

# Municipal Participation in the Energy Transition

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## Definition of Community

Communities include groups of people who share common geography, characteristics or interests. We define community including First Nations and as non-Indigenous local government entities including regional, county and municipal governments. Community also broadly encompasses utility providers, economic and technology development agencies, a wide variety of other stakeholders, and most importantly the residents that call these areas home. Within each geographic community, sub-communities with specific economic, cultural, and service and environmental needs may exist.

## Challenge Statement

Today's electricity system is undergoing a significant transformation thanks to new objectives of decarbonization, customer-centricity and equity, and resilience. These are additional to current objectives of reliability, affordability, and access. Communities are at the heart of this transformation, where changes in consumer behaviour and preferences as well as increases in municipal and industrial activities result in volatility in demand and supply.

Communities thus have a critical role to play in shaping the growth of Ontario's electricity sector. This could take various forms such as:

- supporting system planning in improving community objectives beyond the least-cost optimization
- integrating decarbonization and equity goals with local energy supply and demand forecasts
- building buy-in and raising awareness for sustained implementation of new electricity resources
- reducing the need for electricity capacity through improved energy efficiency measures
- implementing thermal networks by coordinating parties from various sectors
- establishing Community Energy and Emissions Plans (CEEPs) that set local and regional priorities that inform electricity resource planning
- taking ownership of the community's energy priorities, including by evaluating and implementing local distributed energy resource solutions
- supporting more efficient management and optimal utility of the transmission and distribution system and of bulk and new infrastructure investments
- providing data showing how costs and benefits such as access and reliability are distributed across the community, with particular focus on priority populations.

First Nations and local governments are vital partners and resources for communicating, planning and expanding the electricity grid to meet tomorrow's energy demands.

*"Understanding the benefits and challenges of electrification is essential for municipalities to make informed decisions about policies, investments and partnership related to energy and transportation."*

## Supportive Facts and Rationale

Being responsible for over 65% of energy use and 60% of Ontario's greenhouse gas emissions, communities must have a seat at the table when discussing the province's electricity system. In a March 17, 2022, letter to all heads of council, the Ministry of Energy said that municipalities are "not only key but critical for any energy development" in your communities. (Energy is Everything, pg.2).

- First Nations and local governments control key elements of planning, including land use, transportation, building location and design, landfills, water and wastewater systems, and industry location and integration, all of which require energy and produce emissions. They are responsible for large electrification projects in transportation and infrastructure and are key players in energy-dependent economic development.
- First Nations and local governments are the level of government closest to individual Canadians, giving them the greatest ability to influence behaviour, ensure local interests are being met, and build the necessary and lasting support for aligned climate and energy policy and implementation.
- First Nations and local governments have the ability to significantly influence energy supply and demand locally, regionally, and provincially through CEEPs. CEEPs are tools that define community priorities around energy with a view to improving efficiency, reducing greenhouse gas emissions, and driving economic development.
- First Nations and local governments have a role to play in advocating for the collective interests of local participants and partners.
- First Nations and local governments are electricity rate payers for large public facilities.

Despite being well-positioned to support growth and development of the electricity grid, communities across the province face challenges in offering that support:

- There is often a lack of understanding or alignment between the local governing body and the local electricity distribution company (LDC) despite many LDCs being wholly owned subsidiaries of their local government.
- Most communities are dealing with multiple, complex and urgent issues and are not able to dedicate the resources required to understand the evolution of the electricity system and how it will impact their objectives in the future.
- There is a risk of electricity system expansion increasing the rural-urban divide as many renewable sources exist or are more easily accessible in rural communities. As a result, transmission infrastructure will need to be further built out in rural areas and on unceded Indigenous lands. Further, there is lack of available, reliable and resilient electricity service to some rural and remote communities that exacerbates these inequities.
- Although many local projects are underway that support electrification and local supply and demand management, the lessons learned from these projects are not being captured and shared for the benefit of similar projects in other regions.
- The Ministry of Energy and Electrification presently does not assess the official plans of Ontario's municipalities, to determine alignment and provincial energy goals and objectives despite these plans having direct implications for energy matters, notably electricity consumption.

