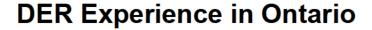


Agenda



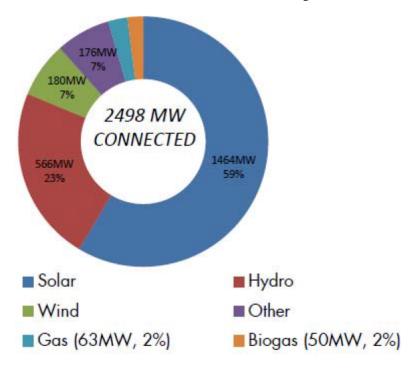
- Ontario and Hydro One Context
- Feedback on OEB staff principles
- General comments applicable to both consultations
 - -Considerations for developing scoping paper.
- Utility Remuneration
 - -General comments
 - Objectives to be achieved
 - -Specific problems/issues to be addressed
- Responding to DERs
 - -General Comments
 - Objectives to be Achieved
 - Specific problems/issues to be addressed
- Summary of comments





- Ontario has significant experience integrating DERs.
 - Distributed generation capacity is ~20% of the transmission system peak.
- Hydro One has already connected substantial amounts of distributed generation.
 - About 65% of total distributed generation capacity in Ontario is connected to Hydro One's distribution system.
 - Over 1300 distributed generation facilities are connected to Hydro One's distribution system.

Generation Connected to Hydro One's Distribution System



Ontario Context



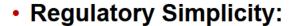
 The approach to remuneration and DERs should be specifically tailored to the objectives and policies in Ontario.

Issue	Then	Now
DERs	 Green Energy Act driven by government policy direction. Eliminate coal and introduce renewable sources of generation. Subsidies established in DSC to encourage more renewable generation (e.g. expansion costs above \$90k and "enabling" investments fully funded by LDC). 	 Largely customer driven. Customers want to install DERs to control costs and to address reliability and power quality concerns. Moved beyond wind and solar to include new technologies (e.g. energy storage). Utilities considering DERs as alternatives to traditional investments for meeting system needs
Utility Remuneration	 Renewed Regulatory Framework (RRF) implemented in 2014 for electricity distributors. RRF marked a transition to outcomes-focused regulation. Introduced different application types to match utility needs (e.g. Custom IR). Established 5-year incentive ratesetting cycle 	 Utilities must balance adherence to OEB-approved 5-year DSP with changing circumstances over CIR/IRM term. Proliferation of DERs may warrant revisiting outcome measures to reflect customer expectations and funding mechanism to drive innovation. Existing rate design does not fully address cost-shifting as more DERs are connected.



Feedback on Principles Proposed by OEB Staff

- Hydro One largely in agreement with proposed principles, with the following caveats:
 - Economic Efficiency and Performance:
 - Principle captures economic and customer perspective but does not consider system needs.
 - Need to include reference to ensuring reliability and safety of the system.
 - Customer Focus:
 - Stable yet Evolving Sector:



- Principle should include that the regulatory framework will be appropriately derived through evidence based decision making.
- Principle should capture that level of regulatory oversight needs to align with level of competition. Where competition in certain areas is increased, regulation should be pared back.

hydro One

General Comments Applicable to Both Consultations (1/2)

- Scoping paper for Utility Remuneration and Responding to DERs consultations should address the following:
 - A defined problem statement that each consultation is intended to resolve.
 - The appropriate objectives and issues for consideration depend on the problem.
 - A long-term engagement plan for each consultation.
 - Identify what opportunities for feedback are planned, including any plans for working groups.
 - Provide clarity regarding the long-term plan for these consultations. E.g. Are the consultations selfcontained or will they provide a high-level roadmap of issues to be resolved in subsequent consultations?
 - A description of how the consultations fit with other work at OEB and sector at large?
 - How will OEB address or be informed by the potentially overlapping work of its existing policy consultations (e.g. DER Connection Review, C&I rate design, Activity and Program-based Benchmarking, OEB Scorecard Review, ARC review, etc.).
 - How will OEB coordinate and consider the work being undertaken by the IESO related to DERs (e.g. ETNO Report and white paper series on the role of utilities, cost responsibility, non-wires solutions).

hydro One

General Comments Applicable to Both Consultations (2/2)

- Scope of consultations should specifically include consideration of upstream impacts.
 - The connection of DERs to the distribution system will have upstream impacts on the remuneration, planning and operation of the systems of transmitters and host distributors.
 - Current transmission rate design that is 100% volume-driven may not be appropriate with a high penetration of DERs; poses risk to customers (cross-subsidization of costs).
- OEB should identify it's vision for the sector that this consultation is working towards.
 - The role of DERs in meeting Ontario's supply mix and the utility's role in operation and procurement of those resources will drive the approach to integration of DERs.
 - Utility role in enabling DERs for customer needs only is different than the framework and role required to enable participation of 3rd party DERs in markets at both the bulk system and utility level.
- OEB should consider access to capital in its decision making.
 - OEB should avoid actions that create the perception that Ontario is an unstable environment when compared to the risk/reward balance in other jurisdictions.
 - Negative change to risk/reward balance, or introduction of significant uncertainly or regulatory lag, will
 cause investors to look at other jurisdictions first which can negatively impact utility credit ratings,
 ultimately leading to higher costs for customers.

