

MEETING NOTE

NAME OF ORGANIZATION: Goldcorp
DATE/TIME OF MEETING: October 24, 2016
LOCATION OF MEETING: TBD

PURPOSE: To understand Goldcorp's perspective on the role of electricity and industrial competitiveness.

ATTENDEES: Ministry of Energy
TBD

Goldcorp
TBD

POSSIBLE AGENDA ITEMS

1. Industrial Electricity Prices and Mitigation Initiatives
2. Price Mitigation Initiatives
3. Cap and Trade
4. Supply/Transmission Infrastructure for Mining Growth

ORGANIZATION BACKGROUND

Goldcorp is a Canadian company headquartered in Vancouver and is a major gold producer with projects in North and South America. Assets in Ontario include its Red Lake mine (Red Lake), Porcupine mine (Timmins), Musselwhite mine (north of Pickle Lake), Borden project (near Chapleau) and Cochenour Project (near Timmins).

AGENDA ITEMS

1. Industrial Electricity Prices and Mitigation Initiatives

- Input costs, including electricity prices, continue to be a concern for mines in relation to competitiveness.
- Ontario has a number of initiatives to mitigate electricity costs for businesses such as Goldcorp.

Suggested Response:

- **Significant investments have been made to modernize and clean our electricity system. We are working hard to minimize the impact of these investments on business competitiveness.**
- **We recognize the importance of electricity prices for businesses. Maintaining competitiveness with respect to energy costs is a top government priority.**
- **The government has also taken significant steps to make Ontario's business tax system more competitive and create the conditions for long-term economic growth.**
- **Global Adjustment (GA) is a cost allocation and recovery mechanism. Costs that go into GA are incurred to provide electricity services in the province and must be recovered.**
- **The 2016 Budget committed to ensuring that the net impact of cap and trade would not result in an overall increase in electricity costs for the average industrial and commercial consumer.**
- **Ontario also has a number of programs in place that help businesses manage rising electricity prices, including:**
 - **Industrial Conservation Initiative (ICI);**
 - **Industrial Accelerator Program (IAP);**
 - **Northern Industrial Electricity Rate Program;**
 - **SaveONenergy for Business Program; and**
 - **Demand Response Auction.**
- **Ontario introduced legislation that would rebate the provincial portion of the HST from the electricity bills of residential, small business and farms as of January 1, 2017.**
- **In addition, Ontario is proposing to expand the ICI program to include eligible customers with monthly peak demand greater than 1 megawatt (MW), down from the current threshold of 3 MW.**

Background:

Prices in Ontario Energy Report (OER)

- **The Q1 of 2016 Ontario Energy Report (OER) provides information on prices paid by electricity consumers.**
- **In 2015, a Class A electricity consumer (i.e., above 3 MW) located in Ontario paid**

about \$64/MWh to \$84/MWh.

Ontario Prices Compared to Other North American Jurisdictions

- Based on publicly posted electricity prices and current exchange rates, Ontario electricity prices are above the Canadian average, but lower than the U.S. average (See Pricing Comparison chart below).
- Maryland, New Jersey and California are examples of U.S. states with industrial electricity prices that are higher than Ontario's.
- Some large industrial consumers in Ontario are able to pay a lower price than the published price, through participation in programs such as:
 - Industrial Conservation Initiative (ICI);
 - Industrial Energy Incentive (IEI);
 - Industrial Accelerator Program (IAP); and
 - Demand Response initiatives.
- Likewise, some U.S. jurisdictions may have programs that lower the effective cost of electricity below posted rates.

Industrial Conservation Initiative

- ICI encourages Ontario's largest consumers to reduce consumption during peak periods to save on average one-third on their electricity bills.
- By reducing the province's peak demand, ICI has the added benefit of reducing cost pressures on electricity prices by deferring the need to build peaking generation.
- Eligible ICI participants include those consumers with monthly peak demand exceeding 3 MW, subject to eligibility requirements. Under ICI, these consumers are charged Global Adjustment on the basis of their share of the total system demand during the highest five peak hours of the year.
 - Currently there are about 300 participating consumers who collectively have reduced Ontario's peak demand by about 1,000 MW.
- Ontario is proposing to expand ICI to include customers with monthly peak demand greater than 1 MW, down from the current threshold of 3 MW.
 - In addition, sector restrictions would be removed and smaller industrial, institutional and commercial businesses would be eligible to participate.
 - Newly eligible customers would have the opportunity to opt-in to the ICI program.

