16 On Peak (\$/MWh)	AB - 7x8 Off-Peak (\$/MWh)	AECO Gas (\$/GJ)	Heat Rate
<b>BOM</b>	<b>\$125.00</b>	<b>\$127.95</b>	<b>\$71.10</b>	<b>\$4.08</b>	<b>30.63725</b>
<b>Feb-Dec 22</b>	<b>\$89.60</b>	<b>\$110.75</b>	<b>\$47.27</b>	<b>\$3.24</b>	<b>27.65432</b>
<b>2023</b>	<b>\$71.75</b>	<b>\$87.63</b>	<b>\$39.99</b>	<b>\$3.03</b>	<b>23.67987</b>
<b>2024</b>	<b>\$61.00</b>	<b>\$74.50</b>	<b>\$34.00</b>	<b>\$2.86</b>	<b>21.32867</b>

All prices are indicative as of January 4<sup>th</sup>, 2021. 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 – December 2021

December 2021 settled at \$126.27/MWh, representing a 228% increase from December 2020's settle of \$38.44/MWh and a 27% increase from last month's settle of \$99.07/MWh. The average price between the on-peak and off-peak for December differed by \$67.95/MWh, resulting in on-peak and off-peak prices of \$148.92/MWh and \$80.97/MWh, respectively. December forwards traded between \$99.25 and \$117.50 per MWh.

There were eleven days of influential pricing in December, occurring on Dec 1st-3rd, 6th, 15th, 17th, 26th-29th, and 31st with daily price settles ranging from \$100.90 to \$696.24 per MWh. The month saw 149 hours settle above \$100/MWh, with the SMP peaking on December 27th HE (hour ending) 21 until December 28th HE 1, when prices settled at the market peak of \$999.99 for 5 consecutive hours.

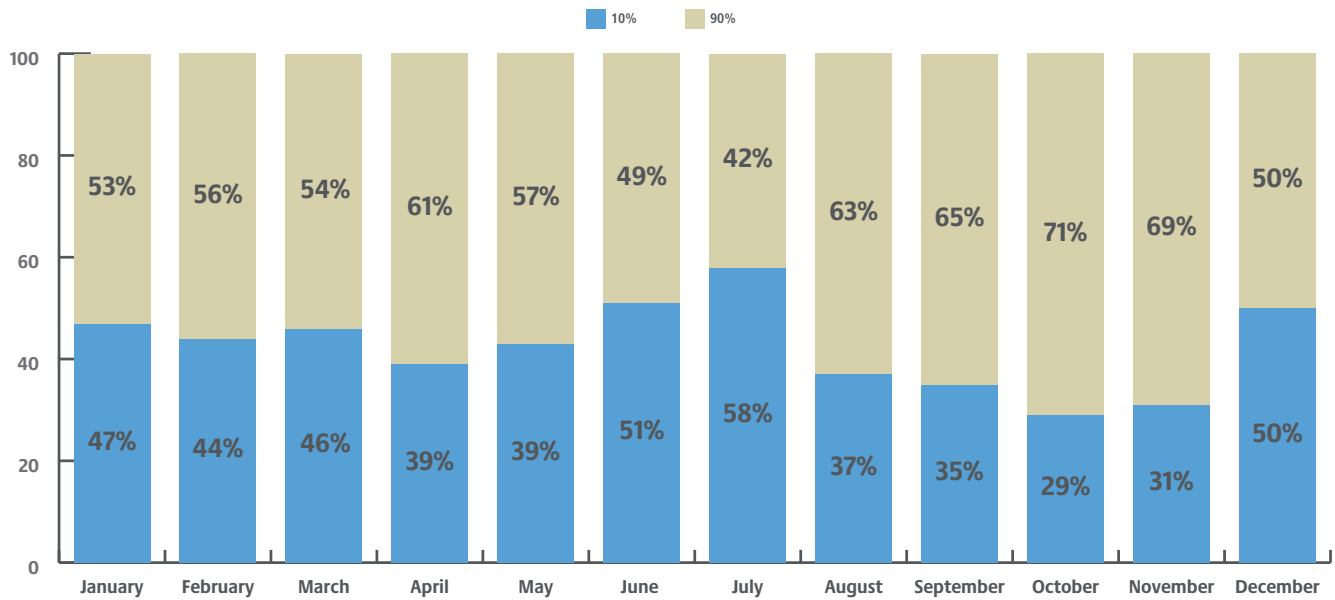
December 27th saw the highest daily average and on-peak prices of \$696.24/MWh and \$858.65/MWh, respectively. On this day, price settles for all hours (HE 1-24) resulted in triple digits, ranging from \$160.64 during HE4 to \$999.99 during HE 21-24. The AESO declared an Energy Emergency 2 at 19:29, which lasted until following day at 01:00. Extreme cold weather in the province,

averaging at -32°C between 7 main regions, drove load to peak at 11,508 MW and average at 10,783 MW for the day. Negligible wind generation was observed on this day, averaging at 159 MW per hour and 14 hours remaining under 100 MW. Outages by all fuel types fluctuated from a low of 2,400 MW during HE 9 to as high as 4,100 MW by HE 23; gas units dominated the bulk of these outages, as the average availability factor ranged from 66%-78%. The combined hourly import flow from all three interties (BC, MATL, and SK) averaged 488 MW and 399 MW, during the on-peak and off-peak, respectively.

