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# Distribution Resilience, Responsiveness and Cost Efficiency Project

## Topics for Discussion at Stakeholder Meeting #2

**Discussion Materials**

April 25, 2023

# Context – Letter of Direction

**Deliverable**

Provide "*advice and proposals to improve distribution sector resiliency, responsiveness, and cost efficiency*"

**Expectations**

*LDCs will continue to…*

1. Provide high levels of reliability & resiliency
2. Be responsive to consumer expectations & government mandates
3. Do it all at an affordable price

## Climate Change Resilience

*The OEB will have an important role to play in ensuring that LDCs are preparing their infrastructure for [extreme weather] events…*

*Ensure proposals reflect…*

i. Current & anticipated future extreme weather impacts

ii. Best practices in climate change resilience

## Key Enablers

*LDCs will need greater capacity to meet these expectations – capacity that can be enabled by aggressively pursuing efficiencies through…*

A. Consolidation or enhanced shared services

B. Adoption of innovative technologies & processes

C. Collaboration on responsibilities like cybersecurity

D. Changes to utility remuneration & incentive structure that ensure right investments



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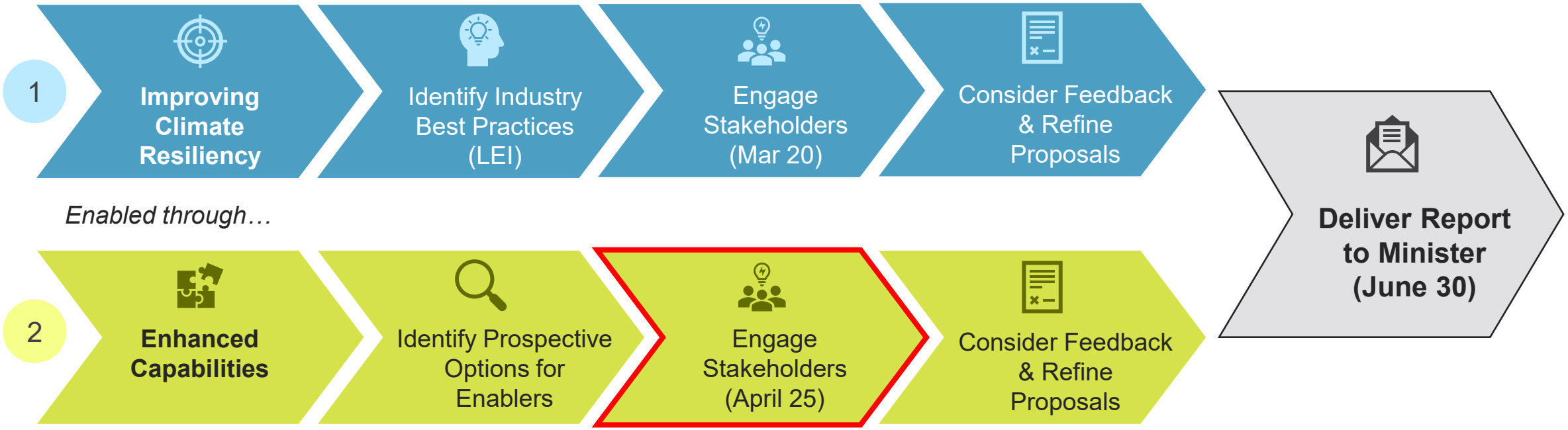
# Context: Work Plan Overview

## Two Streams of Work



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# Today's Agenda

1. Enhancing Capability
   - Collaboration
   - Consolidation
   - Adjustments to the Rate-setting Framework
   - Performance Incentives

2. Proposed Resilience Expectations
   - Draft Vision statement
   - Five Key Elements

Segments of today's discussion will use Slido.

# Proposals to Enhance Distributors' Capabilities

Material for April 25 Discussion



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# Topic 1: Collaboration & Shared Services

## Opportunity

- Distributors, like other businesses, face a make-or-buy decision for implementing processes that they need
- Buying a product or service can offer economies of scale out of reach of distributors who provide the service themselves.
- Taking advantage of economies of scale can allow distributors to harness savings and other benefits through cooperation with other parties.

