

**Undertaking 130:** CAC to provide the existing status quo metric employed by the OPA, the directive from the Ministry to the OPA in terms of the going forward plan, and in response to Board Member Kapitany's question, they will provide an explanation as to whether slide 50 from Mr. Dunsky's presentation is linked to the Supply Plan for Ontario.

**Response:**

There are two related Ontario Minister of Energy Directives:

- 1) April 2010 to the OPA and the OEB - *MC-2010-892*
- 2) April 2014 to the OPA - *MC-2014-856*

**First Directive 2010<sup>1</sup>**

- Established a new Generation 3 Provincial Conservation and Demand Management (CDM) initiative for Electricity Demand Reduction at a cumulative Level of 1330 GWh and 6000 MW Peak Reduction over the period 2011-2014.
  - Tasked the OPA to develop Province- wide CDM Programs to be delivered by the Local Electricity Distributors. These included Demand Reduction programs and Targeted programs, such as those aimed at Low Income Customers. Geothermal, Solar Thermal and Fuel Substitution initiatives may be included
    - (The OPA is also responsible at a *Program Level* for Evaluation, Monitoring and Verification (EM&V))
  - Tasked the OEB (in consultation with OPA) to establish the specific utility targets to be implemented as a Condition of the Licence of each Electricity Distributor<sup>2</sup>.
  - For Utility CDM (as opposed to OPA CDM) required the OEB to issue a CDM Code that sets out the requirements regarding Incentives, Reporting and EM&V. The Utility Programs must NOT duplicate the OPA Province-wide Programs
  - Tasked the OEB to provide Annual Reports on progress towards the targets.
    - To date 2011 and 2012 Reports have been issued, The 2013 Report has not been issued.

**Metrics**

As to the Metrics used by OPA in the design and measurement of the results of the programs; these can be found on the OPA Website<sup>3</sup> and used by Distributors and the OEB.

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<sup>1</sup> 17069 Minister Directive 20100423 Ministry of Energy Web Site - [http://www.powerauthority.on.ca/sites/default/files/page/16600\\_MEI\\_Directive\\_CDM\\_Initiatives\\_under\\_GEA\\_Apr\\_23\\_10.pdf](http://www.powerauthority.on.ca/sites/default/files/page/16600_MEI_Directive_CDM_Initiatives_under_GEA_Apr_23_10.pdf)

<sup>2</sup> Ontario Energy Board, *EB-2010-0215/EB-2010-0216 Decision and Order, March 14, 2011, Appendix A*, online: [http://www.ontarioenergyboard.ca/oeb/Documents/EB-2010-0216/dec\\_order\\_CDM\\_directive\\_20110314.pdf](http://www.ontarioenergyboard.ca/oeb/Documents/EB-2010-0216/dec_order_CDM_directive_20110314.pdf)

<sup>3</sup> Ontario Power Authority, *OPA Conservation and Demand Management Cost Effectiveness Guide*, October 15, 2010, online: <http://www.automaticpage.com/mycv/sites/default/files/OPA%20CDM%20Cost%20Effectiveness%20Test%20Guide%20-%202010-10-15%20F.pdf>; Ontario Power Authority, *EM&V Protocols and Requirements*, March 2011, online:

The OPA bases its protocol and measures on the framework in the National Energy Plan (USA) issued in 2008. <http://www.epa.gov/eeactionplan> The tests are listed and discussed in Chapter 6.

## **Second Directive 2014**<sup>4</sup>

According to *MC-2014-856*:

In *Achieving Balance: Ontario's Long-Term Energy Plan* (LTEP 2013), released on December 2, 2013 the Government established a provincial conservation and demand management (CDM) target of 30 terawatt hours (TWh) in 2032. To assist the Government in achieving this target, LTEP 2013 also committed to establishing a new six-year Conservation First Framework beginning in January 2015, replacing the one that is currently winding down. The new Conservation First Framework will enable the achievement of all cost-effective conservation and foster innovation through information sharing and the adoption of new technologies and approaches, including innovative performance management structures to drive greater energy savings.

Each Distributor will be required to meet its CDM Requirement by:

- i. making a core set of province-wide CDM programs, funded by the OPA, available to customers in its licensed service area (Province-Wide Distributor CDM Programs);
- ii. making local and/or regional CDM programs, funded by the OPA available to customers in its licensed service area (Local Distributor CDM Programs); or
- iii. a combination of (i) and (ii).

### **Direction**

Therefore, pursuant to my authority under section 25.32 of the Act, I hereby direct the OPA to coordinate, support and fund the delivery of CDM programs through Distributors to achieve a total of 7 TWh of reductions in electricity consumption between January 1, 2015 and December 31, 2020 in accordance with the following guiding principles and requirements.

