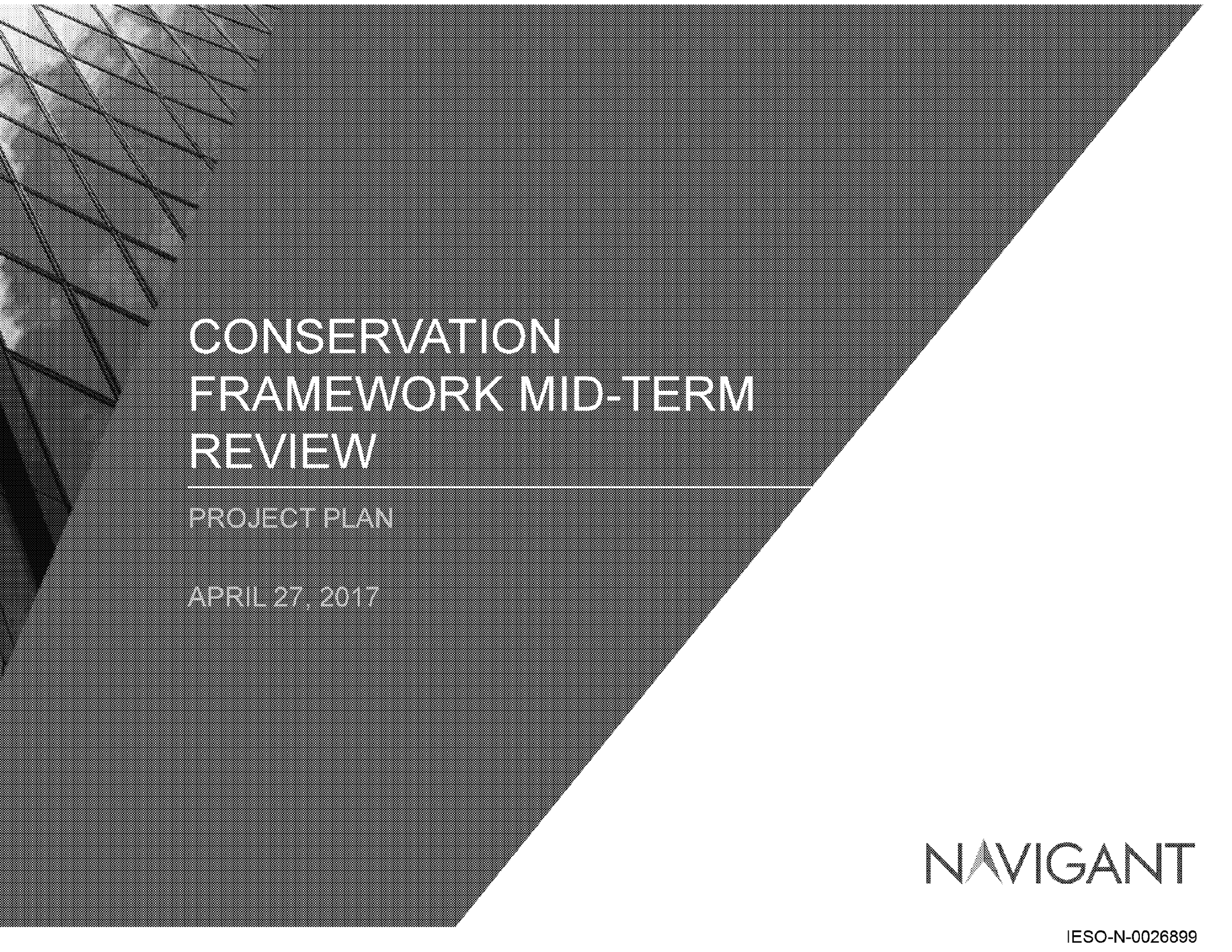




CONSERVATION FRAMEWORK MID-TERM REVIEW

PROJECT PLAN

APRIL 27, 2017

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SECTION 1: BACKGROUND AND CONTEXT

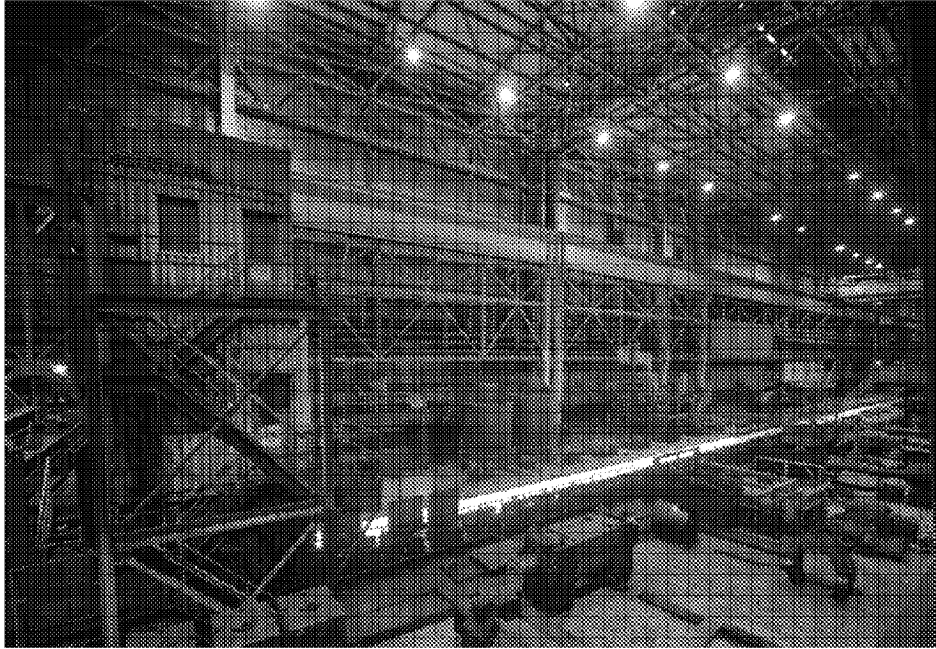
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IESO-N-0026899

Draft Plan for Mid-Term Review: 2015-2020 Conservation Framework

Mid-Review Advisory Group Meeting
February 23, 2016

Ontario's Conservation Goals



Almost all electricity demand growth to 2032 to be met by energy efficiency & improved codes and standards



Conservation First Framework & Industrial Accelerator Program

8.7 TWh in 2020

2013 Long Term Energy Plan

30 TWh in 2032

2015-2020 Conservation Framework

Conservation First Framework (Conservation First Framework)

- 7 TWh of energy savings by end of 2020 delivered to distribution-connected customers by local distribution companies (LDCs)
- \$2.2 billion over 6 years, administered by IESO
 - \$1.8 billion for LDC Delivery Costs
 - \$0.4 billion for Central Services Costs
- Evolving IESO-LDC relationships
- LDC conservation and demand management (CDM) six year plans support consideration of CDM in local/regional planning

Industrial Accelerator Program (Industrial Accelerator Program)

