BRIEFING NOTE:
GLENCORE'S REQUEST FOR AN INDUSTRIAL RATE

ISSUE:

- Glencore, a global mining company with operations in Sudbury, has requested a special electricity rate that would provide the company with greater certainty on costs.

KEY INFORMATION:

- For a large mining company, electricity prices can fluctuate significantly from year to year as a result of changes in wholesale prices and Global Adjustment (GA).
    - While the reduction in regulatory charges as a result of Ontario's Fair Hydro Plan (OFHP) has more than offset the cost of carbon in the short term, the company has noted that cap and trade will contribute to further electricity price uncertainty after 2020.
- Glencore has requested an agreement that would "lock in" its current all-in electricity price for a 20-year period, with increases based on inflation.
- Glencore's all-in electricity price is currently believed to be in the range of $65-75/MWh, excluding the Northern Industrial Electricity Rate Program (NIERP).
- Glencore believes that its proposal for a special rate would not shift costs to other electricity ratepayers. Based on the Independent Electricity System Operator's (IESO) May 24, 2017 industrial pricing outlook (see chart on page 2, in nominal dollars) and after reviewing its proposal, Ministry staff believe Glencore's claim is unrealistic.
- Glencore made a similar request in 2015 and, prior to that, asked for a fixed contract price of $40/MWh (escalated at 2%) including NIERP.

BACKGROUND:

<u>Glencore's 2017 Proposal</u>

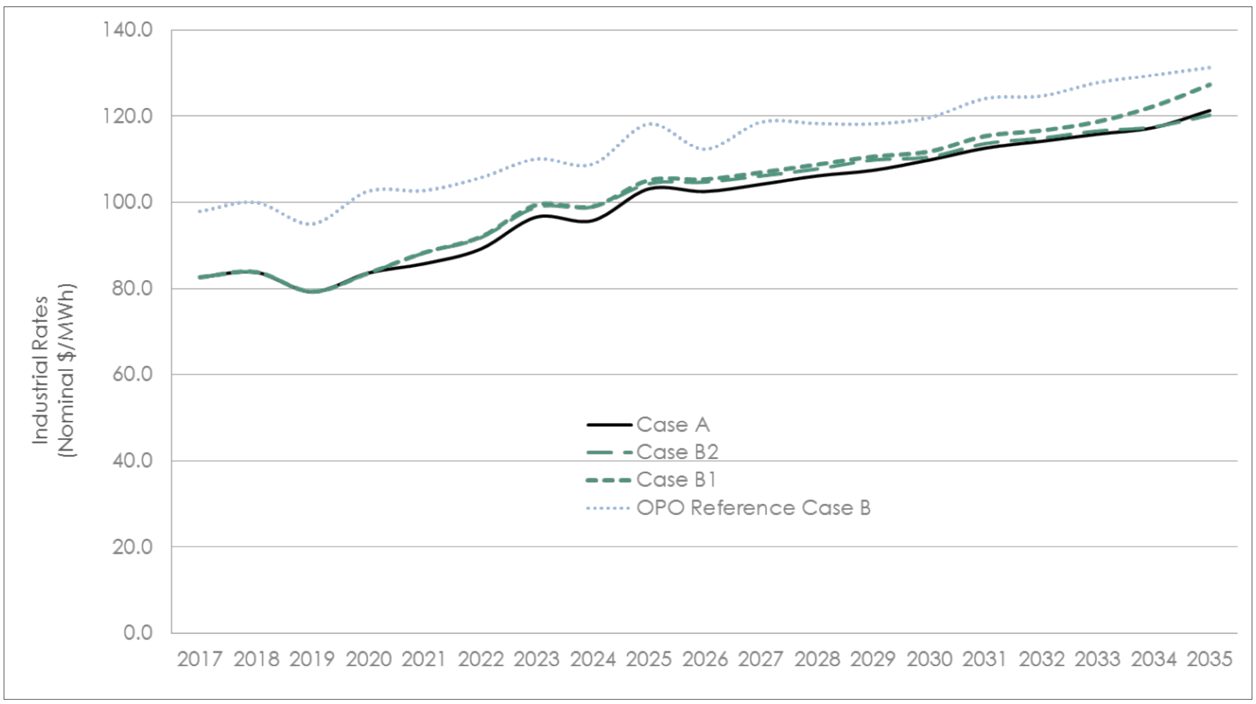
- Glencore has requested an agreement that would "lock in" its current all-in electricity price for a 20-year period, with increases based on inflation.
    - Glencore indicates that its request for stable prices over a 20-year period could be accomplished via a "fourth stream" of the Industrial Electricity

Incentive (IEI) program. Note: Glencore recommends updates to stream 3. For example, eligibility for a new stream of IEI could be linked to a major capital investment similar to the one that Glencore is contemplating.