## **IESO Role**

Recognizing the Independent Electricity System Operator (IESO)'s specific mandate under the Electricity Act including the proposed amendments, the IESO also plays a critical role in supporting communities to achieve the outcomes of the Pathways to Decarbonization study along with the province's vision for Ontario's energy future as articulated in "Ontario's Affordable Energy Future: The Pressing Case for More Power" as well as the Integrated Energy Resource Plan. Specifically, the IESO has a role to play in working with others across the sector:

- in engaging in collaboration and dialogue with and among First Nations, local governments and local distribution companies (LDCs);
- in providing supporting materials to assist First Nations, local governments and LDCs at both the governance and staff level in undertaking the energy transition through toolkits, conferences and other speaking engagements;
- in acting as a conduit for cascading relevant community information to support local energy planning;
- in offering supporting materials in collaboration with others to assist in the energy transition, for a wide variety of communities and interest groups, including local residents; and
- in fostering alignment between government ministries to ensure alignment of community official plans, CEEPs, and other guiding documents with Provincial energy goals and objectives.

## **Role of Others**

While the IESO has a leadership role, others also have a role to play in achieving the outcomes of the Pathways to Decarbonization study. These include:

- First Nations, local governments, and LDCs have a role to play in convening regularly with the specific objective of better understanding the functions and activities of one another as plans are implemented and continually updated. They should work together to foster better connections and communications to ensure effective implementation of energy initiatives.
- First Nations and local governments, in collaboration with their LDCs, have a role to play in leading engagement with local businesses and specific communities to build awareness of the challenges and opportunities of electricity system expansion and to gather valuable information for the LDCs on what solutions their communities will and will not support. Further, they have a role to play in ensuring the voices of priority populations such as low-income residents, climate vulnerable, and other disadvantaged groups are heard at the table.
- LDCs have a role to play in coordinating energy projects, fostering better alignment with communities and serving as a common point to the electricity system. To support First Nations and local governments in developing the necessary capacity, it is crucial to ensure a regional integrated planning approach that involves the active participation of energy utilities.

- The Ministry of Municipal Affairs and Housing and the Ministry of Energy and Electrification have a role to play in coordinating, sharing and understanding the energy implications of Official Plans and other municipal servicing plans.
- The Ontario Energy Board (OEB) as part of their mandate to serve public interest has a role to play, in collaboration with the IESO, in understanding the costs and risks brought forth by a proponent on local solutions that could help meet part or all of the increased demand. This could take the form of regular updates to studies such as the integrated electricity-natural gas Achievable Potential Study which serves to identify and quantify the technical, economic, and market potential for energy savings from demand-side resources in the province by technology, sector, customer segment, and region.
- The federal and provincial governments have roles to play in policy development and funding grants that enable grid modernization, enabling LDCs to empower local and community solutions that result in broader sector wide benefits.
- Associations such as the Association of Municipalities of Ontario (AMO) and the Rural Ontario Municipal Association (ROMA) have a role to play in bridging information sharing, education, awareness building, and seeking opportunities for collaboration on areas of mutual interest.

### **Strategic Considerations and Committee Advice**

To ensure that communities can fully engage with and support Ontario's current energy transformation, we advise the IESO to consider the following strategies:

- **Coordination and Communication** – Encourage and support cross-sectoral (First Nations, local government, LDCs, industry, and provincial government) understanding, collaboration and coordination to foster a culture of innovation and learning, and to accelerate the implementation and replicability of projects.
- **Planning Alignment** – Ensure that the energy objectives and priorities of communities align with the broader provincial goals and enable a more cohesive and coordinated approach to electricity resource planning, capital forecasting and development.
- **Awareness and Education** – Raise awareness of what is transpiring with the electricity grid, the challenges of expansion, and what will be needed of communities, and build mechanisms and capacity for community engagement. Of critical importance is an understanding by local political leadership on the constraints of the electricity system that may impact the ability to achieve local goals and projects.
- **Resource Building** – Advocate on behalf of First Nations and local governments to ensure they have the capacity (funding, staffing) to engage in and implement energy plans. Support local economic development programs and invest in fair and equitable grid modernization.