December 28th saw the highest daily average off-peak price of \$503.92. HE 1 settled at the market peak of \$999.99, at which point the province had declared an Energy Emergency 2. Similar fundamentals were observed from the previous day, except for decreased load, which bottomed at 10,114 MW during HE 3.

December 7th saw the lowest average and off-peak settles of \$42.65/MWh and \$32.61/MWh. December 10th saw the lowest average on-peak price settle of \$47.54/MWh. Market fundamentals for both days saw similar trends, that included abundant wind generation, peaking above 1,600 MW, a healthy thermal fleet with minimal derates and outages, and a soft demand profile.

### Hours contributing to monthly average price



The top 10% of high-priced hours for December averaged \$647.90/MWh, contributing 50% to the monthly settle, while the bottom 90% of hours averaged \$69.52/MWh.

Average Alberta Internal Load (AIL) for the month was 10,670 MW, with hourly peak load hitting 11,696 MW on December 16th HE 17 and December 29th HE 17. This represents a 4.2% increase from December 2020's average AIL of 10,241 MW and a 1.7% increase from its hourly peak load of 11,503 MW.

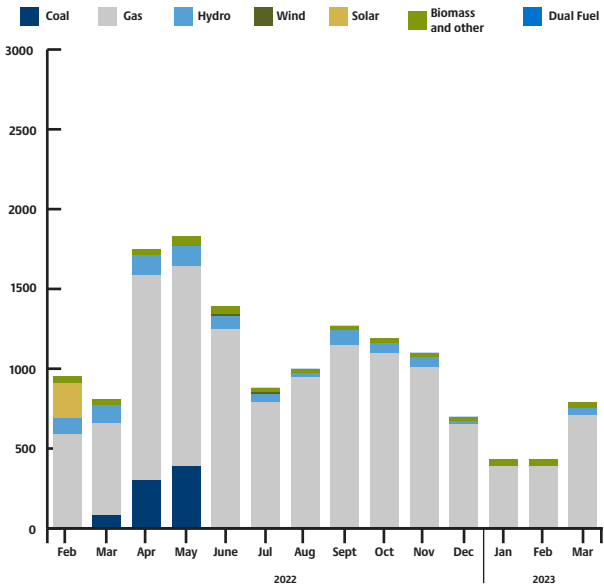
The weighted average temperature across the province for December was -15.38°C representing a 10.68°C decrease from last December when the average was -4.69°C. December 2021 temperatures in Alberta ranged from a high of 17°C in Lethbridge on December 1st HE 13 to a low of -44°C seen in Grand Prairie on December 27th HE 7 and HE 9.

# Monthly outages

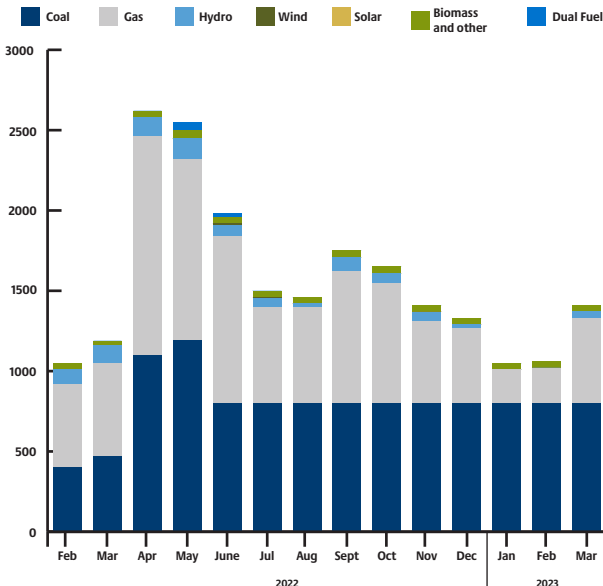
Since last month's outage report, there have been a few noteworthy outage adjustments. A constant decrease of coal outage of 800 MW begins from April 2022 until March 2023. By contrast, gas outages increased by a range of 120 MW to 500 MW from May 2022 until March 2023.

Keephills 1 retired at the end of day, December 31, 2021 and Sundance 4 will retire April 1, 2022. These updates may be affecting the change in outages this month.

