

MEETING NOTE

NAME OF ORGANIZATION: Environmental Defence

DATE/TIME OF MEETING: September 26, 2016

LOCATION OF MEETING:

PURPOSE:

ATTENDEES: Minister of Energy
Glenn Thibeault

X

AGENDA:

1. Throne Speech
2. Feed In Tariff (FIT) Report
3. Energy East
4. Nuclear
 - a. Nuclear Refurbishments
 - b. Ongoing Pickering Operation
 - c. Nuclear Waste Management

NOTES ON AGENDA ITEMS:

1. Throne Speech

- Environmental Defense may wish to discuss the proposed 8% rebate and other planned price mitigation measures. They may suggest that increasing conservation is the best way to mitigate rising electricity bills.
- The organization will likely be supportive of the government's efforts on climate change, as well as the focus on electric vehicles.
- Environmental Defense is in favour of cap and trade, and favours spending cap and trade proceeds on efforts to further reduce emissions.

Suggested Response:

- Ontario has devoted significant resources to conservation and made it a top energy priority.

- Our government is dedicated to helping people in their everyday lives — it is why we are investing in a balanced plan to build Ontario up for everyone.
- Under our plan Ontario's businesses are thriving, good jobs are being created and last year our economic growth was double the national average.
- We're providing this break on electricity bills, because the price of electricity is one of those pressures that are squeezing family budgets. After decades of neglect, the electricity system was crumbling. We asked people to invest in a clean, modern and reliable energy system and it will serve Ontario for generations to come. It is fair and responsible to provide rate relief to the people and businesses that are helping to build this province up.
- Ontario will introduce legislation that would, if passed, reduce electricity costs for about five million residential consumers, small businesses and farms.
- The proposed bill includes expansion of the Industrial Conservation Initiative (ICI) to include all sectors and have a lower threshold for participation, empowering more than 1,000 additional industrial consumers to take control of their energy use and deliver more savings.
- Consumers not eligible for either the on-bill provincial HST rebate or the expanded ICI eligibility will receive an on-bill benefit via the Greenhouse Gas Reduction Account to reduce emissions while reducing rates, as part of Ontario's Climate Change Action Plan.
- In addition to these new initiatives, larger industries, small businesses and Ontario households will also have access to programs that will help lower greenhouse gas emissions while lowering energy costs through Ontario's Climate Change Action Plan, including dedicated funding to support the low-carbon transition.

Background:

- Ontario is introducing legislation which would rebate an amount equivalent to the provincial portion of taxes from the electricity bills for residential consumers, small businesses and farms eligible for the Regulated Rate Plan (RPP) starting January 1, 2017. This rebate is intended to offset the provincial share of the Harmonized Sales Tax (HST).
- A typical urban residential customer that consumes 750 kWh per month will see an annual benefit of approximately \$132 or a monthly benefit of approximately \$11, before tax.

- A typical rural customer, eligible for the increased Rural or Remote Rate Protection (RRRP) support, that consumes 1,000 kWh per month will see an annual benefit of approximately \$540 or a monthly benefit of approximately \$45, before tax, from the proposed rate mitigation measures.
- The list below gives details of which electricity consumers would be eligible to receive the benefit:
 - Residential Regulated Price Plan eligible consumers;
 - Residential retail consumers;
 - Multi-unit residential buildings and other facilities used as residential rental units such as long-term care homes and school residences;
 - Residential Regulated Price Plan eligible farms;
 - Many small businesses, for example, most coffee and snack retailers, convenience stores, apparel stores, hair salons and small offices.
- The government intends to use a portion of the cap and trade auction proceeds to offset the cost of greenhouse gas pollution reduction initiatives that are currently funded by residential and industrial consumers through their bills, and help keep rates affordable.
 - ENERGY continues to work with MOECC, IESO and OEB on implementing the province's commitment on proceeds recycling. A decision on the approach has not been made.