## Analysis & Current Status

- Survey responses show extensive group participation among utilities where prospects for gains are intuitive – e.g., joint buying to increase purchasing power and get more favourable terms for provision of goods.
- High propensity to collaborate when expertise is needed
  - Setting standards
  - Meeting new requirements (e.g. Green Button, ULO)
  - Technical domains (metering, settlement, etc.)
- Lower levels of collaboration or shared services on operations that are more day-to-day, steady state. (Billing, CIS, etc.)
- Hindrance to collaboration: Differing standards, legacy equipment, time intensity

## Problem Statement

- Attitudinal: If greater levels of collaboration are desirable, utilities may need to adopt a strategy that embraces outsourcing its activities as a normal rather than exceptional practice.
- Structural: If more collaboration and shared services should be undertaken due to efficiency benefits, utilities may need to organize their businesses differently.
- Financial: Presence of capitalizable expenditures among scalable services may motivate make over buy decisions for some utilities

# Topic 1: Collaboration & Shared Services

## Current Proposals

- Review, clarify and update, where required, the requirements and/or guidance that apply to distributors regarding sharing between licenced utilities so that they can better organize their businesses to enable collaboration.
- Evaluate legislative options to support sharing on a broader scale
- Consider accounting treatment for purchased services – in particular, whether it can be better aligned with earnings opportunities associated with in-house provision of the same service.

## Discussion Questions

- How large is the opportunity for greater sharing between distributors today? In which areas?
- Are there regulatory hindrances to greater sharing of services today? How can they be overcome?
- What supports from the OEB would best enhance collaboration among distributors?
- Would the proposed solutions assist in increasing the amount of sharing by distributors? Why or why not?

# Topic 2: Consolidation

## Opportunity

- The OEB has reviewed 23 merger/amalgamation proposals since 2008.

  There are 58 utilities in Ontario today, down from 77 in 2012.

- Encouraging consolidation could not only lead to greater efficiency gains and cost savings, it could also help LDCs better prepare for the energy transition.

## Analysis & Current Status

- Survey feedback received:
  - Skepticism about the level and persistence of returns to scale;
  - Local preferences & priorities dominate considerations in many cases
  - Benefits of larger distributors are undervalued (better reach, service offering, technology access), which perpetuates status quo
  - Transaction, integration costs are uncertain and significant
  - More certain access to capital during deferral period is needed

## Problem Statement

- Greater insights into post-merger benefits of transactions can support informed decision-making regarding sales and mergers
- Need to improve understanding of sell-side shareholder sentiments and risk/reward tradeoffs, particularly in acquisition of smaller locally held utilities.
- Need greater common understanding of which risks/issues OEB policies are intended to resolve and which are for shareholders to manage and address through other means.

# Topic 2: Consolidation

## Current Proposals

- Establish a minimum standard for reporting requirements during deferred rebasing periods (OAGO, 2022)
- To aid utility shareholders, commission a financial/advisory firm to compile analysis and advice on best practices & must-haves in coming to consolidation terms – a handbook for those contemplating a transaction.
- Start off planned MAADs review with a scoping exercise.

## Discussion Questions

- What are the main barriers to consolidation that current policies fail to address? How should these barriers be resolved?
- To what extent should policies regarding consolidation consider resilience, and the broader energy transition?
- Are the proposals suggested likely to promote more consolidation among willing buyers and sellers?

# Topic 3: Rate-Setting Adjustments

## Opportunity

- Regulatory theory predicts that the use of a multi-year rate term can affect the timing of efficiency investments during the periods between rebasing.
- The incentive to invest in savings is strongest early in the rate period, since the amounts can be retained for the balance of the term.
- The incentive to invest in savings later in the rate period is weaker, since there is less time to recoup investment.
- Productivity investments with paybacks longer than rate term may be unattractive.

