Feedback Form

Regional Electricity Planning in the Toronto Region – July 10, 2025

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To promote transparency, feedback submitted will be posted on the Toronto engagement webpage unless otherwise requested by the sender.

Following the Toronto regional planning webinar held on July 10, 2025, the Independent Electricity System Operator (IESO) is seeking feedback on the results of the options screening. A copy of the presentation as well as recording of the session can be accessed from the engagement web page.

Please submit feedback to engagement@ieso.ca by July 25, 2025.

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What feedback do you have regarding the results of the wire and non-wire options screening?	We are encouraged to see non-wires alternatives (NWAs) considered in the screening process. However, several gaps should be addressed: 1. Thermal energy networks (TENs): TENs were screened in for the Port Lands area. We recommend that they also be screened in across the rest of the city particularly in large redevelopment areas and mixed-use districts where electrification is expected to drive significant increases in peak demand. TENs can be an important enabler of low-carbon electrification and can provide demand flexibility, which will be important as the electricity system decarbonizes. Their role can be especially important in areas targeted for intensification and redevelopment, including Downtown & Port Lands, Downsview, Golden Mile and Rexdale. In addition, we recommend that the IESO assess the potential of large-scale electrified, dispatchable, district energy-scale peak-shaving solutions such as electric boilers or heat pumps as distributed energy resources (DERs) for the downtown core. These technologies could play a key role in managing peak loads and supporting system reliability. An appropriate contracting mechanism could be developed that reflects the value of thermal energy networks in providing dispatchable capacity to the IESO. 2. Batteries: Toronto City Council has recently identified support for large-scale battery storage where feasible, given its ability to reduce peak demand, integrate renewables, and enhance reliability. 3. Leveraging Distributed Batteries Through Virtual Power Plants: While large, centralized battery storage systems may face land use constraints, distributed batteries such as those in commercial buildings, residential buildings could be aggregated into virtual power plants (VPPs) to deliver many of the same grid services. It would be helpful to confirm whether such behind the meter battery aggregation models are being considered as part of the Achievable Potential Study (APS), and if not, to explore how they can be integrated into the IRRP process.4. Large Scale Solar: While ground-mounted utility-scale solar may be limited in Toronto, aggregated rooftop systems, particularly on large commercial, institutional and industrial buildings could be aggregated to provide utility-scale

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	generation. When paired with battery storage, they could help reduce summer peak demand and strengthen local resilience. If not already included in the APS, we recommend the IESO assess this potential as part of its broader DER analysis. 5. Wind: While we understand the exclusion of onshore wind due to land constraints, the exclusion of offshore wind even at a high-level screening stage is a missed opportunity to ensure a comprehensive understanding of options. We would note that offshore wind was included in the IESO's Pathways to Decarbonization study. Given that this plan spans two decades to 2044, excluding offshore wind now risks limiting future system options and underrepresenting a potentially significant low-carbon resource. 6. Role of Toronto Hydro: Toronto Hydro is a key partner in enabling both non-wires and wires solutions. Through investments in local grid capacity, DER integration, and close coordination with the City, they play a central role in advancing DERs. We have been working together on siting and system needs to align infrastructure with land use priorities. Their continued collaboration is essential as both distributed and transmission-scale solutions move forward through the IRRP process.
What feedback do you have on the preliminary transmission wire options?	City staff welcome the inclusion of multiple transmission options to meet future capacity needs. However, we emphasize the following: 1. Near Term Action and Role of DERs: The third transmission line into the city is a critical long-term solution, but it will take at least 10 years to plan, permit, and build. In the meantime, the Province should look at opportunities to substantially reduce reliance on the Portlands Energy Centre (PEC) by accelerating the deployment of DERs which can be brought online much more quickly including large-scale battery storage projects within the Port Lands. 2 Third Line Route Selection and Planning: We understand the IESO is preparing a recommendation on the third transmission line under a tight timeline. It would be helpful to clarify the strategy for assessing the preferred route, including how land constraints, cost, stakeholder input, and alignment with future growth areas are being considered. 3. Engagement and Coordination: We encourage the IESO to proactively address planning considerations, including engagement

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	with impacted wards and their councillors, communities, Indigenous groups and City divisions. Clear coordination on siting, land use, and alignment with local planning priorities is key. 4.Land Use: As electricity infrastructure planning advances, it is essential to prioritize solutions that align with the City's priorities specifically preserving land for development, housing while also enabling emissions reduction. Several proposed wire solutions including expansion of Basin TS, a station at Downsview in addition to the third line will impact lands undergoing redevelopment. We encourage the IESO to prioritize options that minimize surface disruption and maximize co benefits.
What feedback do you have regarding how screened-in options could inform the options analysis and draft recommendations?	1.Evaluation Approach: Screened-in options should be evaluated using a transparent, multi-criteria approach that includes changes in extreme weather patterns associated with climate change, GHG impacts, equity, resilience, environmental impacts, indigenous and heritage issues, land use considerations and alignment with local policy, including the City's TransformTO Net Zero Strategy. This includes assessing how each option contributes to achieving a net-zero grid by 2040, and how benefits and burdens are distributed across communities. Resilience should be a key evaluation criterion. Options should be assessed for their ability to maintain service during grid disturbances, extreme weather and emergencies, as well as how quickly they can recover. This includes evaluating decentralized solutions like DERs and storage for their ability to supply critical loads locally and support community-level energy resilience particularly for vulnerable populations. 2. Early Recognition of Siting and Environmental Issues: While we understand that detailed environmental assessments will be the responsibility of the transmitter once selected by the province, we recommend that the IESO identify key siting and environmental considerations early in the planning process. This could include potential health impacts of high-voltage infrastructure, Indigenous heritage features, environmentally sensitive areas, climate resilience, and impacts of a submarine route on aquatic ecosystems, recreational use, and existing infrastructure such as the Ashbridge Bay outfall. Early identification of potential

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	issues will help ensure alignment with City priorities and smoother coordination moving forward.
Additional information that should be provided in future engagements to help understand perspectives and insights.	We appreciate the IESO's approach and commitment to meaningful stakeholder engagement. Providing more accessible explanations of why certain options were screened in or out, along with clearer communication of the underlying assumptions, constraints, and criteria, would further support inclusive participation and shared understanding. More detailed information on the third line routing, land requirements and integration with City planning frameworks is needed to support detailed engagement going forward. For instance, it would be beneficial if further discussion could occur on the third line options through the Gatineau Hydro Corridor and implications for the Meadoway and adjacent City owned sites in the Golden Mile area. The City looks forward to working with Hydro One and Toronto Hydro on transmission and distribution needs associated with new or expanded transmission facilities in growth areas such as Downsview and the Golden Mile. These areas are expected to undergo significant intensification, requiring the reconstruction of existing streets and the construction of new ones. Early coordination is essential to minimize disruption, avoid throwaway costs, and align infrastructure planning with redevelopment timelines.

General Comments/Feedback

Green building standards like the Toronto Green Standard (TGS) reduce both annual and peak electricity use in new developments, supporting system-level planning and aligning with the goals of the Electricity DSM Framework. TGS also promotes efficient electrification. While electrified buildings typically use more electricity than gas-heated ones, those designed with high-performance envelopes have much lower peak demand than buildings undergoing basic gas-to-ASHP (air source heat pump) retrofits. Designing efficiently from the start avoids future demand growth, costly retrofits, and reduces infrastructure needs while helping prevent fossil fuel lock-in. We encourage the IESO to recognize the value of high-performance buildings in electricity planning.