Updating the Rural or Remote Electricity Rate Protection Program (RRRP)

- While many Ontario electricity consumers are unaware, for the last 15 years the Rural or Remote Electricity Rate Protection (RRRP) program has reduced electricity delivery costs for eligible customers located in rural and remote areas. The cost of providing electricity service for customers in these low density regions is higher than to customers in more urban or higher-density communities.
- For most recipients, RRRP funding has been frozen at its current level since the early 2000s. As a result, the impact of its assistance has reduced over time as electricity costs have increased to rebuild Ontario's electricity system and close coal-fired power plants.
- Today, RRRP is an approximately \$175-million program. Each year, the Ontario Energy Board (OEB) approves an RRRP charge amount to be collected from all electricity distributors by the Independent Electricity System Operator (IESO).

Electricity distributors in turn pass the small Board-approved retail RRRP charge on to their customers to recover the RRRP amount paid to IESO.

- Through regulation the government intends to introduce further funding for the program which would result in a reduced bill of approximately \$45 per month for affected customers when combined with the proposed 8% rebate, based on an average consumption of 1,000 kWh per month.
- The RRRP is paid to electricity distributors serving rural or remote customers to allow them to reduce the amount they would otherwise have to charge their customers to deliver electricity to them. For an average residential customer, the cost of supporting RRRP is roughly \$1 per month.

R2 Customers

- The RRRP is provided to Hydro One's rural residential customers who are classified as R2 customers. These are customers classified as low density and are not in urban or medium density areas in the Province. R2 customers face some of the highest electricity costs in the province. There are approximately 330,000 R2 customers in Ontario. R2 customers will be eligible for the increased RRRP support.

ICI Background

- ICI provides a strong financial incentive for large electricity consumers to reduce their consumption during peak hours. By reducing the province's peak demand, ICI reduces electricity system costs by deferring the need to build peaking generation.
- Ontario is proposing to expand ICI to include over one thousand additional commercial, institutional and industrial customers. This program will help eligible businesses reduce electricity bills by up to one-third and improve their competitiveness.
- Changes to the applicable electricity sector regulations would be in place by May 2017, allowing newly eligible consumers to benefit from lower electricity bills starting in July 2018.
- The reduction on electricity bills that ICI provides varies from consumer to consumer. It is expected that over time, the average newly eligible ICI participant will be able to reduce their all-in electricity cost by about one-third by altering their behaviour and investment decisions.

2. Feed-In Tariff (FIT) Report

- In May, 2016, ED published a report entitled: “Getting FIT: How Ontario Became a Green Energy Leader and Why it Needs to Stay the Course.”
- This report provides a history of the development of the Ontario Green Energy Act and the resulting growth of Ontario’s renewable energy industry. The report then suggests what is required for Ontario to maintain its leadership position in renewable energy.

Suggested Response:

- We appreciate the acknowledgement of Ontario’s leadership position in renewable energy investment, development, and employment.
- We would also like to thank Environmental Defence for your long standing support of the development of renewable energy in Ontario.
- Ontario currently has approximately 18,000 MW of wind, solar, bioenergy and hydroelectricity energy contracted or online.
- The Independent Electricity System Operator (IESO) will be opening the FIT 5 application period on October 31, 2016. FIT 5 will have a procurement target of at least 150 MW.
- The Ministry of Energy is updating the net metering program. This proposed update includes removing the 500 kilowatt (kW) project size cap. Comments will be received on the net metering proposal on the Environmental Registry website until October 3, 2016.
- The Ministry of Energy also plans to begin consultations in the fall on additional proposed net metering program design elements, including third-party ownership and community net metering.
- On September 1, 2016, IESO provided the Minister of Energy with the Ontario Planning Outlook, an independent report analyzing a variety of planning scenarios for the future of Ontario’s energy system.
- The Ministry of Energy will soon start work on the next LTEP. I encourage your organization to participate in the upcoming LTEP consultations.

Background:

- The report contends that the future of Ontario's renewable energy industry is uncertain. It asserts that the province is behind schedule on its plans to build renewable power and that it will be a "stretch" for Ontario to meet its renewable energy targets as set out in the 2013 Long-Term Energy Plan (LTEP).
- The report recommends that the province should:
 - Commit to procuring more renewable energy in the LTEP, which will give renewable energy manufacturers and installers the certainty they need to keep their operations active in Ontario;
 - Develop an export strategy to ensure that Ontario's clean energy manufactures capture a larger share of the demand for wind and solar power outside of Ontario;
 - Commit to phasing out gas-fired electricity generation in a timely manner – to be replaced by renewables and energy storage; and
 - Disclose the fine print in the recent agreements to refurbish the Bruce and Darlington nuclear generation plants in a transparent manner to ensure value for money.
- Ontario's 2013 LTEP includes targets for renewable energy:
 - 10,700 MW for wind, solar and bioenergy to be online by 2021.
 - 9,300 MW for hydroelectricity to be online by 2025.