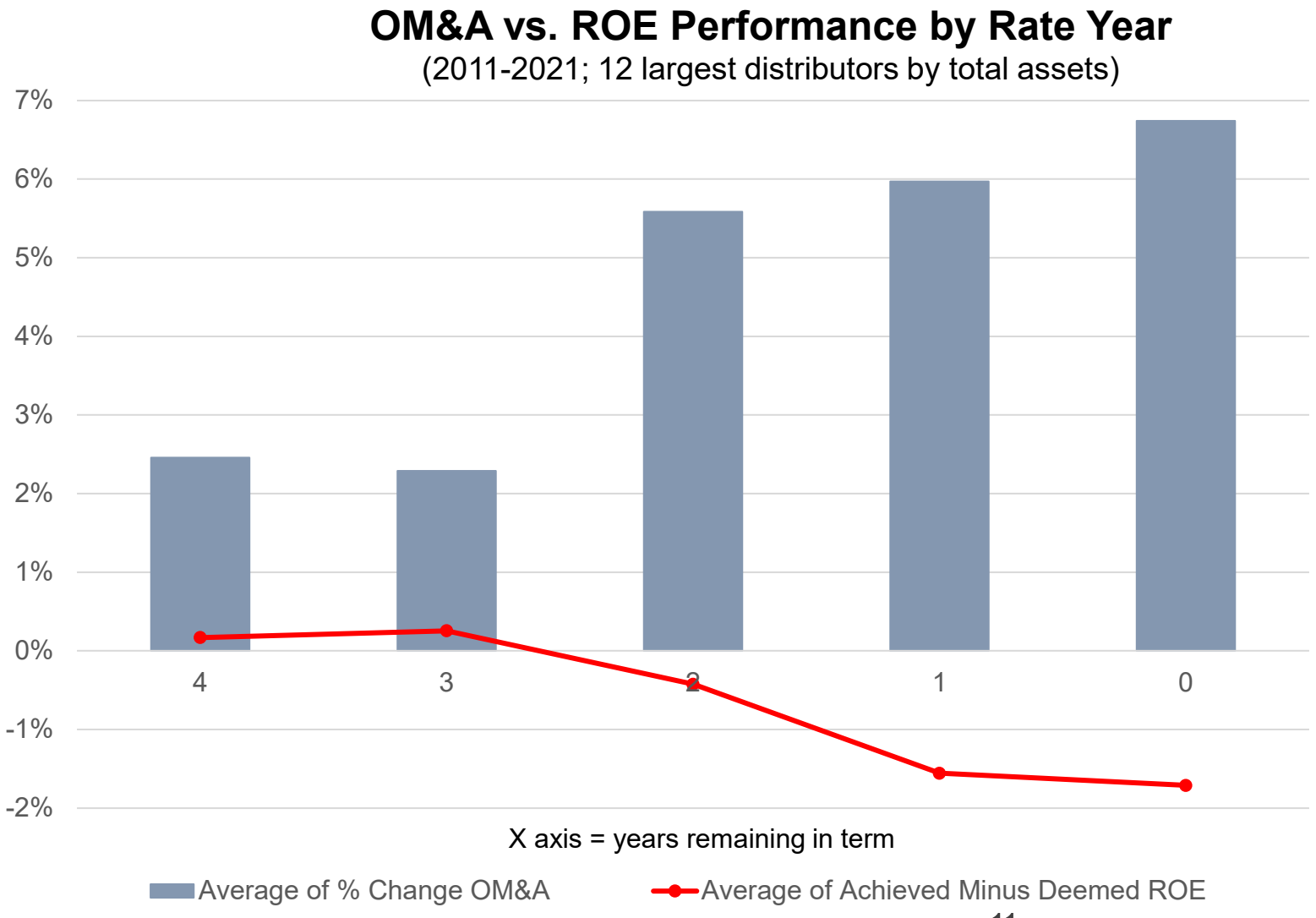
## Analysis & Current Status

- Data analysis on distributor spending patterns (*see following slides*) reveals the following potential trends:
  - Year-over-year spending changes in OM&A increase over the course of the rate term
  - Earnings erode over the course of the rate term
  - Larger distributors are generally able to earn a return in excess of their deemed ROE in the first years of the term

## Problem Statement

- Utilities' spending behaviour suggests that their rebasing schedule has an influence on their investments in productivity.
- Outcomes could be improved by developing a mechanism, compatible with the current rate-setting framework, to incent distributors to:
  - invest in productivity at every opportunity rather than in response to timing of rebasing schedule,
  - manage spending so it is more even and
  - reduce overall spending increases from period to period.