- \$500 million six year budget; targeting 1.7 TWh reduction, delivered by IESO to transmission-connected customers



Overview – mid-term review will be informed by input from interested parties, analysis of lessons learned and an assessment of value realized through Conservation First Framework and Industrial Accelerator Program

- Per Conservation First Framework and Industrial Accelerator Program directions, review must be completed by June 1, 2018
- IESO initiated review Fall 2016 and will complete by Winter 2018
- IESO will conduct a combined mid-term review of Conservation First Framework and Industrial Accelerator Program given the interest and involvement of many parties in both programs
- Third party consultant hired for this initiative: Navigant Consulting
- Review will focus on conservation targets/budgets, lessons learned on LDC funding models, customer needs, conservation integration with regional planning and post-2020 approaches to energy efficiency
- Comprehensive engagement strategy to ensure all LDCs, customers, channel partners, consumer groups, associations, other interested parties have meaningful opportunities to provide feedback on framework success and challenges
- Review outcomes to include plan and solutions to address identified issues

Objectives of Mid-term Review

- **Solicit input on opportunities and challenges of framework and identify solutions for 2018-2020 period**
- **Fulfill requirements of Direction and Energy Conservation Agreements (ECA) between IESO and LDCs (see appendix A)**
 - Assess ability to achieve Conservation First Framework and Industrial Accelerator Program targets (8.7 TWh) cost-effectively with existing budget, targets and programs
 - Determine if adjustments to targets/budgets are needed; identify potential options for addressing needs and implement accordingly
- **Inform approach to energy efficiency for 2018-2020 and beyond**
 - Need plan for preparing market for transition and potential projects that could start post mid-term but would not be completed by 2020
 - Identify options/alternatives for cost-effective, reliable demand side management (DSM) solutions that address local/regional needs
 - Options to reduce reliance on incentives, provide best value to ratepayers where incentives are required and support Ontario's climate change objectives

Conservation First Framework Mid-Term review is required by Minister's Direction

- **March 31, 2014 Direction for Conservation First Framework:**

“IESO, in consultation with the Ministry of Energy and Distributors, shall no later than June 1, 2018 have completed a formal mid-term review of:

- i. the 7 TWh target and the overall budget for achieving that target
- ii. allocation of budgets and Distributor CDM Targets
- iii. lessons learned on cost recovery and performance incentive mechanisms, and
- iv. CDM contribution to regional planning”

- **October 23, 2014 Direction for Conservation First Framework:**

“...benefits calculated for the Total Resource Cost Test include a 15 per cent adder to account for the non-energy benefits... value attributed to non-energy benefits shall be subject to review at the formal mid-term review”

- **March 26, 2014 Direction requires OEB to carry out mid-term review of gas DSM framework to align with mid-term review of Conservation First Framework**

Conservation First Framework Mid-Term review is required by Energy Conservation Agreement (ECA) between IESO and LDCs

- **Initiate a mid-term review no later than June 1, 2017 of:**
 - 7TWh target
 - Allocation of budgets and individual LDC targets
 - Lessons learned on cost recovery and performance based incentives
 - CDM contribution to regional planning
- **As part of the mid-term review, IESO will examine:**
 - Eligible expenses compared to CDM plan budgets
 - Progress toward LDC targets based on verified and reported electricity savings from 2015-2017
 - The Achievable Potential Study
- **Where the CDM plan identifies a target gap, the LDC will re-submit the CDM plan to indicate how the target can be achieved**
- **See appendix C for Mid-Term Review Guidelines that accompany ECA**

Industrial Accelerator Program Mid-Term review is required by Minister's Direction

July 25, 2014 Direction for Industrial Accelerator Program:

“IESO, in consultation with the Ministry of Energy, shall no later than June 1, 2018, have completed a mid-term review of the Industrial Accelerator Program in regards to:

- i. The 1.7 TWh target and the overall budget for achieving the target;
- ii. Lessons learned with respect to financing mechanisms; and
- iii. Industrial Accelerator Program performance”

Anticipated outcomes of Mid-term review

- Allocated LDC targets/budgets that are achievable
- Plan for addressing any LDC target gaps
- Plan/solutions to address outstanding needs identified by customers
 - E.g. multi-site customers; low-income customers
- Plan for establishing a target exchange mechanism should one be needed
 - Options presented/assessed for structure of target exchange: LDC only, open market, others
- Tools to ensure Conservation delivers system value when/where needed
 - Programs to address peak demand/local planning needs
- Conservation programs to support Ontario's climate change objectives
- Government direction (if needed) to achieve the above
- Options for delivering energy efficiency beyond 2020

Conservation First Framework: Key issues to be examined

Framework Element	Key Issues
Budget/ target allocation	a. Whether adjustments are needed at provincial level or between/amongst LDCs and options for adjustments/reallocations i. Establish mechanism to support LDC target adjustments b. Options to address remaining target gap e.g. trading/auction amongst LDCs; open competition to market
Cost-effective resource acquisition	a. Lessons learned on cost recovery and performance incentive mechanisms b. Uptake/obstacles to adoption of pay-for-performance funding approach c. Impact of gas/electric distributor collaboration on delivery costs d. Program ability to reduce incentive reliance/create sustained energy efficient practices e. Review of non-energy benefits adder f. Analyze the impact of (potential) changes to avoided costs g. Alignment of cost-effectiveness inputs between electric and gas utility programs h. Cost-effectiveness by sector (including an analysis of acquisition costs vs. cost effectiveness)

Conservation First Framework: Key issues to be examined

Framework Element	Key Issues
Collaboration amongst LDCs, gas utilities and other opportunities	a. Challenge of coordination between multiple utilities b. If/how differences in programs and budgets amongst LDCs and between LDCs and gas utilities impact collaboration c. Savings attribution/cost sharing d. Brand awareness/customer relationship (challenges, opportunities and potential solutions) e. Explore collaboration opportunities with other government funded initiatives
Governance and LDC Collaboration	a. Review of framework governance structures to ensure roles and responsibilities still align after mid-term review b. LDC Collaboration – investigate relationships and whether there is a need to enhance collaboration efforts
Integration with regional planning	a. Opportunities for local deferral of investments in transmission and distribution through targeted energy efficiency investments b. Impact of energy-only targets on CDM integration with regional planning (and whether demand targets should be established)

Conservation First Framework: Key issues to be examined

Framework Element	Key Issues
Customer/ Market engagement/ satisfaction	a. Satisfaction of customers with facilities in multiple LDC service areas b. Integration of CDM/DSM into business practices/lifestyle (less reliance on incentives) c. Customer impact of multiple/different program offerings across the province; success of implementation of local programs to address local opportunities or needs d. Coverage & budget/target allocation among customer segments e. Save on Energy brand value and market research f. Customer satisfaction with programs (including LDC and IESO administered components)
Alignment with climate change action plan (CCAP) objectives	a. Opportunities for alignment with the Climate Change Action Plan (CCAP), including potential structure of a GHG reduction target to complement energy targets and opportunities to support energy efficient electrification b. Potential effect of CCAP on Conservation First Framework budgets, targets and programs c. Impact of cap and trade on Conservation First Framework programs (including combined heat and power behind the meter generation) d. Moving to energy efficiency/DSM (right energy for right use at right time/cost) e. Integrated planning (distributed generation, energy efficiency, storage, fuel-switching) f. Where/how voltage reduction can/should be encouraged vis a vis CDM/DSM
Central services	a. Review central services/processes and opportunities for improvement b. Potential new tools to support LDC program development (e.g. P4P) c. Potential support for CDM plan redevelopment if targets/budgets are adjusted