3. Energy East

- **Energy East is TransCanada's proposed crude oil pipeline project to ship 1.1 million barrels per day of crude oil from Western Canada to refineries in Quebec and Atlantic Canada and an export terminal in New Brunswick.**

Suggested Response:

- Ontario is committed to participating in the National Energy Board's (NEB's) regulatory process on Energy East.
- Ontario will continue to work to ensure that Energy East is in the best interest of Ontarians. This includes:
 - Ensuring safety for the people of Ontario;

- Protecting Ontario's natural environment, in particular waterways;
 - Preserving Aboriginal and treaty rights;
 - Maintaining the reliability of Ontario's natural gas supply; and
 - Establishing future benefits for Ontario's economy.
- Ontario has been proactive in its approach to Energy East. In November 2013 the province asked the Ontario Energy Board (OEB) to undertake a review of the Application. The OEB report released August 13, 2015 will inform Ontario's participation in the NEB regulatory proceeding. The report provides advice on ensuring an appropriate balance between the economic and environmental risks of the project and the expected benefits for Ontario.
 - I understand that Environmental Defence is opposed to Energy East. Recent experience in the U.S. and Canada has demonstrated that significant volumes of crude oil can be transported to market by rail, if pipelines are not available.

Background:

- In November 2013, the Ontario Energy Board (OEB) launched a 2-year province-wide public consultation and review of TransCanada's Energy East proposal. The OEB report "*Giving A Voice to Ontarians on Energy East*" was publicly released in August 2015.
- The 2013 Long-Term Energy Plan (2013 LTEP) set out the following six principles for how the government will evaluate oil and natural gas energy pipeline projects:
 - Pipelines must meet the highest available technical standards for public safety and environmental protection;
 - Pipelines must have world-leading contingency planning and emergency response programs;
 - Proponents and governments must fulfill their duty to consult obligations with Indigenous communities;
 - Local municipalities must be consulted;
 - Projects should provide demonstrable economic benefits and opportunities to the people of Ontario, over both the short and long term; and
 - Economic and environmental risks and responsibilities, including remediation, should be borne exclusively by the pipeline companies, who

must also provide financial assurance demonstrating their capability to respond to leaks and spills.

- In November 2014, Ontario and Quebec agreed on these as joint principles and added the need to take into account the interests of natural gas consumers and greenhouse gas (GHG) emissions.
- On July 20, 2016, the NEB issued the Hearing Order which outlined the Board's regulatory process. Process includes:
 - Panel Sessions along the pipeline route (August-December, 2016);
 - Written hearing process (January-June, 2017);
 - Oral hearing (June-November, 2017); and
 - Deadline for a recommendation to Cabinet (March 16, 2018).
- On September 9, 2016, the NEB announced that the three NEB panel members reviewing Energy East voluntarily recused themselves from the process. The NEB also announced that the Energy East proceeding is adjourned until a new panel is appointed. The impact on the NEB process and its timelines remains to be confirmed.

4. Nuclear

a) Nuclear Refurbishments

- **Ontario is moving forward with refurbishment of four nuclear units at Darlington Nuclear Generating Station and six at Bruce Nuclear Generating Station over the next 16 years.**

Suggested Response:

- Ontario has operated nuclear power plants safely for over 40 years. Nuclear power is reliable, cost-effective, and emission-free, and it currently supplies about 60 per cent of the power used by Ontarians every day.
- Nuclear power plants are able to operate reliably and continuously, making them ideally suited to meet “round-the-clock” (i.e., “baseload”) energy needs.
- The Darlington and Bruce refurbishments will help secure 9,800 MW of reliable, affordable and emission-free power over the long-term. Ontario is proceeding with caution and flexibility with respect to these refurbishments.

- Both OPG and Bruce Power will be subject to strict oversight during the refurbishments and off-ramps are in place to ensure that refurbishments are undertaken only if they continue to provide value to ratepayers.