# Spending Patterns Over Rate Term




Trends:

- Year-over-year growth in OM&A accelerates toward next test year
- Earnings in earlier years (when returns to savings are greatest) marginally exceed target ROE
- Earnings decline during rate term, suggesting a tradeoff against future spending or income opportunity



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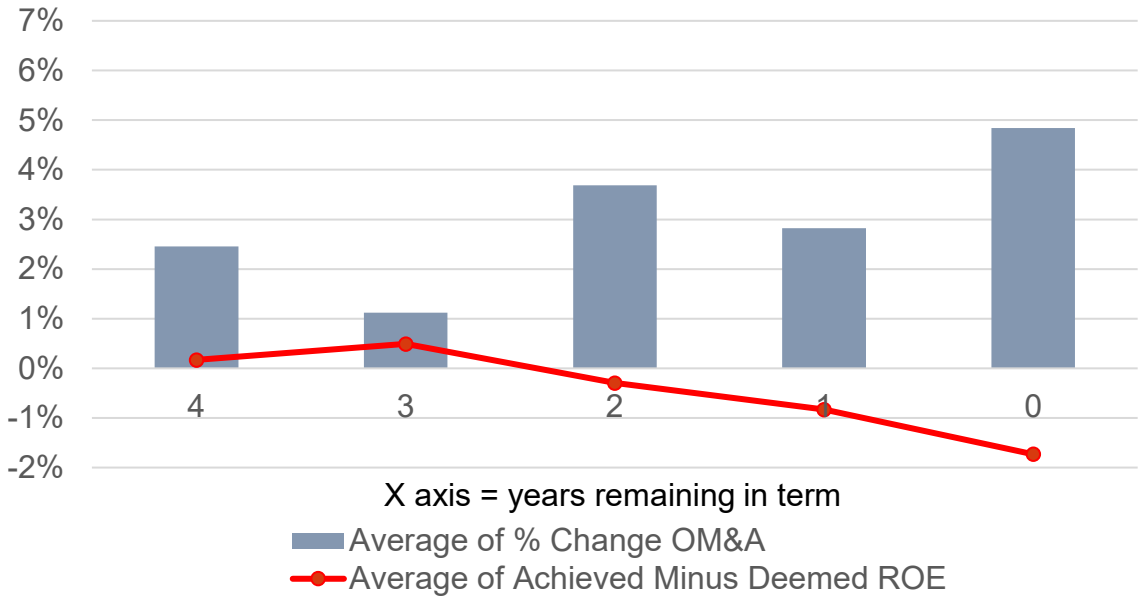
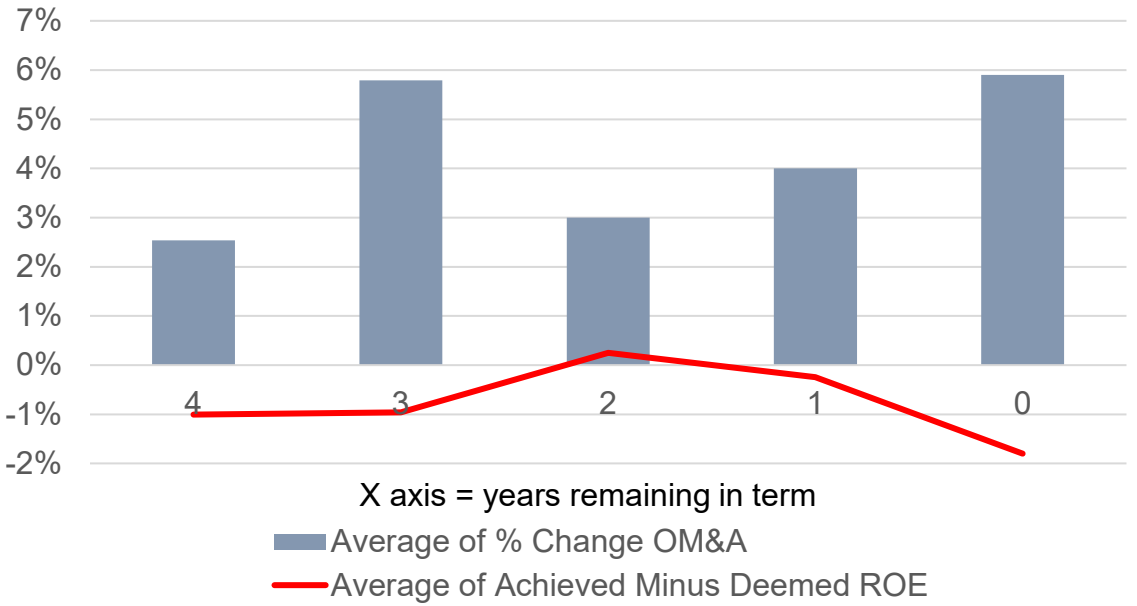
# Spending Patterns Over Rate Term

