

NOVEMBER 18, 2021

Northwest Integrated Regional Resource Plan (IRRP)

Emerging Local Initiatives Focused Discussion

Purpose and Objectives of Today's Discussion

- Purpose: To understand emerging local initiatives and how they pertain to this region's future electricity needs
- Objective: To provide an opportunity for stakeholders and communities to share their local initiatives and/or emerging energy trends and discuss how they can be best coordinated with or incorporated in the IRRP

Quick Poll

What are your objectives for this discussion?

- a) To share your local initiatives or energy trends in your community
- b) To hear about other local initiatives in the Northwest
- c) To discuss ways to best coordinate your local initiatives with the IRRP process?

[Check all that apply or add other objectives in the chat.]

Agenda

- To get started, we will provide some background on what local initiatives are and how IRRPs have typically considered local initiatives
- Group discussions on:
 - Local initiatives or emerging energy trends in your community
 - How we can best consider or coordinate these local initiatives within the IRRP

IESO's Grid Innovation Fund

Enables the IESO to evaluate potential of novel and innovative solutions to increase electricity reliability, affordability and customer choice

- \$9.5M / year
- Open to utilities, for-profit, non-profit and institutional entities
- 2021 IESO/OEB Joint Call: DER Integration (now open)
- Active projects include microgrid development, vehicle-to-grid, enhanced visibility for LDCs, local energy markets, and others



Microgrids: Local Resources Meeting Local Needs

London District Catholic School Board's Microgrid

- 1.1 MW battery storage
- 825 kW solar PV
- EV charging
- Commissioned May 2021

Outcomes:

- Enhanced resilience and reliability
- Carbon free
- Potential added revenue streams



What are local initiatives?

- Local initiatives can include a broad range of activities including:
 - Any activities or plans that impact how electricity is generated or consumed such as fleet electrification plans, district combined heat and power (CHP), or behind-the-meter generation/microgrids
 - Community/Municipal Energy Plans (CEP/MEP)
 - Climate Change Action Plans (CCAP)

Objectives of CEP/CCAP vs. Regional Electricity Planning

Community Energy Plans or Climate Change Action Plans

- The scope varies between municipalities but general aims include:
 - Promoting energy efficiency
 - Improving resilience or climate adaptation
 - Lowering greenhouse emissions
 - Investing in the local economy

Integrated Regional Resource Plan (IRRP)

- Address regional electricity system needs in a manner that:
 - Meets reliability standards and criteria
 - Ensures cost effective outcomes for Ontario ratepayers
 - Integrates bulk system and local considerations

Aligning with Local Planning Initiatives (1/2)



Reflect electricity demand implications of local plans or emerging trends (e.g. electrification) in IRRP forecast scenarios to ensure incremental demand can be met if they arise



Explore opportunities for integrating recommendations from local plans, to the extent they are funded, in the IRRP options analysis



Continue to participate in working groups and local planning initiatives

Aligning with Local Planning Initiatives (2/2)



Through initiatives outlined in the IESO's Distributed Energy Resource (DER) Roadmap, enable DERs to participate in the electricity grid and provide services they currently cannot provide



Support and monitor energy efficiency uptake - the IESO's 2021-2024 Conservation and Demand Management (CDM) Framework will contribute to managing demand and ensuring the energy efficiency can continue to play a role in meeting regional needs

Limitations of Regional Electricity Planning

- While the IRRP seeks to align with stakeholder and community energy plans where possible, not all objectives are within the scope of regional planning or the IESO's mandate
 - Absent of provincial policy, the IESO is technology agnostic
 - While the carbon price is included in the IRRP's options analysis, regional planning does not consider emission reduction targets
 - Aside from ensuring cost effective outcomes for ratepayers, the IESO relies on government policy for broader socioeconomic considerations



Discussion

Word Cloud

What are some local initiatives or emerging energy trends in your community?

Energy planning

Micro-grid

Energy efficiency

electrification

Combined heat and power

Self-generation

Group Discussion

Please share details about your projects. In particular, is there specific information that needs to be considered in the IRRP study?

How can we best align your local initiatives with the IRRP document and/or process?

What other information would you like to know about or share regarding local energy?

Upcoming Events

- November: Discussion Groups
 1. November 2: 1 to 2:30 pm - Customer reliability concerns
 2. November 18: 10 to 11:30 am – Emerging local initiatives
 3. November 29: 2 to 3:30 pm – Reliability in North of Dryden area
- Q1 2022: Engagement webinar to seek input on options to be considered to meet future needs

Thank You

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Appendix

Northwest Region Single Line Diagram

