

NAME OF ORGANIZATION: MOECC-ENERGY Ministers Meeting

DATE/TIME OF MEETING: 4:30 – 5:30 PM on Wednesday, March 22, 2017

LOCATION OF MEETING: Hearst Block, Floor 4, Executive Boardroom
MacDonald Complex, 900 Bay Street
Toronto

PURPOSE: Discuss items of mutual interest

ATTENDEES: **Ministry of Energy**
Hon. Glenn Thibeault, Minister of Energy
Andrew Teliszewsky, Chief of Staff

Ministry of the Environment and Climate Change
Hon. Glen Murray, Minister of the Environment and Climate
Change

ANTICIPATED AGENDA ITEMS:

1. GreenON
2. LTEP
3. Free Overnight EV Charging
4. Cap and Trade in First Nation Communities
5. Microgrid Funding
6. Geothermal

NOTES ON ANTICIPATED AGENDA ITEMS:

1. Green Ontario Fund (Ontario Climate Change Solutions Deployment Corporation or OCCSDC)

- Update on creating the Green Ontario Fund (GreenON)

Suggested Response:

- **With a commitment to having new program offerings in place by Fall 2017, I am supportive of the ongoing collaboration among ENERGY, the IESO, and MOECC.**
- **It is critical that ENERGY continue to be informed and engaged throughout on IESO's services to MOECC/GreenON to understand potential impacts to IESO's existing planned activities, and to ensure a coordinated approach.**

Background

- As per the May 2016 CCAP Cabinet Minute, ENERGY is working with MOECC to help establish the Ontario Climate Change Solutions Deployment Corporation (OCCSDC) (public-facing name now "Green Ontario Fund," or "GreenON").
- On February 22, 2017, Ontario Regulation 46/17 – OCCSDC was posted to eLaws.
- As outlined in the regulation, the object of the corporation is to "stimulate the development of industry, trades and business undertakings in Ontario that further the deployment in Ontario of commercially available technology that reduces greenhouse gas emissions from buildings or from the production of goods."
- GreenON is required to develop programs which target residential (including low-income) buildings, new residential buildings and the production of goods (industrial customers).
- The Minister of Energy sent a letter to the IESO on February 13, 2017 requesting that the IESO support the implementation and early adoption of GreenON services.
 - It was noted that the IESO, ENERGY, and MOECC would need to determine what mechanisms might be necessary in order for the IESO to provide services to GreenON.

- MOECC is working to have the GreenON website launched for May 26, 2017, with new programs available by September 2017.
- As of March 16, 2017, MOECC and IESO were working to finalize a Service Level Agreement for the IESO to:
 - Design and establish the GreenON website;
 - Provide client relations management services on behalf of the OCCSDC; and
 - Provide early advice to GreenON to inform development of new GreenON programs and to potentially deliver new programs (TBD).
- ENERGY is reviewing versions of the Agreement and has shared feedback with MOECC and IESO, including the following:
 - IESO must consider its authority to enter into the agreement (which contemplates multi-fuel programs, flow of GGRA funding to IESO).
 - ENERGY be informed and engaged throughout to understand impact on IESO core business activities (including Conservation First Framework).

Climate Change Agency Alignment with Existing Energy Efficiency Frameworks

- Through the 2015 to 2020 Conservation First Framework, the Industrial Accelerator Program and the Demand Side Management Framework, customers in all sectors are already accessing energy efficiency and low-carbon technology rebate programs through the IESO, and electricity and natural gas utilities.
- If GreenON is uncoordinated with the frameworks, it may duplicate existing energy efficiency and low-carbon technology initiatives, which could cause confusion and inconvenience for customers.
- Ontario can build on the success of existing utility and IESO energy efficiency and low-carbon technology programs by leveraging existing IESO expertise and delivery infrastructure to launch GreenON programs.
- The IESO, electricity utilities and natural gas utilities have built up significant expertise, resources and program delivery capacity, as well as stakeholder relationships; standards and processes for governance, accountability, measurement and reporting; and IT and settlement systems. This represents 500 to 760 highly skilled staff across these organizations.

