MEETING NOTE

NAME OF ORGANIZATION: Canadian Manufacturers & Exporters

DATE/TIME OF MEETING: November 29, 2016

LOCATION OF MEETING: Room 321, Main Legislative Building

PURPOSE: Meeting to discuss electricity prices, cap and trade and conservation programs

ATTENDEES: **Minister of Energy**
Glenn Thibeault

Canadian Manufacturers & Exporters (CME)

ANTICIPATED AGENDA ITEMS:

1. Cap and Trade
2. Industrial Electricity Rates and Rate Mitigation Programs
3. Conservation Programs
4. Green Investment Fund – Home Energy Audits and Retrofits

NOTES ON AGENDA ITEMS:

1. Cap and Trade

- In the context of cap and trade, CME may raise concerns about uncertainty and risk related to electricity prices.

<u>**Suggested Response:**</u>

- **I recognize the contribution of CME's members to Ontario's economy.**

Natural Gas Electricity Generation:

- **Electricity is a covered sector under Ontario's cap and trade program, meaning that all electricity that is sold to the grid will carry the cost of carbon.**

- **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.

- **Even if it is generated though a combined heat and power (CHP) facility, electricity that is sold into the grid is not eligible for free allowances.**

- **I understand that IESO is consulting with some electricity generators regarding the impact of cap and trade on generator contracts. Detailed questions about this process should be directed to IESO.**

Behind the Meter Combined Heat and Power (BMG CHP):

- **All covered behind the meter generation (i.e., emit more than 10,000 tonnes of GHGs per year and electricity is not sold to the grid) is eligible to receive free allowances for any steam and/or electricity-related emissions generated on-site or purchased from a third-party.**

Natural Gas Impacts:

- **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).**

- **On September 26, 2016, the Ontario Energy Board (OEB) issued its cap and trade regulatory framework for the recovery of costs incurred by the rate-regulated natural gas utilities. This was done after broad OEB consultations with natural gas stakeholders.**

- **The OEB is an experienced public interest regulator and its decision is based on research and consideration of input from the natural gas utilities, consumer advocates and environment groups. The Government of Ontario relies on and has confidence in the OEB as a trusted and expert administrator of the regulatory system for natural gas.**

- **The OEB directed the natural gas utilities to include cap and trade costs in the "delivery" line item – as part of the delivery charge on customer's bills.**

- **Natural gas rates will be adjusted periodically to reflect changes in the cost of GHG allowances that utilities have to purchase.**

Impact on Retail Fuel:

- **Fuel suppliers in the province are subject to Ontario's cap and trade legislation for the fuel they provide to the market starting January 1, 2017.**

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.

Impacts to Natural Gas-fired Electricity Generators (including CHP):

- Under the cap and trade program, Ontario's natural gas distributors (i.e., Enbridge Gas and Union Gas) will be the "point of regulation" for Ontario's natural gas-fired electricity generators, including grid-connected CHP.

- This means that natural gas distributors will purchase allowances to cover emissions of natural gas-fired electricity generators and other consumers that are not directly covered under cap and trade.

- 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.

- 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).

- Contracts between generators and the Independent Electricity System Operator (IESO) are confidential. ENERGY is not aware of the status of negotiations and does not know which generators are entitled to an amendment.

Free Allocation to Mandatory and Voluntary Participants:

- 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 are for purchasing allowances to cover the emissions above their free allocation amount.

Treatment of Behind-the-Meter Generation Combined Heat and Power (BMG CHP):

- Under the cap and trade regulation, all covered BMG/CHP (i.e., those whose emissions exceed the opt-in threshold of 10kt) are eligible to receive free allowances for any steam and/or electricity-related emissions generated on-site or purchased from a third-party via a bilateral contract.

- Even if it is generated though a CHP facility, electricity that is sold into the grid will not be eligible for free allowances.

- Facilities with emissions below the opt-in threshold of 10kt will not be covered directly under cap and trade and therefore are not eligible for free allowances.

- Such facilities will have an indirect compliance obligation (i.e., carbon costs will be passed through from their natural gas supplier).

