ONTARIO ENERGY BOARD

Advancing Performance-based Rate Regulation

OEB Stakeholder Consultation
November 19, 2024

Agenda

01	Welcome & Land Acknowledgment	OEB – 10 min.
02	Background & Purpose	OEB – 20 min.
03	Jurisdictional Scan Results	Christensen Associates Energy Consulting – 45 min.
04	Break	15 min.
05	OEB Conclusions & Discussion	OEB, All Participants – 45 min.
06	Next Steps	OEB – 15 min.

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Background & Purpose

Purpose

The purpose of this meeting is to:

Discuss the findings of the jurisdictional scan of utility remuneration

Discuss the OEB's planned approach to advancing performance-based rate regulation for electricity distributors in the short term

Discuss the need for a more fundamental, longer-term review of rate regulation for electricity distributors

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Background

November 2023

Letter of Direction

1. Consider if the current approach to utility remuneration (UR) remains the most cost-effective
2. Begin developing a performance incentive regime with the sector

December 2023 - August 2024

Review of UR models & development of new PBR approaches

With the support of Christensen Associates, the OEB:

- Conducted a review of UR models and Performance Incentive Mechanisms (PIMs) in other jurisdictions to level set on Ofgem's totex and New York's REV models
- Derived conclusions from this review
- Developed proposed approaches for a PIMs regime and a fundamental review of the OEB rate-setting framework

September 2024

Report back to Minister

On September 27, 2024, the OEB delivered its report back to the Minister of Energy and Electrification. The report back included a consultant-led jurisdictional scan, a transmittal letter and covering memo with the OEB's main conclusions, proposed approaches to the development of PIMs and UR, and next steps

Context and Issue

Context

The energy transition is driving sector change including new investments and business models for electricity distributors

Innovative technologies are offering more non-capital solutions and operating strategies for electricity distributors

Rate base rate-of-return regulation can incentivize inefficient capital expenditure (capital bias)

Defining the issue

How can new approaches to utility remuneration:

1. Contribute to a level playing field for **all solutions** to meet energy needs?
2. Align with the **changing role** of electricity distributors?
3. Continue to support **good outcomes for customers** in a changing energy landscape?

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Objectives and Scope

Objectives of Advancing Performance-based Rate Regulation		
Strengthen the link between what electricity distributors earn and achievement of outcomes consumers value, such as cost-effectiveness, reliability and customer service while ensuring alignment with government policy.		
Enable electricity distributors to cost-effectively meet demands of the energy transition	Facilitate new investments and innovative solutions that provide customer value	Maintain electricity system reliability and resiliency, sector financial viability, and economic efficiency

The OEB will consider changes to the remuneration model for electricity distributors first and will consider changes for other rate-regulated utilities later.

Question and Answer

Jurisdictional Scan Results

Christensen ASSOCIATES

Jurisdictional Review of Utility Remuneration Models

Nick Crowley
Sherry Wang
Andi Romanovs-Malovrh

Introductions

- CA Energy Consulting:
  - Our firm conducts ongoing performance-based regulation ("PBR") work in numerous jurisdictions and has been involved in designing PBR frameworks across network industries since the inception of incentive regulation in North America in the 1980s.
- Project Team:
  - Nick Crowley
  - Sherry Wang, PhD
  - Andi Romanovs-Malovrh

Research Process

Screen 1:

Jurisdictions with utilities operating under some form of incentive regulation

- Price or revenue cap PBR
- Other forms of multi-year rate plans (“MYRPs”)
- Performance Incentive Mechanisms (“PIMs”)

Screen 2:

Jurisdictions that have:

- Similar policy goals relative to Ontario.
- Recent innovations in regulatory frameworks.
- Diversity in UR model insights relative to other jurisdictions selected for review.
- Information availability.

Jurisdictions selected:

