

MEETING NOTE

NAME OF ORGANIZATION: Goldcorp

DATE/TIME OF MEETING: June 13, 2017

LOCATION OF MEETING: TBD

ATTENDEES: Minister of Energy
Glenn Thibeault

Goldcorp

LAST MEETING: March 5, 2017

AGENDA:

1. Request for Capacity Increase at Musselwhite Mine
2. “Enabler” Infrastructure Concept
3. Electricity Prices for Large Industrial Consumers
4. Impact of Cap and Trade

NOTES ON AGENDA ITEMS:

1. Request for Capacity Increase at Musselwhite Mine

- In March 2017 Goldcorp expressed an interest in increasing electricity supply at its Musselwhite mine to reduce reliance on diesel generation.
- Goldcorp has applied to the IESO for a load increase which may require upgrades to the transmission system particularly the E1C transmission line.
- Goldcorp has contested IESO’s technical assessment and argued that capacity can be increased without having to undertake transmission upgrades.

Suggested Response:

- The IESO plays a key role in maintaining the reliability of Ontario’s transmission system and the System Impact Assessment process is important for ensuring new load can be served in a reliable manner.
- With regard to determining the technical limits of transmission infrastructure, it is the IESO’s role to conduct System Impact Assessments in a manner that is transparent, fair to applicants and supported by engineering and system planning expertise.

- **As an independent agency, the IESO is arms-length from the Ministry in conducting assessments in accordance with its mandate.**

Background:

- Goldcorp currently has a peak load of 19.5 MW delivered through its private transmission line (M1M) which connects at Pickle Lake. Additional power needs are met through on-site diesel generation that is not connected to the grid. These needs for diesel generation vary but may be as much as 5MW on average.
- Goldcorp is interested in eliminating its reliance on diesel generation completely, which has led Goldcorp to seek to increase the load served by its M1M transmission line.
- It is also in Goldcorp's financial interest to secure as much load as possible through existing infrastructure because of the potential for Goldcorp to be required to pay a portion of costs for Watay's Line to Pickle Lake (remotes phase 1) when it is complete.
- Under the "beneficiary pays" principle, Goldcorp's contribution to Watay would be based on the amount of load they would use that is incremental to what they have under the existing infrastructure.
- The purpose of IESO's System Impact Assessment is to ensure that a new connection or load increase does not interfere with IESO's ability to manage the transmission system and to mitigate impacts to other existing transmitters, customers or generators. In its LTEP submission Goldcorp requests that IESO revise its approach for calculating load limits on the M1M and E1C transmission lines.

2. LTEP Submission on "Enabler" Infrastructure Concept

- In its LTEP submission, Goldcorp says the concept of an economic 'enabler' for transmission infrastructure would help overcome challenges related to cost responsibility.

Suggested Response:

- **A number of stakeholders have raised the issue of cost responsibility for connection infrastructure through the 2016 engagement sessions on the Long-Term Energy Plan.**
- **The Ministry is considering the feedback received as it develops the new Long-Term Energy Plan.**

Background:

- Goldcorp feels that although infrastructure in the North generates GDP, sets the stage for economic development, and has multiple social and environmental benefits, it rarely meets the public use test.
- For example, Goldcorp feels that the current cost responsibility rules are impeding the development of critical infrastructure in the Red Lake area for major customers like Rubicon Gold and Wataynikaneyap Power.
- Goldcorp proposes an enabler concept where ratepayers initially fund a portion of connection lines, with costs being paid back over time through rates on the basis of forecasted growth of new load.
- Goldcorp feels that an 'enabler' model would defray upfront costs spur economic development, especially in Northern Ontario.

3. Electricity Prices for Large Industrial Consumers

- Goldcorp is considering expanding operations at its Porcupine mine in Timmins, Ontario to include a large open pit mine. Such a mine would be very energy intensive and Goldcorp wishes to assess costs of using electricity versus diesel at such a site in the context of increasing electricity prices.

Suggested Response:

- **We recognize the importance of electricity prices for the energy intensive mining sector in Ontario. Maintaining competitiveness with respect to energy costs is a top government priority.**
- **As part of Ontario's Fair Hydro Plan, the Ontario Electricity Support Program (OESP) and the Rural or Remote Rate Protection (RRRP) program will now be funded from provincial revenues instead of by electricity consumers. This will provide savings to consumers of all sizes, including industrial customers like Goldcorp.**
- **There are a number of existing initiatives available to business consumers to help them manage their electricity costs:**
 - **Industrial Conservation Initiative (ICI);**
 - **Industrial Accelerator Program (IAP);**
 - **Northern Industrial Electricity Rate (NIER); and**
 - **Demand Response (DR) initiatives.**

- In addition, we intend to remove the Debt Retirement Charge (DRC) for commercial, industrial and other non-residential electricity users on April 1, 2018, nine months earlier than previously planned.
- 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.
- Due to the investment related to the elimination of coal from our supply mix and the modernization of our transmission system, the electricity sector is well placed to contribute to Ontario's transition to a low-carbon economy.