Industrial Accelerator Program: Key issues to be examined

Framework Element	Key Issues
Budget/target	a. Whether adjustment to target and budget needed b. Options for adjustments
Customer/Market engagement/satisfaction	a. Both active and non-participants considered b. Integration of CDM/DSM into business practices (less reliance on incentives) c. Efficacy of the current program approach
Cost-effective resource acquisition	a. Impact of gas/electric collaboration on cost-effectiveness b. Success of account manager model
Integration with regional planning	a. Opportunities for local avoided infrastructure costs
Integration with greenhouse gas (GHG) reduction activities	a. Opportunities for alignment with the Climate Change Action Plan (CCAP), including potential structure of a GHG reduction target to complement energy targets and opportunities to support energy efficient electrification b. Moving to energy efficiency/DSM (right energy for right use at right time/cost) and possibility of integrating a GHG reduction target into program c. Integrated planning d. Cap and trade impacts on environmental attributes
Non-energy Benefits	a. Economic development impacts (job creation /retention) b. Environmental attributes

Inputs for assessment of framework elements

- Input provided by interested parties through open engagement
- Achievable Potential Study
- System planning projects per Long Term Energy Plan (LTEP)
- Lessons learned from Evaluation, measurement, verification (EM&V)
- Analysis of LDC eligible expenses vs. budgets
- Analysis of verified and reported 2015 - 2017 results
- Review of resource acquisition approaches in other jurisdictions
- Assessment of non-energy benefits of energy efficiency

Engagement

- Comprehensive, open engagement adhering to IESO principles to ensure all LDCs, customers, channel partners, other interested parties have meaningful opportunities to provide feedback for consideration by the IESO
- Multi-stakeholder advisory group formed as part of the engagement and includes the following members:
 - Five LDCs (representing different size utilities, regions)
 - Five customers (representing a mix of sectors, and distribution/transmission connected customers)
 - One service provider
 - One manufacturer
 - IESO (Chair plus support staff)
 - Observers
- Planned public engagements:
 - April 18, 2017: Comments on customer and market engagement summary report
 - May-Oct. 2017: Comments on relevant issues and insights from monthly topics-based summary reports (2-3 public engagements planned)
 - Q1 2018: Comments on key topics from the draft final Mid-term Review Study report



SECTION 2: PROJECT PLAN

- I. Deliverables and Key Activities
- II. Topic Based Reports
- III. Market Research
- IV. Opportunities Analysis & Final Report

SECTION 2: PROJECT PLAN

I. DELIVERABLES AND KEY ACTIVITIES

ACTIVITIES

The issues identified by the IESO were grouped into eight major topics that will guide the Framework Review through four key activities outlined below:



2017												2018		
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
★ Topic-based reports ★ Final study report ★ Other deliverables ◆ Advisory group meeting Stakeholder feedback														
Project plan	★	Stakeholder plan											Discuss draft report	
Scorecard	★													TBD
	23	23	23	23	23	23	23	23	12	15		◆	15	20
Customer & market engagement		★											Discuss public engagement	
		Collaboration	★											
		Definition of CDM	★											
		Governance and operations		★										
				Planning integration	★									
					Non-energy benefits	★								
					Climate change	★								
					Budget, targets, cost effectiveness	★								
										Draft to IESO	15	Draft to AG	9	Final
													23	
Outreach to select groups (LDCs, working groups, IESO) Scheduling sessions Market Research														

SECTION 2: PROJECT PLAN

II. TOPIC BASED REPORTS

TOPIC 1: CUSTOMER & MARKET ENGAGEMENT AND SATISFACTION

Key Questions

Are programs meeting the needs of the customer? Is the framework itself creating challenges for the customer or market actors who could support CDM/Demand Side Management (DSM)? Are there any customer or sector specific gaps in the framework? How can the customer experience be improved? How do customers view the Save on Energy brand? How can customers' perception of the Save on Energy brand be improved?

Focus Areas

Conservation First Framework:

- Brand/program awareness and customer relationships
- Challenges of coordination across multiple utilities
- Customers with facilities across multiple territories
- Variation in program offering across the province
- Customer satisfaction with programs
- Channel participation in/support for programs
- Efficacy of current approach & barriers to entry

Industrial Accelerator Program:

- Active and non-participants, efficacy of current approach
- CDM/DSM integration into business practices
- Awareness and understanding of programs
- Channel participation in/support for programs

Methodology

- Review and analysis of existing research, surveys, and feedback gathered by IESO and LDCs
- One-on-one interviews with a sample of LDCs and Industrial Accelerator Program customers
- Segmentation of customers (e.g., by sector, by size, participants/non-participants)
- Interviews with channel participants (vendors, manufacturers, service providers)
- Review systems and tools that support customer outreach

Inputs

- IESO: contact list
- IESO: market research, brand research, survey results, Evaluation, Measurement & Verification reports
- LDCs: surveys, summary findings, summary of direct feedback from customers (if available)
- Navigant: customer engagement research

TOPIC 2: DEFINITION OF CDM

Key Questions

How has the definition of CDM changed over time in Ontario? Is the current definition appropriate to achieve the policy objectives of the framework and to align with Ontario's broader GHG reduction goals? How does the definition of CDM in Ontario align with the definition of CDM/DSM in other jurisdictions?

Focus Areas

Conservation First Framework:

- Defining CDM

Industrial Accelerator Program:

- Defining CDM

Methodology

- Review of existing and evolution of the definition of CDM in Ontario
- Jurisdictional review of definitions of CDM

Inputs

- Public: ministry directives and policy documents (e.g., Long Term Energy Plan)
- Navigant: research and key contacts

SECTION 2: PROJECT PLAN

II. TOPIC BASED REPORTS

TOPIC 3: COLLABORATION

Key Questions

Have the expected outcomes of delivery efficiencies and customer convenience been achieved through collaborative efforts undertaken to date? What other outcomes has collaboration generated? Should additional collaboration be enabled? If so, how? If not, why not? What are the barriers to collaboration and what are some options to tackle these barriers? If collaboration should be encouraged, are there structural changes that can be addressed in the current or future frameworks (2020+)?