- This treatment is consistent with the threshold set in the current cap and trade regulation.

- MOECC advises that is planning to implement cap and trade beginning in 2017 as per the current regulations and guidelines. It unlikely that MOECC will amend the current the 10kt threshold and free allocation formula-based approaches

Impact on Natural Gas:

- On November 24, 2016, the 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. That hearing is expected to commence in Q1 of 2017.

Interim Cap and Trade Charges – Effective January 1, 2017

Natural Gas Utilities	Cap and Trade Cost
Union Gas – South	3.3478 cents/m3
Union Gas – North	3.3690 cents/m3
Enbridge Gas Distribution	3.3518 cents/m3
Natural Resource Gas	3.3945 cents/m3

- The OEB estimates interim cap and trade costs for residential customers of $6.00 to $7.00 on average per month. The cost will vary proportional to the amount of natural gas consumed. The table below shows the approved interim rates for residential customers.

  - There are a number of reasons for OEB's decision to include cap and trade costs in the delivery line on bills:

    - The costs of complying with the new Ontario Cap and Trade program are part of the ongoing operations of the natural gas utilities. Ongoing operations costs are included in the delivery line on utility bills;

    - Cap and Trade costs are similar to conservation program costs. Both are designed to encourage consumers to reduce their usage. The costs of energy conservation programs are included in the delivery charge, and are not broken out. The inclusion of Cap and Trade costs in the delivery line follows this model;

    - Research conducted by the OEB shows that consumers want simpler bills and information that helps them manage their costs. The research shows that, when reviewing their monthly bills, consumers focus their attention on the amount they consumed and the total bill price; little attention is paid to specific bill line items; and

    - A review of other jurisdictions with Cap and Trade programs indicates there isn't a standard approach to bill presentment.

Impact on Retail Fuel:

- The 2016 Budget estimated that cap and trade would increase the cost of gasoline by about 4.3 cents/litre in 2017 (i.e., as result of a pass-through of compliance costs under cap and trade to end-use fuel consumers).

- Fuel suppliers in the province are subject to Ontario's cap and trade legislation, and are required to have allowances by the end of the first compliance period in 2020 to offset the greenhouse gas (GHG) emissions from the fuel they provide to the market starting January 1, 2017.

- It is anticipated that fuel suppliers will estimate their compliance costs of cap and trade (i.e., by looking at recent auction prices for allowances) and adjust their wholesale prices to reflect those costs as of January 1, 2017.

2. Industrial Electricity Rates and Rate Mitigation Programs

- CME may raise concerns about the impact of electricity costs.

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 competiveness.**
- **We recognize the importance of electricity prices for the greenhouse sector in Ontario. Maintaining competitiveness with respect to energy costs is a top government priority.**
- **There are a number of existing initiatives available to industrial consumers to help them manage their electricity costs:**
    - **Industrial Conservation Initiative (ICI);**
    - **Industrial Accelerator Program (IAP);**
    - **Demand Response initiatives; and**
    - **saveONenergy for Business conservation program for commercial and industrial consumers.**
- **As announced in the September 2016 Throne Speech, we are proposing to lower the Industrial Conservation Initiative (ICI) threshold to 1 MW and remove sector restrictions so that more electricity consumers can benefit.**
    - **ICI is currently available to electricity consumers over 5 MW and consumers from 3-5 MW in certain energy intensive sectors.**
    - **More than 300 businesses are already utilizing the ICI to achieve electricity savings, and with these changes, over 1,000 new businesses are estimated to be eligible for ICI.**
    - **Newly eligible consumers would be able to opt-in to the ICI program at their discretion and those that opt-in would see the impact in July 2017.**
- **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 estimated.**
- **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.**
- **Finally, I encourage you to participate in the development of the Long Term Energy Plan by sharing your feedback on the Environmental Registry and participating in the upcoming consultation sessions.**

Background:

- Some large industrial consumers (including greenhouse facilities) in Ontario are able to pay a lower price than the published price, through participation in programs such as:
    - Industrial Conservation Initiative (ICI);
    - Industrial Accelerator Program (IAP);
    - Demand Response initiatives; and
    - saveONenergy for Business conservation program for commercial and industrial consumers.
- Likewise, some U.S. jurisdictions may have programs that lower the effective cost of electricity below posted rates.