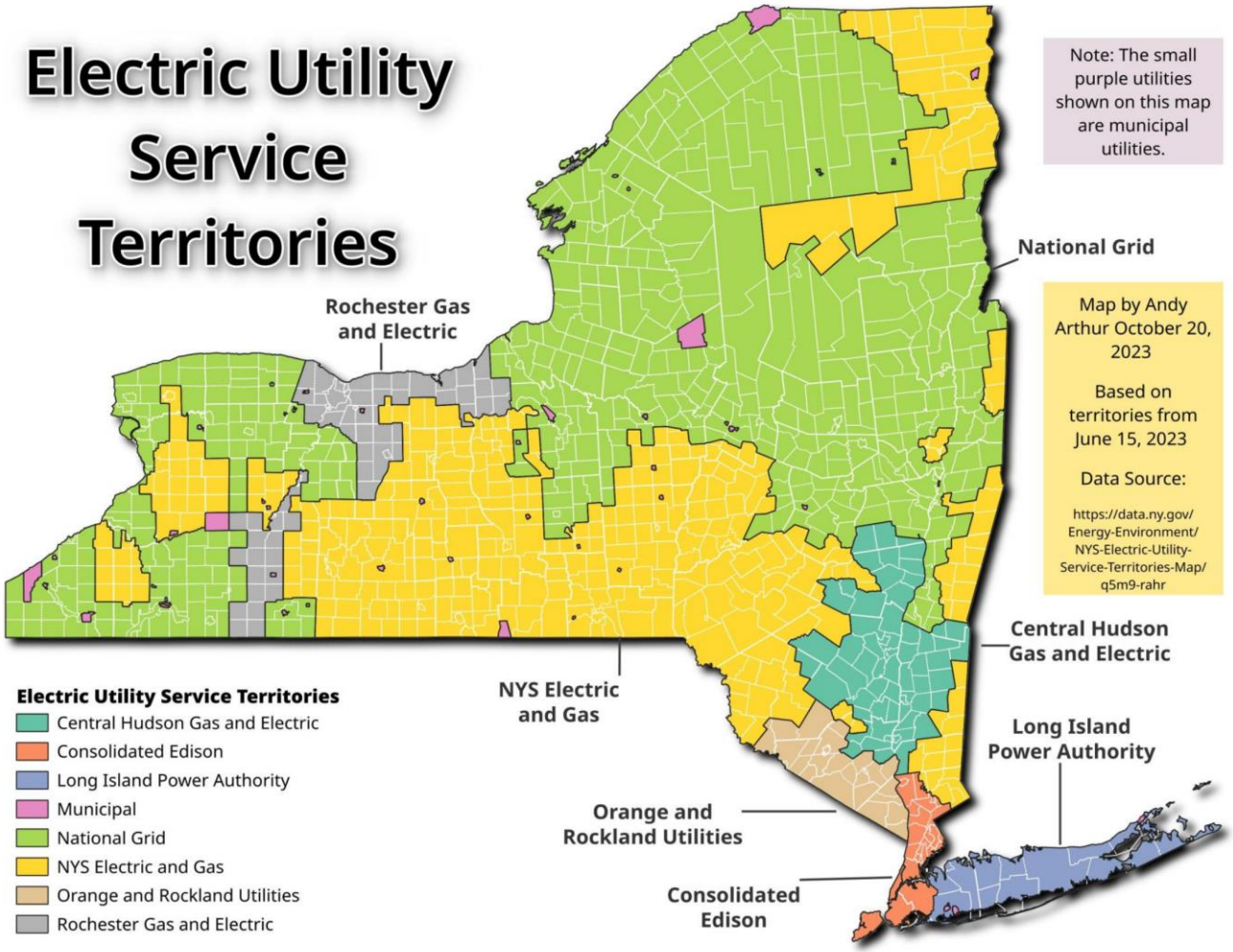
Australia, California, Hawaii, New York, and Great Britain

Ontario – Overview

- Unbundled electricity distribution utilities select from PBR options
  - 4th Generation IR
  - Customer IR
  - Annual IR Index
- Currently no PIMs in place
- Distributors report 22 scorecard metrics
- Currently engaged in several initiatives and proceedings that pertain to utility remuneration and the rate-setting framework

Distribution Regulation	
Regulated Distribution Utilities	59
Ratemaking regulator	Ontario Energy Board
Market Operator and Resource Planner	Independent Electricity System Operator
UR Elements	
Multi-Year Rate Plans	Five-year rate plans
Revenue Decoupling	Limited
Revenue Cap	Allowed under custom incentive regulation
Price Cap	Price cap incentive regulation
Earnings Sharing Mechanisms	Allowed under custom incentive regulation

New York – Overview



Distribution Regulation	
Regulated Utilities	6
Ratemaking regulator	New York Public Service Commission
Transmission Operator	New York Independent System Operator
UR Elements	
Multi-Year Rate Plans	Three-year rate plans using forecasted costs
Revenue Decoupling	Annual decoupling adjustments to remove the disincentive for energy conservation
PIMs	Several "earnings adjustment mechanisms" currently in effect.
Earnings Sharing Mechanisms	Tiered asymmetric earnings sharing mechanism

New York – Key Takeaways

PBR Objective

New York's Reforming the Energy Vision ("REV") approach to utility remuneration aims to facilitate the transformation of the electricity distribution sector, shifting to a more consumer-centered model.

PIMs Approach

Ties a maximum of 100 basis points in total of utility's return on equity to the performance in system efficiency, energy efficiency, decarbonization, and customer engagement.

