

# IESO 2019 - 2021 Business Plan

Stakeholder Advisory Committee

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August 22, 2018

# Business Plan: Key Themes

The IESO is capturing opportunities to drive system efficiency and reduce costs by:

- Ensuring the reliability and cost effectiveness of Ontario's electricity system in a period of rapid change
- Building a more competitive and efficient market to improve the way electricity is priced, scheduled and acquired
- Preparing for the future by conducting integrated planning while seeking innovative solutions that help lower costs
- Broadening engagement and leveraging the IESO's role as a trusted information source to drive collaboration and inform decision-making

# Setting the Stage

*How we keep the lights on is changing – and the IESO is continuing to anticipate and prepare for future developments, while addressing, and capitalizing on, the factors transforming the sector today*

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- **Navigating complexity:** Cybersecurity, grid resiliency during environmental extremes, expansion of distributed generation, growing regional needs, market evolution, all accelerating change for IESO and sector
- **Delivering on priority initiatives:** progress in achieving the goals of high-priority programs – like market renewal and cybersecurity – that are critical to meeting future needs and delivering ratepayer value
- **Focusing on highly skilled workforce:** Enable IESO to attract a highly skilled and integrated workforce that supports what we need to do to deliver on our mandate

# Reliability and Resilience

*We are updating our planning processes to reflect future market design and ensure we are prepared to meet reliability needs cost effectively*

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Ensuring continued reliability through:

- Robust and transparent planning to promote resource adequacy, transmission security and address operability – now and in the future
  - Forecasting and monitoring demand and identifying and procuring a wide range of resources available to meet that demand cost effectively
  - Conducting independent, integrated planning identifying both province wide and regional electricity needs over a 20 year period
- A comprehensive cybersecurity program that will help ensure threats are eliminated before they cause damage
- Informing and complying with NERC/NPCC continent-wide reliability standards
- The alignment of planning processes with market renewal initiatives and timelines to support informed decision-making by market participants

# Cost Effectiveness and Efficiency

*Our vision for the future is one of clearly defined energy products and services, where all resources are incented to compete to supply what the system needs when it needs it*

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- **Market renewal:** address known inefficiencies; introduction of a single schedule and day-ahead market, development of incremental capacity auction. Upfront costs for the project are far outweighed by the longer-term benefits for ratepayers, which range from \$2.2-\$5.2B over a 10-year period
- **Innovation:** seek opportunities, like third-party access to SME MDM/R data and removing barriers to storage facilities, to leverage role of technology and delivery of cost-effective solutions, e.g., Innovation Roadmap
- **Conservation:** seek opportunities for better alignment of programs with system and customer needs