Background:

- Operation of the reactors can be extended for approximately 30 additional years through refurbishment of key components.
- In December 2015, Ontario updated its agreement with Bruce Power to allow for refurbishment of the remaining six units at Bruce nuclear generating station, securing 6,300 MW of power from the Bruce site (including 1,500 MW already refurbished). The first unit refurbishment will begin in 2020.
 - Bruce Power is expected to invest approximately \$13 billion of its own funds and will take full risk of cost overruns on refurbishments of the six nuclear units.
 - Bruce Power will be subject to strict oversight by IESO including an “open book” review process of Bruce refurbishment costs as well as due diligence and oversight by a full-time IESO site representative at the Bruce site.
- In January 2016, the government announced that Ontario is moving forward with the refurbishment of 4 units at Darlington at a cost of \$12.8 billion, securing 3,500 MW of power. OPG is on-track to begin the first unit refurbishment in October 2016.
 - An independent advisor is ensuring ongoing government oversight of Darlington refurbishment execution, with support from Infrastructure Ontario.
 - All Darlington refurbishment costs will be subject to oversight and scrutiny by the Ontario Energy Board (OEB) as part of the public and transparent OEB rate-setting process.
- Post refurbishment, both Darlington price (i.e., \$72-\$81/MWh) and Bruce price (i.e., \$77/MWh average over life of the contract) are within the range assumed in the 2013 LTEP for refurbished nuclear energy and are lower than the average price of electricity generation in Ontario, which in 2015 was \$92/MWh.

b) Ongoing Pickering Operation

- **In January 2016, Ontario approved a plan for OPG to complete confirmatory work and seek regulatory approvals for ongoing operation of the Pickering Nuclear Generating Station up to 2024.**

Suggested Response:

- At this time, we have approved a plan for OPG to complete confirmatory work and seek the necessary regulatory approvals. OPG will seek final government approval to proceed after these activities have been completed.
- Safety of our nuclear fleet is a top priority for our government. In 2015, Pickering received the highest safety rating – “Fully Satisfactory” – from the federal nuclear regulator (i.e., CNSC).
- CNSC will not allow Pickering to operate to 2024 unless it is satisfied that safety of the public and the environment can be assured during this period.
- Operating Pickering up to 2024 would ensure that the province has a reliable, affordable and emission-free source of “round the clock” replacement power during the Darlington and initial Bruce refurbishments.
- Operating Pickering up to 2024 would protect 4,500 jobs across Durham region, avoid 8 million tonnes of greenhouse gas emissions, and save Ontario electricity consumers up to \$600 million.

Background:

- The 2013 LTEP assumed that Pickering would operate until 2020. This is based on the CNSC’s approval that the key reactor components would be able to safely operate through that period. Since then, OPG has undertaken technical analysis and assessments on the condition of key equipment and is confident in Pickering’s ability to safely operate to 2024.
- An assessment by OPG and IESO estimated that operation of Pickering up to 2024 would result in net savings to Ontario electricity ratepayers of up to \$600 million and avoid 8 million tonnes of GHG emissions, by:
 - Offsetting need for natural gas-fired generation and imported electricity while Darlington and initial Bruce units are being refurbished;
 - Defer transmission grid reinforcements in the Greater Toronto Area (GTA) that would be necessary once Pickering shuts down permanently; and
 - Deferring Pickering station closure and decommissioning costs.

- CNSC continuously monitors all of Ontario's nuclear power plants, including Pickering, and ensures that they operate safely at all times. Also, all of OPG's expenditures related to Pickering are also subject to oversight by the OEB as part of OEB's public and transparent rate setting process.

c) Nuclear Waste Management

- **Two proposal and our supports for the siting and long-term management of both high level nuclear waste (i.e., used fuel) and low and intermediate level nuclear waste are currently being conducted within the province of Ontario.**

Suggested Response:

- Ontario believes that safe and responsible management of nuclear waste is an integral piece of our long-term commitment to nuclear power.
- Ontario Power Generation (OPG) is proposing to build a Deep Geological Repository (DGR) for low and intermediate level nuclear waste (LILW) to address the long-term management of LILW produced at its nuclear facilities.
- Ontario supports the federal government's request in February 2016, for additional studies on OPG's proposed DGR. We are pleased the federal government is putting science first and taking a collaborative approach to decision-making on this important matter.
- The Nuclear Waste Management Organization (NWMO), an industry-led organization, is currently undertaking a process to select a willing host community to store nuclear fuel waste in a DGR.
- It should be noted that the OPG and NWMO DGR proposals are separate from each other. Currently, OPG's Low and Intermediate Level Waste DGR proposal focuses on Low and Intermediate Level Waste storage, which does not include storage of high-level nuclear waste (e.g., used nuclear fuel).