Non-Wires Alternatives

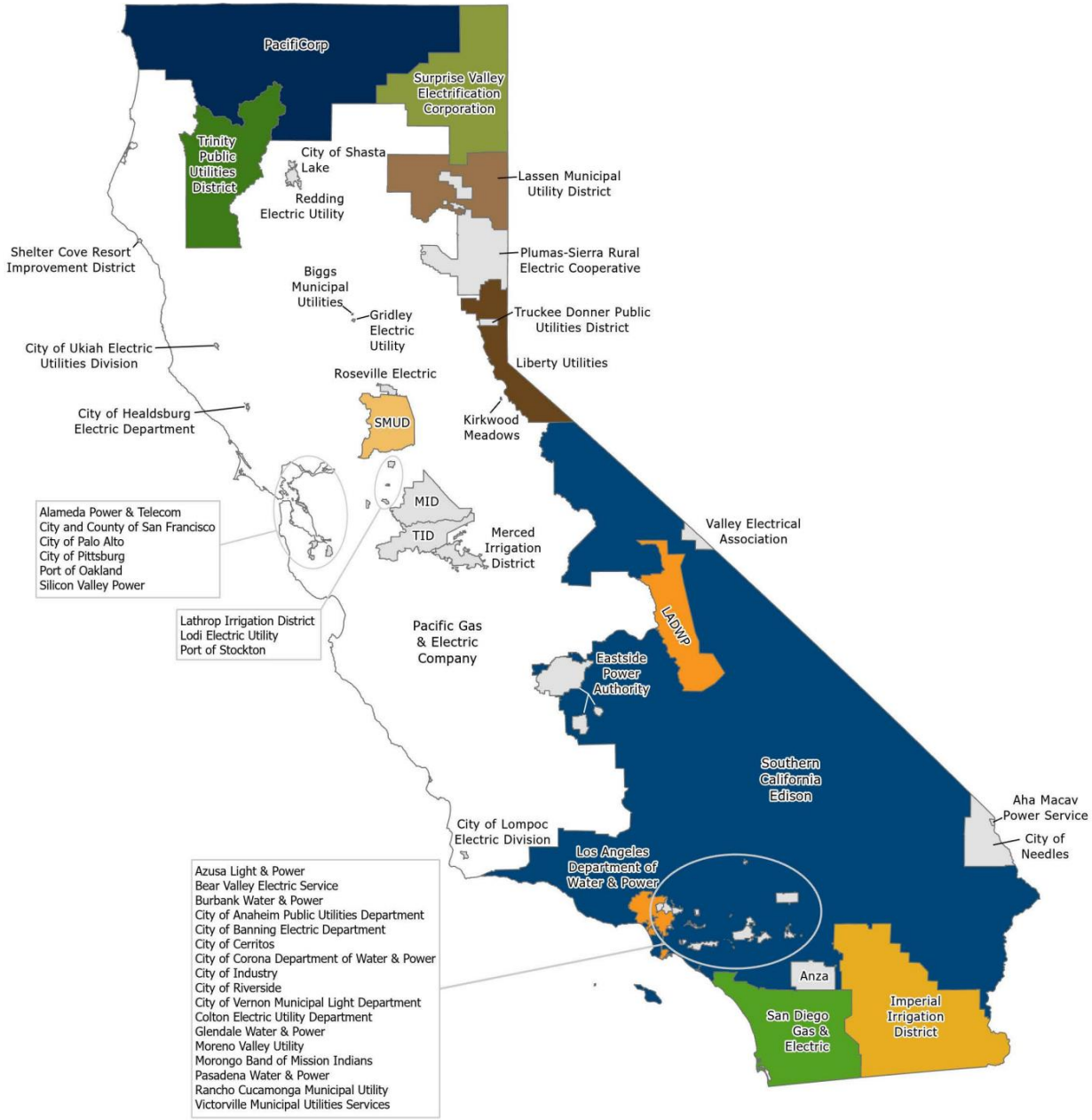
REV provides utilities with earning opportunities that match or exceed traditional investments for non-wires-alternative programs. Non-wires alternatives solve system constraints in place of traditional "wires and poles" infrastructure.

PIMs Outcomes

The performance incentives associated with REV have produced mixed results.

California – Overview

Distribution Regulation	
Regulated Utilities	6
Ratemaking regulator	California Public Utilities Commission
Transmission Operator	California Independent Systems Operator
UR Elements	
Multi-Year Rate Plans	Four-year rate plans using forecasted costs
Revenue Decoupling	Annual decoupling adjustments to remove the disincentive for energy conservation
Performance Incentive Schemes	No PIMs but safety and operational metrics required



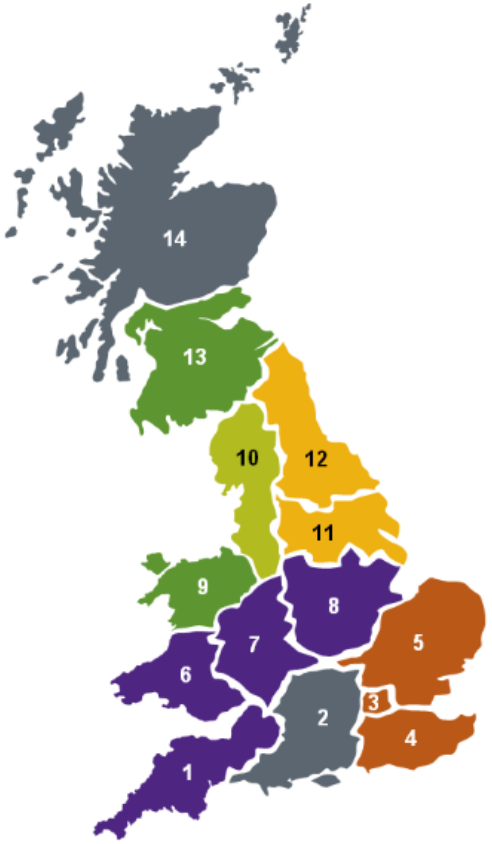
California – Key Takeaways

Forecasted MYRP
California's three major investor-owned utilities operate under a four-year multi-year rate plan based on revenue forecasts.