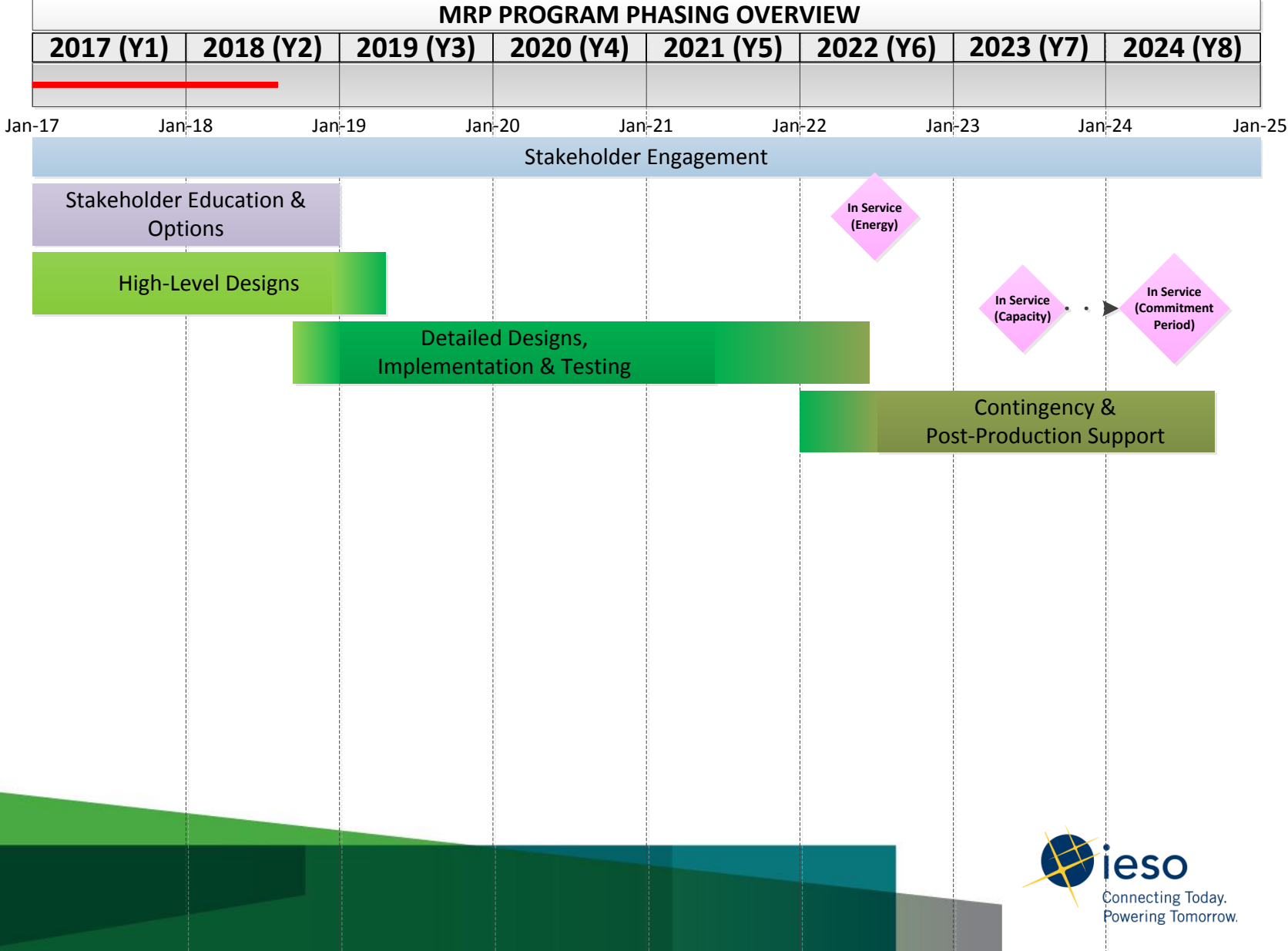
# Sector Leadership through Engagement

*Our commitment to transparency and fairness is central to our efforts to collaborate with partners, and expand opportunities for stakeholder participation*

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- Use engagement to drive outcomes on priority programs, e.g., Market Renewal, from conception through to implementation
- Expand relationships with communities, indigenous groups, and market participants to inform and be informed on sector needs
- Enable informed decision-making through availability of transparent data and information, e.g., data strategy
- Continue to facilitate and participate in committees and panels to enable forward looking discussions, be an independent source of information continent-wide, e.g., ETNO, FERC

# MRP Phasing Overview



# Corporate Performance Management

CPM program underwent significant internal and external consultations to enhance its value and relevance and:

- Align measures and annual targets to the IESO's overall strategic and business plans
- Better communicate strategic business areas
- Enhance CPM governance and oversight
- Provide a means to continuously evaluate and focus corporate performance
- Achieve a diverse set of measures and targets



Reliability and Resiliency	Cost Efficiency
<p><b><u>Strategic Outcome:</u></b> An integrated electricity system that is reliable, resilient and secure in a period of accelerating change</p>	<p><b><u>Strategic Outcome:</u></b> Best cost resource acquisition to efficiently manage IESO-administered markets in an evolving sector</p>
<p><b><u>Measures:</u></b> Electricity System Reliability Electricity System Resiliency</p>	<p><b><u>Measures:</u></b> Market Renewal Resource Acquisition Data Availability</p>
<p><b><u>2019 Targets:</u></b> Zero violations of NERC high risk factor reliability requirements within the IESO's control</p> <p>Integrated Regional Resource Plans for the Windsor-Essex, Toronto, GTA North, Burlington-Nanticoke and Greater Ottawa regions are completed or on track to be completed within the timelines prescribed by the OEB's regional planning process.</p> <p>Achievement of 2019 cybersecurity milestones</p>	<p><b><u>2019 Targets:</u></b> Market Renewal Program (MRP) cost performance index (CPI) and schedule performance index (SPI) year-end accumulated averages are above each 0.9</p> <p>Develop the MRP business case by end of 2019 that considers the following high level designs:</p> <ul style="list-style-type: none"> <li>○ Single schedule market</li> <li>○ Day ahead market</li> <li>○ Enhanced real-time unit commitment</li> <li>○ Incremental capacity auction</li> </ul> <p>The 2015-2020 conservation energy savings target is contracted within 4 cents/kWh</p> <p>Develop an integrated enterprise level data strategy by end of 2019</p>