Ontario's Price Mitigation Programs

- ICI – encourages Ontario's largest consumers to reduce consumption during peak periods to reduce their electricity costs by an average of up to one-third.
    - Since July 2015, Class A includes energy-intensive consumers with an average monthly peak demand greater than 3 MW and less than 5 MW in select industries including manufacturing. Note: In the September 2016 Throne Speech the government announced that it was expanding access to ICI (see below).
- IAP – offers financial incentives of up to $10 million (for capital projects) to *transmission-connected* electricity consumers, to invest in energy-efficiency or self-generation projects that reduce the amount of electricity withdrawn from the provincial grid.
- Demand Response initiatives – compensate participating industrial and commercial consumers for reducing electricity demand during system peaks.
- saveONenergy for Business – electricity conservation program offered by local distribution companies to help businesses save energy and better manage their electricity use.

ICI Expansion

- Ontario is proposing to expand the ICI program to include more than one thousand newly eligible customers with monthly peak demand greater than one megawatt, down from the current threshold of three megawatts. In addition, sector restrictions would be removed and smaller industrial, institutional and commercial businesses would be eligible to participate.

- Expanding participation in the ICI program would:
  - Reduce cost pressures on the electricity system by empowering more consumers to lower their electricity demand during peak periods; and
  - Reduce electricity bills for new ICI participants who are able to reduce their electricity demand during peak demand periods.
- Newly eligible customers would have the opportunity to opt-in to the ICI program.
- With more than a thousand new businesses soon eligible for ICI, cost impact across sectors and industries will vary.

3. Conservation Programs

- Conservation programs available to the Industrial sector that can help industry manage their electricity bills.

<u>Suggested Response:</u>

- **Ontario has a number of programs in place that help businesses and industry continue to move forward toward greater efficiency and competitiveness through the installation of energy saving measures, or by using energy wisely.**

- **How has your membership's experience been with these programs? How do you think CME members can be further encouraged to participate in these programs?**

<u>Background:</u>

- Ontario's 2015-2020 Conservation First Framework and Demand Side Management Framework represent an investment of about $4 billion to support conservation and energy efficiency programs from 2015 to end of 2020 across all sectors of Ontario's economy.

- The Industrial Conservation Initiative (ICI) allows qualifying large commercial and industrial consumers in specific sectors to reduce their electricity costs through reduced demand during the five peak hours of the previous year.

- The Industrial Accelerator Program (IAP) assists eligible industrial, commercial and institutional 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.

- IAP also offers financial incentives for behind the meter (BMG) customer generation with the intent of reducing electricity consumption from the grid.

    - Under IAP, generation projects must not exceed 20 MW.

    - BMG projects can include combined heat and power, and waste energy recovery.

- The saveONenergy for Business Program offers a variety of financial incentives to distribution-connected industrial customers to increase energy efficiency and save money on their bills.

- The programs available are: the RETROFIT program, the PROCESS and SYSTEM program, the Embedded Energy Manager program and the AUDIT FUNDING program.

- For example, Air Liquide's Hamilton air separation plant, the largest in Canada, was able to reduce 6.4 million kWh and $500,000 annually thought compressor upgrades. Air Liquide received a $120,000 saveONenergy incentive towards the costs of the project. Total project cost was $1.2 million.

- Demand Response (DR) provides payments to businesses and industry to shift consumption at times when the electricity system is stressed. DR currently provides ~500 MW of capacity to the system. The next DR Auction will be held in December 2016.

- Natural gas conservation programs for commercial (including agricultural, municipalities, universities, schools, and hospitals) and industrial sectors are delivered by Enbridge Gas Distribution and Union Gas.

    - Enbridge Gas and Union Gas both provide incentives for efficient building equipment and systems retrofits such as space heating, water heating and food services.