No Financial Incentives
The utility remuneration model in California does not currently contain any financial performance incentives, but the utilities do operate several programs aimed at achieving policy goals.

Energy Efficiency
The California Public Utilities Commission mandates that utilities maintain robust energy efficiency portfolios, manage demand response programs, and actively seek opportunities to defer capital investments.

Great Britain – Overview



Scottish and Southern Energy
14. Scottish Hydro Electric Power Distribution plc (SSEH)
2. Southern Electric Power Distribution plc (SSES)

SP Energy Networks
13. SP Distribution ltd (SPD)
9. SP Manweb plc (SPMW)

Electricity North West Limited (ENWL)

Northern Powergrid
12. Northern Powergrid (Northeast) ltd (NPgN)
11. Northern Powergrid (Yorkshire) plc (NPgY)

UK Power Networks
3. London Power Networks plc (LPN)
4. South Eastern Power Networks plc (SPN)
5. Eastern Power Networks plc (EPN)

National Grid Electricity Distribution (NGED)
8. National Grid Electricity Distribution (East Midlands) plc (EMID)
7. National Grid Electricity Distribution (West Midlands) plc (WMID)
1. National Grid Electricity Distribution (South West) plc (SWEST)
6. National Grid Electricity Distribution (South Wales) plc (SWALES)

Regulated Utilities	
Distributed Utilities	14
Ratemaking regulator	Office of Gas and Electricity Markets (“Ofgem”)
Transmission Operator	National Grid Electricity System Operator
UR Elements	
Multi-Year Rate Plans	5-year forecasted multi-year rate plans
Revenue Decoupling	Revenue is adjusted through Correction Term
PIMs	Output Delivery Incentives to incentivize certain outputs
Earnings Sharing Mechanisms	Tiered rate adjustment mechanism to share returns

Great Britain – Key Takeaways

5-year MYRP

Distributors operate under five-year revenue cap framework known as "RIIO-ED2"

Totex

RIIO allows distribution utilities to obtain a return on both capital expenditures and a portion of operating expenditures, through a "totex" mechanism. The totex approach attempts to counter-balance a perceived capital spending bias.

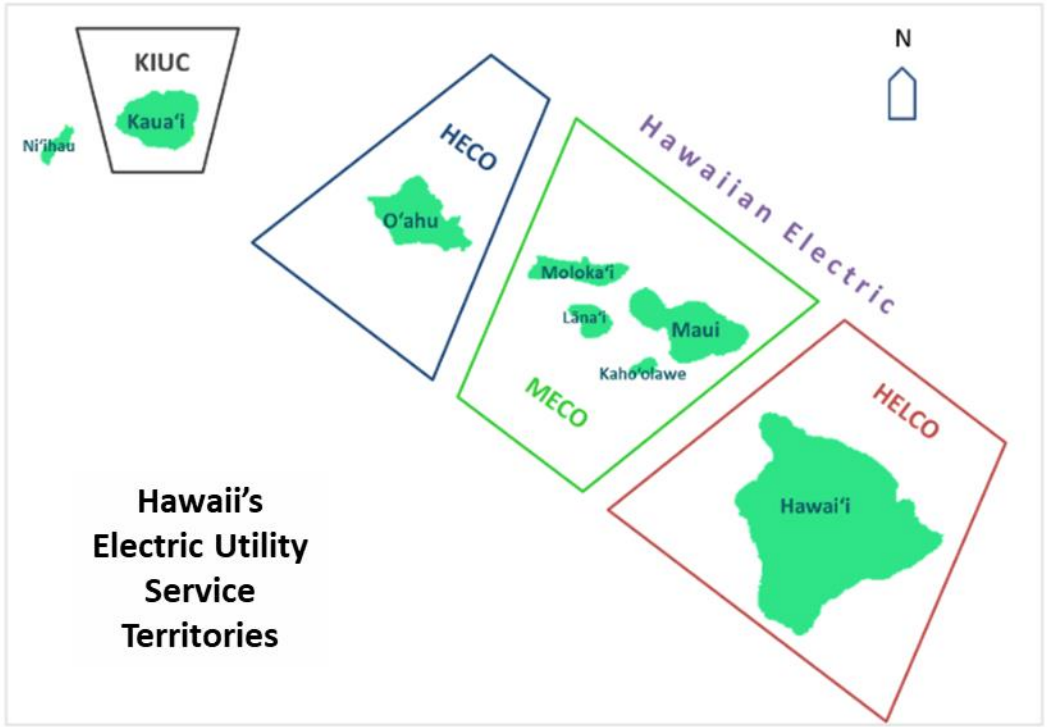
Output Delivery Incentives

RIIO-ED2 contains financial incentives for utility performance, which adjust the utility's allowed rate of return depending on the achievement of pre-specified metrics.

Mixed approach

The current approach uses a mix of forecasts and inflation adjustments to set annual revenue requirements. The revenue-setting approach is considered more complex than other jurisdictions in this report.

