



APPENDIX E: POLICY MAPPING

BROADER POLICY AND SPECIFIC OBJECTIVES WITH GOVERNMENT DIRECTION INFORM THE CONTRACTUAL REQUIREMENTS FOR IESO AND LDCS



Sets broad objectives and longer-term goals

Generally, **softer policy**/broadly defined goals, for example:

- Continuing to provide access to conservation programs
- Ensuring LDCs have support in CDM plan submission and flexibility in program administration

Specific objectives to agencies

Generally, fall into two categories:

(1) Complete/not, for example:

- Allowing LDCs to make changes to their CDM plans at least once per year

(2) Targets, for example:

- Develop a methodology to allocate the 7 TWh consumption reduction target among LDCs

Implementation of policy goals and Directions

Generally, set forth specific accountabilities, for example:

- The LDC will prepare and deliver a CDM Plan to the IESO in accordance with the CDM Plan Submission and Review Criteria Rules
- The IESO will create and post a province-wide Save on Energy website

MAJORITY OF POLICIES AND MINISTERIAL DIRECTIONS ARE NOT METRIC OR TARGET BASED

- The policies (Long-term Energy Plan 2013, Climate Change Action Plan and Long Term Energy Plan 2017) and Ministerial Directions that guide or influence CDM in Ontario were summarized into eight categories and classified into three types:
 - Complete/not:** policies and Directions require a certain action that is either complete or incomplete
 - Target:** a quantitative metric is stated in the policy or direction, e.g., energy savings, cost-effective
 - Soft policy:** policy or Direction is vague and provides an over-arching or aspirational goal

Category		The Policies and Directions were segmented into 65 individual items and categorized and sorted into three types:			Metrics tracked by IESO
		Complete/not	Target	Soft policy	
Initial Objectives	Cost efficiency	5	3	3	6
	Customer Choice	8		4	3
	Energy savings	4	3	5	9
	Innovation	1		1	0
	Integration with Planning	3		2	4
	Market Transformation	1		2	2
Evolving Objectives	Energy Affordability	3		5	2
	Greenhouse gas reductions	7	3	2	1

POLICY AND DIRECTIONS WERE REVIEWED TO DETERMINE WHAT GOALS AND OBJECTIVES ARE TIED TO METRICS

- Most policy objectives were complete (Yes/No) or soft policy objectives
- The following nine policies are tied to metrics (budgets, targets, cost-effectiveness) that are reflected in the Energy Conservation Agreement
- Metrics associated with the Climate Change Action Plan are also shown for reference

Category	Metric (target) based Policy/Direction
Cost efficiency	Offsetting growth in electricity demand to 2032, with a conservation target of 30 TWh (a 16% reduction in gross demand) in 2032, lessening the need for new supply
	Using TRC and PAC tests to ensure positive benefit-cost of programs, and establishing hurdle rates to consider cost of program delivery against avoided cost of procuring supply
	Using TRC and PAC tests to ensure positive benefit-cost of the Industrial Accelerator Program
Energy savings	Coordinating, supporting and funding the delivery of CDM programs through distributors to achieve 7 TWh of consumption reduction between 2015 and 2020
	Develop a methodology to allocate the 7 TWh consumption reduction target among LDCs
	Establishing a budget to achieve targeted 1.7 TWh of savings through the Industrial Accelerator Program by 2020
Greenhouse gas reductions	Making government operations carbon neutral
	Reducing GHG emissions by 50% below 2006 levels by 2030 (Ontario Public Service)
	Reducing GHG emissions by 9.8M tonnes in 2020

POLICY MAPPING: COST EFFICIENCY

Mechanism	Policy	Type	Responsible
Policy	Offsetting growth in electricity demand to 2032, with a conservation target of 30 TWh (a 16% reduction in gross demand) in 2032, lessening the need for new supply	Metric-based	MOE/IESO
	Promoting conservation and cost efficiency	Soft policy	IESO
	Using the TRC test, PAC test, and hurdle rate to screen program proposals	Complete/not	IESO
Direction	Accounting for non-energy benefits with a 15% adder applied to benefits in benefit-cost analyses performed on CDM programs	Complete/not	IESO
	Coordinating and integrating the IAP with NG distributor conservation programs	Soft policy	IESO
	Developing cost-recovery and performance incentives for LDCs that administer CDM programs	Complete/not	IESO
	Marketing province-wide CDM programs under the saveONenergy brand, working with distributors to realize economies of scale; also making the brand available to gas distributors	Complete/not	IESO
	Requiring distributors to coordinate and integrate their CDM programs (including their low-income programs) with NG distributors' programs to achieve efficiencies and convenient integrated programs for electricity and natural gas customers	Soft policy	IESO
	Streamlining and simplifying the IAP's administration	Soft policy	IESO
	Using TRC and PAC tests to ensure positive benefit-cost of programs, and establishing hurdle rates to consider cost of program delivery against avoided cost of procuring supply	Metric-based	IESO
	Using TRC and PAC tests to ensure positive benefit-cost of the Industrial Accelerator Program	Metric-based	IESO