**OM&A vs. ROE Performance by Rate Year**

2014-2021; 12 largest distributors by total assets




2011-2021; all distributors




- Similar trends of OM&A growth acceleration towards next test year and ROE declines when looking at the 2014-2021 timeframe for same set of 12 distributors

- OM&A growth acceleration trend also exists, but is less pronounced, when expanding to include all distributors (2011-2021 timeframe)

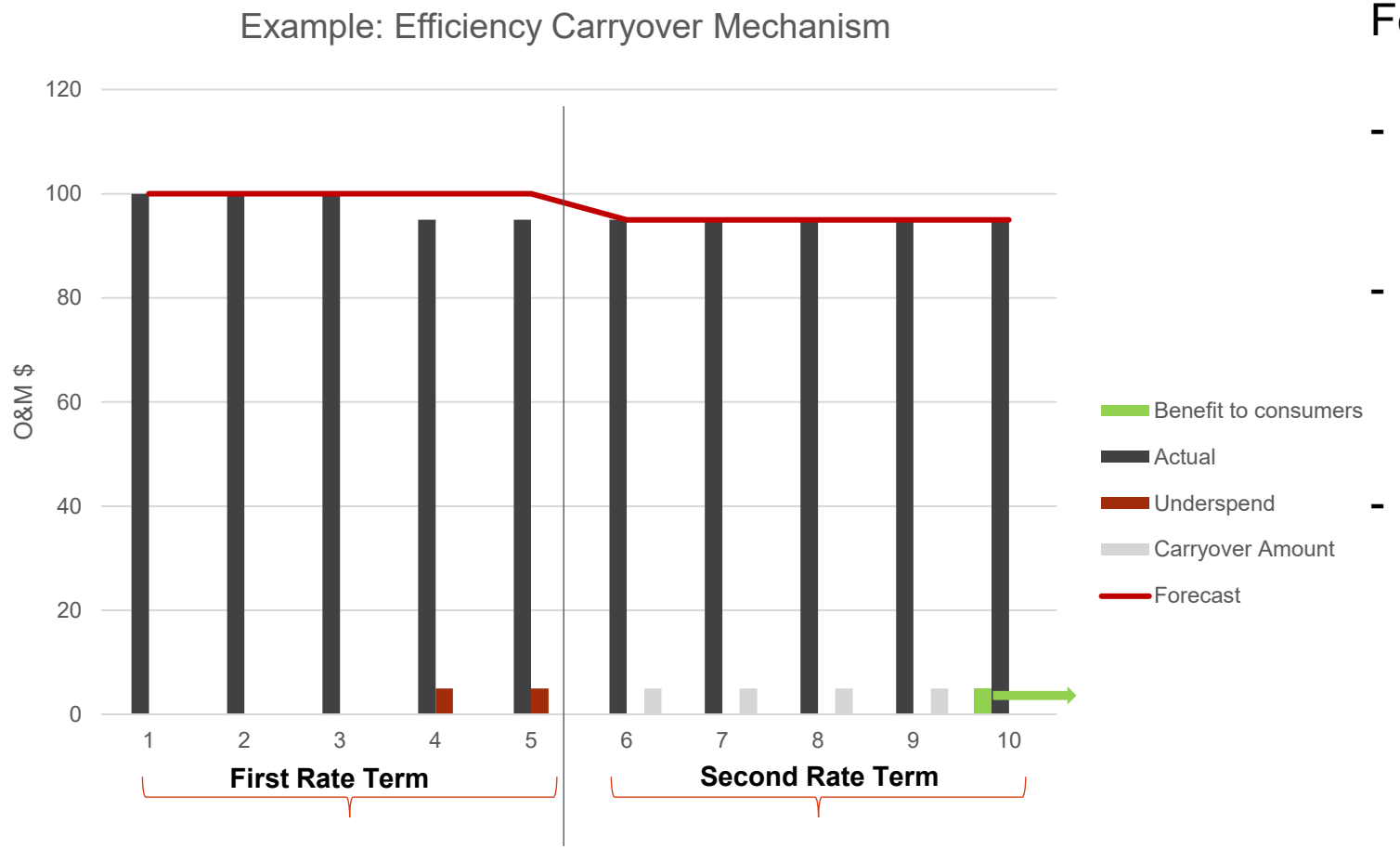


*Excludes distributors with rate-setting terms greater than 5 years or less than 4 years

# Comparing Potential Options: ESM vs. Carryover

| | Efficiency Carryover Mechanism | Earnings Sharing Mechanism |
|---|---|---|
| What it does | Allows costs of a productivity expenditure to be recovered over a period longer than a utility's rate term | Shares earnings (usually above a deadband) between utility and its customers |
| Purpose | Addresses disincentive to time spending and avoid longer-term productivity expenditures | Addresses incentives to underspend in order to generate excess earnings; manage forecast uncertainty |
| Familiarity | Low | In use today (CIR) |
| Transparency | Lower. Likely depends on design | Higher. Relies upon existing annual ROE filing process |
| Implementation | Not in use in Ontario; requires study | In use today |
| Efficacy in addressing timing of spending issue | Requires study. Impact may be seen in subsequent rate term. | Requires study. Impact may be seen in current rate term. Annual phenomena (weather, non-regulated items, past period adjustments) can add complexity. |

# Efficiency Carryover Mechanism: Illustration




Features:

- Spending tracked against forecast
- Achieved savings carried over into following rate term for defined period
- Benefits accrue exclusively to customers after the carryover period



