

# Forward prices table (indicative as of July 12, 2019)

	Flat 7x24 (\$/MWh)	AB - 7x16 On Peak (\$/MWh)	AB – 7x8 Off-Peak (\$/MWh)	AECO Gas (\$/GJ)	Heat Rate
ВОМ	\$55.00	\$75.00	\$35.00	\$1.10	50.00
August	\$68.00	\$82.75	\$35.75	\$1.15	59.13
BOY	\$62.60	\$76.25	\$31.00	\$1.55	40.39
2020	\$57.75	\$72.00	\$29.75	\$1.58	36.55
2021	\$59.00	\$75.00	\$27.25	\$1.73	34.10
2022	\$53.25	\$64.50	\$30.00	\$1.82	29.263

All prices are indicative as of July 12, 2019. For Firm power price quotes please contact TC Energy's Power Marketing team. See contacts on the last page.

# Alberta market recap – June 2019

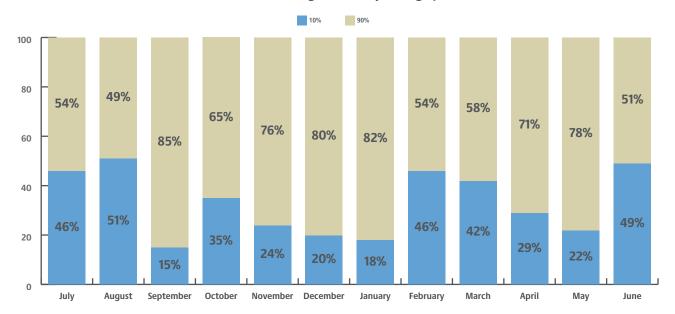
June 2019 settled at \$53.52/MWh, representing a 16% decrease from June 2018's settle of \$63.44/MWh and an 28% decrease from last month's settle of \$74.78/MWh. The average price between the on-peak and off-peak for June differed by \$39.47/MWh, resulting in on-peak and off-peak prices of \$66.68/MWh and \$27.21/MWh respectively.

There were five major influential days in June for pricing; June 1st, 2nd, 11th, 12th and 18th settling at \$113.24, \$93.01, \$195.42, \$239.30, and \$161.45/MWh respectfully. These five days saw System Marginal Price (SMP) in the triple digits, attributed to minimal wind generation, warm to hot temps increasing demand and a depleted coal fleet further deteriorated by multiple coal unit trips (Sundance 6, Battle River 4, Genesee 2 all on May 18th). Hot temps in Mid-C caused minimal import opportunity for Alberta and increased exports flowing out of the province. The top 10% of high-priced hours averaged \$262.34/MWh, contributing 49% to the monthly settle while the lowest 90% of hours averaged \$30.32/MWh. The chart below demonstrates how this small fraction of high priced hours (10%) can have such a significant impact on the overall monthly settle.

FORWARD-LOOKING INFORMATION This publication contains certain information that is forward looking and is intended to provide useful and timely information to Alberta power market participants. All information is from sources deemed reliable and is subject to errors and omissions which we believe to be correct, however, assume no responsibility for. The words "anticipate", "forecast", "expect", "believe", "may", "should", "estimate", "plan" or other similar words are used to identify such forward-looking information. All forward-looking statements reflect TC Energy's beliefs and assumptions based on information available at the time of this publication and are not guarantees of future performance. By their nature, forward-looking statements are subject to various assumptions, risks and uncertainties which could cause actual outcomes to differ materially from the anticipated results or expectations expressed or implied in such statements. Readers are cautioned against placing undue reliance on forward-looking information and not to use future-oriented information or financial outlooks for anything other than their intended purpose. TC Energy undertakes no obligation to update or revise any forward-looking information except as required by law.



#### Hours contributing to monthly average price



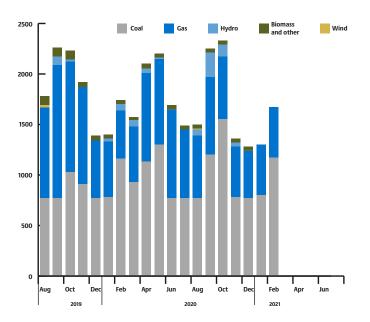
Average Alberta Internal Load (AIL) for the month was 9,284 MW, with peak load hitting 10,471 MW on June 13th, 2019. This represents a 0.9% increase from June 2018's average AIL of 9,198 MW and a 0.4% increase from its peak load of 10,430 MW.