Background:

Industrial Conservation Initiative (ICI)

- Eligible ICI participants include those consumers with monthly peak demand exceeding 1 MW. 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.

Industrial Accelerator Program (IAP)

- The IAP assists eligible transmission-connected companies to fast track capital investment in major energy conservation projects. The program provides financial incentives to encourage investment in innovative process changes and equipment retrofits to reduce electricity consumption on the provincial system and to help companies become more competitive by positively impacting their bottom line.

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.

Ontario's Fair Hydro Plan

- On March, 2, 2017, the government announced Ontario's Fair Hydro Plan which includes shifting the cost of the Rural or Remote Rate Protection Program (RRRP) and Ontario Electricity Support Program (OESP) from the rate-base to the tax-base. This will benefit all ratepayers including large industrial ratepayers.
 - On June 1, 2017, the *Fair Hydro Act, 2017* received Royal Assent, enabling the full implementation of the plan.

4. Impact of Cap and Trade

- Goldcorp may raise concerns on the potential impact of cap and trade regarding competitiveness of future mining operations as it considers whether to use electricity or diesel in a potential open mine pit at Timmins.
- In its Long-Term Energy Plan (LTEP) submission, Goldcorp suggested that companies who engage in significant fuel switching are rewarded with a lower electricity price via the introduction of a government program.
- Also in its LTEP submission, Goldcorp is concerned about a lack of certainty regarding cap and trade's impact on the electricity sector post 2020 (i.e., after the first compliance period ends).

Suggested Response:

- **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.**
- **Ontario's Fair Hydro Plan includes the shifting of cost recovery for electricity support programs from electricity bills to provincial revenues. This will provide a benefit of approximately \$3/MWh for all consumers and is expected to offset the price increase resulting from cap and trade for an average Class A electricity consumer.**
- **I appreciate Goldcorp's suggestions regarding programs that could incent significant fuel switching from fossil fuels to electricity. Cap and trade proceeds will be used to support programs aimed at reducing greenhouse gas (GHG) emissions and energy consumption.**
- **The Ministry of the Environment and Climate Change (MOECC) continues to implement its Climate Change Action Plan (CCAP), which outlines how cap and trade auction proceeds are to be used in first compliance period of cap and trade.**

- **The Greenhouse Gas Reduction Account (GGRA) will receive proceeds from auctioning allowances under Ontario's cap and trade program. The first and second auctions were held in March and June 2017, respectively.**
- **Government will outline its plan for fighting climate change post-2020 in the next CCAP, which will be developed as we approach 2020.**

Background:

- A preliminary assessment from the MOECC revealed that most mines in Ontario report emissions between 10,000 and 25,000 tonnes of CO₂e per year, and 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.
- On June 8, 2016, Ontario released its five-year CCAP designed to help Ontario take steps to transition to a low-carbon economy. No announcement has been made regarding to specific programs that would reward industrial consumers that engage in fuel switching.
- As part of Ontario's Fair Hydro Plan, the Ontario Electricity Support Program and Rural or Remote Rate Protection will be funded through the tax base instead of the rate base, reducing regulatory charges on electricity consumers' bills by approximately \$3/MWh. For an average Class A consumer, the change will lead to a decrease of approximately 4%, and is expected to offset the price increase resulting from cap and trade for an average Class A electricity consumer over the first compliance period of the program.

KEY FACTS:

- Goldcorp is a Canadian company headquartered in Vancouver and is a major gold producer with projects in North and South America.
- According to Goldcorp, energy represents ~ 12% of total production cost in Ontario.
- Between Red Lake Gold Mines (RLGM), Porcupine Gold Mines (PGM) and Musselwhite Mine (MWM), Goldcorp consumes ~ 600,000 MWh per year and paid more than \$50 M for electricity in 2015 (average rate ~\$85/MWh though one of the facilities pays \$40/MWh).
- Goldcorp's development pipeline includes 2 projects in Ontario, a deep mine at Borden Lake (160km West of Timmins) and an open pit project adjacent to its existing opencast site at Timmins. Both sites could be operational in 2019 if exploratory drilling is successful.
- In total, Global Adjustment (GA) represents 50% of Goldcorp Ontario's electricity cost or roughly \$25 million per year. All three sites participate in ICI.
- Between 2013 and 2015, Goldcorp's Musselwhite mine reduced GHG emissions by 20,000 tCO₂e / year and energy consumption by 100,000 MWh/year through conservation and phasing out diesel generation.
- All three sites take advantage of the NIER program which reduces the cost of electricity by \$20/MWh though it does go above its allocation so not every MWh consumed receives the rebate.
- All three sites employ an energy manager through IESO's IAP.