- Glencore's proposal seeks to establish greater certainty with respect to future industrial electricity prices, as it considers making a future multi-billion dollar investment to mine previously untapped ore deposits and extend the life of its mines to the mid-2030s.

Considerations

- Assuming an average spread of $20/MWh over the 20-year period between the locked-in price and the actual price, the cost to other ratepayers, including other industrial consumers, would be $20 million annually or $400 million in aggregate.



- Providing Glencore with an industrial rate may also lead to electricity being consumed that would not otherwise be consumed, requiring additional generating capacity at a cost to all ratepayers.

- Another drawback of accommodating Glencore's request is that it would have to be available to similarly situated consumers or it could be perceived as unfair. Other consumers that are considering large capital investments in Ontario include Nova Chemicals at its Sarnia location.

- By providing certainty to Glencore, a fixed 20-year rate transfers the pricing uncertainty to other consumers (or taxpayers, if funded by the taxbase).

- A special industrial rate may allow Glencore to pursue electrification of underground mining machinery, a step that would be consistent with government's environmental goals.

<u>Glencore's 2015 Proposal</u>

- In October 2015, in a meeting with ENERGY and MNDM, Glencore advised that it was committed to extending the life of its Sudbury operations, but indicated that the project would not be approved by the parent company without assistance on their electricity costs.

- In particular, Glencore made the point that it could not pursue the project with the risk associated with electricity costs in Ontario. Glencore noted that its electricity cost projections were well above those in the 2013 Long-Term Energy Plan (2013LTEP).

Considerations

- In the meeting, Glencore did not specifically ask for a price to be guaranteed, but had previously asked for guaranteed $40/MWh power escalated at 2%.

- Ontario's electricity system is based on the principle of full cost recovery and guaranteeing prices would shift the risk to other ratepayers. All other industrial customers in the province face this risk.

<u>Glencore's Participation in Ontario's Electricity Pricing Programs</u>

- The table below shows Glencore's participation in the province's electricity pricing programs:

Programs	**Participant**	**Benefit in 2017**
Industrial Conservation Initiative (ICI)	✓	$35/MWh (estimated)*
Industrial Electricity Incentive (IEI)	×	-
Northern Industrial Electricity Rate Program (NIERP)	✓	$20/MWh
Demand Response (DR) auction	×	-
Industrial Accelerator Program (IAP)**	✓	Payment of $5.6M + energy cost savings

*Relative to how Glencore would be charged if there was no ICI program.

**In January 2017 Glencore received $5.6 million through the IAP, which will fund an investment in a ventilation-on-demand system that will improve energy efficiency at the mine. Glencore also received a payment through IAP for a 2011 project that reduced consumption by 3,900 MWh annually.

- Glencore notes that participation in pricing programs has been beneficial, but has negatively impacted its ability to produce in the most efficient manner possible. In terms of ICI, Glencore has some ability to avoid system peaks. The company does take action to control and shift their loads away from system peaks but the nature of mining operations does not allow consumption to be turned down completely.

- Glencore could not participate in IEI because it could not meet the electricity consumption requirements. Glencore has suggested that the objective of IEI was not met since the pool of applicants it has attracted are for projects that had already been committed. Note: In interviews with Navigant, Glencore has indicated that it believes that 90% of IEI projects were "free-riders".

Behind-the-Meter Generation

- As an alternative, Glencore is considering the possibility of building a large simple cycle natural gas-fired generation facility to "reduce its GA cost exposure to zero dollars". While the company's exposure to GA would be eliminated with such a move, it would require a substantial capital expenditure and introduce natural gas price risk. The latter could be managed, or hedged, but at a cost.

Glencore – Company Background

- Glencore is an Anglo–Swiss multinational commodity trading and mining company with headquarters in Baar, Switzerland. It is the tenth largest company in the world with 2016 consolidated revenues of $208 billion in Canadian dollars.

- Glencore's two existing Sudbury nickel mines are reaching the end of their lives. The company is considering making a multi-billion dollar investment in order to mine previously untapped ore deposits and extend the lives of the mines to the mid-2030s. The future of Glencore's nickel operations in Sudbury is dependent on the project.

- According to the company, energy costs would be the second highest cost associated with the proposed investment. Glencore does not view the project as sustainable based on the current outlook for electricity prices. Additionally, Glencore notes that they are facing cost increases due to the price of carbon on electricity and natural gas.

Energy Supply Policy Division
Prepared: June 2017