Hawaii – Industry Overview



Regulated Utilities	
Distributed Utilities	4 (3 under PBR)
Ratemaking regulator	Hawaii Public Utilities Commission
Transmission Operator	None
UR Elements	
Multi-Year Rate Plans	5-year revenue cap multi-year rate plans
Revenue Decoupling	Revenue decoupled from sales volumes
Revenue Cap	I-X revenue cap with a 5 year stay out period
PIMs	Energy transition, affordability and service quality PIMs
Earnings Sharing Mechanisms	Tiered symmetric earnings sharing mechanism with a re-opener

Hawaii – Key Takeaways

5-year I-X Revenue Cap

Three investor-owned, vertically integrated utilities in Hawaii operate under a five-year revenue cap based on an "I-X" formula.

Eight PIMs

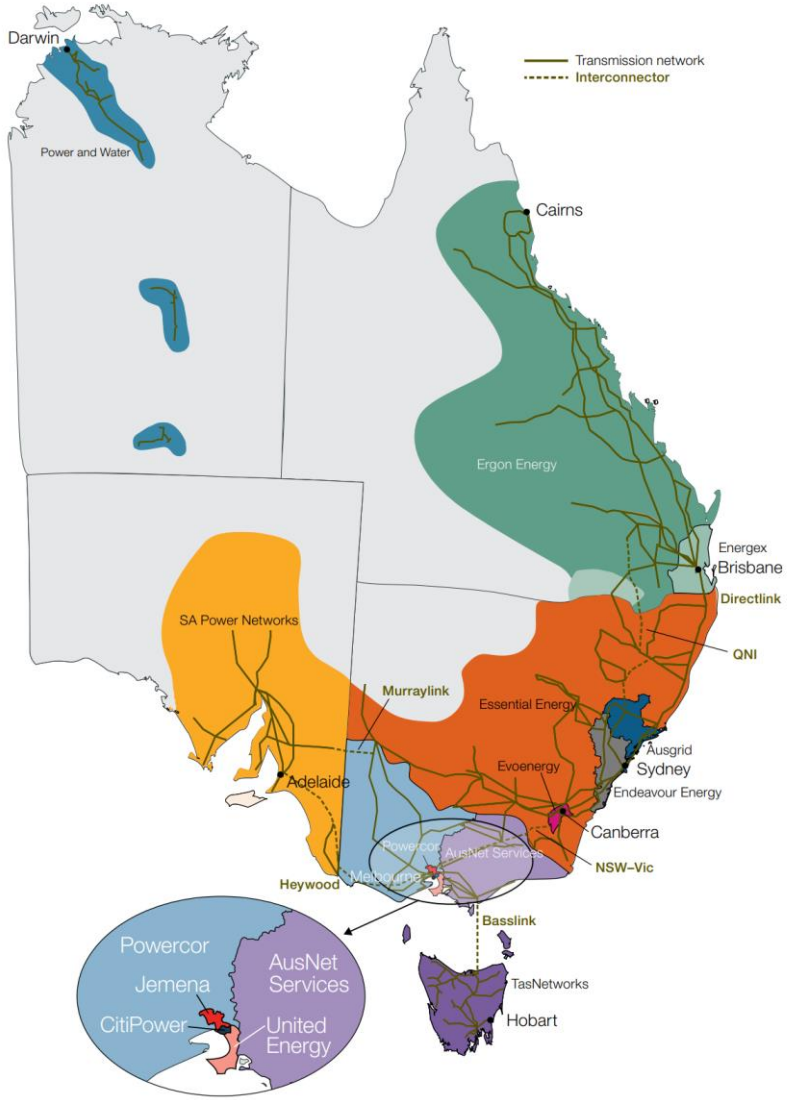
A portion of utility revenue is set by eight PIMs, which provide financial incentives for the achievement of certain policy objectives and the provision of enhanced customer service.

Designing PIMs

The Hawaii PUC began with a set of specific goals at the outset of its PBR design process, and then crafted the UR framework around those goals.

Australia – Overview

Distribution Regulation	
Regulated Utilities	13
Ratemaking regulator	Australian Energy Regulator
Transmission Operator	Australian Energy Market Operator
UR Elements	
Multi-Year Rate Plans	5-year multi-year rate plans
Revenue Decoupling	Annual decoupling adjustments
Revenue Cap	Revenue is capped for a 5-year period and adjusted for inflation in annual filings.
PIMs	Incentive mechanisms to address reliability, quality and affordability.
Earnings Sharing Mechanisms	Typically, ESMs share earnings beyond a threshold above the utility's allowed ROE. In Australia, the utility shares gains from capex underspend.



Australia – Key Takeaways (Alternative)

Revenue Cap

Electricity distributors in Australia operative under a five-year rate plan with revenue cap.

Incentive Schemes

Australia has implemented multiple incentive schemes (or PIMs) to address three key areas: cost-efficiency, service quality, and customer engagement.

Balancing Priorities

The cost-efficiency and service quality incentive schemes work in conjunction with one another to balance cost efficiency and service quality to ensure efforts to reduce operational and capital expenditures don’t compromise reliability.