Industrial Accelerator Program (IAP)

- The Industrial Accelerator Program (IAP) assists eligible transmission-connected

customers to fast-track capital investment of up to \$10 million for major energy-efficiency projects, equipment retrofits, process changes and new construction.

- Eligible participants can receive funding of up to 70% for major energy-saving projects, including process and system changes, retrofits and new construction.
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- Most of Goldcorp's Ontario facilities are transmission connected facilities and would be eligible to participate in IAP. Any distribution connected facilities would be eligible to participate in the saveONenergy for Business program, which includes incentive offerings similar to IAP.

Northern Industrial Electricity Rate Program (NIERP)

- Provides \$20 megawatt per hour (MWh) rebate for qualifying large northern industrial consumers, including mines such as Goldcorp.
- The province committed to extending the program beyond March 31, 2016.

Demand Response Auction

- IESO has transitioned demand response (DR) from a program approach to a market approach. As part of the transition, IESO developed an annual DR auction process.
- The first capacity-based DR auction, conducted in December 2015, is contributing ~390 MW for the 2016 summer season and ~400 MW for the 2016- 2017 winter season. The next DR auction is expected to take place in December 2016.
- Participation in the DR Auction is open to new and existing DR participants in Ontario with peak load greater than 1 MW, including industrial consumers and aggregators.

2. Cap and Trade

- Goldcorp may raise concerns on the potential impact of cap and trade regarding competitiveness.

Suggested Response:

General

- In July 2016, Ontario's *Climate Change Mitigation and Low-Carbon Economy Act* and cap and trade regulation/guidelines came into effect. The legislation and regulation/guidelines establish the basis for Ontario's cap and trade program. On January 1, 2017, the government intends to implement cap and

trade.

Electricity Price Impacts

- **Ontario has been taking strong climate-positive actions for years, such as successfully eliminating coal as a source of electricity generation and developing a long-term energy plan that focuses on a safe, clean, reliable and affordable energy future.**
- **The elimination of coal-fired generation represents a 30 Mt reduction in greenhouse gas (GHG) emissions since 2003. Ontario's electricity sector is now over 90% emissions-free.**
- **As a result of these efforts, Ontario's electricity system is in a strong position as we move forward with implementing the province's cap and trade program.**
- **The Climate Change Action Plan (CCAP) indicated a desire to keep electricity rates affordable by using cap and trade proceeds to offset the cost of greenhouse gas pollution reduction initiatives that are currently funded by electricity consumers through their bills.**

Natural Gas

- **As a regulated entity, costs incurred by gas distributors to comply with the cap and trade program would be passed on to natural gas consumers once reviewed and approved by the Ontario Energy Board (OEB).**

Background:

- On May 18, 2016, Ontario passed the *Climate Change Mitigation and Low-Carbon Economy Act*, 2016 and on May 19, 2016, Ontario posted its final cap and trade regulation (O. Reg. 144/16) and guideline.
- The cap and trade program, a market-based program with targets (caps) that increase and get more stringent over time, is scheduled to come into effect on January 1, 2017.
- Ontario's caps are set at a broader economy-wide level rather than by sector.
- In certain circumstances, some consumers will not have the carbon cost passed on to them by the fuel distributor, if their emissions associated with fuel combustion are already captured under cap and trade (e.g., in the case of "Large Final Emitters", discussed further below) or they are voluntary participants.
- Large Final Emitters (LFEs) are defined as mandatory participants and emit at least 25,000 tonnes of CO₂e (carbon dioxide equivalent) per year or more. Voluntary participants are commercial and/or industrial customers who emit between 10,000

and 25,000 tonnes of CO₂e per year and who choose to participate directly in the program.