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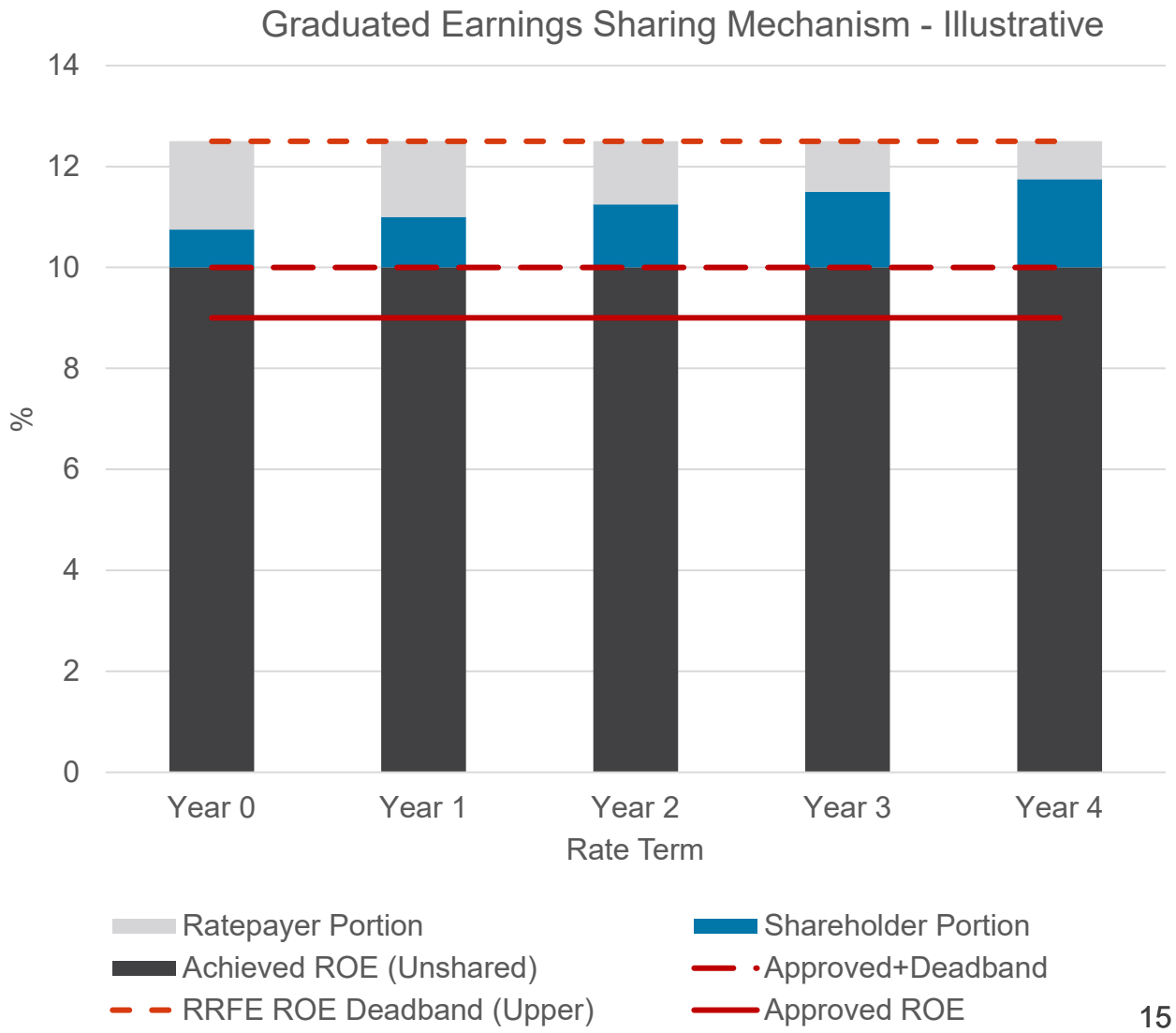
# Earnings Sharing Mechanism: Illustration




- An earnings sharing mechanism could be designed to share overearnings between utilities and customers on an asymmetrical basis (PCIR and future Custom IR)
- A larger share of overearnings early in the period would be given to customers; utilities would retain a larger share later in the period
- Would help to provide stronger incentive to control spending heading into bridge and test years
- Simpler, possibly preferable to efficiency carryover mechanism



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# Topic 3: Rate-Setting Adjustments

## Current Proposals

- Develop and select a mechanism designed to:
  - Overcome observed behaviour of timing spending in alignment with rate term
  - Make longer-payback efficiency projects more attractive
  - Remove a disincentive for utilities to collaborate with other utilities, who may be on a different rate term/cycle
- Timing and scope to consider OEB's planned work on RRFE elements (e.g. productivity, stretch factor) as well as cost of capital

## Discussion Questions

- To what extent do current rate-setting options and five-year rate term impair efficient expenditures on productivity investments with long paybacks?
- To what extent would a new or modified rate-setting instrument be beneficial in addressing issues related to timing of spending?
- How best to test its fit within with the rest of the OEB's ratemaking framework?
- Are there potential solutions other than changes to existing ESM or introducing an ECM that should be considered?

# Topic 4: Performance Incentives

## Opportunity

- Move toward a rate-setting framework that increases proportion of revenues contingent on performance, promoting efficiency
- Bridge resilience and performance outcomes;
- Strengthen link between customer preferences and service delivery

## Analysis & Current Status

- Performance incentives mechanisms (PIMs) involve long development timelines, high complexity and elevated risks stemming from:
  - Selection of quantum and scope of activities to be subject to PIMs
  - Dependence on availability and quality of data, which can be resource intensive
  - Calibration: improperly calibrated PIMs can distort utility incentives and behaviour.
- Related activities -- RPQR and APB -- remain in early stages

## Problem Statement

- PIMs show promise for improving efficiency but their complexity warrants a paced development of the approach.
- PIM framework must reflect suitability of measures, costs and benefits, good comprehension of incentive power, as well as understanding which risks are already sufficiently allocated and/or rewarded through incentives such as the return on equity.