POLICY MAPPING: CUSTOMER CHOICE

Mechanism	Policy	Type	Responsible
Policy	Continuing to provide access to conservation programs for transmission connected customers	Soft policy	IESO
	Giving consumers access to their energy data via mobile and web-based applications through the Green Button initiative. The government intends to propose legislation that would, if passed, enable the government to require electricity and natural gas utilities to implement Green Button Download My Data and Connect My Data	Complete/not	MOE
	Giving customers more program choice along with streamlined oversight and administration	Soft policy	IESO
	Making financing tools available for programs	Soft policy	IESO/MOE
	GreenON will provide energy consumers with a coordinated one-window approach to encourage conservation across multiple energy sources and programs.	Complete/not	MOECC
Direction	Allowing Tx-connected customers with Dx-connected sites to have both Tx- and Dx-connected sites administered through the IAP, with the associated electricity savings from Dx-connected sites counting towards CDM targets	Complete/not	IESO
	Delivering CDM programs in a distributor's licensed service area if a distributor does not	Complete/not	IESO
	Designing, funding and delivering two centrally-delivered CDM programs, including in coordination with NG distributors: a pay-for-performance Multi-Distributor program as well as a province-wide whole-home residential CDM pilot program, both to commence by the fall of 2016	Complete/not	IESO
	Employing the Industrial Accelerator Program to facilitate broad program choice and financing flexibility	Soft policy	IESO

POLICY MAPPING: CUSTOMER CHOICE (CONTINUED)

Mechanism	Policy	Type	Responsible
Direction	Establishing a pay-for-performance pilot program for customers that are eligible for the IAP (customer is paid based on a pre-specified value for each verified kilowatt-hour of electricity savings achieved)	Complete/not	IESO
	Making the Industrial Accelerator Program available to new and existing grid-connected customers	Complete/not	IESO
	IESO to deliver Home Assistance Program to customers province-wide	Complete/not	IESO

POLICY MAPPING: ENERGY AFFORDABILITY

Mechanism	Policy	Type	Responsible
Policy	Enhancing the role of LDCs in delivering conservation programs to Aboriginal communities, particularly on-reserve communities	Soft policy	IESO
	Facilitating the installation/retrofitting of clean energy systems while helping to protect vulnerable consumers from the cost impacts of carbon pricing	Soft policy	MOECC
	Improving conservation programs for low-income residential customers	Soft policy	IESO
	Making financing tools available to consumers for energy efficiency and retrofits	Complete/not	MOE/IESO
	Providing information and incentives on efficient products; establishing minimum efficiency requirements for products	Soft policy	MOE
	Explore how to increase access to corporate financing for energy efficiency projects	Soft policy	MOE
Direction	Granting approval for programs deemed not cost-effective if they are either (a) targeted at on-reserve First Nation customers, (b) designed for educational purposes, or (c) low-income CDM programs	Complete/not	IESO
	Reviewing the Industrial Accelerator Program's financing mechanisms	Complete/not	IESO

POLICY MAPPING: ENERGY SAVINGS

Mechanism	Policy	Type	Responsible
Policy	Increasing the energy efficiency of new buildings and providing consumers with better information about their businesses' and homes' energy use	Soft policy	MOECC
Direction	Allowing LDCs to make changes to their CDM plans at least once per year	Complete/not	IESO
	Coordinating, supporting and funding the delivery of CDM programs through distributors to achieve 7 TWh of consumption reduction between 2015 and 2020	Metric-based	IESO
	Develop a methodology to allocate the 7 TWh consumption reduction target among LDCs	Metric-based	IESO
	Ensuring LDCs have support in CDM plan submission and flexibility in program administration	Soft policy	IESO
	Ensuring that distributors are the face of electricity conservation to their customers in all sectors	Complete/not	IESO/ LDCs
	Establishing a budget to achieve targeted 1.7 TWh of savings through the Industrial Accelerator Program by 2020	Metric-based	IESO
	Establishing budget allocations based on distributors' CDM goals	Complete/not	IESO
	Evaluating achievement of electricity savings through Industrial Accelerator Program on an annual incremental basis	Complete/not	IESO
	Streamlining the review and approval process for CDM plans	Soft policy	IESO
	Supporting distributors in program coordination and delivery	Soft policy	IESO/ LDCs
Supporting distributors in program design	Soft policy	IESO	

POLICY MAPPING: GREENHOUSE GAS REDUCTIONS

Note: many policies do not directly influence electricity, however, the activity in the climate change space and impact to customers is important to consider