Peak Demand Solutions

Cost-efficiency PIMs also provide incentives for utilities to pursue non-wire solutions to manage peak demand.

Conclusions

- All five jurisdictions operate under some form of multi-year rate plan
- Four of the five jurisdictions have implemented performance incentives
  - All but California
- Only one jurisdiction (Great Britain) has adopted a totex approach
- Changes to rate regulation often occur over lengthy time horizons

Question and Answer

OEB Conclusions & Discussion

Key Findings for the OEB

CA's jurisdictional scan highlighted three key findings for the OEB.

Performance incentives

Four of the five jurisdictions **implemented targeted performance incentive mechanisms (PIMs)** to align utilities' incentives with policy goals.

California used mandates instead of financial incentives to achieve policy goals.

Basis for Rate of Return

Only **one jurisdiction adopted a method of earning a rate-of-return on total expenditure** (totex).

Two other jurisdictions considered, but did not implement, models that provided a rate-of-return to operating expenses.

Implementation Timelines

Changes to utility remuneration often occur over **lengthy time horizons** (i.e., multi-year processes) to allow for consultation and adoption of new elements to the rate-regulation framework.

These findings, as well as ongoing initiatives at the OEB, have informed three conclusions.

Conclusion 1: Diverse Approaches

There are diverse approaches to achieve similar objectives

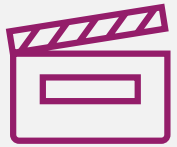
No obvious one-size-fits-all solution to utility remuneration

A made-in-Ontario solution is needed

Conclusion 2: Opportunity for Performance Incentives

The current rate-setting framework provides the OEB the opportunity to introduce PIMs

PIMs can strengthen the link between what utilities earn and achievement of outcomes that customers value



The OEB must take further action regarding incentives for electricity distributors

Conclusion 3: Additional Approaches Required?

PIMs alone may not meet our objectives

A more fundamental review of rate regulation may be required

A fundamental review will require a lengthier and more complex design process

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OEB Proposed Approaches

	Near term	Long term
Timeframe	2025-2026	2025 Onward
Characteristics	• Advances current approach to rate regulation by incorporating PIMs into existing framework • Further encourage deployment of NWS by building on incentives to use 3rd party DERs (FEI 2.0)	• Fundamentally reconsiders the current rate-regulation regime • Develops a new rate-setting framework no longer premised on rate-base rate-of-return
Initial analysis	• Makes meaningful progress on policy objectives, sooner • Maintains certainty for the sector • Alone may not be sufficient to meet the objectives of *Advancing PBR*	• Lengthier, more complex process • May provide a more complete and enduring realization of desired outcomes in the long run

