

MEETING NOTE

NAME OF ORGANIZATION: Meet the Miners Roundtable

DATE/TIME OF MEETING: October 24, 2016

LOCATION OF MEETING: TBD

PURPOSE: To understand the perspective of Ontario's miners' energy needs and industrial competitiveness.

ATTENDEES: Ministry of Energy
TBD

Representatives from:
TBD

ANTICIPATED AGENDA ITEMS

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

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 mines.

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); and
 - Northern Industrial Electricity Rate Program.
- 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 2016 Ontario Energy Report (OER) provides information on prices paid by electricity consumers.
- In 2015, a Class A 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 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 Accelerator Program

- The 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 Ontario's mines 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.

Demand Response Auction

- The 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.

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 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 large mines such as Goldcorp and Vale.
- The province committed to extending the program beyond March 31, 2016.

2. Cap and Trade

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

3. Supply/Transmission Infrastructure for Mining Growth

- Some mining stakeholders have been arguing that the current supply is not adequate to support connection of new mines and that connection costs pose a barrier to economic development.

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 connection costs:

- 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.

Connection Cost Responsibility

- 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.

4. Natural Gas Availability for Mining Projects

- Stakeholders may argue for subsidization of costs associated with the conversion to natural gas from their existing fuel sources to assist in maximizing uptake of natural gas in Ontario's rural and northern areas.

Suggested Response:

- **The government remains committed to natural gas expansion to rural and remote communities. Ontario is interested in learning more about opportunities for Ontario's mining industry and what barriers may exist for expanding your operations.**
- **Access to natural gas is an important issue for Ontario's rural and northern communities. Access to natural gas infrastructure contributes to the quality of life and economic prosperity that Ontarians enjoy.**
- **Gas distribution expansion can be expensive and may require large customer contributions to make it viable in more rural and remote communities, which poses a challenge for many communities.**
- **As indicated in our 2013 Long-Term Energy Plan (2013 LTEP), we are ready to work with gas distributors and municipalities to help service more communities in rural and northern Ontario.**
- **The Ontario Energy Board (OEB) must review and approve natural gas expansion plans before construction can begin. Ontario is looking forward to a timely decision from the OEB on the Generic Hearing. An appropriate regulatory framework is a key element to enable a rational expansion of the province's natural gas distribution infrastructure.**
- **To help ensure all Ontario residents and industries share in the benefits of natural gas, the government plans to provide up to \$200-million over two years for a Natural Gas Access Loan. In Budget 2016, we committed to launching the Loan Program in the current year.**
- **The loan will help communities partner with gas distributors to extend access to natural gas supplies. The government also plans to establish a \$30-million Natural Gas Economic Development Grant to accelerate those projects with**

clear economic development potential. This is part of our government's investment in the people of Ontario.

- **I encourage miners to engage in opportunities to work with Ministry of Energy, Ministry of Infrastructure, Ministry of Economic Development and Growth, and Ministry of Northern Development and Mines for possible options for industrial program development.**

Background:

- Natural gas expansion requires distributors to determine if it is commercially viable to service a new community, given the high capital cost of building the necessary pipeline infrastructure.
 - Many communities are working with the main gas distributors (Union and Enbridge) and other, smaller natural gas companies (e.g., providers of “liquefied natural gas”, etc.) to develop project proposals/business cases for gas access.
- Approval of a natural gas expansion project within Ontario is undertaken by the OEB (i.e., OEB approves the new project application). The OEB considers economic, environmental and social factors when evaluating any pipeline expansion projects. It is currently holding a generic hearing process to determine whether and how to adjust regulatory parameters around natural gas expansion to facilitate more opportunities to expand gas service.
- Stakeholder feedback suggests subsidization of costs associated with the consumer conversion to natural gas from their existing fuel sources would assist in maximizing uptake of natural gas in unserved and underserved communities. Under MEDEL's current proposal the Minister of Energy would be responsible for approving loans to pay for these conversion costs.
 - Infrastructure Ontario (IO) would perform financial due diligence on the credit worthiness of the applicants prior to final funding decisions. Loans will be secured (i.e., borrowers would pledge an asset as collateral for the loan) where possible. IO will be responsible for annual monitoring and tracking of loan payments in order to flag any potential concerns associated with the borrower and the loan.