## Recommendations

Recommendation	Lead Agency(s)
<b>Strategy: Coordination and Communication</b>	
<p>Establish forums for knowledge-sharing and engagement where communities can share experiences, best practices, and lessons learned from local energy projects and provide input into Provincial energy planning such as the Integrated Energy Resource Plan, IESO’s Annual Planning Outlook, IESO’s regional planning, and IESO’s resource adequacy processes. This platform can serve as a valuable resource for communities looking to implement similar initiatives and for energy planning purposes.</p> <p><i>“Each Municipality and Utility need to support the energy plans of each other, ensuring that Municipalities are educated and aware of the Utility’s roadmap and that Utilities are aware of the Municipality’s strategies for decarbonization and energy development.” (Energy is Everything pg. 4)</i></p>	<p>IESO Provincial Government</p>
<p>Ensure that LDCs and communities implementing local projects that support beneficial electrification, enhanced management of the existing infrastructure (e.g., EV charging infrastructure, building energy efficiency retrofit, distributed storage, thermal grids, etc.), clean energy development as well as improved equitable access, affordability, and resilience are documenting methodology, best practices and lessons learned throughout the process for efficient replicability.</p>	<p>LDCs Provincial Government IESO</p>
<p>Continue to attend, where possible, community meetings, open houses and events (for example, council meetings), and present on provincial topics as part of LDC-led engagement initiatives, critical work underway to secure new supply resources, and the energy transition.</p>	<p>IESO LDCs</p>
<p>Similar to the Indigenous Energy Support Program, implement a “local champions” program whereby representatives of a community are trained to relay information about opportunities and challenges specific to that region, which can help guide support and programming tailored to local needs. This would be of particular interest to areas with priority populations (low-income residents, climate vulnerable groups, etc.).</p>	<p>IESO</p>
<p>Provide training to LDCs of all sizes and capabilities with detailed use-cases on developing longer-term load forecasts and submitting their distribution rate applications that account for local solutions, particularly for the cases where the generation can be co-located with the load.</p>	<p>OEB</p>
<p>Provide more granular electricity pricing, such as locational or distribution locational marginal pricing, as well as locationally guided resilience values (as applicable), which will better guide the value of local electricity resources and solutions and enhance the management of the electricity system as a whole.</p>	<p>IESO OEB</p>
<p>Lead the development of an open-access distribution network akin to the open-access principles that guide bulk level transactions at the transmission level, which would serve to guide distribution-level markets for competitive procurement of local solutions in a transparent manner.</p>	<p>OEB IESO</p>

Recommendation	Lead Agency(s)
<b>Strategy: Planning Alignment</b>	
Develop systems that encourage a regional alignment in utility and infrastructure planning (encompassing water, natural gas, electricity, transit, and housing), explore opportunities for integrated and localized distribution system plans that account for anticipated new large loads, enabling effective decision-making informed by municipal community energy plans and regional strategies and supporting the province’s clean economy for all Ontarians.	LDCs
Integrate CEEPs into the provincial energy demand forecasting and resource adequacy planning process.	Provincial Government IESO
Collaborate with the Ministry of Energy and Electrification to review official plans from an energy needs perspective, ensuring alignment between Ontario's integrated energy resource plan, a new Ontario energy roadmap (as recommended by the Canada Electricity Advisory Council in their report, “Powering Canada: A blueprint for success” (May 2024)) approved community growth plans as well as distribution and transmission planning and IESO’s demand forecast and procurement processes.	Ministry of Energy and Electrification IESO LDCs
Coordinate, share and understand the energy implications of Official Plans within the current timeframe and approval process, serving as an input to the province’s Integrated Energy Plan to support healthy, diverse populations and communities.	Ministry of Municipal Affairs and Housing Ministry of Energy and Electrification
Expand the framework of master service plans to include services delivered to communities by external service providers (i.e., energy & communications)	Ministry of Municipal Affairs and Housing
<b>Strategy: Awareness and Education</b>	
Strengthen (develop) and continue to explore educational and knowledge-sharing campaigns and activities to guide local energy procurement in aligning with the province’s integrated energy resource plan and IESO’s planning processes, including through municipal guidance, support and capacity building, framed around the priorities of reliability, affordability and environment	Ministry of Energy and Electrification  IESO
Continue to provide information and support for First Nations and local governments regarding the potential benefits of procuring and integrating distributed energy resources to advance local energy priorities and align with the province’s supply and flexibility needs.	Ministry of Energy and Electrification OEB IESO
Provide forums such as IESO’s regional and bulk planning process to share supporting materials and assist LDCs in communicating what is transpiring with the electricity grid, the challenges of expansion and what will be needed of them (specific to their region) with sufficient lead time for community driven solutions to enable Ontario to meet its energy and climate objectives.	IESO Ministry of Energy and Electrification OEB