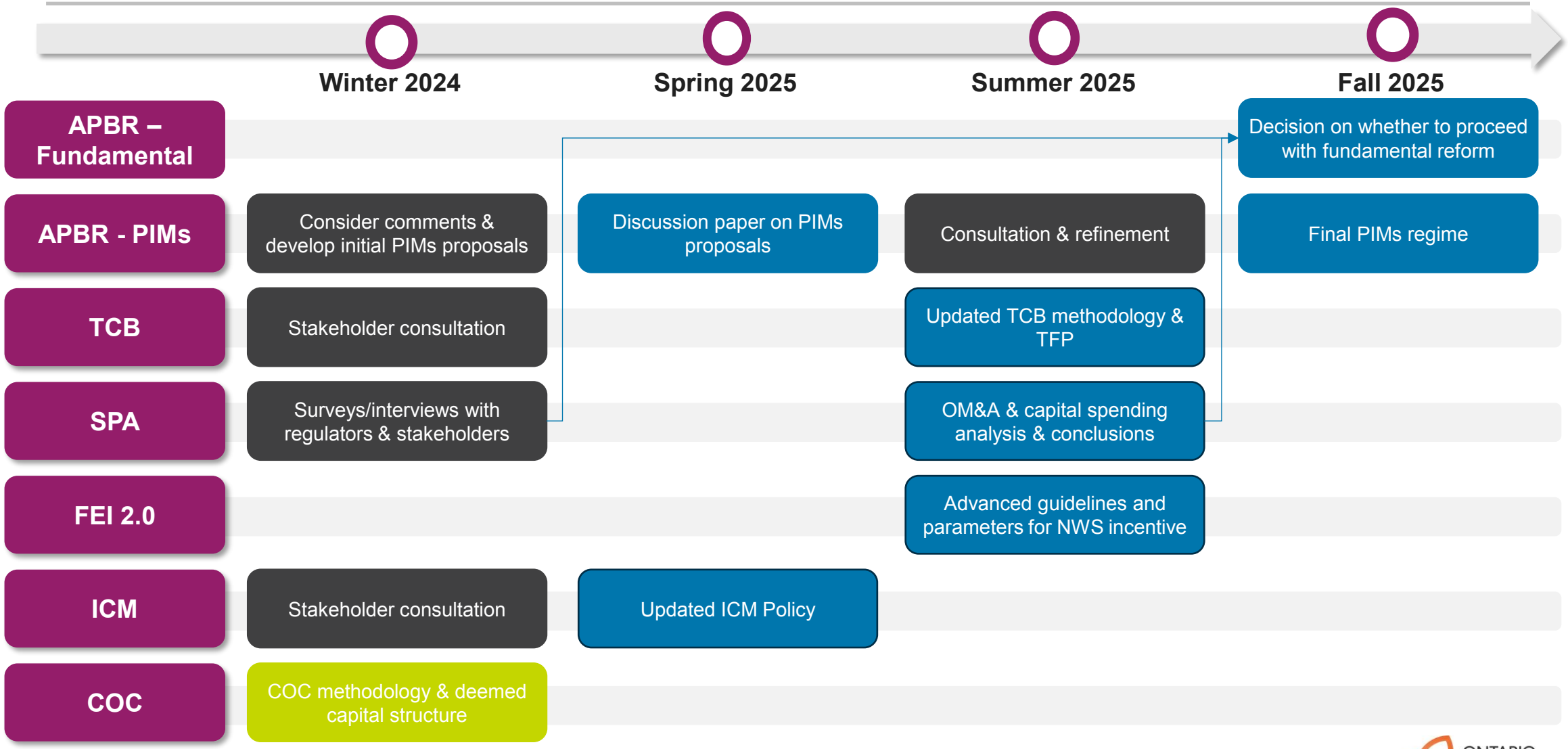
Question and Answer

Utility Remuneration Roadmap

Initiatives to Enhance Rate-Setting Framework

	Objective
Advancing Performance-based Rate Regulation (APBR) - Fundamental Review	Consider a fundamental review of the OEB's approach to rate regulation
Advancing Performance-based Rate Regulation (APBR) - PIMS	Build on the current framework through the implementation of PIMs
Total Cost Benchmarking Review (TCB)	Better proxy market competition by updating the Total Factor Productivity (TFP) methodology and application, and the Total Cost Benchmarking (TCB) methodology
Distributor Spending Pattern Analysis (SPA)	Examine distributors' spending patterns (OM&A and Capital Expenditures) to identify where changes to rate regulation or incremental incentives are warranted
Framework for Energy Innovation 2.0 (FEI 2.0)	Further encourage deployment of NWS by providing more direction and establishing parameters for incentive to use 3rd party DERs (originally established in FEI)
Incremental Capital Module Review (ICM)	Update the Incremental Capital Module based on experience with ICM applications and stakeholder feedback
Generic Proceeding – Cost of Capital and Other Matters (COC)	Consider the methodology for determining the values of the COC parameters and deemed capital structure to be used to set rates for electricity transmitters & distributors, natural gas utilities, & OPG

Timing of Reforms



Renewed Regulatory Framework (2012)

Table 1: Rate-Setting Overview - Elements of Three Methods

		4th Generation IR	Custom IR	Annual IR Index
Setting of Rates				
"Going in" Rates		Determined in single forward test-year cost of service review	Determined in multi-year application review	No cost of service review, existing rates adjusted by the Annual Adjustment Mechanism
Form		Price Cap Index	Custom Index	Price Cap Index
Coverage		Comprehensive (i.e., Capital and OM&A)		
Annual Adjustment Mechanism	Inflation	Composite Index	Distributor-specific rate trend for the plan term to be determined by the Board, informed by: (1) the distributor's forecasts (revenue and costs, inflation, productivity); (2) the Board's inflation and productivity analyses; and (3) benchmarking to assess the reasonableness of the distributor's forecasts	Composite Index
	Productivity	Peer Group X-factors comprised of: (1) Industry TFP growth potential; and (2) a stretch factor		Based on 4th Generation IR X-factors
Role of Benchmarking		To assess reasonableness of distributor cost forecasts and to assign stretch factor		n/a
Sharing of Benefits		Productivity factor		
		Stretch factor	Case-by-case	Highest 4th Generation IR stretch factor
Term		5 years (rebasing plus 4 years).	Minimum term of 5 years.	No fixed term.
Incremental Capital Module		On application	N/A	N/A
Treatment of Unforeseen Events		The Board's policies in relation to the treatment of unforeseen events, as set out in its July 14, 2008 EB-2007-0673 Report of the Board on 3rd Generation Incentive Regulation for Ontario's Electricity Distributors, will continue under all three menu options.		
Deferral and Variance		Status quo	Status quo, plus as needed to track capital spending against plan	Disposition limited to Group 1 Separate application for Group 2
Performance Reporting and Monitoring		A regulatory review may be initiated if a distributor's annual reports show performance outside of the ±300 basis points earnings dead band or if performance erodes to unacceptable levels.		