Mechanism	Policy	Type	Responsible
Regulation	Allowing facilities with annual GHG emissions between 10,000 and 25,000 tonnes to participate voluntarily in cap and trade	Complete/not	MOECC/OEB
	Mandating certain entities to participate in cap and trade: electricity importers, facilities/natural gas distributors with annual GHG emissions exceeding 25,000 tonnes, fuel suppliers that sell more than 200 litres of fuel annually	Complete/not	MOECC/OEB
	Reducing market barriers to the deployment of low-carbon technologies through the Ontario Climate Change Solutions Deployment Corporation (OCCSDC)	Soft policy	OCCSDC
Policy	Addressing climate change in partnership with First Nations and Metis communities, and helping them derive economic benefit from climate-change-fighting actions	Soft policy	MOECC
	Addressing GHG pollution from existing cars, increasing availability of EVs and increasing access to transit	Complete/not	MOECC
	Establishing a cap and trade program and investing auction proceeds in green projects	Complete/not	MOECC
	Investing \$325 million in the Green Investment Fund to support economically viable projects that fight climate change	Complete/not	MOECC
	Making government operations carbon neutral	Metric-based	MOECC

POLICY MAPPING: GREENHOUSE GAS REDUCTIONS (CONTINUED)

Note: many policies do not directly influence electricity, however, the activity in the climate change space and impact to customers is important to consider

Mechanism	Policy	Type	Responsible
Policy	Reducing GHG emissions by 50% below 2006 levels by 2030 (Ontario Public Service)	Metric-based	MOECC
	Reducing GHG emissions by 9.8M tonnes in 2020	Metric-based	MOECC
	Ensure Green Ontario Fund complements and builds on the success of CDM programs and support the achievement of efficiencies and customer-focused approach	Soft policy	IESO
	Combined heat and power projects that use supplied fossil fuels to generate electricity will no longer be eligible to apply for incentives under the Conservation First Framework or the Industrial Accelerator Program.	Complete/not	IESO

POLICY MAPPING: INNOVATION, INTEGRATION WITH PLANNING, AND MARKET TRANSFORMATION

Category	Mechanism	Policy	Type	Responsible
Innovation	Direction	Encouraging innovation and the adoption of new technologies	Soft policy	MOE/IESO
		Establishing approval criteria for conservation programs	Complete/not	IESO
Integration with Planning	Direction	Incentivizing CDM measures with longer lifespans and energy savings persistence, and considering the system value of the measures	Complete/not	IESO
		Increasing DR capability, developing new conservation initiatives and giving LDCs greater flexibility to address local conditions	Soft policy	IESO
		Promoting the development of regional CDM plans aggregating individual distributors' CDM targets	Soft policy	IESO
	Policy	Demand Response capacity realized each year will depend on system needs and the competitiveness of demand response with other resources.	Complete/not	IESO
		The government and its agencies will encourage distributors to make their networks more energy efficient, by allowing them to use the electricity savings from in front of the meter conservation measures to meet their targets for electricity savings under the 2015 to 2020 Conservation First Framework.	Complete/not	IESO
Market Transformation	Policy	Deepening consumer awareness of conservation	Soft policy	IESO
		Providing long-term, stable conservation funding	Soft policy	MOE
	Direction	Ensuring funding is available for LDC's to implement and deliver programs	Complete/not	MOE

CUSTOMER AND MARKET ENGAGEMENT AND SATISFACTION

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

Stability and Choice

There will be long-term, stable funding for conservation so that customers and Local Distribution Companies (LDCs) have the certainty they need to implement and deliver programs.

Customers will be given more program choice along with streamlined oversight and administration.

Awareness and Information

There will be renewed efforts to deepen consumer awareness of conservation, and more broadly, of the electricity system.

The Green Button Initiative will give consumers access to their energy data and the ability to connect to mobile and web-based applications so they can analyze and manage their energy use.

To help consumers choose the most efficient products for their homes and businesses, Ontario will provide information and incentives; it will also continue to show leadership in establishing minimum efficiency requirements for products such as water heaters, clothes dryers, televisions, fluorescent lamps, motors and boilers.

Program/Sector Specific

Conservation programs for low-income residential customers will be improved.

For Aboriginal communities, the role of LDCs in the delivery of conservation programs will be enhanced, particularly for on-reserve First Nation customers.

Industrial and transmission-connected customers will continue to have access to the Ontario Power Authority's (OPA's) conservation programs, which will be expanded to facilitate broader program choice and financing flexibility.

Other

The government will work to make new financing tools available to consumers starting in 2015, including on-bill financing for energy efficiency retrofits.

CUSTOMER AND MARKET ENGAGEMENT AND SATISFACTION (CONT)

Policy Context – 2013 Long-Term Energy Plan, 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

Guiding Principles

1. Distributors are the face of electricity conservation to their customers in all sectors.
3. Customers will be given more CDM program choice along with streamlined oversight and administration.
6. While there will be CDM programs available for all residential, commercial and industrial sectors, the value of CDM investments may be higher in some sectors than others.
7. There will be renewed efforts to deepen consumer awareness of CDM and how it relates more broadly to the electricity system.
8. CDM programs for low-income residential customers will be improved.
9. The role of Distributors in the delivery of CDM programs to on-reserve First Nation customers will be enhanced.