2. Long-Term Energy Plan (LTEP)

Suggested Response:

- **The Long-Term Energy Plan (LTEP) presents an opportunity for the government to further elaborate on Ontario's new climate change mitigation and adaptation policies as they relate to the energy sector.**
- **The 2017 LTEP and future energy plans will need to apply the lens of climate change targets and carbon pricing to energy policy development.**
- **The LTEP and CCAP are both iterative processes. Each plan will inform the other to ensure alignment of government priorities.**
- **Ontario is in a strong electricity supply situation and well-positioned to meet demand at this time.**
- **The next LTEP will provide framework for a renewed and reformed market, with enhanced competitive procurements when new electricity supply is needed.**
- **Pending Cabinet approval, the Ministry of Energy expects to release the LTEP and Implementation Directives in mid-2017.**

Background:

- The consultation and engagement phase of LTEP development was preceded by the release of technical reports on the electricity and fuels sectors.
 - Each of these reports contained a ten-year review and twenty-year outlooks to 2035 that were affected by CCAP initiatives and assumptions.
- The LTEP engagement process officially began on October 13, 2016 with the release of the LTEP discussion guide, an in-person engagement schedule, and the Environmental Registry Notice. The Environmental Registry notice closed on December 16, 2016.
 - The Ministry received over 1,500 submissions through the Environmental Registry, emails and other channels.
- Some stakeholders (e.g., ECO) noted that the energy supply outlooks in LTEP technical reports do not align with Ontario's 2030 emissions reduction target.

- The Ministry will continue to work with partner ministries to help develop policies and incentives for areas of the energy sector that reach beyond the mandate of the Ministry of Energy (e.g., transportation, housing).
- The Ministry is considering making necessary changes to implement capacity auctions once IESO's Market Renewal stakeholder initiative is complete.
- Capacity auctions can inject greater competition into Ontario's electricity market helping to ensure that capacity is secured at the lowest cost, leading to lower bills for consumers.
- As part of this approach, the government will need to consider how best to achieve climate change (e.g. setting carbon neutrality as an auction principle, having generators with emissions pay for allowances through the cap and trade system etc.)

3. Free Overnight EV Charging

- The Climate Change Action Plan committed to a four-year, free overnight EV charging program for residential and multi-unit residential customers to start in 2017. MOECC received Treasury Board approval to allocate only \$8.7M for this program, down from the \$15M provisionally allocated in the CCAP.

Suggested Response:

- **The program contemplated in the CCAP has two general objectives. The first is to incent the purchase of EVs with the promise of free electricity. The second is to encourage overnight charging instead of during peak times when natural gas plants are in use.**
- **With the original \$15M allocation – and now \$8.7M – a free overnight charging program will fall short of achieving either of these objectives. However, the Ministry is still scoping program options, which will lead to a program design submission to MOECC by April 30.**

Background:

- The average cost of charging an EV overnight is \$15 per month after the Fair Hydro Plan is considered. The Ministry estimates that, using the \$8.7M of allocated funding, credits to the expected 55,000 EV owners will be no more than \$5 per month. If administration and program operating costs are added in order to incentivise EV owners to charge overnight, the credits would be less than \$4 per month.
- Alternative options could maintain the full value of free overnight charging by reducing the scope of the program. A first-come / first-serve program would limit the number of participants to under 11,000 EVs, and would likely be fully subscribed in the first 18 months.
- A targeted pilot project on a small scale could address all of the program objectives and generate valuable data on EV behaviour, which would be of value to all ministries and agencies developing policy on EVs. To remain within the \$8.7M envelope the pilot would have to be restricted to fewer than 6000 EVs. However this option would be more complex to deliver.

4. Cap and Trade in First Nation Communities

- MOECC has been directed to consider exempting certain fuels delivered to reserves for use by First Nations from the program.
- This was proposed later in 2016 to compliment the Climate Change Mitigation and Low-carbon Economy Act but is not a minuted CCAP action.