A Rate-Setting Framework for the Future (initial enhancements)

Component		Anticipated Impact from Current Initiatives*
"Going in" Rates		No change anticipated at this time.
Form		No change anticipated at this time.
Coverage		No change anticipated at this time.
Annual Adjustment Mechanism	**Inflation**	No change anticipated at this time.
	Productivity	**Enhanced stretch factor to better proxy market competition**
Role of Total Cost Benchmarking		No change anticipated at this time.
Sharing of Benefits	Productivity Factor	Potential change to how productivity factor is used
	Stretch Factor	Potential change to magnitude and range of stretch factors
	PIMs	Depending on structure, PIMs can be a form of benefits sharing
Performance Incentive Mechanisms		**Rewards and/or penalties attached to service quality and policy/energy transition related outcomes**
Targeted Incentives for Emerging Approaches		**New parameters for incentive to use 3rd party DERs (originally established in FEI)**
Role of Activity and Program Benchmarking		No change anticipated at this time. To assess reasonableness of program/unit costs in cost of service review.
Term		No change anticipated at this time.
Capital Modules	**Incremental**	**Updated ICM policy**
	Advanced	No change anticipated at this time.
Treatment of Unforeseen Events		No change anticipated at this time.
Deferral and Variance Accounts		No change anticipated at this time.
Performance Reporting and Monitoring (aka Off Ramp)		No change to Off Ramp anticipated at this time. PIMs will include performance reporting and monitoring.

**The need for additional changes to other components of the rate framework may be identified through these projects and pursued as planned work is completed.*

Question and Answer

Discussion Questions

Questions – PIMs

1. In the near term, the OEB plans to advance performance-based regulation by incorporating PIMs into the current framework. Informed by your review of the jurisdictional scan:
   a. What do you see as the advantages and disadvantages (or opportunities and risks) of incorporating PIMs?
   b. From your perspective, what are the most important considerations to keep in mind when developing PIMs? (e.g., measurability, simplicity, transparency)
   c. In your opinion, what outcomes do consumers value? (e.g., cost-effectiveness, reliability, customer service, enabling electrification, EVs, and/or DERs/NWSs)
   d. To which outcomes or performance measures do you believe PIMs should be tied?

Questions – PIMs continued

e. What PIM structure/design is likely to be most effective and most suited to Ontario, considering the existing rate-regulation framework? (e.g., $ value per participant/installation etc., awarded basis points if targets are met)

f. Should PIMs be applied uniformly to all utilities, or should they be utility specific? Elaborate.

g. What timeline would be appropriate for PIM implementation, and should there be a phased approach?

h. How should baseline performance levels be established, and how frequently should targets be reviewed?

i. How should PIMs account for factors outside utility control (e.g., weather events)?

Questions – Fundamental Change

2. In the long term, the OEB is considering developing an approach to rate regulation that is no longer premised on rate base rate-of-return.
   a. Is this fundamental change required? Why or why not?
   b. What are the advantages and disadvantages of pursuing this approach?
   c. How would this fundamental long-term change impact stakeholders in the sector, both throughout its development and upon implementation?
   d. What transition measures could be put in place to provide stability during a period of change?
   e. Are there quick wins that the OEB can advance in the short term?

Next Steps

Immediate Next Step

Written comments on the meeting materials due by **December 13, 2024**

Please consider the **questions discussed today** and general feedback on this initiative

Details on **how to submit your feedback** are provided in the October 9, 2024, letter to stakeholders, which can be found on the initiative's Engage with Us page

Stakeholder **feedback will support** the OEB's planning and direction of policy development

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Timing of Reforms

Winter 2024

Feedback & PIMs Development

Review and consider the written feedback provided by stakeholders and develop proposals for PIMs framework

Spring 2025

Discussion Paper

Issue a proposed PIMs framework including:

- The outcomes to which PIMs should be tied
- Proposed structure and incentive levels for PIMs
- Implementation considerations

Summer 2025

Consultation & Refinement

Invite written comments on the Discussion Paper and refine the design of PIMs framework based on stakeholder feedback

Fall 2025

Final PIMs Framework

Issue a final framework for the implementation of PIMs for electricity distributors

Examine fundamental change

Determine whether a fundamental change to utility remuneration is needed

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Question and Answer

Appendix

Examples of PIMs

A PIM is a mechanism consisting of one or more metrics, targets, and financial incentives (rewards and/or penalties) that is designed to strengthen performance incentives in a targeted area such as reliability or energy efficiency.

Jurisdiction	Outcome	Metric	Reward/Penalty
New York	Increased DER utilization – incent utilities to work with DER providers and expand use of DER	Annualized MWh produced or discharged from incremental DER	3 to 10 basis points if targets are met
New York	Beneficial electrification – adoption of electric vehicles and heat pumps to decrease carbon emissions	Lifetime CO_2 emissions reductions provided by annual incremental beneficial electrification technologies	2 to 10 basis points if targets are met
Hawaii	Expansion of grid services – expeditious acquisition of grid services capabilities from DERs	kW capacity of grid services acquired	One-time award on per kW basis depending on the grid services acquired and the service territory it will serve
Hawaii	Customer Engagement	Percentage of call centre calls answered within 30 seconds	+/- 8 basis points on earnings
Australia	Reliability – to promote reliability and safety and ensure expense reductions do not impact service quality	A combination of System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI) and Momentary Average Interruption Frequency Index (MAIFI)	The rewards for improving reliability (and the penalties for declines in reliability) are based on the value that customers place on improved reliability. The AER conducts a Values of Customer Reliability study to determine how different customer groups value reliability