Focus Areas

Conservation First Framework:

- Types of collaboration activities that have occurred
- Outcomes of collaboration activities
- LDC collaboration
- Cross fuel collaboration and costs
- Cross fuel cost effectiveness inputs
- Attribution and cost sharing
- Collaboration opportunities with government funded initiatives

Industrial Accelerator Program:

- Cross fuel collaboration and costs

Methodology

- One-on-one interviews with natural gas utilities and LDCs, existing collaborative groups (e.g., Greater Toronto Hamilton Area, Kitchener-Waterloo Cambridge Guelph, working groups)
- Review of natural gas and electricity policies and guidelines to identify structural barriers
- Interviews with Ontario Energy Board (OEB), IESO staff

Inputs

- IESO: contact list
- IESO: list of existing collaborative engagements (e.g., approved collaboration funding projects)
- IESO: Energy Conservation Agreement, guidelines
- OEB: Natural Gas DSM Framework
- Collaboration Fund activities

SECTION 2: PROJECT PLAN

II. TOPIC BASED REPORTS

TOPIC 4: GOVERNANCE AND OPERATIONS

Key Questions

Are the structures, internal processes, and accountabilities in place effective and efficient? What can be done to improve these structures? Are there additional tools and/or changes that can better support framework objectives? What could future frameworks look like? What are some key considerations thinking beyond 2020?

Focus Areas

Conservation First Framework:

- Framework governance structures (roles and responsibilities)
- Review central services/IESO processes and opportunities for improvement
- New tools to support program development

Industrial Accelerator Program:

- Assess Account Manager model
- Assess application and supporting processes

Methodology

- Review of IESO central services and supporting documentation, processes, agreements, etc.
- Review of Energy Conservation Agreement, central services spending to date, committed funding (agreement terms)
- One-on-one interviews with working group reps, LDCs, IESO
- Interviews with channel partners (association, vendors, service providers)
- Perform benchmark comparisons

Inputs

- IESO: contact list
- IESO: process documentation, agreements or key facts of agreements for central services
- IESO: central services spending, budgets
- LDCs and IESO: existing framework structures, key contacts
- Navigant: research and key contacts
- Benchmark: resource acquisition costs, cost effectiveness, administrative vs. incentive cost splits, customer satisfaction scores

SECTION 2: PROJECT PLAN

II. TOPIC BASED REPORTS

TOPIC 5: PLANNING INTEGRATION

Key Questions

How do the programs and framework fit into the broader energy and climate picture (today and in the short, medium, and long-term)? What can be done with respect to the approach, performance metrics (targets) measurement and governance to improve the value of energy efficiency to broader energy and climate policy and planning? What are the opportunities for further integration of CDM in regional plans?

Focus Areas

Conservation First Framework:

- Local deferral opportunities through targeted EE
- Impact of energy only targets
- Integrated planning (climate change)

Industrial Accelerator Program:

- Avoiding costs of local infrastructure improvements
- Economic growth
- Integrated planning (climate change)

Methodology

- Review of existing methodologies and processes used to integrate CDM into system
- Review of metrics associated with system need and CDM (e.g., peak demand definitions)
- Jurisdictional review of methodologies and processes used to integrate non-wires alternatives, such as CDM into system planning and how local investments are funded.
- Incentives associated with behind-the-meter generation will be reviewed

Inputs

- IESO: contact list
- IESO: regional planning documentation and reports
- Navigant: research and key contacts

SECTION 2: PROJECT PLAN

II. TOPIC BASED REPORTS

TOPIC 6: NON-ENERGY BENEFITS

Key Questions

What other benefits are observed from the programs beyond electricity savings? How can these benefits be appropriately captured and communicated? Are there any changes that need to be made to better capture these benefits? Based on a review of the IESO's planned non-energy benefits study.

Focus Areas

Conservation First Framework:

- Review of IESO's planned non-energy benefits study and options for incorporating findings into Conservation First Framework holistically (near-term and long-term)
- Environmental attributes

Industrial Accelerator Program:

- Economic development impacts (job creation/retention)
- Environmental attributes

Methodology

- One-on-one interviews with Industrial Accelerator Program customers and IESO account managers
- Analytical review of IESO methodology, documentation, etc. supporting the non-energy benefits adder
- Review of IESO non-energy benefits study.

Inputs

- IESO/OEB non-energy benefits study
- IESO: Industrial Accelerator Program customer contact information
- IESO: Procedural documentations and sample calculations
- Navigant: research and key contacts
- Toronto City Council – Resilient City Reports

SECTION 2: PROJECT PLAN

II. TOPIC BASED REPORTS

TOPIC 7: CLIMATE CHANGE OBJECTIVES

Key Questions

What does more aggressive climate policy mean to the framework, the future of CDM design and delivery, and customers?
How can customers take advantage of the opportunities within this new policy?

Focus Areas

Conservation First Framework:

- Aligning with Climate Change Action Plan (CCAP), greenhouse gas (GHG) reduction target to complement energy targets
- Effect of CCAP on Conservation First Framework budgets, targets, programs
- Impact of Cap & Trade on Conservation First Framework programs
- Energy Efficiency/DSM (right use, right time, right cost)
- Impact on environmental attributes

Industrial Accelerator Program:

- Impact on environmental attributes
- EE/DSM (right use, right time, right cost)
- Aligning with CCAP, GHG target to complement energy targets

Methodology

- One-on-one interviews with IESO, LDC, and customer contacts.
- Review of Ontario's anticipated electricity system emissions
- Jurisdictional review of methodologies used in climate policies, end uses and industries targeted
- Review of electric vehicle incentives

Inputs

- IESO: Contact list
- IESO: industry breakdown of participants/non-participants
- IESO: existing market studies/research
- IESO: forecast of Ontario emissions (defer analysis until Long Term Energy Plan released)
- Navigant: research and key contacts

SECTION 2: PROJECT PLAN

II. TOPIC BASED REPORTS

TOPIC 8: BUDGETS, TARGETS, COST EFFECTIVENESS

Key Questions

Are targets and budgets appropriate to achieve framework objectives? What infrastructure must be in place to enable appropriate targets and budgets to capture the opportunities and reduce the barriers? Are the metrics that measure success appropriate? What are some possible metrics for the second half of the framework and beyond 2020?

Focus Areas

Conservation First Framework:

- Provincial adjustments
- LDC adjustments
- Mechanism to support re-allocation
- Options to enable target exchange
- Funding mechanism review
- Pay for Performance (P4P) obstacles
- Impact of potential changes to avoided costs
- Cost-effectiveness by sector
- Budget/target allocation across segments
- Defining CDM

Industrial Accelerator Program:

- Provincial adjustments, options for adjustment

Methodology

- Review budgets, targets, CDM plans, allocation methodologies, spending, and actual results
- Review Energy Conservation Agreement and guidance documents
- Review achievable potential studies against results and CDM plans
- Interviews with individual LDCs
- Jurisdictional review of targets, budgeting, and supporting infrastructure
- Interviews with channel actors (service providers, vendors, etc.)