APPENDIX:

1. Electricity Prices for Large Industrial Consumers

Timmins Open Pit Mine Project

- Goldcorp noted that ICI is not good for facilities that must run 24/7 to remain competitive and recommend NIERP to be expanded to cover all its existing industrial operations.
- If in 2022, NIERP is fully subscribed and electricity consumers pay the full price for carbon, Goldcorp suggest the price of electricity will be significant deterrent to the Timmins open pit mine project.
- Goldcorp favours the introduction of an Industrial Electricity Incentive (IEI) type program that would attract investment such as the Timmins project. The Industrial Electricity Incentive (IEI) offers reduced electricity rates for companies starting or expanding operations in Ontario. To date, IESO has awarded 22 contracts to energy-intensive companies across the province through the program.

Industrial Electricity Incentive (IEI) Program

- IEI assists in the management of demand by encouraging increased production and expansion.
- Qualified participants in identified energy-intensive sectors receive reduced electricity rates for incremental consumption over a specified term.
- IEI was originally offered in three streams through a competitive IESO procurement process. There are a total of 22 successful participants: 7 in Stream 2 and 15 in Stream 3.
- There are currently no plans for another stream of the IEI program.

Industrial Conservation Initiative (ICI)

- 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.
- Under ICI, 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.
- Effective January 1st, 2017 Ontario has expanded ICI to include customers with monthly peak demand greater than 1 MW, down from the previous threshold of 3 MW.
 - In addition, sector restrictions have been removed so smaller industrial, institutional and commercial businesses are now eligible to participate.
 - As part of Ontario's Fair Hydro Plan, the program was further expanded to include manufacturers and greenhouses between 500 kW and 1 MW. This expansion applies only to NAICS codes commencing with the digits "31", "32", "33", and "1114", and therefore does not have broad applicability to the mining sector.
 - Newly eligible customers have the opportunity to opt-in to the ICI program and can expect to see the impact effective July 1st, 2017.

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.
- 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 (DR)

- DR provides payments to businesses and industry to shift consumption at times when the electricity system is stressed.
- The IESO has transitioned DR from a program approach to a market approach.
 - Annual DR auctions replace the practice of multi-year contracting for DR. Under the former OPA, DR resources were procured through the DR3 program for typically 5 year contract periods.
 - The IESO held its first DR auction in December 2015, procuring ~390 MW were procured for the summer commitment period (May 2016 to October 2016) and ~400 MW for the winter commitment period (November 2016 to April 2017).
- In addition to the DR auction process, IESO is also undertaking pilot programs to test new capabilities for DR in the energy market and its ability to meet system needs.

2. Cap and Trade – Background

General

- 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.
- In certain circumstances, some consumers will not have the carbon cost passed on to them by the fuel distributor, if their emissions associated from 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 (LFE), mandatory participants under cap and trade, are defined as emitting at least 25,000 tonnes of CO₂e (carbon dioxide equivalent) per year or more.
- Voluntary participants are facilities 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.

- All covered facilities (i.e., those whose emissions exceed the opt-in threshold of 10kt) are eligible for free allowances during the first compliance period of cap and trade.
- LFEs are responsible for purchasing allowances to cover the emissions above their free allocation amount.

Impact on Natural Gas:

- On November 24, 2016, the Ontario Energy Board (OEB) issued its interim rate order approving the utilities requested cap and trade rates, pending the outcome of a combined proceeding to determine final rates for the natural gas utilities.
- On April 24, 2017, the OEB concluded the oral hearing related to the utilities applications for approval of the cost consequences of cap and trade compliance plans.
- The OEB accepted written supply submissions until Friday, June 9, 2017 and is now proceeding with its decision on the final rates.

Interim Cap and Trade Charges – Effective January 1, 2017

Natural Gas Utilities	Cap and Trade Cost
Union Gas – South	3.3478 cents/m ³
Union Gas – North	3.3690 cents/m ³
Enbridge Gas Distribution	3.3518 cents/m ³
Natural Resource Gas	3.3945 cents/m ³

Electricity and Natural Gas Impacts

- Emissions from electricity generation are 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.