Ministry of Energy

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Ontario

May 26, 2017

Ms. Dianne Saxe
Environmental Commissioner of Ontario
605 – 1075 Bay Street
Toronto, ON M5S 2B1

Dear Ms. Saxe:

RE: Annual Energy Conservation Progress Report - 2016/2017 (Volume One)

Thank you for providing the Ministry for Energy with an opportunity to respond to your 2016 Annual Energy Conservation Progress Report (Volume One).

Your report examines municipal water use and its linkage with energy efficiency and the environment. We appreciate the ECO's work in developing the report, including your efforts in working directly with 110 municipalities on a water-energy efficiency survey.

We welcome your advice and will carefully consider your comments and recommendations as we continue to develop the province's next Long-Term Energy Plan.

The Ministry appreciates the opportunity to provide the following response to your report:

Load Shifting

Chapter 2 of the report makes the following statements:

Under this program, eligible customers that reduce consumption during the five highest system-wide peak hours over the course of the year are rewarded with lower Global Adjustment costs (this is sometimes called "load shedding"). In practice, participants typically reduce load for more than five hours because the peak times are not known in advance. However, this program will likely drive load shifting only on 10-20 days throughout the year, and thus does not capture the full potential for load shifting in the water system.

It is inaccurate to describe the Industrial Conservation Initiative (ICI) as “load shedding”. This term is used to describe a measure taken by a grid operator to mitigate a wider-scale system outage by switching off specific parts of the grid in a planned manner. Load shedding should not be confused with voluntary action taken by consumers to reduce demand or shift consumption to off-peak hours as is the case in ICI. According to the Independent Electricity System Operator’s most recent 18-Month Outlook, ICI is estimated to have reduced peak demand by more than 1,200 MW in summer 2016.

Over recent years, demand peaks have gradually flattened. This change in demand peaks, along with the recent expansion of ICI, is expected to increase uncertainty in forecasting peaks throughout the year. Increased uncertainty would mean that ICI participants may need to reduce demand over more hours in order to save on their Global Adjustment (GA) costs. The Ministry of Energy notes that the estimate of load shifting occurring on 10-20 days throughout the year may be subject to change and would vary between participants.

Broader Public Sector Reporting

Chapter 3 of the report makes the following recommendations:

The Ministry of Energy should make O. Reg. 397/11 energy reporting for municipal water and wastewater systems more accurate and useful by including:

- *pumping facilities;*
- *energy produced on-site (e.g., biogas, solar), not just purchased energy; and*
- *methane, nitrous oxide, and fossil-source carbon dioxide emissions from wastewater.*

The Ministry of Energy should enable or require municipal water and wastewater systems to report under O. Reg. 397/11 through Portfolio Manager and require municipalities to report their annual energy use on a timelier basis.

The Ministry of Energy annually reviews O. Reg. 397/11 program reporting to determine if changes, such as moving to Portfolio Manager, would be of value. The Ministry is planning to leverage Portfolio Manager for private sector reporting under O. Reg. 20/17 starting in 2018 and notes that Portfolio Manager functionality does not replace the need for public posting of data on platforms such as Open Data. The Ministry is reviewing the four years of reported water/sewage treatment data along with voluntarily submitted pump information, to determine the quality of the information, the number of pumping facilities that are accurately reported and develop trend analysis. The Ministry is planning to consult on migration of BPS Reporting to Portfolio Manager and would

consider options to include water/sewage pumps when sufficient metering is in place to provide accurate energy and flow data.

O. Reg. 397/11 requires organizations to report a description of any renewable energy generation facility that they operate and the amount of energy produced on an annual basis by the facility in their Conservation and Demand Management (CDM) plan. Webinars held by the Ministry highlight the need to report on-site renewables in an organization's CDM plan. As CDM plans are required to be posted on an organization's website, Ontarians can access those reports with information regarding on-site renewables.

The Ministry of Energy notes that a move to Portfolio Manager alone will not result in more accurate water and wastewater data. While Portfolio Manager is considered to be the standard benchmarking tool, data quality related to water and sewage reporting will not be improved by switching to Portfolio Manager since the quality of data will remain unchanged.

Energy and Water Efficiency Standards

While there are no specific recommendations related to efficiency standards for products and appliances set through Ontario's Energy and Water Efficiency Regulation (O. Reg. 404/12), we are pleased that the report acknowledges the Ministry of Energy's achievements in setting water efficiency standards for products and appliances that consume both energy and water.

On June 8, 2016, Ontario's Five Year Climate Change Action Plan 2016-2020 was released. It included a commitment to reduce energy use by updating energy efficiency standards for key equipment found in drinking water and waste water treatment plants. The Ministry of Energy is working with the Ministry of Environment and Climate Change in fulfilling this commitment to further reduce electricity use and GHG emissions in the province.

Utility Energy Conservation Programs

Chapter 5 of the report makes the following recommendation:

The Independent Electricity System Operator and gas and electric utilities should assess opportunities to integrate delivery of water conservation initiatives with existing energy conservation programs, particularly for whole home retrofits.

As noted in the report, utility energy conservation programs, including those relating to electricity and natural gas conservation, have provided funding for projects that have resulted in water conservation.

The Independent Electricity System Operator (IESO) does offer programs targeted towards municipal water systems and through the Conservation First Framework provides funding for both the identification (e.g., audits, energy managers, etc.) and implementation (e.g., incentives for variable-frequency drives, aeration blowers, etc.) of energy-saving opportunities in municipal water systems. The Conservation First Framework gives electricity utilities the flexibility to design and deliver new electricity conservation programs targeted to their customers, including those that result in water conservation.

Programs delivered by natural gas utilities have also helped conserve water. Over the past decade, Enbridge Gas Distribution and Union Gas have distributed thousands of energy-efficient showerheads and faucet aerators to their customers free of charge.

However, the Ministry recognizes that there is opportunity for further integration of water conservation with existing energy conservation programs. The mid-term reviews of the Conservation First Framework and the Demand Side Management Framework provide a process for considering opportunities, and we encourage the ECO to provide feedback to the IESO and Ontario Energy Board as part of these processes.

Other Initiatives

We are pleased to see the report recognize the opportunities for water conservation through the Ministry of Energy's Municipal Energy Plan program and through the Energy and Water Reporting and Benchmarking Regulation (O.Reg. 20/17). In addition, as the report notes, the Green Button Standard can improve the ability to access and share energy and water data, helping customers better manage their usage. The Ministry is currently considering feedback from consultations held in 2016 on mandating the Green Button Standard as it develops a proposal for expanding the Standard province-wide.

Thank you again for your recommendations and the opportunity to review your report.

Sincerely,

Serge Imbrogno
Deputy Minister