Feedback Form

Regional Electricity Planning in Ottawa Area Subregion – December 12, 2024

Feedback Provided by:

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Following the Ottawa Area Subregion electricity planning engagement webinar held on December 12, 2024, the Independent Electricity System Operator (IESO) is seeking feedback on the potential wire options and Local Achievable Potential Study as outlined during the presentation. A copy of the presentation as well as the recorded webinar can be accessed from the engagement webpage.

Local considerations and feedback are a critical component to the development of an Integrated Regional Resource Plan (IRRP). As the options phase of the IRRP continues to identify how to best meet the area's electricity needs, the IESO wants to hear from you.

Please submit your feedback to engagement@ieso.ca by **January 2, 2025.**

Regional Planning

Topic	**Feedback**
What perspectives do you have on the potential wire options?	The presentation on wires options mistakenly assumes that grid connected battery storage (BESS) will increase demand and overheat the transmission system. The opposite is true. BESS capacity is designed to peak shave and smooth out demand and therefore protect the transmission system. It should be considered in plans for all zones in the Ottawa area.

Topic	Feedback
What information should be considered in the evaluation of non-wire options?	NWAs must include community scale DERs within distribution grids. Examples include: 1/ renewable generation and battery storage capacity installed by the LDC; 2/ locally financed renewable generation and battery storage capacity that provides power or ancillary services to the LDC under a PPA; 3/ community solar projects subscribed to by customers [https://ilsr.org/energy/community-solar/] ; and 4/ renewable generation/storage projects providing renewable power to large customers through virtual PPAs and Renewable Energy Certificates. While these alternatives are not allowed under current regulations, they promise to be no-regrets non-wires options, and there are strong signals from the Ministry that these types of options are being considered. They should therefore be included in long-term planning. Key features of these DERs are: a/ They cost significantly less than behind the meter DERs because of economies of scale. b/ At current and expected prices, they will cost less than all other supply options. c/ They are financed by third-party local capital and pay for themselves at current rates, and therefore they will not need to be paid for out of the LDC rate base or increase this rate base.
Are there any additional information that should be provided in future engagements to help understand municipal perspectives and insights?	Click or tap here to enter text.

Local Achievable Potential Study

Topic	Feedback
Is there any feedback on the scope, methodology and potential uses of the Local Achievable Potential Study that the IESO should consider?	Technical potential: It is important to allow for continued improvement in the efficiency of batteries, heat pumps etc. and generation output per sq metre of solar over the span of the study. Economic Potential: It is very important to allow for continued lowering of the price of behind the meter DERs over the period of the study, especially solar generation and battery storage. The cost of grid power against which these costs will be compared will also continue to rise. Behind the meter, it is the customer cost benefit that determines economic potential – ie the retail price not avoided cost. Achievable potential: A key driver of achievable potential for solar generation and battery storage is government regulatory policy as well as cost. Current net metering regulations limit net metering to one meter per site and a credit of only up to one year. Simple regulatory changes: 1/ Allow all meters on multi-unit buildings to participate in net metering, and 2/ Allow several customers in a community to share net metering credits according to optimum panel placement (community net metering), would greatly increase the achievable potential of solar generation. These changes are already being considered or piloted in the Province. It should be straightforward to program the increased participation resulting from more accessible net metering into the study methodology, starting in 2026. Reliance on past and current adoption rates will greatly underestimate future uptake.
Are there additional data sources or regional policies/trends that should be considered in the Local Achievable Potential Study?	The 2022 report by Dunsky Climate and Energy Advisors, with updated performance and cost data, should be used as a baseline source to calibrate the study methodology

General Comments/Feedback

We would like to make two recommendations concerning the cost of generating resources used in the IRR planning process and estimation of DER potential. 1/ As noted above, it is very important that community scale renewable generation and storage installed in front of the meter in the distribution grid be considered as a NWA option. Because of economies of scale – particularly for solar - the capital cost of this option will be considerably less than customer generation. The levelized cost of community solar could be as low as Cdn $77/kWh. [https://www.lazard.com/media/xemfey0k/lazards-lcoeplus-june-2024-_vf.pdf]. We recommend

that a value of Cnd $2000/kW be used as a 2024 capital cost for community DER (1-5 MW) with a levelized cost of $100/MWh. 2/ The IESO assumed capital cost of $13,800 per kW and availability of 94% for new nuclear capacity appear to be overly optimistic. This will have a negative effect on the potential for DERs. The recently commissioned Georgia Power's 2,228 MW Vogtle nuclear plant cost 35 billion (US$) or $15.7 million per MW (US$) or $21.8 million per MW (CDN$). [Drew Kann, "New Vogtle nuclear reactor now online, completing expansion", Atlanta Journal-Constitution, (April 29, 2024)]. TVA estimates that its new nuclear plant will cost $13.9 million per MW (US$) or $19.3 million per MW (CDN$). [TVA, Integrated Resource Plan 2025, (September 2024), pages E-3 and E-9.] Lazar (see above) estimates the levelized cost of new nuclear to be between Cnd$203 and $317/MWh, far greater than the assumed IESO cost of Cdn$140/MWh. According to the International Atomic Energy Agency, as of December 2023, the lifetime annual capacity utilization rates of the Pickering, Bruce and Darlington Nuclear Stations were 71.4%, 77.6% and 78.6% respectively. [https://pris.iaea.org/PRIS/CountryStatistics/ReactorDetails.aspx?current=43]. We recommend that the IESO use unbiased, evidence-based estimates of the cost and performance of new nuclear reactors and increase the levelized cost of nuclear used to evaluate the cost-effectiveness of DER options.