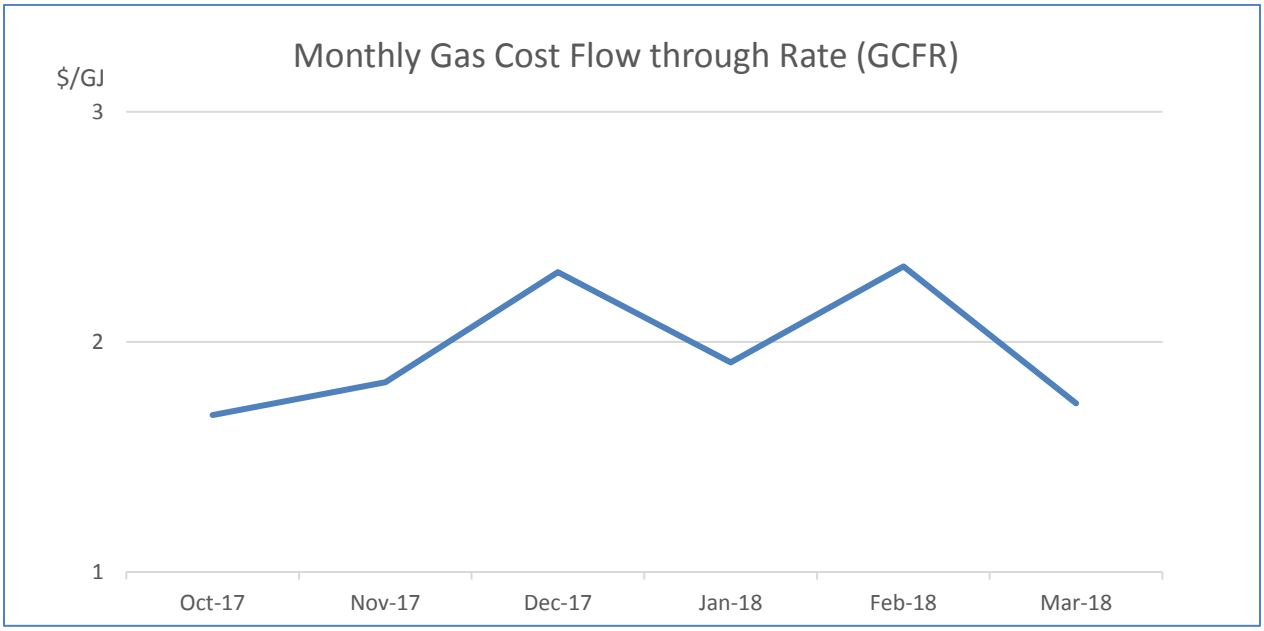
ENERGY PRICES AND MARKETS

Natural Gas

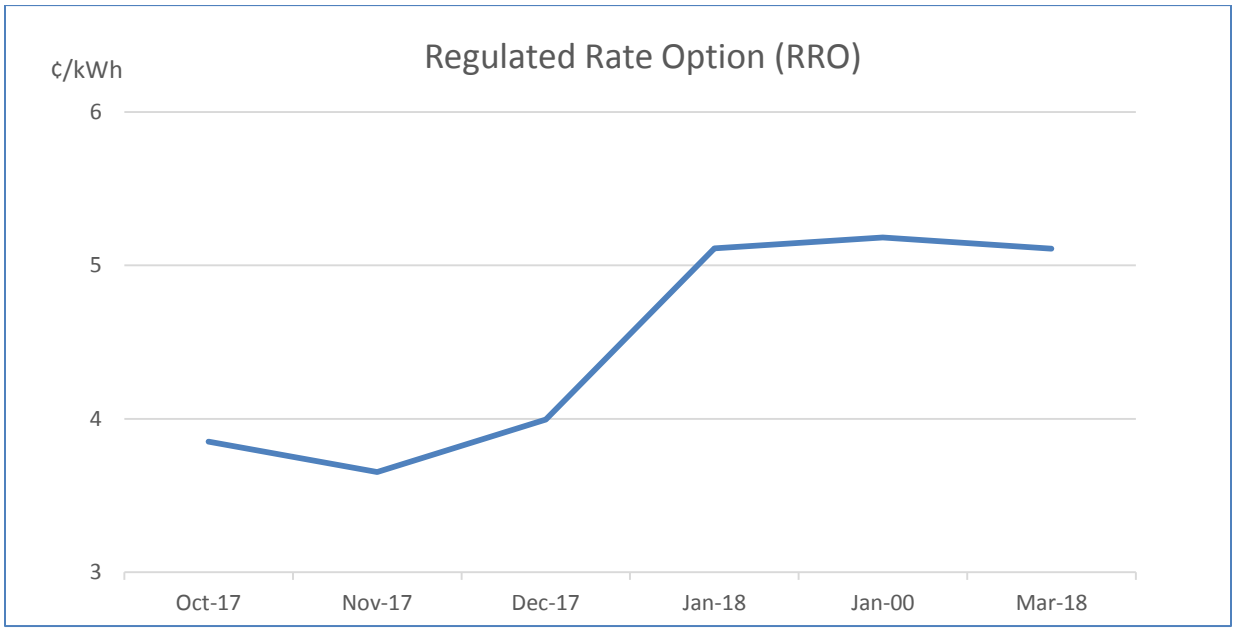
The March gas cost flow-through rate (GCFR) was $1.73/GJ.