    - Enbridge Gas Run It Right program and the Union Gas Run Smart Building Optimization program analyze a building's energy performance to identify, implement and monitor low- and no-cost operational improvements.

- For example, staff at Imperial Oil's Sarnia site worked with Union Gas's energy conservation team on an initiative to address on-site steam leaks. Imperial dedicated a full-time employee and invested in new equipment to test and repair all 9,000 steam traps across the site and set up a site steam leak repair program at the refinery. Union Gas provided $140,000 in incentives towards the project. Imperial's natural gas consumption has now reduced by 7.5 million cubic metres and saves more than $3 million in annual energy savings.

4. Green Investment Fund

- In 2015, Ontario took an important step towards transitioning Ontario to a low carbon economy when it announced it would invest $325 million in greenhouse gas reducing initiatives through a new Green Investment Fund (GIF). GIF is a down payment on Ontario's cap and trade program to strengthen the economy, create jobs and reduce greenhouse gas emissions.

- The Ministry of Energy and the Ministry of Economic Development and Growth are responsible for two separate initiatives funded through GIF:

- *Enhanced home energy audits and retrofits programs* – Enbridge and Union received $100 million from GIF to enhance their existing home energy audits and retrofits program. The Ministry of Energy is the lead ministry for this initiative.

- *SMART Green* – CME has received $25 million from GIF to deliver SMART Green. The Ministry of Economic Development and Growth is the lead ministry for this initiative.

<u>**Suggested Response:**</u>

- **I understand that the CME has received $25 million from the Green Investment Fund to deliver SMART Green, an energy efficiency program to help small and medium-sized businesses reduce emissions and become more energy efficient.**

- **It may interest you to know that in October, Ontario announced the official, province-wide launch of another initiative funded through the Green Investment Fund: the Union and Enbridge *enhanced home energy audit and retrofit programs*.**

- **Ontario has invested $100M from the GIF in support of these programs, which will help homeowners reduce their energy bills and cut greenhouse gas emissions.**

- **These programs are helping to make around 37,000 additional homes more energy efficient by providing cash rebates for home energy audits and retrofits.**

- **This GIF program is available to residential customers across Ontario who use natural gas, oil, propane or wood for home heating. Homeowners who participate in the full GIF program over the upcoming months will certainly see the benefits on their winter heating bills.**

<u>Background:</u>

- In the 2015 Fall Economic Statement, Ontario announced it was investing $325 million through the Green Investment Fund (GIF) in a number of commitments to support the implementation of Ontario's Climate Change Strategy. These include investments that support energy retrofits in homes, energy-efficiency initiatives and public charging stations for electric vehicles.

- The Ministry of Economic Development and Growth is the lead ministry working with Canadian Manufacturers and Exporters to deliver SMART Green.

- SMART Green is an energy efficiency program to help small and medium-sized businesses reduce emissions and become more energy efficient.
- ENERGY has no additional insight into the SMART Green program.

- In February 2016, the government announced that it was investing $100 million of the GIF to enhance Enbridge and Union's existing home energy audits and retrofit programs.
  - On October 31, 2016, the programs were officially launched province-wide.
- The enhanced home energy audits and retrofit programs are designed to help homeowners improve the energy efficiency of their homes, reduce their energy bills, and cut greenhouse gas emissions. The Programs are:
  - Available to residential customers across Ontario (i.e. including those outside of Enbridge and Union service territories) that use natural gas, oil, propane and wood for primary heating;
  - Expected to help approximately 37,000 additional homeowners conduct audits to identify energy-saving opportunities and then complete retrofits. Examples of retrofits include replacing furnaces and water heaters and upgrading insulation; and
  - Expected to save an estimated 1.6 Megatonnes of greenhouse gas (GHG) emissions.
- Enbridge and Union Gas have created an online tool that automatically directs homeowners to the site of the utility that is offering the program in their area, based on their postal code.
  - Northern Ontario homeowners interested in the GIF home energy audits and retrofits program should be encouraged to go to this tool, found at: www.ohecip.ca.