Suggested Response:

- **ENERGY is interested in keeping informed of MOECC's progress on this initiative.**
- **Given the number of rate mitigation and Indigenous energy programs that the Ministry of Energy is responsible for, it will be good for us to stay informed to ensure that our ministries are aligned in our approaches.**
- **ENERGY is happy to continue to share our knowledge and experience of legal and / or implementation issues with MOECC to assist with issues that may arise as you develop a plan for providing relief to remote communities in the face of increasing costs as a result of Cap and Trade.**

Background:

- The Environmental Bill of Rights Registry for the final greenhouse gas cap and trade regulation proposed a complementary regulation under the Climate Change Mitigation and Low-carbon Economy Act, 2016. The proposed regulation would provide for First Nations impact mitigation, by excluding certain fuels delivered to reserves for use by First Nations from the cap and trade program. MOECC is currently working on recommendations for how to fulfil this direction, with a focus on the remote diesel-reliant First Nations.
 - In the long term, ENERGY's work to reduce diesel use in remote communities (both through grid connection and through a microgrid program for un-connectable communities) will serve to offset the impact of cap and trade; however, in the interim, MOECC would like to MOECC establish an alternative way of assisting First Nations with the impacts of elevated diesel prices due to cap and trade.
- ENERGY is not responsible for establishing the interim plan to protect remote First Nations from the impacts of cap and trade, but staff have been offering support and recommendations to support MOECC's work, including:
 - Helping MOECC to understand how fuels are distributed to the communities;
 - Explaining the funding structures for energy costs in remote communities (in both IPAs and RemoteCo-serviced communities), and helping them to understand how remote customers might or might not experience the impacts of higher cost for diesel under the different models;
 - Explaining ENERGY's approach to applying the 8% rebate in IPA communities; and
 - Explaining ENERGY's current approach to mitigating rates in First Nations, including explaining the recommendations from the OEB regarding First Nation rates.
- ENERGY has encouraged MOECC to pursue an exemption; however, MOECC feels that there are significant complexities associated with applying such a policy.
- MOECC has indicated that they may instead wish to provide a reimbursement to RemoteCo and IPAs at a value in line with the anticipated impact on diesel costs (approximately \$.05/L), which could be refunded to LDCs on the basis of fuel receipts remitted.

- ENERGY has indicated to MOECC that our current suite of programs is not suitable for meeting the objectives of this initiative (including options such as relying on RRRP, or expanding the Ontario Rebate for Electricity Consumers program)
- There may be a role for ENERGY to support MOECC in developing a new program given our experience with the 8% rebate and our overarching mandate around energy and energy prices in Ontario.

5. Microgrid Funding

- ENERGY was directed in the CCAP cabinet minute to work with MIRR and MOECC to develop a plan for using microgrids to reduce diesel use in remote communities.
- Recent indication from MOECC is that the microgrid initiative is not recommended for CCAP funding in 2017-18 fiscal year.

Suggested Response:

- **I understand that the microgrid program for diesel reduction in First Nations was not recommended for funding in 2017/18.**
- **This is unfortunate, as I would like to see progress made on this commitment in the near future, and ENERGY needs funding to support ongoing program development activities, including engagement with First Nations and others.**
- **Recently, we have confirmed that the GIF-funded microgrid project in Weenusk will not be moving forward.**
- **Unfortunately due to the constraints on funding imposed by the Smart Grid Fund program, the company was unable to make the project financially viable for their business.**
- **The business case for these projects is more complex than many of our other demonstration projects, both because of the way communities are funded as well as because the market for these technology applications will be largely driven by government spending in remote communities. This makes it more difficult for companies to recover significant investment through subsequent sales.**

- The microgrid program that we are developing will be designed to enable projects to move forward in this unique space, ideally supported (up to 100%) by both provincial and federal funding.
- Since \$2M of allocated GIF funding is now going to be returned to the GGRA and has not been allocated to other initiatives, I would ask that you consider re-allocating this lapsed GIF funding to support ENERGY's ongoing work to develop a new microgrid program.
- Doing this will enable us to move forward with program development so that communities like Weenusk can pursue projects that integrate renewable generation and microgrid technology to meaningfully reduce their reliance on diesel fuel.