Inputs

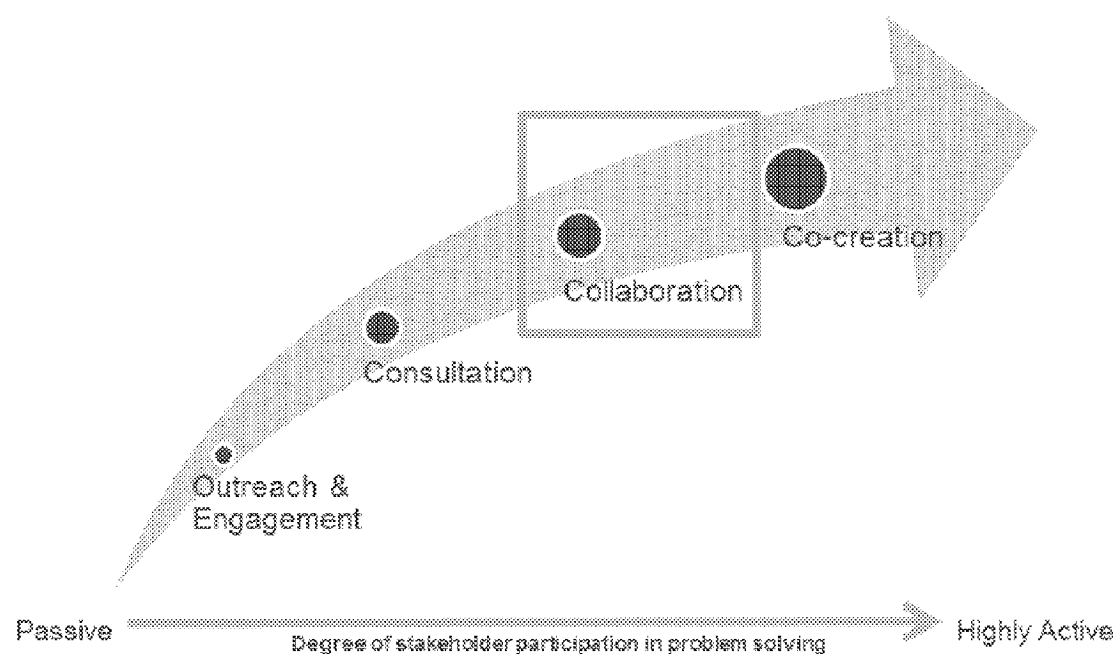
- IESO: consolidated LDC CDM plan, performance, spending information
- IESO: achievable potential supporting data
- IESO: Industrial Accelerator Program performance and spending, forecasts, methodologies
- IESO: Evaluation Measurement & Verification results, cost effectiveness, lessons learned, supporting data
- IESO: Participation and cost reports
- IESO: Central Services activities and budget summary
- Navigant: research and key contacts
- 2017 Long Term Energy Plan (defer analysis until released)

MARKET RESEARCH APPROACH

Market research to obtain input and inform the analysis is foundational to this review.

Each planned activity will be supported by individually defined market research objectives developed with the IESO to ensure that activities are designed to achieve desired outcomes.

There is a continuum of market research that leads to different outcomes. We recommend a collaborative approach that will engage LDCs and other groups more actively in the problem identification and subsequent generation of opportunities, given their critical role in delivering conservation results into the marketplace.



SECTION 2: PROJECT PLAN

III. MARKET RESEARCH

MARKET RESEARCH BY GROUP AND TOPIC

The themes are proposed to guide market research. Groups and the method of outreach are summarized in the table below and will be refined through a detailed market research plan for IESO and Advisory Group review.

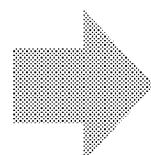
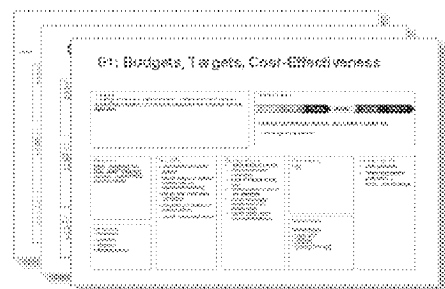
Group		Customer & Market Engagement	Definition of CDM	Collaboration	Governance + Operations	Planning Integration	NEBs	Climate Change	Budgets, targets, CE
Industrial Accelerator Program customers									
Large customers									
Small business customers and associations									
Other associations									
Channel Participants	Applicant reps	PHASE 1: ONE-ON-ONE INTERVIEWS/ FOCUS GROUPS							
	Consultants								
	Contractors (non-res)								
	Distribution								
	Manufacturers								
	Retail								
	Contractors (res)								
HRAI									
Individual LDCs									
Gas utilities									
Ontario Energy Board									
Conservation First Implementation Committee		PHASE 2: WORKSHOPS							
IESO-Planning and Conservation staff									
Customers									

SECTION 2: PROJECT PLAN

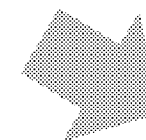
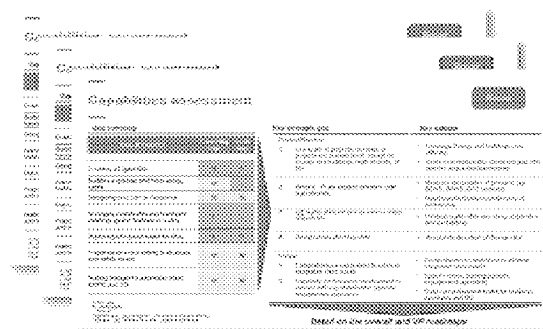
IV. OPPORTUNITY ANALYSIS & FINAL REPORT

IDENTIFYING ISSUES AND OPPORTUNITIES

Findings for the topic-based reports will be consolidated and circulated to understand the current state of each topic.

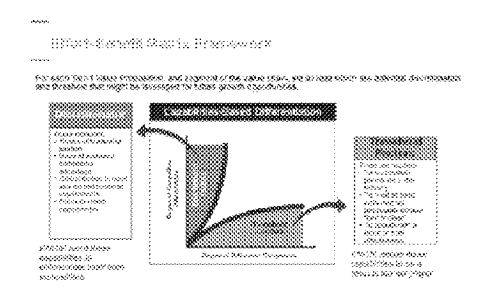
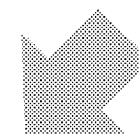
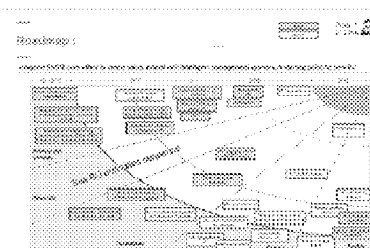