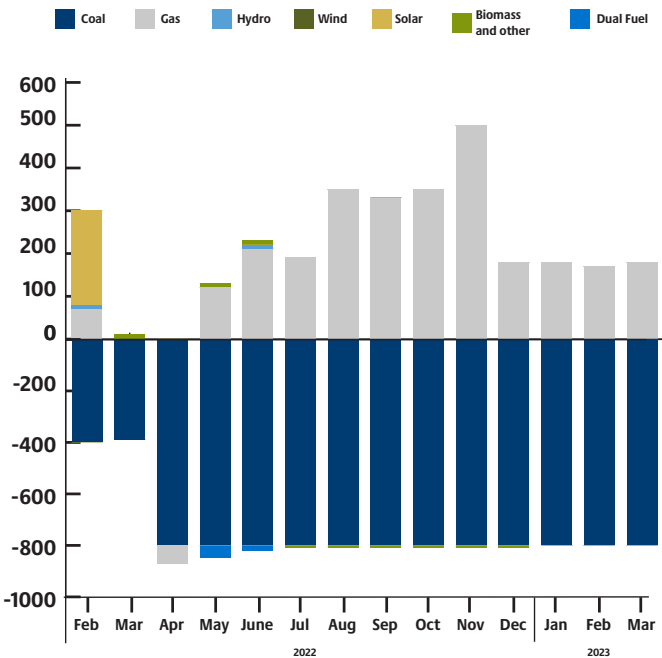
AESO monthly outages (as of January 2022)



AESO monthly outages (as of December 2021)



Month-over-month change in outages (January 2022 over December 2021)

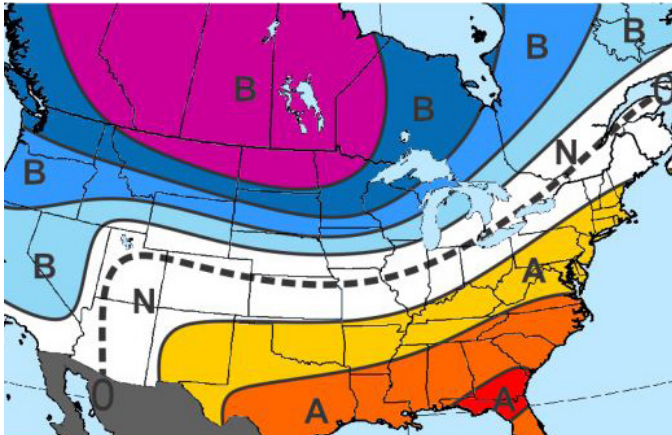


## Maxar's 30-60 day outlook

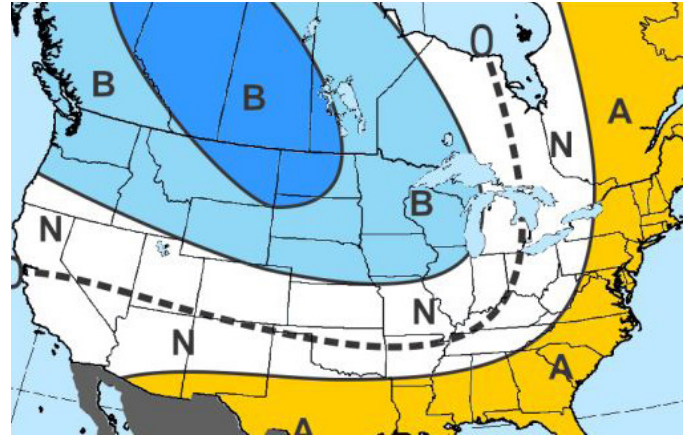
Maxar's January forecast garners some colder changes across the North-Central U.S. into the Great Lakes, as below to much below normal temperatures extend from the cold source region out of western Canada. However, the above anomalies from Texas through the Southeast and the East are a bit stronger. The -PNA (Pacific/North American Teleconnection Pattern) has a strong influence on the forecast pattern, particularly under La Nina conditions. The Midwest to Northeast will still be the regions under the greatest scrutiny since the division of stronger cold to unseasonably warm air should reside in these regions. The CFS (Climate Forecast System) carries belows into the Northeast and Midwest more than this forecast and the Euro monthly.

Maxar's February outlook is unchanged compared to last week, as the typical La-Nina pattern aims to hold through the month. Below normal temperatures remain focused across the northern half of the West into the North-Central U.S. and western Midwest. Above normal temperatures reside along the Southern Tier to the East. Other pattern considerations are the -PDO (Pacific Decadal Oscillation) and warm west-tropical Pacific waters. Risks are generally to the warmer side, though, as most medium to long range outlooks (CFS and ECMWF) are in fairly good agreement with the pattern structure where belows are in the Northwest, but aboves stretch into more of the Plains, Midwest, and East than this forecast.

January 2022



February 2022



Legend for temperature anomalies (in degrees Fahrenheit):

Color	Temperature Anomaly Range
Dark Red	≥+5.0
Red	+3.0 to +4.9
Orange	+2.0 to +2.9
Yellow	+1.0 to +1.9
White	-0.9 to 0.9
Light Blue	-1.0 to -1.9
Dark Blue	-2.0 to -2.9
Very Dark Blue	-3.0 to -4.9
Dark Purple	≤-5.0

## Contact us

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