### **Metrics**

The Metrics used by the OPA reference the OPA current Cost Effectiveness Guide 2010. Section 3.5 (v) of *MC-2014-856* addresses this issue:

The OPA shall ensure there is a positive benefit-cost analysis of each CDM Plan and each Province-Wide CDM Program and Local Distributor CDM Program utilizing the OPA's Total Resource Cost Test and the Program Administrator Cost Test found in the OPA's Cost-Effectiveness Guide, dated October 15, 2010 (OPA Cost-Effectiveness Tests), which may be

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<http://www.cleanairpartnership.org/files/EMV%20Protocols%20and%20Requirements.pdf> ; Ontario Power Authority, *Measures and Assumptions Lists*, 2011.

<sup>4</sup> Ministry of Energy, *MC-Directive-859 (MOE Directive-OPA)*, March 31 2014, online: <http://www.powerauthority.on.ca/sites/default/files/news/MC-2014-856.pdf>

updated by the OPA from time to time. The OPA will establish hurdle rates to consider the cost of delivering Province-Wide Distributor CDM Programs and Local Distributor CDM Programs against the avoided cost of procuring supply.

Note: the March 31, 2014 Directive does not provide any direction to the Ontario Energy Board. All programs will be funded through the Global Adjustment. (not Distribution Rates)

### **Supply Plan for Ontario**

The Ontario Supply Plan is comprised of two inter-related components Supply Mix and the Long Term Energy Plan.

#### **Supply Mix**

Under O. Reg. 416/99 the Ministry of Energy is responsible for providing Ontario's electricity supply mix data for electricity suppliers. The following chart shows the supply mix data for 2013, as determined by the Ministry. This data must be used by electricity suppliers for the purposes of complying with the disclosure obligations of O. Reg. 416/99 and the *Directive*. This data should be considered current until further notice.

<b>Electricity Facts</b>	
<b><i>Electricity sources</i></b>	<b><i>Ontario's Electricity Mix*</i></b>
Water power	23.4%
Alternative power sources	5.8%
Solar	0.8%
Wind	3.9%
Biomass**	1.0%
Waste	0.1%
Nuclear Energy	57.9%
Natural Gas***	10.9%
Coal	2.0%

\*The combination of electricity sources used to generate the electricity consumed in Ontario in 2013 inclusive of both Tx (direct) and Dx (embedded) connected generation (Ontario Ministry of Energy)

\*\*Includes generation from the Cochrane and Kirkland Lake Generating Stations that use both biomass and natural gas

\*\*\*Includes generation from the Lennox Generating Station that uses both natural gas and oil

#### **Long Term Energy Plan 2013<sup>5</sup>**

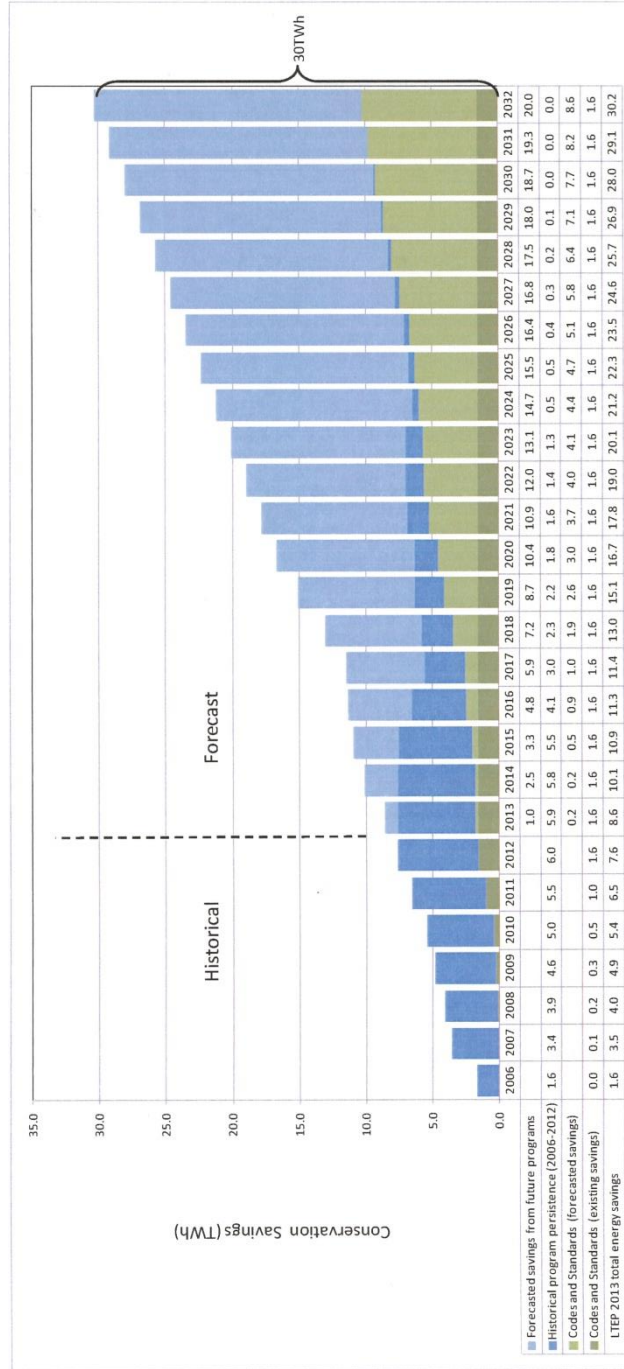
The Ministry of Energy Periodically Issues the Ontario Long Term Energy Plan (LTEP)

This includes a multi-year outlook of the Supply Demand Balance.