Corporate Agility and Effectiveness	Sector Leader – Purposeful Engagement	Innovation
<p><b><u>Strategic Outcome:</u></b> A talented, diverse and empowered workforce that is flexible to respond to internal and external customer needs</p>	<p><b><u>Strategic Outcome:</u></b> A long-term energy perspective for IESO initiatives that delivers independent and informed energy policy advice</p>	<p><b><u>Strategic Outcome:</u></b> Integration of acquired sector innovation expertise into our operations, planning and advice</p>
<p><b><u>Measures:</u></b> Employee Engagement Project Management Financial Management</p>	<p><b><u>Measures:</u></b> Stakeholder Engagement Electricity System Planning</p>	<p><b><u>Measures:</u></b> Innovation</p>
<p><b><u>2019 Targets:</u></b> Achievement of the sub-indices of the engagement survey scores related to collaboration, an inclusive IESOne culture and enhanced leadership capabilities</p> <p>Implement an effective and scalable governance structure for project delivery by end of Q2 2019 and 90% of all high ranked projects advance into the initiation phase</p> <p>2019 priorities are achieved within +/- 5% of the IESO's approved budget of \$X million</p>	<p><b><u>2019 Targets:</u></b> 2% improvement in satisfaction with the stakeholder engagement process is reported, compared to the 2018 customer satisfaction survey result</p> <p>Complete bulk electricity system report by end of Q3 and publish to inform investment and long term energy plans in Ontario</p>	<p><b><u>2019 Targets:</u></b> Implement the emerging technology, research and development plan for electricity sector innovation for work streams including distribute energy resources, storage and data access, resource efficiency (e.g. automation, artificial intelligence) and achieve milestones identified for 2019</p>

# ERM Risk Assessment & Key Risks

- IESO has an established enterprise risk management (ERM) framework in place to identify, assess, manage and report on key risks impacting the achievement of strategic and key business objectives.
- Enterprise risks are formally assessed annually. The Executive Leadership Team determines key risks based on assessment input from the business.
- IESO's Board of Directors receive quarterly updates on the status of mitigation plans in place to mitigate key risks.

# ERM Risk Assessment & Key Risks

IESO key risks are as follows:

Focus Area	Key Risk
Reliability & Resiliency	The breadth and pace of change of Ontario's evolving energy sector challenges the IESO's ability to maintain grid reliability and efficiently integrate new entrants and technologies into the operation of the grid and market
	Failure of critical Control Room tools challenges our ability to effectively manage grid reliability and market operations
	A significant cyber security event occurs that disrupts the operation of the IESO – including reliable grid operations and efficient market operations - for extended periods of time
Cost Effectiveness	The Market Renewal Program is adversely affected by system dependencies, and/or a lack of resources with market design and implementation expertise
Sector Leadership	Insufficient support from key stakeholders and communities impedes the IESO's ability to effectively pursue key initiatives
	Change in provincial energy policy impacts IESO initiatives and programs, government directives and sector structure
Corporate Agility	Current workforce capabilities, capacity and allocation do not support the IESO's ability to effectively execute its mission, strategy and expanding responsibilities

# 2018-2020 Business Plan Status Update

- The 2018-2020 Business Plan was approved by the Minister in March 2018
- The IESO filed an application with the OEB in April 2018 for its proposed 2018 expenditures, revenue requirement and fees it proposes to charge
- The application is currently progressing through the regulatory process with interrogatories received on August 10<sup>th</sup> and responses due on August 31<sup>st</sup>
- In the meantime, the IESO is charging OEB-approved 2017 fees on an interim basis