2017 Long Term Energy Plan Update

1. Ensure that conservation is customer-centric
2. Launch of new and innovative programs and pilots for customers
3. The Green Ontario Fund will provide customers with a coordinated, one-window approach to conservation across multiple energy sources and programs
4. Proposed legislation to require electricity and natural gas utilities to implement Green Button Download My Data and Connect My Data

CUSTOMER AND MARKET ENGAGEMENT AND SATISFACTION (CONT)

3.1 “...a core set of Province-Wide Distributor CDM Programs for the following segments... to make available for delivery in Distributors’ licensed service areas...”

Residential; Low-income; Small business; Commercial (including multi-family buildings); Agricultural; Institutional; Industrial

3.2 Province-Wide Distributor CDM Programs will...”balance the value of flexibility for some program customization to meet local and/or regional needs with the value of offering consistent CDM measures to customer segments across all Distributor service areas

3.3 The OPA shall support Distributors in designing Local Distributor CDM Programs for specific industry concentrations or customer segments...that require unique approaches to achieve electricity savings, such as on-reserve First Nation customers

3.5 (x) The OPA and/or Distributors shall provide enhanced co-ordination [for administrative and delivery efficiencies] efforts with regard to...consumers with multiple locations across several licensed areas

DEFINITION OF CDM

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

2013 LTEP refers simply to “Conservation” as a broad term. The current landscape of demand response (DR) initiatives was laid out in the 2013 LTEP which charged the former-IESO with evolving current programs and integrating DR into the grid:

- “Ontario is aiming to use DR to meet 10% of peak demand by 2025, equivalent to approximately 2,400 MW under forecast conditions. To encourage further development of DR in Ontario, the IESO will evolve existing programs and introduce new initiatives. [...] The IESO, as the system operator, is in the best position to enable these large consumers to provide DR to the grid in a manner that puts DR on par with comparable generation options.”

2014 Ministerial Directions to OPA (now IESO) for Conservation First Framework and Industrial Accelerator Program provide the following definition of CDM:

- *Conservation First Framework*
 - “The OPA shall consider CDM to be inclusive of activities aimed at reducing electricity consumption and reducing the draw from the electricity grid, such as geothermal heating and cooling, solar heating and small scale (i.e. <10MW) behind the meter customer generation. However, CDM should be considered to exclude those activities and programs related to a Distributor’s investment in new infrastructure or replacement of existing infrastructure, any measures a Distributor uses to maximize the efficiency of its new or existing infrastructure, activities promoted through a different program or initiative undertaken by the Government of Ontario or the OPA, such as the OPA Feed-in Tariff (FIT) Program and micro-FIT Program and activities related to the price of electricity or general economic activity.”
- *Industrial Accelerator Program*
 - “The OPA shall consider CDM to be inclusive of activities aimed at reducing electricity consumption and reducing draw from the electricity grid, including behind the meter customer generation.”

DEFINITION OF CDM (CONT)

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

Dec. 2016 Ministerial Direction to IESO

- “The final FIT application period will be held in 2016. The IESO shall cease accepting applications under the FIT program by December 31, 2016 and any unallocated procurement target at the end of the procurement process will remain unallocated.”

October 2017 release of new LTEP removed CHP Eligibility, and expanded the scope of conservation to include in front of the meter conservation (IFMC):

- “Beginning July 1, 2018, combined heat and power projects that use supplied fossil fuels to generate electricity will no longer be eligible to apply for incentives under the Conservation First Framework or the Industrial Accelerator Program.”
- “The government and its agencies will encourage distributors to make their networks more energy efficient, by allowing them to use the electricity savings from IFMC measures to meet their targets for electricity savings under the 2015 to 2020 Conservation First Framework. IFMC project costs will continue to be funded through distribution rates, and subject to the OEB’s review process. The OEB will also identify steps for pursuing energy efficiency measures on the distribution system.”

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

2013 LTEP refers to a coordinated approach: “The government is committed to promoting a coordinated approach for all customers, including both electricity and natural gas utilities.”

Ministerial Directions to the IESO further define the policy around collaboration – March 2014 Conservation First Framework Direction relating to LDC Collaboration:

- “The OPA shall encourage Distributors to aggregate Distributor CDM Targets with neighboring Distributors to develop 21 regional CDM targets for the period January 1, 2015 to December 31, 2020. The OPA shall encourage Distributors to work cooperatively to develop regional CDM Plans to meet the regional CDM targets.”
- “The OPA shall encourage Distributors to maximize administrative and delivery efficiencies by utilizing appropriate program delivery models. Specifically, the OPA and/or Distributors shall provide enhanced coordination efforts with regard to:
 - a) Opportunities to target consumers with multiple locations across several licensed service areas (e.g., national accounts) and CDM measures delivered or promoted through provincial or national channels (e.g. retailer in-store rebates or coupons); and
 - b) CDM activities, including, but not limited to, the marketing, procurement and delivery of CDM measures and/or services where these will afford significant administrative cost and/or delivery efficiencies (e.g., call centre, rebate fulfillment and appliance de-commissioning).”