The Attachment to Undertaking 130 is taken from the Ministry website and a series of PowerPoints prepared by the Ontario Power Authority in January 2014. These show the components of the LTEP and includes charts that correspond to Slide 50 in MH-62

<sup>5</sup> Ministry of Energy LTEP Achieving Balance December 2013 <http://www.energy.gov.on.ca/en/ltep/>

## Historical and Target Electricity Consumption Reduction

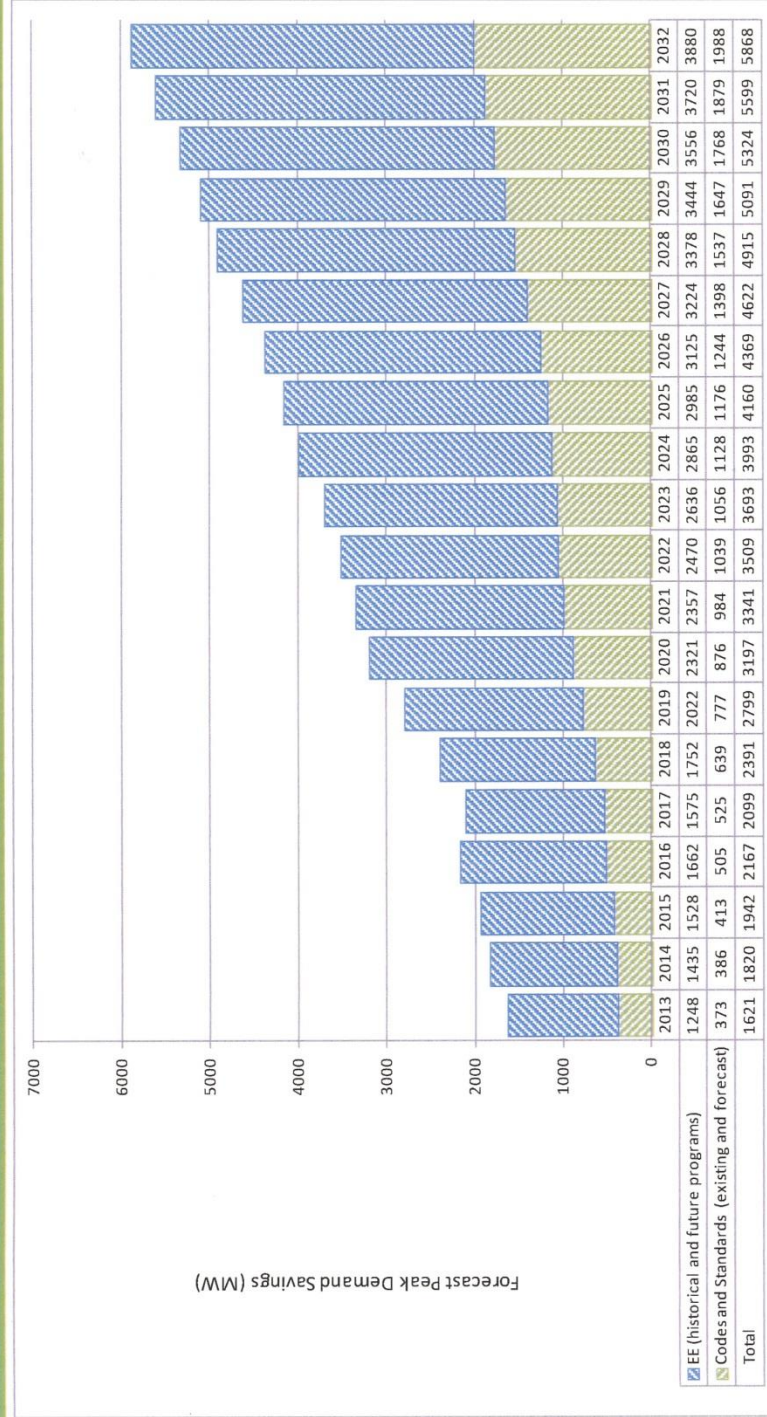


- Savings with 2005 as the reference year.