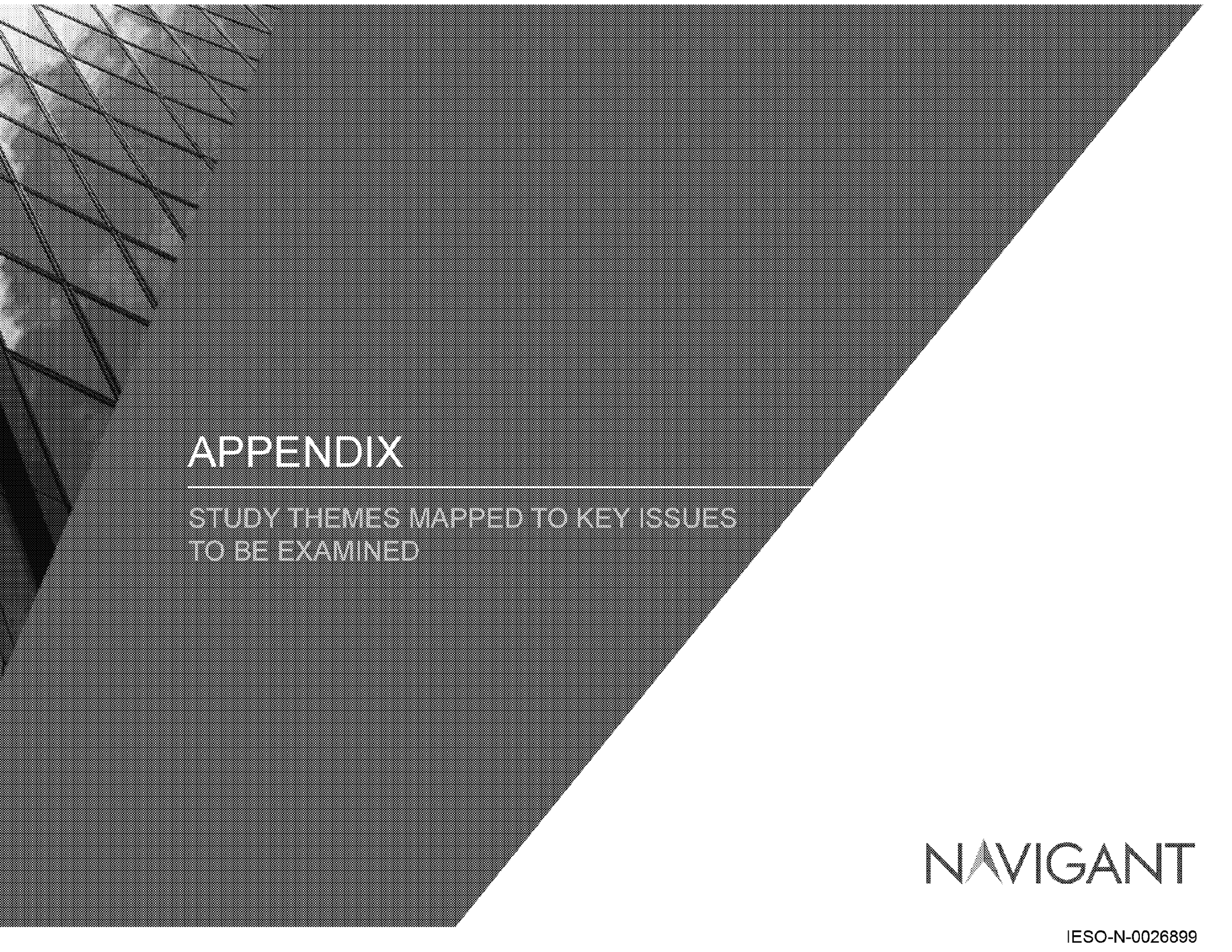
Market research and analysis will identify issues and opportunities associated with each topic.



Navigant will investigate the benefits and costs of implementing each change and work collaboratively with the Advisory Group and IESO to prioritize the gaps (i.e., what is feasible to implement within the balance of the Framework)

Creating a roadmap will take a deeper dive into the people, processes, partnerships, and tools required to implement the priority gaps and will provide a strategic roadmap for LDCs and IESO.





APPENDIX

STUDY THEMES MAPPED TO KEY ISSUES
TO BE EXAMINED

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SECTION 2: UNDERSTANDING OF DELIVERABLES

II. OVERALL APPROACH TO DELIVERABLES

MAPPING ISSUES TO THEMES (CONSERVATION FIRST FRAMEWORK)

Navigant has mapped each of the key issues identified in the RFP for the Conservation First Framework and Industrial Accelerator Program to the seven themes discussed in an earlier slide. The inputs are designed to address all issues identified within the RFP.

Framework Element	Key Issues - Conservation First Framework	Theme	Framework Element	Key Issues - Conservation First Framework	Theme
Budget and Target Allocation	Provincial adjustments	Budgets, targets, cost effectiveness	Collaboration amongst LDCs, gas utilities and other opportunities	Challenges of coordination between multiple utilities	Customer & market engagement
	LDC adjustments			Brand awareness and customer relationships	
	Mechanism to support re-allocation			Impact of differences in programs and budgets	Collaboration
	Options to enable target exchange			Attribution and cost sharing	
Cost effective resource acquisition	Funding mechanism review	Budgets, targets, cost effectiveness	Governance /LDC Collaboration	Collaboration opportunities with government funded initiatives	
	P4P obstacles			LDC collaboration	Governance and operations
	Avoided cost updates			Framework governance structures (roles and responsibilities)	
	Cost-effectiveness by sector			Local deferral opportunities through targeted EE	Planning integration
	Cross fuel collaboration and costs	Collaboration	Integrating with regional planning	Impact of energy only targets	
	Cross fuel cost effectiveness inputs				
	Non-energy benefits review and recommendations	Non-energy benefits			

SECTION 2: UNDERSTANDING OF DELIVERABLES

II. OVERALL APPROACH TO DELIVERABLES

MAPPING ISSUES TO THEMES (CONSERVATION FIRST FRAMEWORK)

Framework Element	Key Issues - Conservation First Framework	Theme	Framework Element	Key Issues - Conservation First Framework	Theme
Climate - Climate Change Action Plan (CCAP) and other policy	Aligning with CCAP, GHG target to complement energy targets	Climate change objectives	Customer & market satisfaction and engagement	Customers with facilities in multiple territories	Customer & market engagement
	Effect of CCAP on Conservation First Framework budgets, targets, programs			Variation in program offering across the province	
	Impact of Cap & Trade on Conservation First Framework programs			Customer satisfaction with programs	
	EE/DSM (right use, right time, right cost)			Budget/target allocation across segments	Budgets, targets, cost effectiveness
	Integrated planning	Planning integration	Central services	Review central services/IESO processes and opportunities for improvement	Governance and operations
				New tools to support program development	
				Potential support for CDM plan re-development	