March 2014 Conservation First Framework Direction relating to collaboration with gas distributors:

- “The OPA shall require Distributors, where appropriate, to coordinate and integrate Province-Wide Distributor CDM Programs and Local Distributor CDM Programs with natural gas distributor (“Gas Distributors”) conservation programs to achieve efficiencies and convenient integrated programs for electricity and natural gas customers.”
- “The OPA shall require Distributors, where appropriate, to coordinate and integrate low-income Province-Wide Distributor CDM Programs and Local Distributor CDM Programs with Gas Distribution low-income conservation programs.”

COLLABORATION (CONT)

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

July 2014 Industrial Accelerator Program Direction:

- “The OPA shall, where appropriate, coordinate and integrate the Industrial Accelerator Program with natural gas distributor conservation programs to achieve efficiencies and convenient integrated programs.”

June 2016 Direction to the IESO detailed the Whole Home Pilot and Pay-for-Performance Program requirements – the Whole Home Direction sets out to encourage a coordinated approach to delivering CDM for electricity and gas to homeowners:

- “The IESO shall, in consultation with Distributors, centrally design, fund and deliver two CDM programs (“Centrally-Delivered Programs”): [...] b. A province-wide whole home CDM pilot program for residential consumers (“Whole Home Pilot Program”).
- “The IESO shall, where appropriate, deliver Centrally- Delivered Programs in coordination with natural gas distributors. The IESO may manage its relationship with the natural gas distributors on a non-competitive basis.”
- “Implementation of the Multi-Distributor Program and Whole Home Pilot Program shall commence by the end of the Fall of 2016.”

October 2017 release of new LTEP re-affirms commitment for collaboration:

- “The current conservation frameworks encourage electricity and natural gas distributors to collaborate in providing more efficient programs and a streamlined experience for customers. Such partnerships can offer energy consumers a coordinated, one-window approach to help meet their energy management needs. Currently, 46 electricity distributors are involved in joint conservation plans, and electricity distributors are partnering with natural gas distributors to design and develop programs that cover multiple fuels. Partnerships can enable multi-fuel programs to improve customer convenience and expand choice.”

GOVERNANCE AND OPERATIONS

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

LTEP refers to the role of LDCs in the 2015-2020 Framework:

- “In collaboration with its agencies and partners, the ministry will work on new conservation initiatives, significantly increase Demand Response capability, and give LDCs a greater role and more flexibility to address local conditions.”
- “Subject to further discussion with our partners, the government intends to build the new Framework on the following principles: There will be long-term, stable funding for conservation so that customers and LDCs have the certainty they need to implement and deliver programs. [...] LDCs will have accountability for meeting their assigned conservation goals, and will be provided the authority and means for meeting them cost-effectively.”

The March 2014 Direction to OPA for Conservation First Framework and Industrial Accelerator Program delve into more detail around governance (*paraphrased below due to volume of clauses devoted to this topic*):

- Summary of Conservation First Framework Governance:
 - New streamlined contract between OPA and LDCs (now ECA), support to LDCs in submitting CDM plans, LDCs will have flexibility to design, deliver and administer province-wide and local programs
- Summary of operational direction for Conservation First Framework:
 - Streamlined review and approval process for CDM plans and programs with established guidelines – to be reviewed within a 60 day review service standard
 - Approval criteria: approve unique programs that avoid marketplace confusion and duplication, programs that incent measures with longer lifespans and savings persistence and deliver system value at peak times, programs that are cost-effective (TRC and PAC)
 - LDCs can make changes to CDM plans on an annual basis or more frequently

GOVERNANCE AND OPERATIONS (CONT)

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

December 2016 Direction to IESO re: Delivery of Province-wide Programs:

- “Where a Distributor with eligible program participants is not making an approved Province-Wide Distributor CDM Program(s) available to eligible program participants in its licensed service area, the IESO shall deliver the Province-Wide Distributor CDM Program(s) in that Distributor’s license service area if a Distributor has not submitted a revised CDM Plan indicating an intention to do so per the timelines in Section 3.6(i).” [May 1, 2017]

July 2014 Industrial Accelerator Program Direction on Governance:

- “The administration of the Industrial Accelerator Program will be streamlined and simplified, where appropriate, to encourage greater participation in the program”

Dec 2016 Direction to Industrial Accelerator Program re: distribution-connected facilities:

- “The IESO shall allow transmission-connected customers with distribution-connected sites to elect to have their transmission-connected and distribution-connected sites administered through the Industrial Accelerator Program. Any associated electricity savings that result from distribution-connected sites participating in the Industrial Accelerator Program shall count toward Distributor CDM Targets under the Conservation First Framework Direction.”