Background:

- Ontario produces 90% of Canada's nuclear fuel waste, which has been safely stored in Ontario for over 40 years.
 - High-level nuclear waste (i.e., used nuclear fuel) is stored on-site at each of Ontario's nuclear facilities owned by Ontario Power Generation (OPG): Darlington, Pickering and Bruce Nuclear Generating Stations.
 - Intermediate-level waste includes resins or filters used to clean nuclear reactor water systems as well as contaminated nuclear reactor core components. Low-level Waste includes materials contaminated with low

levels of radioactivity as a result of routine maintenance and operations of nuclear reactor units.

- Low and intermediate-level waste is stored at OPG's Western Waste Management Facility (WWMF) at the Bruce Nuclear site in Kincardine.
- The Government of Canada has implemented a robust Radioactive Waste Policy Framework – a structure of policies, legislation and responsible organizations – in order to ensure that waste is properly managed.

OPG's Deep Geological Repository for Low and Intermediate Level Waste:

- On May 6, 2015, a federally appointed Joint Review Panel (JRP) recommended that the former federal environment minister approve the license for the construction of OPG's proposed DGR, which included the project's environmental assessment (EA).
- On February 18, 2016, the federal Minister of Environment asked OPG to conduct and submit additional studies on the proposed DGR before a decision on the project's EA is made. The federal Minister has requested the following studies:
 - A study that details the environmental effects of alternative locations for the LILW DGR that are technically and economically feasible;
 - Analysis of the cumulative effects of the LILW DGR in light of assessments undertaken by the Nuclear Waste Management Organization; and
 - Providing an updated list of environmental mitigation commitments.
- On April 15, 2016, OPG responded to the federal Minister of Environment with a plan to complete the additional studies by December 31, 2016.
 - In its response, OPG noted that it will assess sedimentary rock formations in southern Ontario and granite rock formations in northern Ontario for siting a DGR. Specific locations would not be identified.

NWMO's DGR Proposal for High-Level Waste:

- NWMO advises that nine Ontario communities are still being considered for siting of DGR to store Canada's used nuclear fuel. All nine communities have completed the first phase of preliminary assessment and will move on to "step 3" in NWMO's site-selection process.
- Step 3 is where the NWMO and interested communities move beyond technical desktop studies and initiate field studies which also includes more stakeholder

engagement in surrounding areas to help the communities learn more about the project.

- It is anticipated that NWMO will commence geological testing at a select few Ontario sites starting in 2017 and continuing over the next several years.

KEY FACTS:

- ED is a leading non-partisan, Canadian environmental organization that seeks to ensure a greener, healthier and prosperous life for all.
- Some of their accomplishments over the past several years include protection of the Greenbelt, banning of toxic chemical BPA in baby bottles, the founding of the Green Energy Act Alliance as well as their most recent effort to get rid of toxic microbeads that pollute lakes.
- Priority issues for Environmental Defence include:
 - Toxics in consumer products and the environment;
 - Clean energy and climate change;
 - Water quality and conservation; and
 - Land use planning and natural areas conservation.
- ED works closely with Blue Green Canada – an alliance between Canadian labour unions, environmental and civil society organizations to advocate for working people and the environment by promoting solutions to environmental issues that have positive employment and economic impacts.
- Tim Gray is the Executive Director of ED and has led the protection of wild areas and reform of forest and land use practices in Canada for over 20 years. He holds an H B.Sc. from Wilfred Laurier University and a M.Sc. from the University of Toronto.

ATTACHMENTS:

1. ED Report: Getting FIT: How Ontario Became a Green Energy Leader and Why it Needs to Stay the Course

- <http://environmentaldefence.ca/about-us/our-staff/>