# Performance Incentives – Groundwork Underway

## RPQR

- Developing new approaches to measuring and assessing reliability will enable the potential for moving to stronger incentives for reliability performance
- Encouraging continuous improvement through reliability benchmarking

## APB

- Understanding a utility's cost performance at a level that will allow cost comparisons to their peers assessment of year-over-year continuous improvement
- Prospect of: aligning APB spending to performance outcomes, less scrutiny for high performers

## FEI

- Distributors can propose an incentive tied to implementation of third-party owned DER solutions as non-wire alternatives as part of a pilot.
- Performance-target (or scorecard) based incentive is one of three identified options

## PIM Proposals in Rate Applications

- PIMs based on reliability performance – number of interruptions caused by overhead and underground system, and system average interruption duration index
- Project-based target – linking project savings to ROE.

RPQR, APB, FEI initiatives and application proposals provide solid foundation for the development of PIMs.

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# Potential Work Plan to Develop Performance Incentives

Goal: Establish A Durable Framework For the Approach to Incentive Design

1. Determine Areas for Application
    - Conduct sector & customer review of performance to ascertain where performance is leading/lagging
    - Confirm areas best suited to performance incentives
2. Determine Targets
    - Evaluate generic design questions
    - Consider issues such as uniform targets vs. distributor-specific, formulaic considerations etc.
3. Establish the Right Incentive
    - Assess quantum, proportionality
    - Assess fit with other incentive elements (return on equity, forecast test year, productivity factor)
    - Consider allocation of risk/reward (symmetrical/asymmetrical, etc.)
    - Accommodate uncertainty (deadband, review, re-assessment)
4. Implement Incentive (formulaic considerations, establishing periodic reviews, etc.)
    - Pilot -- potentially by building upon processes underway - RPQR, APB, or FEI proposal.

# Topic 4: Performance Incentives

## Current Proposals

- The distributor scorecard, RPQR and benchmarking initiatives, as well as application proposals, provide a solid foundation for further work.
- OEB should take steps to develop and evaluate the general features of a practical PIMs regime that would best complement other components of its rate-setting framework.
- Expectations for the pace of work need to recognize that the ultimate value of PIMs is proportional to the confidence parties place in the data and maturity of the performance regime, both of which can take time.

## Discussion Questions

- What principles should be considered to guide the development of a PIMs framework?
- How should this work best align or be coordinated with other reviews of its rate-setting policies (Cost of Capital, RRFE elements, etc.)
- Beyond questions of data, what are some of the key challenges with the implementation of PIMs?

# 3. Proposed Resilience Expectations

## Material for April 25 Discussion

# Resilience – Draft Vision Statement


- Investment plans focus largely on known and normal conditions
- Reliability measured against own historical performance
- No expectations on major events beyond reporting.

- Climate change will intensify complexity of planning and operations:
  - Increased vulnerability
  - More unknowns
  - May need deeper and broader capabilities to respond

- Develop a resilience mindset, encompassing reliability efforts
  - Cope with greater uncertainty in decision-making
- Less reliance on the past as a predictor of future;
- Greater agility to respond to changing circumstances
- Customer value still drives planning



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# The Five Key Elements of Resilience: Proposals

## Operations planning

- Ensure resilience informs business planning;
- Enable greater consistency in resilience-related activities done already today (i.e., restoration plans, storm costs, mutual aid/OnMag, and emergency preparedness)

## System hardening

- Integrated investment planning
- Data driven, using common framework
- Informed by customer preferences (VOLL)
- Assess system-specific distribution vulnerabilities

## Restoration performance

- Track and measure actions
- Assess performance in terms of efficiency (i.e., repair time or unit costs)
- Utility-led post-mortem and peer review

## Customer communication

- Set minimum requirements for outage communications
- Measure accuracy & completeness of communication with customers
- Enhance collaboration (e.g., with provincial EMO, under certain conditions);

## Temporary partial service offerings

- Avoid moral hazard
- Retain role for municipalities/others
- Monitor how electrification alters options and needs
- Risk of market failure in services for low-income customers may warrant distributor action over time




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