PLANNING INTEGRATION

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

LTEP 2013 places conservation first in Regional Planning decisions:

- “Regional plans will promote the principle of Conservation First while also considering other cost-effective solutions such as new supply, transmission and distribution investments.”

The March 2014 Conservation First Framework Direction mentions the following:

- “The OPA shall encourage Distributors to aggregate Distributor CDM Targets with neighboring Distributors to develop 21 regional CDM targets for the period January 1, 2015 to December 31, 2020. The OPA shall encourage Distributors to work cooperatively to develop regional CDM Plans to meet the regional CDM targets.”
- “The OPA shall encourage Distributors to incent CDM measures with relatively longer lifespans and energy savings persistence and shall consider the system value of the measures, including reductions at peak times.”

The July 2014 Industrial Accelerator Program Direction mentions a similar requirement:

- “The OPA shall incent measures with relatively longer lifespans and energy savings persistence and shall consider the system value of the measures, including reductions at peak times.”

October 2017 release of new LTEP contains the following provisions for planning integration :

- “Demand Response capacity realized each year will depend on system needs and the competitiveness of demand response with other resources.”
- “The government and its agencies will encourage distributors to make their networks more energy efficient, by allowing them to use the electricity savings from IFMC measures to meet their targets for electricity savings under the 2015 to 2020 Conservation First Framework. IFMC project costs will continue to be funded through distribution rates, and subject to the OEB’s review process. The OEB will also identify steps for pursuing energy efficiency measures on the distribution system.”

CLIMATE CHANGE

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions & MOECC Plans and Regulations

LTEP 2013 refers to climate change in the following statement regarding coal generation and the addition of renewables to the supply mix:

- “To date, Ontario has more than 18,500 MW of renewable energy online or announced, which includes more than 9,000 MW of hydroelectric capacity and more than 9,500 MW of solar, wind and bioenergy capacity. This is remarkable progress, and Ontario is proud of the role renewable energy is playing in the supply mix. This investment in clean, renewable energy sources is helping Ontario reduce its reliance on fossil fuels. The coal phase-out is the single largest climate change initiative in North America, reducing greenhouse gas emissions and air pollution.”
- “Ontario will phase in wind, solar and bioenergy over a longer period than contemplated in the 2010 LTEP, with 10,700 MW online by 2021.”

Directions regarding the Conservation First Framework and the Industrial Accelerator Program for the period of 2015-2020 reference the need to incent measures that deliver system value and promote conservation at peak times – the greatest opportunity for GHG reductions in ON is during peak times when natural gas generators are producing electricity.

The Ministry of the Environment and Climate Change’s Climate Change Action Plan, Ontario’s Cap and Trade program and the introduction of the Regulation under Development for the Ontario Climate Change Solutions Deployment Corporation should also be considered when assessing the policy considerations for Climate Change as it relates to CDM in ON

See next slide for further detail.

CLIMATE CHANGE (CONT)

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions & MOECC Plans and Regulations

MOECC's Climate Change Action Plan:

- Total estimated Greenhouse Gas Reduction by 2020: 9,832,000 Tonnes
- New government greenhouse gas pollution target will be 37% below 2006 levels by 2030

Summary of actions related to current CDM policy and framework in ON:

- Establishing a green bank that would help homeowners and businesses access and finance energy-efficient technologies to reduce greenhouse gas pollution from buildings.
- Creating a cleaner transportation system by addressing greenhouse gas pollution from cars on the road today, by increasing the availability of zero-emission vehicles on the road tomorrow, by deploying cleaner trucks, and making transit more available.
- Halting the ongoing rise in building-related emissions by giving Ontarians more choices, incentives and tools to make the right energy choice for their homes and businesses, by providing better information about energy use by buildings and homes, and by making new buildings increasingly energy efficient over time.
- Making Ontario one of the easiest and most affordable jurisdictions in North America for homeowners and businesses to install or retrofit clean-energy systems like solar, battery storage, advanced insulation and heat pumps, while helping to protect and support low-income households, vulnerable communities and many renters from the cost impacts of carbon pricing.
- Supporting a carbon market that drives the lowest cost greenhouse gas emission reductions. Actions in this plan, supported by cap and trade proceeds, will help business and industry make investments that reduce greenhouse gas pollution. This will help save energy costs, improve productivity and global competitiveness, and protect and create jobs.
- Working in partnership with First Nations and Métis communities to address climate change, with actions guided by Traditional Ecological Knowledge, and helping to build capacity in these communities to participate in the economic opportunities that may arise from the actions.
- Building on progress, leading by example and acting on opportunities to make government operations carbon neutral. Ontario will achieve this by reducing greenhouse gas pollution across our facilities, operations and procurement.