<sup>6</sup> <http://powerauthority.on.ca/sites/default/files/planning/LTEP-2013-Module-2-Conservation.pdf> ; [http://www.energy.gov.on.ca/docs/LTEP\\_2013\\_English\\_WEB.pdf](http://www.energy.gov.on.ca/docs/LTEP_2013_English_WEB.pdf)

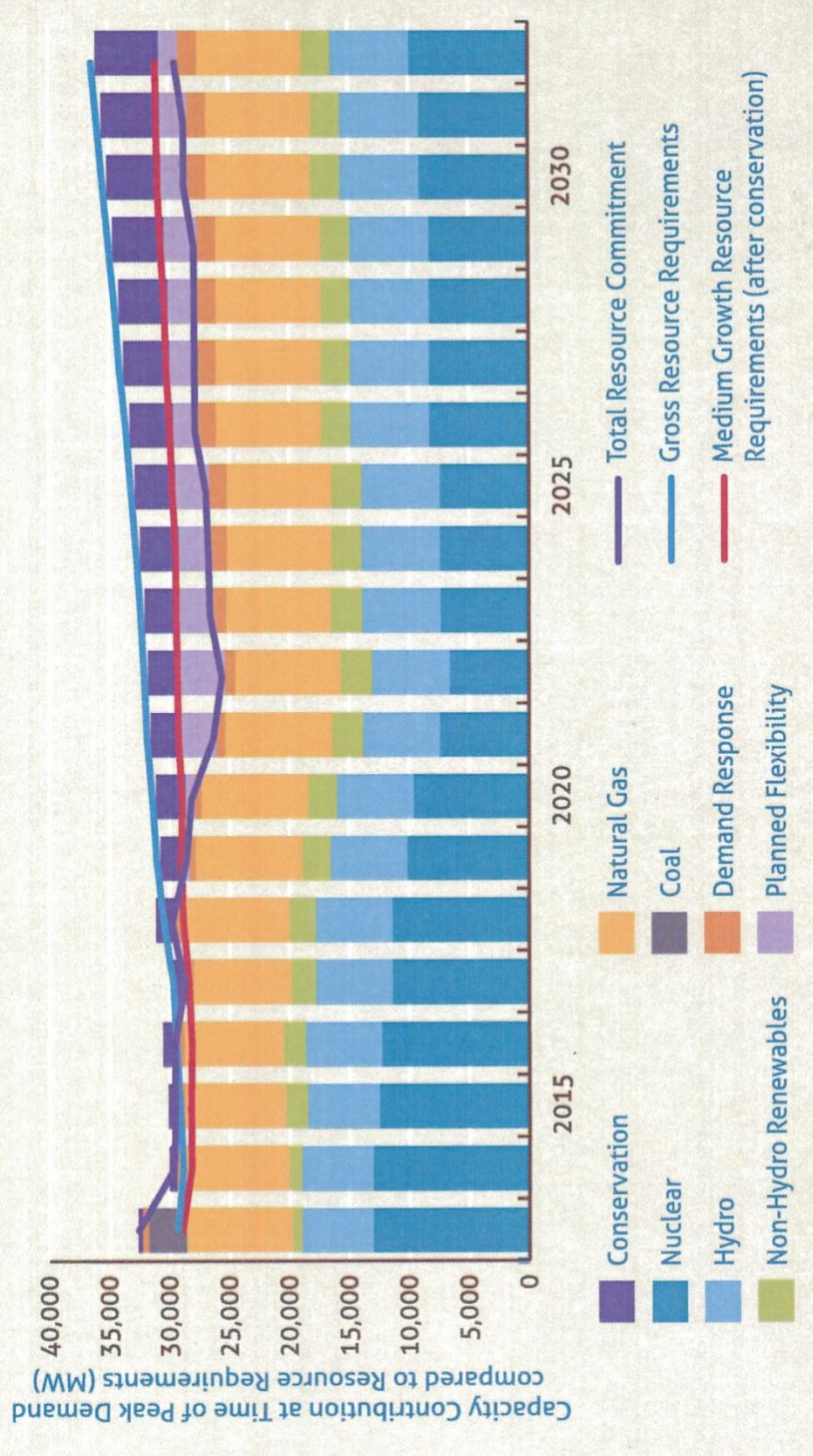
## Peak Demand Reductions (in MW) Associated with Electricity Consumption Saving Targets (in MWh)



- Forecast peak demand reductions are estimated from gross peak and net peak (see slides 15 & 16)
- Peak demand savings from time-of-use are additional, which is included on the chart on slide 16.
- Dispatchable DR resources are considered separately.



**Figure 18: Ontario's Planned Supply Mix (MW)**



<sup>7</sup> [http://www.energy.gov.on.ca/docs/LTEP\\_2013\\_English\\_WEB.pdf](http://www.energy.gov.on.ca/docs/LTEP_2013_English_WEB.pdf)