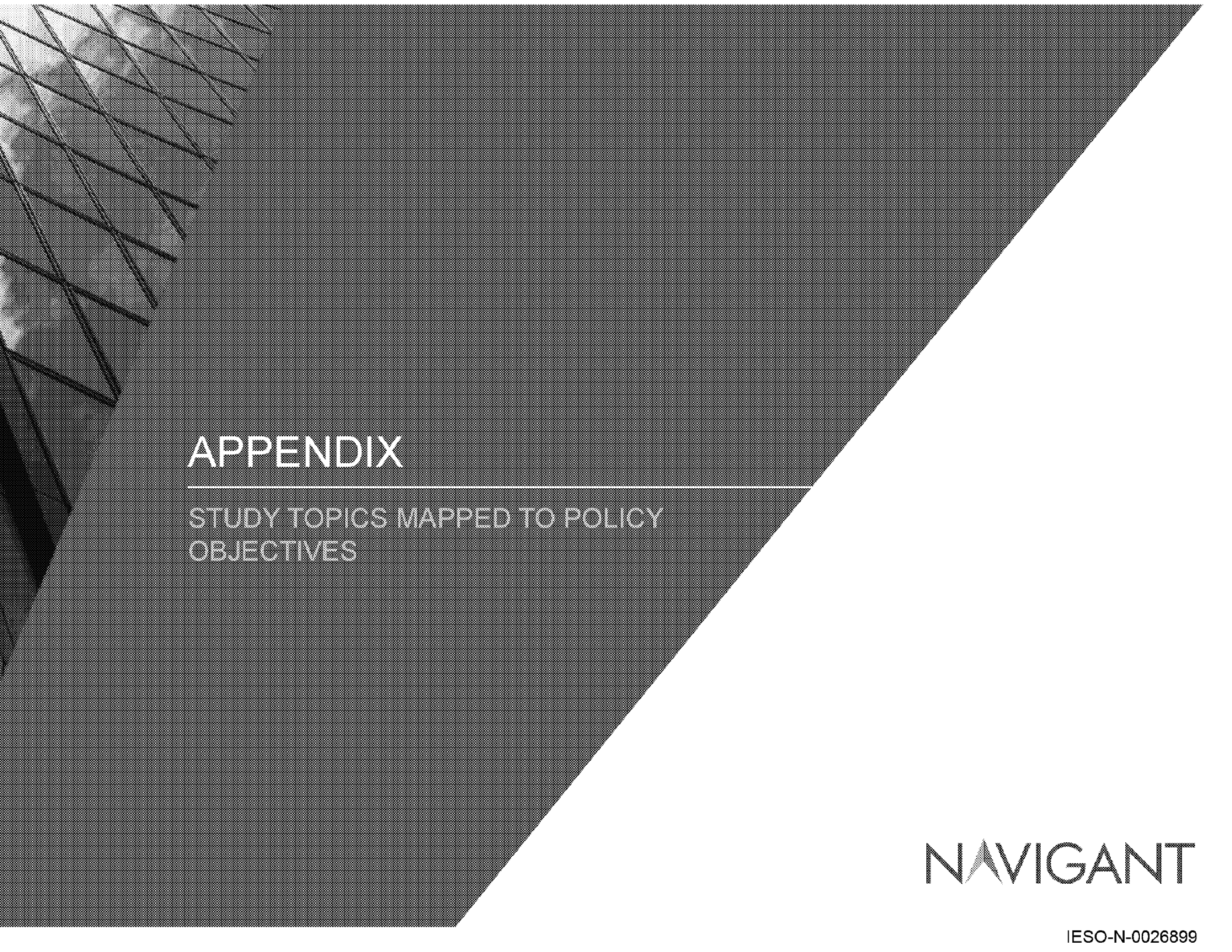
SECTION 2: UNDERSTANDING OF DELIVERABLES

II. OVERALL APPROACH TO DELIVERABLES

MAPPING ISSUES TO THEMES (INDUSTRIAL ACCELERATOR PROGRAM)

Framework Element	Key Issues - Industrial Accelerator Program	Theme
Budget and Target Allocation	Provincial adjustments	Budgets, targets, cost effectiveness
Cost effective resource acquisition	Account manager model	
	Cross fuel collaboration and costs	Collaboration
Integrating with regional planning	Avoiding costs of local infrastructure improvements	Planning integration
Customer & market satisfaction and engagement	Active and non-participants, efficacy of current approach	Customer & market engagement
	CDM/DSM integration into business practices	

Framework Element	Key Issues - Industrial Accelerator Program	Theme
Climate - Climate Change Action Plan (CCAP) and other policy	Aligning with CCAP, GHG target to complement energy targets	Climate change objectives
	Impact on environmental attributes	
	EE/DSM (right use, right time, right cost)	
	Integrated planning	Planning integration
Non-Energy Benefits	Economic development	Non-energy benefits
	Environmental attributes	



APPENDIX

STUDY TOPICS MAPPED TO POLICY OBJECTIVES

NAVIGANT

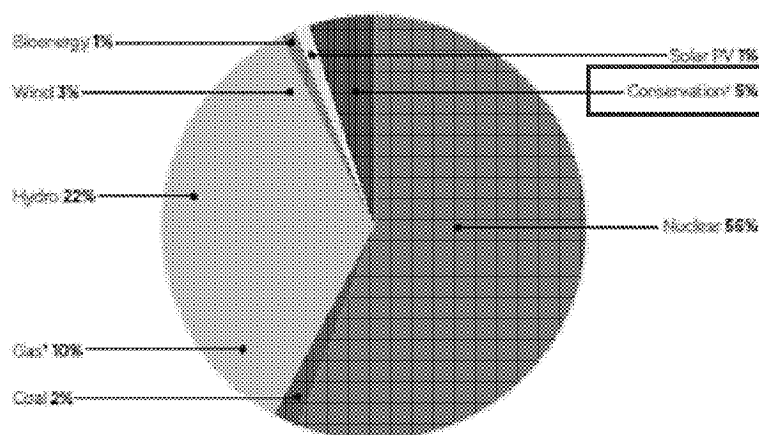
SECTION 1: EXECUTIVE SUMMARY

I. POLICY CONTEXT

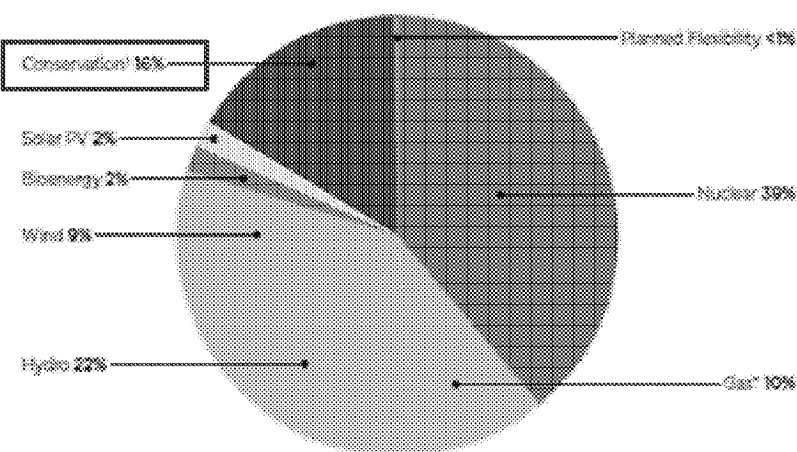
CDM AND THE LONG-TERM ENERGY PLAN (LTEP)

Broader policy specified in the Long Term Energy Plan (2013): Conservation is forecast to increase from 5 percent of energy production in 2013 to 16 percent of energy production in 2032. LTEP forecasts reaching this through the use of programs and improved codes and standards.