Utility Remuneration



General Comments

- The OEB has not defined what aspects of "remuneration" are being reviewed in this proceeding and how this links to RRF.
 - There are multiple elements of remuneration. (E.g. derivation of revenue requirement, performance incentives, driving/promoting innovation, rate design).

Potential Problem Statement

 Do the original RRF objectives and policies need to be revised to accommodate expected changes in the industry and drive continuous improvement of regulated entities in Ontario?

Utility Remuneration



Objectives to be Achieved

- Improve alignment between incentives provided under rate-setting framework and desired customer outcomes.
 - I.e. continue to shift from input/cost focus to outcome focus.
- Provide transparent mechanisms to incent and reward innovative solutions.
- Afford utilities greater flexibility in making investment decisions that minimize costs for customers.
- Ensure continued investment in Ontario's energy infrastructure.

Utility Remuneration



Specific Problems to be Addressed

- Need funding mechanisms to encourage R&D/innovation that offers the potential to reduce costs for customers.
- Existing incentive mechanisms should be reviewed against their ability to achieve desired objectives (e.g. capital in-service variance accounts) and new incentives explored (e.g. performance incentives).
- Broader aspects of utility remuneration should also be considered, such as rate design.
- Significant changes to remuneration framework could impact utility's costs and planning, so implementation needs to consider rates application cycle and time required to adopt material changes.
- Evaluate whether the current Transmission Rate design is appropriate given the increasing penetration of DERs.

Responding to DERs



General Comments

- DER consultation should consider the role of the utility, which is fundamental to determining required changes.
- Current regulatory framework includes incentives to achieve policy objectives that may no longer apply.
- There is significant potential for overlap between the DER Connection Review,
 Responding to DERs consultation and IESO consultations on DERs.
- Need clear definition of DERs to ensure all DER-related consultations are working with common understanding.

Potential Problem Statement

 How should the regulatory framework and the role of utilities change to ensure that the integration of DERs provides the choice customers seek and results in the most efficient use of grid resources without negatively impacting the safety, reliability and cost of service for existing customers?

Responding to DERs



Objectives to be Achieved

- Determination of role utilities play in operation/dispatch of DERs (e.g. DERMS)
- Determination of appropriate scope of ownership and method of rate recovery for utility-owned DERs.
- Clear definition of utility's obligations to DER owners (e.g. reserving capacity) and DER owners obligations to utility (e.g. availability, dispatch obligations).
- Remuneration should ensure DER owners contribute their fair share to system costs (i.e. must avoid cross-subsidization).
- Enhance transparency; both ensuring utilities have maximum transparency of the DERs connected to their systems and 3rd parties have appropriate transparency of potential system needs.
- Provide a clear definition of DERs for regulatory purposes.

Responding to DERs



Specific Problems to be Addressed

- Customers using DERs should not negatively impact system reliability or shift costs (increase rates) of other customers.
- Regulation should reflect difference between DERs that provide tangible system benefits vs. customer benefit.
- System benefits must be determined using objective framework to avoid crosssubsidization.
- Non-wire alternatives may result in stranded assets. The consultation should consider how stranded costs may be appropriately recovered.
- Greater flexibility in establishing DER connection agreements to ensure system reliability.
- Consider the upstream impacts to transmitters and host distributors for DER connections.
- Consider the role of transmission assets in enabling the operation and dispatch of DERs.

Summary of Comments



- Jurisdictional scans should consider applicability of circumstances to Ontario context.
- The scoping papers for Utility Remuneration and Responding to DERs should include a clear problem statement.
- The scope of both consultations should specifically consider the upstream impacts on transmitters and host distributors. In particular, OEB should consider whether the current rate design for transmission rates is appropriate with a high DER penetration.
- Utility Remuneration consultation should seek to improve alignment between incentives and outcomes and afford utilities greater flexibility to minimize costs.
- Determination of the role of utilities for the future is the fundamental issue which will determine the appropriate obligations of utilities to DER owners, as well as, the appropriate obligations of DER owners to utilities in the Responding to DERs consultation.