Recommendation	Lead Agency(s)
<p>Request that local governments respond to a call for information on what their communities would and would not support, allowing for flexibility in their responses.</p> <p>Work towards strengthening meaningful relationships with First Nation communities and organizations and seeking early engagement and regular dialogue on regional and territorial energy interests, underpinned by economic empowerment, capacity support and relationship agreements.</p> <p><i>“Improving data availability and transparency at the regional and local levels is vital for effective planning. Accessible information on energy consumption, renewable energy potential, grid infrastructure, market dispatches of distribution-connected assets, and energy efficiency measures supports regional and local planning efforts, enabling informed decision-making by the LDC.” (EPC EETP Submission, pg. 4)</i></p>	<p>IESO First Nations Local Governments</p>
<p>Co-host public energy literacy workshops that are responsive to customer demands who wish to be more empowered in helping to shape a more customer-centric and equitable electricity system transformation.</p>	<p>Ontario Ministry of Energy and Electrification</p> <p>LDCs</p> <p>IESO</p>
<p>Engage with local businesses and residents to build awareness of the challenges and opportunities of electricity system expansion and to gather information for the LDCs and the IESO on what solutions the community would and would not support as well as how costs and benefits such as access and reliability are distributed across communities, with particular focus on priority populations.</p> <p>LDCs should strive to reconcile local inputs with distribution system planning and rate applications.</p> <p>The IESO should strive to reconcile local inputs with overarching regional planning and resource adequacy needs as well as to help inform the design of Demand Side Management programming.</p> <p><i>“Active engagement with local stakeholders, including municipalities, communities, Indigenous groups, businesses, and residents, is paramount. By integrating their knowledge, perspectives, and aspirations, energy plans can be tailored to reflect the specific needs and priorities of local communities. Encouraging the formulation and implementation of community energy plans empowers communities to actively shape their energy future, identifying opportunities for energy efficiency, renewable energy generation, and localized energy systems.” (EPC EETP Submission, pg. 4)</i></p>	<p>First Nations Local Governments LDCs IESO</p>

Recommendation	Lead Agency(s)
<b>Strategy: Resource Building</b>	
Provide capacity building for local and regional trade allies such as best practices on installation of energy efficient and clean technologies through Demand Side Management or other initiatives, that support beneficial electrification, equitable and reliable access, resilience, and decarbonization goals.	IESO
Assist communities in attracting private sector capital investments and de-risking new financial tools or methodologies for the scale-up of local projects.	Provincial Government
Invest in grid modernization to empower local and community solutions while resulting in broader sector wide benefits. This includes implementing the necessary tools and technology at the IESO, OEB, and LDCs to facilitate the participation distributed energy resources and other “grid edge” technologies  <i>“Without a strong influence on and connection to system planning to ensure local objectives, Municipalities are at risk of failure to meet targets or compete in a centrally planned energy environment. In fact, municipalities have already lost billions of dollars in economic development due to a lack of electricity capacity.” (EPC EETP Submission, pg. 8)</i>	Federal Government Provincial Government
Continue undertaking work to drive broader participation of distributed energy resources and distributed energy resource aggregations to participate in the IESO’s administered markets, with the goal of enhancing the use of the existing transmission and distribution infrastructure and empowering local solutions.	OEB Provincial Government IESO
Develop governance models and protocols for coordination of resource planning that enables the LDCs that are capable to procure local supply through distribution level markets that are informed by distribution level reliability and closely coordinated with the bulk wholesale markets.	IESO OEB