- Under the cap and trade regulation/guideline, MOECC will apply a formula-based approach to determine the quantity of allowances that an eligible large final emitter (LFE) will receive free of charge.
 - **Note:** LFEs are entities that emit more than 25,000 tonnes of CO₂ per year.
- For LFEs such as mines, emissions from fossil fuel use (e.g., natural gas, diesel, etc) at their facilities will count against their “facility emissions cap” (for which they will receive free allowances over the first compliance period).
- LFEs are responsible for purchasing allowances to cover the emissions above free allocation amount.

Electricity and Natural Gas Impacts

- Emissions from electricity generation would be subject to a carbon price through the cost of fuel. Natural gas-fired electricity generators are expected to pass on the cost of carbon through increased offers into the wholesale electricity market.
- Carbon costs will be discernable to utility customers in order to provide transparency and cost certainty.
- The 2016 Budget estimated that cap and trade would increase the cost of natural gas by 3.3 cents/m³.

Impact on the Mining Industry

- A preliminary assessment from MOECC revealed that most mines in Ontario report emissions between 10,000 and 25,000 tonnes of CO₂e per year, there are a few that emit over 25,000 tonnes CO₂e per year. As such, emissions from the majority of Ontario mines will either be included in the cost of natural gas provided by the utility or if the mine is a voluntary participant, they will be responsible for their own emissions.

Timeline

- In April 2016, the Ontario Energy Board (OEB) began developing its cap and trade regulatory framework for the natural gas sector and held consultations with its natural gas stakeholders and other interested parties.
- On July 28, 2016, the OEB issued an “early” determination on the bill presentation of charges to recover cap and trade related costs. Those charges are to be included as part of the Delivery Charge on the customer bills.

- On September 26, 2016, the OEB issued its cap and trade regulatory framework for the recovery of costs incurred by the rate-regulated natural gas utilities. The OEB's Regulatory Framework addresses cost assessment, confidentiality, cost recovery, billing, monitoring and reporting, and customer information.
- By November 15, 2016, regulated natural gas utilities are to file their Compliance Plans with the OEB. The OEB is to establish interim charges for each utility by January 1, 2017 when cap and trade comes into effect. A review of the Compliance Plans will follow. A full review of the effectiveness of the framework will be undertaken before the end of the first compliance period (i.e., before December 2020).
- The first auction of emission allowances will be held in March, 2017. This would be a stand-alone Ontario auction and would not be linked with Quebec and California. Post-alignment, auctions with Quebec and California will be held every quarter. As a regulated entity, costs incurred by gas distributors to comply with the cap and trade program would be passed on to natural gas consumers once approved by the Ontario Energy Board (OEB).
- On June 8, 2016, Ontario released its five-year Climate Change Action Plan (CCAP) designed to help Ontario take steps to transition to a low-carbon economy. The CCAP is integral to defining how cap and trade auction proceeds from the first compliance period (2017-2020) will be spent to fund actions to reduce GHG emissions.
- The 2016 CCAP also includes specific action to keep electricity rates affordable by using auction proceeds to offset the cost of GHG emissions reduction initiatives that are currently funded by all electricity consumers.
- The Ministry of Energy continues to work with the Ministry of the Environment and Climate Change, Independent Electricity System Operator (IESO) and OEB in implementing an approach regarding the use of proceeds set out in Ontario's climate change legislation, 2016 Budget and CCAP.

4. Supply/Transmission Infrastructure for Mining Growth

- Goldcorp may have concerns about costs associated with a load transfer that was done to accommodate Rubicon's Phoenix Gold project which has now been suspended.
- Goldcorp may also be interested in creating additional capacity in the area for additional mining operations.

Suggested Response:

- Our priority is to ensure there continues to be a stable, reliable and cost-effective supply of electricity.
- Electricity needs in the Northwest region are being driven by mining and forestry operations as well as growth in the communities that support them. The Independent Electricity System Operator (IESO) is conducting a review of these needs on the bulk system and through regional plans.
- The 2013 Long-Term Energy Plan (LTEP) identified several priority transmission projects in the Northwest to ensure reliable and adequate electricity supply and enable growth in the region. These include the East-West Tie, the Northwest Bulk and the connection of remote First Nation communities including enabling infrastructure such as a new line from the Ignace/Dryden area to Pickle Lake.
- These projects are all under development and proceeding towards securing required approvals.
- Electricity capacity and the transmission system will be assessed as part of the next Long-Term Energy Plan.
- Over the coming months, the Ministry will be conducting engagement sessions across the province to inform Ontario's Long Term Energy Plan. I encourage you to participate in this process.