CLIMATE CHANGE (CONT)

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions & MOECC Plans and Regulations

Description of Ontario Climate Change Solutions Deployment Corporation: “The corporation’s activities would focus on reducing market barriers to deployment of low-carbon technologies, including through improved access to information, incentives, and strategic use of financial de-risking tools to encourage greater private sector investment, emphasizing fuel-switching, energy storage and deep energy”

CLIMATE CHANGE (CONT)

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions & MOECC Plans and Regulations

Ontario's Cap and Trade program began on January 1st, 2017:

- The cap limits how many tonnes of greenhouse gas pollution businesses and institutions can emit. The cap drops each year to encourage lower emissions. Companies can trade (buy or sell) allowances. For example, if a company emits more greenhouse gas emissions than permitted by the cap, it could buy credits in order to comply. Credits would be available for purchase from a company that reduced its greenhouse gas emissions and have surplus credits.
- Cap and trade is projected to generate about \$1.9 billion per year in proceeds. By law, every dollar collected through cap and trade must be invested – in a transparent way – back into projects that reduce greenhouse gas pollution, such as: public transit, electric vehicle incentives, social housing retrofits.
- Ontario has already committed \$325 million to the [Green Investment Fund](#) for projects that will fight climate change, grow the economy and create jobs. These investments are part of our plan to secure a healthy, clean and prosperous low-carbon future.
- Mandatory participants: an electricity importer, a facility or natural gas distributor that emits 25,000 tonnes or more of greenhouse gas emissions per year, a fuel supplier that sells more than 200 litres of fuel per year
- Voluntary participants: Participation in the cap and trade program isn't mandatory for facilities that generates more than 10,000 but less than 25,000 tonnes of greenhouse gas emissions per year.
- Market participants: Companies without emissions to report are still eligible to participate in the auction as a market participant. Market participants can include individuals, not-for-profit organizations and companies without compliance obligations.

Description of Ontario Climate Change Solutions Deployment Corporation: “The corporation’s activities would focus on reducing market barriers to deployment of low-carbon technologies, including through improved access to information, incentives, and strategic use of financial de-risking tools to encourage greater private sector investment, emphasizing fuel-switching, energy storage and deep energy”

CLIMATE CHANGE (CONT)

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions & MOECC Plans and Regulations

October 2017 release of new LTEP promotes integration amongst delivery agents and revision of CDM definition to combat climate change :

- “Green Ontario Fund programs are building on the success of the province’s existing conservation and energy efficiency programs, providing Ontarians with more opportunities to reduce their energy costs and carbon footprint. The IESO is a partner in the delivery of certain Green Ontario Fund programs to help promote an efficient and customer-focused approach and minimize duplication with existing programs.”
- “Beginning July 1, 2018, combined heat and power projects that use supplied fossil fuels to generate electricity will no longer be eligible to apply for incentives under the Conservation First Framework or the Industrial Accelerator Program.”

BUDGETS, TARGETS AND COST EFFECTIVENESS

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

LTEP 2013 provides context around the long-term conservation target to 2032 as well as cost-effectiveness testing:

- “The province expects to offset most of the growth in electricity demand to 2032 using programs and improved codes and standards. This will lessen the need for new supply. Our long-term conservation target of 30 TWh in 2032 represents a 16% reduction in forecast gross demand for electricity — the equivalent to more than all the power used by the City of Toronto in 2012 — an improvement over the 2010 LTEP.”
- “Our agencies and partners will achieve this goal with a combination of tools, including the Total Resource Cost Test, the Program Administrator Cost Test and a hurdle rate, to screen program proposals. A hurdle rate would consider the cost of delivering a conservation program against the avoided cost of procuring supply.”

The OPA’s role to develop Target and Budget Allocation was defined in the March 2014 Conservation First Framework Direction:

- “[...]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 [...]”
- “The OPA, in consultation with Distributors, shall develop an allocation methodology to allocate the full 7 TWh among Distributors. The allocation methodology may take into consideration Distributor CDM potential at a local and/or regional level as identified in the OPA’s 2014 energy efficiency achievable potential study, and other factors, as appropriate.”
- “The OPA shall establish a budget allocation for each Distributor in consideration of the Distributor CDM Target and CDM Plan [...]”