The decrease in the January GCFR was primarily due to an unusually warm December that lowered demand and the price of gas, which was partially offset by an increase in the carbon levy. January was colder than average, pushing up the price for natural gas in February. Generally, rates are expected to remain low for 2018 with the forward prices for the remainder of 2018 averaging only $1.27/GJ.

Prior to the start of each month the GCFR rate is calculated by multiplying the estimated volumes required for the month times the forecast AECO-C gas price for that month. This amount is adjusted by adding the deferral account balance and an administration fee. This total amount is divided by the estimated volume to determine the GCFR per gigajoule for the month. During each month the required load balancing is added to the deferral account which is cleared in the following month.

Electricity
The regulated rate option (RRO) in March was 5.11¢ per kWh.



The price increase in January was primarily the result of the retirement of Sundance Unit 1, the mothballing of Sundance Unit 2, and the change in how carbon taxes are calculated for generators. On 2017 January 1, the Carbon Competitiveness Incentive (CCI) regulation replaced the Specified Gas Emitters Regulation (SGER). The amount of carbon tax that a generator must pay is now based on an emissions comparison to a benchmark facility rather than the historical emissions record of each facility.

UTILITY REGULATION

Power Purchase Arrangement (PPA) Terminations
On 2018 March 9, the provincial government reached an agreement with ENMAX accepting the return to the Balancing Pool of both the Battle River 5 and the Keephills PPAs. In the agreement, ENMAX agreed to a transfer of 166,667 carbon offset credits to the Balancing Pool (BP) in payment for previously disputed and unpaid dispatch services and PPA transition matters. This agreement brings to a conclusion the legal proceedings that the Alberta Government brought against former buyers of PPAs. All PPAs have now been returned to the BP. Sundance B, Sundance C are to be terminated 2018 March 31, Battle River 5 is expected to be terminated by September 2018, and Genesee, Sheerness and Keephills are all scheduled to terminate 2020 December 31.

There are expected savings to the Balancing Pool from terminating PPAs where the net present value (NPV) of the future cash flows represents a larger loss than the net book value (NBV) that must be paid to the owner of the PPA facility on termination. The expected savings from termination of the Sundance B, Sundance C, Battle River 5 and Keephills PPAs as at 2017 December 31, with a median assumed Pool Price was $789 million. For the Genesee and Sheerness facilities the forecast loses resulting from holding the PPAs are less than the NBV

that would have been paid to the generation facility owners and therefore they are not candidates for early termination. As at 2017 September 30, the Balancing Pool was experiencing losses of approximately $50 million per month as a result of the returned PPAs. The losses will currently be less because of the rise in the price of electricity.

Alberta Capacity Market Consultations

In 2016, the Provincial Government announced the transition from an energy only market for pricing electricity to a new framework that includes both an energy market and a capacity market. The capacity market pays generators for a commitment to provide electricity in a future period.