If asked about Red Lake area capacity

- I am aware that there have been a series of discussions between Hydro One and Rubicon and between Hydro One and Goldcorp regarding capacity in the Red Lake area. Do you anticipate any changes in Goldcorp's load forecast for the area?

If asked about connection cost responsibilities

- As you are aware, electricity transmission in Ontario is built on a "beneficiary pays" basis. This is done so that costs for a new line that only benefits certain customers are not applied to rates paid by all ratepayers.
- This is an important principle because it helps to keep electricity rates from increasing, which benefits families and businesses across the province.

Background:

- The 2013 LTEP noted four priority transmission lines in the northwest: the East-West Tie, Northwest Bulk, Line to Pickle Lake and the connection of remote First Nation communities that currently rely on diesel generation.

Regional Planning

- The IESO has completed Integrated Regional Resource Plans for North of Dryden, West of Thunder Bay, and Greenstone-Marathon. A plan for Thunder Bay sub-region is expected later in 2016.
- The IESO North of Dryden plan recommends the new line to Pickle Lake as well as upgrades to the existing infrastructure between Dryden and Red Lake in order to support load growth and enable mining development. Hydro One has been in communication with a number of customers in the Red Lake area to ensure that upgrades are being made as the needs materialize.

Red Lake Area Capacity

- Where there is no capacity for connection, the customer is expected to pay for system upgrades required for them to be connected and upfront capital contributions may be required from load customers as set out in the Ontario Energy Board's Codes.
- Goldcorp operates four mines in the area, with a total demand of about 38 MW served by Hydro One Distribution via Red Lake Transformer Station (TS) and the new Balmer TS, which is owned by Goldcorp.
- Rubicon was developing its flagship Phoenix Gold project and had initiated work to connect the project to the grid. Demand from this project was expected to reach approximately 8-10 MW or greater over time requiring both upgrades to the existing system and a side agreement with Goldcorp to transfer some load to Balmer TS.
- However, the company suspended the project in November 2015. There is significant doubt the company can continue and they may have to seek creditor protection.
- Rubicon is no longer funding the Hydro One upgrades between Ear Falls Transmission Station and Dryden that were already underway and work on the upgrades is currently halted.
- Initially Goldcorp would have also benefited from these upgrades, although it has since revised its load forecast down.

- These upgrades are expected to be needed as part of Wataynikaneyap's remote connection project.

Load Transfer Agreement between Goldcorp and Rubicon

- Goldcorp built its own transformer station - Balmer TS - and an associated 115kV transmission line connecting to Hydro One's transmission system in response to their own concerns about electricity and costs.
- For a while, Goldcorp did not transfer its electricity load to the Balmer TS due to regulatory rules that would mean they would need to pay a penalty called bypass compensation.
- Rubicon was interested in seeing this transfer of load occur as transferring Goldcorp's load to Balmer TS would free up capacity at Red Lake TS, enabling new load, such as Rubicon's Phoenix Gold Mine, to connect.
- Hydro One worked with Goldcorp and Rubicon to help them reach an agreement, where both mining companies could save substantially, the load would be transferred, freeing up capacity for Rubicon to connect, and Hydro One is kept whole regarding the bypass compensation.
- The load transfer was completed in April 2015. Goldcorp may now have concerns regarding the status of this agreement given the reported issues with the Phoenix Gold mine.

Pikangikum and Connection of Remote Communities

- Wataynikaneyap Power (Watay) is a transmission company partnered with 20 First Nation communities that is proposing to connect remote communities north of Red Lake. These connections will require additional capacity at Red Lake.
- Watay is also looking to connect Pikangikum First Nation to the grid in an accelerated fashion. Discussions are ongoing between Hydro One, Pikangikum, Watay, and the Ministry of Energy on this issue.
- Any grid-upgrades that are needed to connect remote communities could also be of interest in creating capacity for mining operations. Mining companies would still be required to pay their share of costs for any upgrades.