The weighted average temperature across the province for June was 14.37°C representing a 1.50°C decrease from last June when the average was 15.87° C. The month saw a wide range in weighted average temperatures from 3.9° C on June 8th to 25.9° C on June 12th leaving most areas in the province feeling a cooler than usual June.

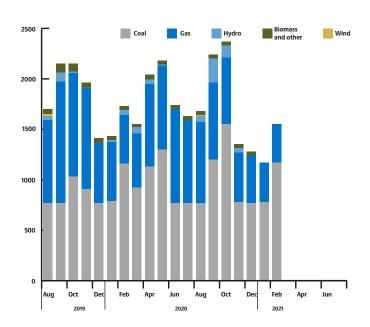
# **Monthly outages**

Since last month's outage report there has been an increase to gas outages over August and September of 2019 as well as January and February 2021 with a decrease in gas outages June through August of 2020.

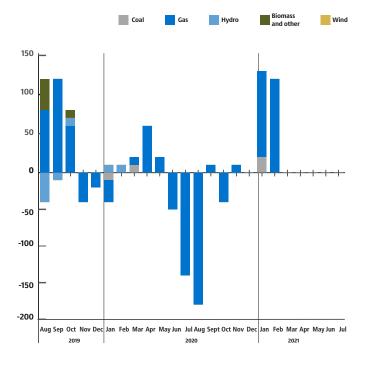
AESO monthly outages (as of July 2019)



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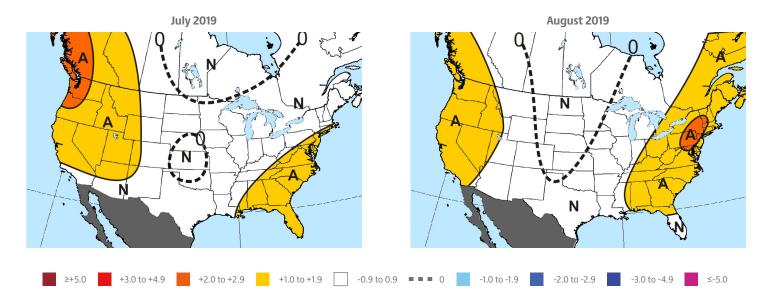
Month-over-month change in outages (June 2019 over July 2019)



### Radiant solutions 30-60 day outlook

June 2019 lacked significant anomalies across most of the US with the exception of California where record-shattering heat earlier in the month weighed warm anomalies higher. Radiant Solutions Outlook for June captured some of the general pattern themes but was too warm within the details especially the Midwest. Texas, and the Southwest.

For the remaining days in July, Radiant Solutions forecast a warming trend with broad coverage of aboves now projected across a wide portion of the US including a broad area of +3° to +5° anomalies across the Midwest and East. They currently indicate that Alberta will see a -0°F to -2.0°F departure from average 1981-2010 normal temperatures.



# **Industry news**

It was announced mid-June that Capital Power has plans to accelerate its plans for natural gas capability at the Genesee facility which will maximize the flexibility to utilize natural gas as fuel where the units previously burned primarily coal, allowing them to optimize their fuel mix to maximize economic returns.

The financial impact is highly dependent on carbon cost and natural gas price assumptions. Expanding the use of natural gas will also result in significantly lower absolute emissions relative to the current configurations of the units.

The total cost of the project to completely transform Genesee 1 and 2 to dual-fuel capability and up to 40% gas capability for Genesee 3 is estimated at \$50 million. The project involves

adding new gas pipeline infrastructure within the Genesee site and modifications to the Genesee 1 and 2 boilers. The rated capacity of the units will remain the same.

After the units have been transformed to 100% dual-fuel capability, the units can utilize up to 100% natural gas or coal, or a mix of the two. The amount of coal used at any given time, versus natural gas, will be driven by several factors including natural gas prices, carbon costs, and coal costs.

The coal operations at the Genesee facility are currently planned to continue up to December 2029, at which time regulatory requirements will require the Company to discontinue the use of coal. The Genesee facility will continue as a 100% natural gas-fired facility after that time.

	Current	Mid-2020	Third quarter, 2020	Spring 2021	TBD
Genesee 2	Utilize up to 20% gas	100% dual-fuel	-	-	-
Genesee 1	Utilize up to 20% gas	Up to 45% gas	Up to 45% gas	100% dual-fuel	-
Genesee 3	Utilize up to 18% gas	Up to 34% gas	Up to 40% gas	Up to 40% gas	100% dual-fuel

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