BUDGETS, TARGETS AND COST EFFECTIVENESS (CONT)

Policy Context – 2013 Long-Term Energy Plan (LTEP), 2017 LTEP & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

March 2014 Conservation First Framework Direction addresses cost effectiveness testing and exceptions:

- “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 [...] The OPA will establish hurdle rates to consider the cost of delivering Province-Wide Distributor CDM Programs against the avoided cost of procuring supply.”
- “The OPA shall [despite previous section] allow Distributors to apply to the OPA for approval of Province-Wide Distributor CDM Programs and Local Distributor CDM Programs where cost effectiveness is not demonstrated if the program is: a) targeted to on-reserve First Nation customers, b) designed for educational purposes, c) a low-income CDM program”

The July 2014 Industrial Accelerator Program Direction addresses budget, target and cost-effectiveness:

- “The OPA shall establish a budget to achieve a target of 1.7 TWh of savings through the Industrial Accelerator Program to be met through projects approved on or before December 31, 2020.”
- “The OPA shall evaluate achievement of electricity savings achieved through the Industrial Accelerator Program on an annual incremental basis, based on the OPA’s standard [EM&V protocols]...”
- “The OPA shall ensure that there is a positive cost-benefit analysis for the Industrial Accelerator Program utilizing the OPA’s Total Resource Cost (TRC) Test and the Program Administrator Cost (PAC) Test found in the OPA’s Cost Effectiveness Guide [...]”

BUDGETS, TARGETS AND COST EFFECTIVENESS (CONT)

Policy Context – 2013 Long-Term Energy Plan & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

This topic area will also explore funding mechanisms, delivery models, financing and resource acquisition

LTEP 2013 outlines a need for financing mechanisms for conservation:

- “The government will work to make new financing tools available to consumers starting in 2015. These tools will include on-bill financing to help them with the upfront cost of making energy efficiency retrofits to conserve electricity and natural gas. The government has already enabled municipal governments to offer Local Improvement Charges to recover energy efficiency and renewable energy investments with repayment through property taxes. This allows consumers to save money on their energy bill and pay off conservation investments over time as they receive the benefits of conservation.”

The July 2014 Industrial Accelerator Program Direction also includes a mention of flexible financing:

- “The OPA shall facilitate flexibility in financing for Industrial Accelerator Program projects”
- (Mid-term Review) “review of the Industrial Accelerator Program in regards to [...] lessons learned with respect to financing mechanisms.”

The March 2014 Conservation First Framework Direction outlines options for funding mechanisms and encourages innovation:

- “The OPA shall, in consultation with Distributors, develop a cost recovery and performance incentive mechanism for Distributors for making Province-Wide Distributor CDM Programs and/or Local Distributor CDM Programs available to customers in their service areas.”
- [Full cost recovery (with tiered performance incentive mechanism) and pay for performance (paid based on a pre-specified value for each verified kilowatt hour of electricity savings achieved) are described in further detail following this section]
- “Innovation and adoption of new technologies will be encouraged.”

BUDGETS, TARGETS AND COST EFFECTIVENESS (CONT)

Policy Context – 2013 Long-Term Energy Plan & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

This topic area will also explore funding mechanisms, delivery models, financing and resource acquisition

The June and December 2016 Directions focus on delivering pay-for-performance based programs to non-residential customers:

- “The IESO shall, in consultation with Distributors, centrally design, fund and deliver two CDM programs (“Centrally-Delivered Programs”): a. A province-wide pay-for-performance CDM program for Multi-Distributor Consumers (“Multi-Distributor Program”) [...]”

Amendment to July 2014 Industrial Accelerator Program Direction:

- “The IESO shall undertake a pay-for-performance pilot program for customers that are eligible for the Industrial Accelerator Program that is consistent with the Centrally-Delivered Pay-for-Performance Multi-Distributor CDM Program.”

December 2016 Directive to IESO to fund distribution-connected sites as part of Industrial Accelerator Program:

- “The IESO shall allow transmission-connected customer with distribution-connected sites to elect to have their transmission-connected and distribution-connected sites administered through the Industrial Accelerator Program...Any associated electricity savings...shall count toward Distribution CDM Targets under the Conservation First Framework Directive”

August 2017 Directive for IESO delivery of low income programs:

- “...The IESO shall centrally design, fund and deliver across all Distributors’ licensed service areas a Provincewide CDM Program(s) targeted to the low-income customer segment..., beginning January 1, 2018, within the budget established under section 1.4 of the CFF Direction.”
- “...reductions achieved through IESO-delivered Provincewide Low-Income CDM Program(s) shall not count towards a Distributor’s CDM Target.”
- “....IESO may continue to allow a Distributor to deliver, funded through their allocated CDM budget...”

BUDGETS, TARGETS AND COST EFFECTIVENESS (CONT)

Policy Context – 2013 Long-Term Energy Plan & Conservation First Framework/Industrial Accelerator Program Ministerial Directions

This topic area will also explore funding mechanisms, delivery models, financing and resource acquisition

October 2017 release includes changes that impact budgets and targets :

- “Ontario is committed to putting conservation first, both as a resource for the energy system and as a tool for consumers to manage their energy costs. The government and its agencies will continue to assess the achievable potential for energy conservation”
- “The government and its agencies will encourage distributors to make their networks more energy efficient, by allowing them to use the electricity savings from IFMC measures to meet their targets for electricity savings under the 2015 to 2020 Conservation First Framework. IFMC project costs will continue to be funded through distribution rates, and subject to the OEB’s review process. The OEB will also identify steps for pursuing energy efficiency measures on the distribution system”