Forecast Energy Production (TWh) 2013



Forecast Energy Production (TWh) 2032



Select quotes from the LTEP 2013 pertaining to CDM:

"The Ministry of Energy will work with its agencies to ensure they put conservation first in their planning, approval and procurement processes."

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

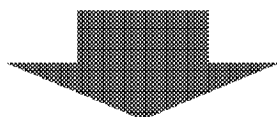
"Industrial and transmission-connected customers will continue to have access to the OPA's conservation programs, which will be expanded to facilitate broader program choice and financing flexibility."

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

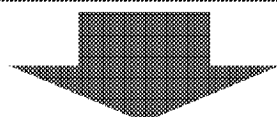
"Conservation programs for low-income residential customers will be improved."

POLICY GUIDANCE FOR THE MID-TERM REVIEW

Broader policy specified in the Long Term Energy Plan



Direction to the IESO and other agencies further define the policy, including specific targets



Mid-term Review objectives designed to comply with directives and agreements with LDCs (Energy Conservation Agreement)

- Role of CDM
- Specific actions and initiatives
- Detailed principles for the Conservation First Framework (Conservation First Framework) and Industrial Accelerator Program (Industrial Accelerator Program)

March 31, 2014 Direction for Conservation First Framework: “IESO, in consultation with the Ministry of Energy and Distributors, shall no later than June 1, 2018 have completed a formal mid-term review of:

- i. the 7 TWh target and the overall budget for achieving that target
- ii. allocation of budgets and Distributor CDM Targets
- iii. lessons learned on cost recovery and performance incentive mechanisms, and
- iv. CDM contribution to regional planning”

July 25, 2014: “IESO, in consultation with the Ministry of Energy, shall no later than June 1, 2018, have completed a mid-term review of the Industrial Accelerator Program in regards to:

- i. The 1.7 TWh target and the overall budget for achieving the target;
- ii. Lessons learned with respect to financing mechanisms; and
- iii. Industrial Accelerator Program performance”

TOPIC 1: CUSTOMER & MARKET ENGAGEMENT AND SATISFACTION

Policy Context – 2013 Long-Term Energy Plan

LTEP contains several statements related to customer and market engagement and satisfaction, some examples include:

Stability and Choice

- “There will be long-term, stable funding for conservation so that customers and 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 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.”

TOPIC 1: CUSTOMER & MARKET ENGAGEMENT AND SATISFACTION

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

Ministerial Directions to the IESO further define the policy around customer and market engagement – The 2014 Conservation First Framework Direction includes reference to customer choice, streamlined administration, making programs available to all sectors and serving customer with location across multiple service territories:

- “Customers will be given more CDM program choice along with streamlined oversight and administration.” “There will be renewed efforts to deepen consumer awareness of CDM and how it relates more broadly to the electricity system.”
- “The role of Distributors in the delivery of CDM programs to on-reserve First Nation customers will be enhanced.”
- “The OPA shall support Distributors in designing a core set of Province-Wide Distributor CDM Programs for the following segments of distribution connected customers to make available for delivery in Distributors’ licensed service areas: i. Residential, ii. Low-income, iii. Small business, iv. Commercial (including multi-family buildings), v. Agricultural, vi. Institutional, vii. Industrial”
- “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 co-ordination efforts with regards 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 center, rebate fulfillment and appliance de-commissioning).”

TOPIC 1: CUSTOMER & MARKET ENGAGEMENT AND SATISFACTION

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

March 2014 Conservation First Framework Direction on Marketing and Outreach:

- “The OPA shall be responsible for province-wide marketing and mass media buying for Province-Wide Distributor CDM Programs under the saveONenergy brand.”
- “The OPA shall work with Distributors to ensure Province-Wide Distributor CDM Programs and Local Distributor CDM Programs are consistently marketed under the saveONenergy brand [...] The OPA may also work with Distributors to provide them with the advantages of scale.”
- “The OPA shall make the saveONenergy brand available to the Gas Distributors for marketing of natural gas conservation programs on terms that the OPA may negotiate with Gas Distributors.”

Guiding Principle:

- “Distributors are the face of electricity conservation to their customers in all sectors.”

July 2014 Industrial Accelerator Program Direction includes the following guiding principles:

- “The Industrial Accelerator Program will be available to new and existing industrial, commercial and institutional customers which are directly or indirectly connected to the IESO-controlled grid.”
- “The Industrial Accelerator Program will facilitate broad program choice, including, without limitation, programs offering incentives for eligible process optimization, retrofits, new construction and energy managers. The Industrial Accelerator Program will also facilitate flexibility in respect of financing projects.”

TOPIC 2: DEFINITION OF CDM

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

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.”

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.”

TOPIC 3: COLLABORATION

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

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.”

TOPIC 3: COLLABORATION (CONT)

Policy Context – 2013 Long-Term Energy Plan & 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.”

TOPIC 4: GOVERNANCE AND OPERATIONS

Policy Context – 2013 Long-Term Energy Plan & 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 incentivize 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

TOPIC 4: GOVERNANCE AND OPERATIONS (CONT)

Policy Context – 2013 Long-Term Energy Plan & 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.”

TOPIC 5: NON-ENERGY BENEFITS

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

LTEP does not refer to non-energy benefits but places an emphasis on the importance of evolving codes and standards.

The October 2014 Conservation First Framework Direction Amendment to the IESO mentions the following:

- "In ensuring that there is a positive benefit-cost analysis of each Distributor 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 shall require that the benefits calculated for the Total Resource Cost Test include a 15 per cent adder to account for the non-energy benefits associated with Province-Wide CDM Programs and Local Distributor CDM Programs, such as environmental, economic, and social benefits. The value attributed to non-energy benefits shall be subject to review at the formal mid-term review provided in section 6.1 of the March 2014 Direction."

TOPIC 6: PLANNING INTEGRATION

Policy Context – 2013 Long-Term Energy Plan & 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.”

TOPIC 7: CLIMATE CHANGE

Policy Context – 2013 Long-Term Energy Plan & 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 Conservation First Framework and 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.

TOPIC 7: CLIMATE CHANGE (CONT)

Policy Context – 2013 Long-Term Energy Plan & 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 50% 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.

TOPIC 7: CLIMATE CHANGE (CONT)

Policy Context – 2013 Long-Term Energy Plan & 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"

TOPIC 8: BUDGETS, TARGETS AND COST EFFECTIVENESS

Policy Context – 2013 Long-Term Energy Plan & 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.”

Targets and Budget Allocation are clearly 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 [...]”

TOPIC 8: BUDGETS, TARGETS AND COST EFFECTIVENESS (CONT)

Policy Context – 2013 Long-Term Energy Plan & 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 [...]”

TOPIC 8: 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.”

TOPIC 8: 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.”