City administration is involved in the development of the capacity market through participation in the Alberta Electrical System Operator (AESO) working groups that are assigned the task of designing a capacity market. City administration is currently participating in the Energy and Ancillary Services working group.

AESO has now completed the first draft of the Comprehensive Market Design, with the second draft expected by the middle of April 2018. Basic elements of the first draft include:

- Supply must be able to be dispatched throughout the entire delivery period. Generation capacity will be factored for either availability or utilization. Demand response will be able to participate in the market. Renewable energy program resources will be ineligible for the capacity market. Existing generation must offer into the capacity market.
- The target capacity volume will be set to meet the resource adequacy standard. Capacity payments are determined by the design of the Capacity Market demand curve that will reflect the Cost of New Entry (CONE) to ensure that price signals will bring new resources into the market when needed.
- The capacity market will have a three-year forward period and a one year delivery period. Two rebalancing auctions will be held at 18 months and 3 months prior to the delivery period.
- Although there will be some additional rules in the energy market to adapt to the capacity market, the energy and ancillary Services markets will remain largely the same. A number of enhancements to the energy market such as a day ahead market or raising the offer cap may be considered in the future as needed to address market evolution.

Alberta Retail Electricity Price Cap

Bill 16: An Act to Cap Regulated Electricity Rates received Royal Assent on 2017 June 7. The Bill ensures Alberta families, farms and small businesses on the Regulated Rate Option would not pay more than 6.8 cents per kilowatt hour from June 1, 2017 to May 31, 2021. If the rate exceeds the cap, the government will pay the RRO providers the difference between the actual price and the cap.

Due to market forces, the price for electricity is expected to increase in 2018 above 7.0 cents per kilowatt hour, as early as April. This could cost the Alberta Government upwards of $5 million for the month of April, and potentially over $30 million in 2018.

This Bill protects those in Calgary who are ENMAX customers that have chosen the RRO option. Those using other regulated retailers in Calgary who are not on a fixed price plan will not be protected from prices over 6.8 cents per kilowatt.

UTILITIES AND INDUSTRY DEVELOPMENTS

Alberta's Renewable Electricity Program (REP) Auctions

On 2018 February 5, the provincial Government has announced round 2 and 3 of the REP auctions. Round 2 will have a target of 300MW and will include an Indigenous equity ownership requirement. Round 3 will have a target of 400MW. The competition process is expected to begin at the end of March with final awards being announced in 2018 December.

Transmission Development

The Alberta Electricity System Operator (AESO) is the government entity responsible for ensuring that the transmission system is designed and operated to meet Alberta's electricity demands. AESO identifies new transmission development needs in Alberta and then seeks approval of the AUC for those developments. If approved, AESO assigns siting, construction, ownership and operation of the transmission development to a transmission facility owner (TFO).

AESO recently released its 2017 Long-term Transmission Plan (LTP). The LTP is the main forecast of where available capacity on Alberta's transmission system currently exists for new generation projects. The ability to connecting to existing transmission capacity will be a requirement for a project to qualify for this year's Round 2 and Round 3 of Alberta's REP auction.

The LTP has a few noteworthy items:

- Less money will be spent on transmission development in Alberta in the short-term than what was previously forecast. Stage 2 of the Southern Alberta Transmission Reinforcement (SATR) project will not proceed as it has been determined that it is not required at this time.
- The existing transmission system has a capacity to integrate 2,600MW of new renewable projects. AESO is focusing on new transmission developments that can accommodate an additional capacity of up to 5,000MW of renewable generation by 2030.
- Includes a forecast that by 2022 the Alberta-British Columbia intertie capacity will be restored to permit the importation of up to 1,200 MW of hydroelectricity from BC.
- AESO worries about the negative impact that the rapid ramping up and down of more renewables will have on the transmission system. AESO may need to change its ancillary service products to handle this.
- The LTP recognizes several challenges to designing Alberta's transmission system; it does not control the type and location of new generation projects, the timing of the retirement of coal plants, the conversion of coal-to-gas plants, or the construction of new cogeneration facilities. AESO is also concerned about the integration of new distributed energy resources that will be connected to the grid.