Canadian Winter 2023 Market Update Webinar
Q&A

Compiled: Oct. 10, 2023

The following are answers to the questions our presenters received from participants during the Canadian Winter 2023 Market Update webinar.

Why is there a moratorium on renewable projects in Alberta?

The moratorium was called for a few reasons. Alberta has the fastest-growing renewable sector in the country, which is attributable to having ideal environmental conditions (lots of sun and wind) and a thriving competitive energy market—which is attractive for renewable developers. This rapid growth however has spurred a few concerns:

- the impact on the landscape, as well as use of valuable agricultural land
- how to build transmission to support the rapid growth
- the intermittent nature of renewable generation means that baseload generation development, like natural gas, still needs to be incented. The CER does not support fossil fuel generation, which has created an uncertain environment

The moratorium was called to allow the Alberta Electricity System Operator (AESO) and Alberta Utilities Commission (AUC) time to address some of these concerns.

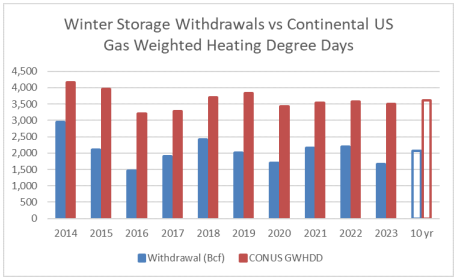
Do we expect to see any impacts to short- or long-term power prices or REC prices due to the moratorium on renewable projects in Alberta?

The increased buildout of renewable generation is expected to lead to a changing daily profile of the hourly power prices. High levels of solar generation are expected to push Alberta toward a 'duck belly' shape—close to what we see in other markets with a higher share of renewables. Volatility in power prices is still expected due to the higher share of renewable resources.

We ultimately see little impact on power prices or REC prices over the next five years due to the moratorium. The amount of renewable buildout by the end of 2024 is expected to saturate the renewable space, with over 4 GW currently under construction. Long term, there may be an effect due to investor confidence weakening over concerns of regulatory intervention. Risk lies in February when the Alberta Utilities Commission (AUC) reveals its future plans surrounding renewable buildout. The builds effected by the moratorium would not have been under construction yet and will likely be more than 5 years away from joining the grid. By this point the grid will have nearly 8 GW of renewable buildout in a 12 GW peaking market. The economic signaling will show the space being crowded out.

The market seems to be comfortable with storage this coming winter being approximately 3,800 Bcf. The 10-year average is in the 3,600-3,600 Bcf range but the market has increased 30% in size in those 10 years. On a percentage basis (storage/market size), shouldn't the market view storage as below the 'adjusted average?'

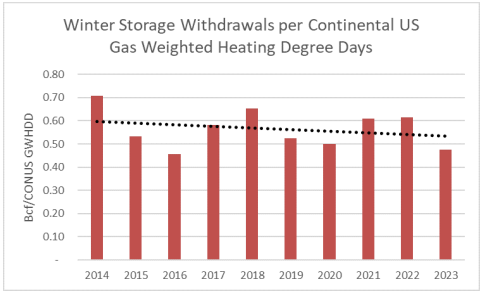
While it's true that there is less storage as a percentage of total demand in the market, supply has also grown significantly—so the impact to storage has been muted. In fact, the overall pull on storage normalized for weather has been declining if you look on a total winter basis. It is important however to acknowledge that the market has grown 30% and storage has remained flat, therefore we would expect to see ongoing risks for volatility in winter.



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Storage v. demand (con't)



Freeze-offs present a major risk going forward since demand has steadily grown over the last few years with increasing consumption demand (power burns in particular) and LNG exports. When these cold weather events take place, the market will have to have to rely much more on storage to fill the void from the curtailed supply when the demand is at its peak.

Dawn and AECO currently both have a fairly large negative basis vs. NYMEX. What are the reasons for this? Is it related to the gas storage position in Canada, which seems to be stronger vs. historicals than in the U.S.?

AECO is a market that produces far more gas than it consumes, so it relies on exporting these volumes to markets in Eastern Canada and the U.S. In order to do this, it will price at a discount to ensure spreads are in the money to flow gas to these downstream markets. That is what drives the negative basis. AECO storage looks very full so this adds increased pressure to the negative basis until the market rebalances with increased demand to draw down on the inventory surplus (likely coming with LNG demand in B.C. mid-2025).

Dawn is well connected to supply from multiple production regions, including the the Northeast, AECO, and Midwest. The negative basis prices in these production markets keep Dawn at a negative basis. However, during very bullish periods of peak demand or low storage, we can see markets price back above NYMEX to drive increased supply diversions to the region. Longer-term though, the majority of demand growth to the market is coming from LNG export expansions, which are primarily in the Gulf. This should keep Dawn and AECO at a negative basis, which is what is reflected in the forward curve.

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