Background:

- The Climate Change Action Plan states that: *Where community support exists, Ontario would work with First Nation organizations to develop advanced microgrid solutions in First Nation communities...These projects would support economic growth by reducing reliance on diesel fuel and enabling stable, predictable sources of power. Projects would focus on renewable energy such as biomass, solar, and waterpower.*
- The CCAP cabinet minute tasked ENERGY and MIRR with working with MOECC to develop and report back to Cabinet with an implementation plan to work with First Nation governments and organizations to develop a program for low or no carbon energy powered microgrids and other alternative energy projects
- ENERGY has been leading the work on this minute over the past months, and has been engaging with MIRR and MOECC to ensure that they are in agreement on the recommended approach.
- ENERGY submitted a GGRA request to support our proposed path forward on this initiative, including a request for \$500,000 in 2017-18 to support our work engaging with communities to develop the requested program/implementation plan.

6. Geothermal

- Stakeholders have contacted MOECC and ENERGY requesting a variety of programs/incentives to be funded by CCAP to support the deployment of geothermal technologies (e.g. Canadian GeoExchange Coalition, Ontario Geothermal Association, Enbridge Gas Distribution).

Suggested Response:

- We understand that a number of stakeholders have been in touch with both MOECC and ENERGY requesting incentives for deployment of geothermal technologies.
- ENERGY can engage further with MOECC regarding thermal energy applications like geothermal in order to ensure coordination with existing programs and policies and leverage ENERGY's prior experience with renewable energy programs.

Background

- Geothermal systems have been identified in CCAP as a technology that can reduce greenhouse gas emissions of buildings.
- Ground source heat pump benefits to the Ontario electricity system include:
 - Air conditioning with ground source heat pumps uses significantly less electricity at summer peak than conventional air conditioning systems.
 - When geothermal replaces conventional electric resistance heating, it reduces winter peak use of that home or building.
- Where it results in electricity savings, geothermal is an eligible custom measure under Conservation First Framework (CFF) High Performance New Construction and Retrofit programs and Demand Side Management (DSM) custom programs.
 - However, there are limited instances where customers have received incentives for these measures due to the high capital costs of the technologies relative to energy prices and available incentives, and difficulty passing the cost-effectiveness tests (which compare the expected energy savings to measure and program costs).
- Incentives are available for air source heat pump installations through the Green Investment Funds-enhanced home audit and retrofit programs delivered by Enbridge Gas and Union Gas.

Canadian GeoExchange Coalition

- The Canadian GeoExchange Coalition (CGC) is a national association for geothermal heat pump technology. CGC has developed a geothermal heat pump quality program, in order to help give consumers confidence that systems would be installed correctly.
- In a March 17, 2017 letter, CGC made recommendations to the Minister of the Environment and Climate Change regarding geothermal heat pump systems under Ontario's Climate Change Action Plan:
 - Offer incentives through GreenON for geothermal heat pump systems – both new build and retrofit markets
 - Require CGC System Certification for installations under an incentive program.
 - Encourage the use of CGC's "made in Canada" training program and adapting it to Ontario's requirements, rather than importing standards from elsewhere.
 - Funding for training and awareness-building regarding geothermal heat pump systems for professionals, communities and government.

Ontario Geothermal Association

- The Ontario Geothermal Association (OGA) represents geothermal energy system designers, drillers, installers, equipment manufacturers and distributors in Ontario's geothermal heating and cooling industry.
- Through its LTEP submission, OGA indicated a need to make geothermal systems affordable in Ontario by:
 - Leveraging private investment with government-supported capital grants
 - Providing loan guarantees and/or low-interest long-term loans to private investors financing the balance of installation costs
 - Funding a targeted geothermal public awareness program.
- OGA has also requested \$250-\$500K for a study on the electricity system impacts of geothermal adoption.

Enbridge Gas Distribution

- At the request of MOECC, on February 21, 2017, Enbridge agreed to work with the OGA on a deployment opportunity for geothermal in Ontario.
 - Enbridge is proposing to build and operate geothermal loops as a business similar to their regulated gas distribution. The geothermal industry would install and service in home equipment similar to what is

done by HVAC (heating, ventilation and air conditioning) contractors for furnaces.

- Enbridge is proposing to pursue pilots to test this business opportunity.