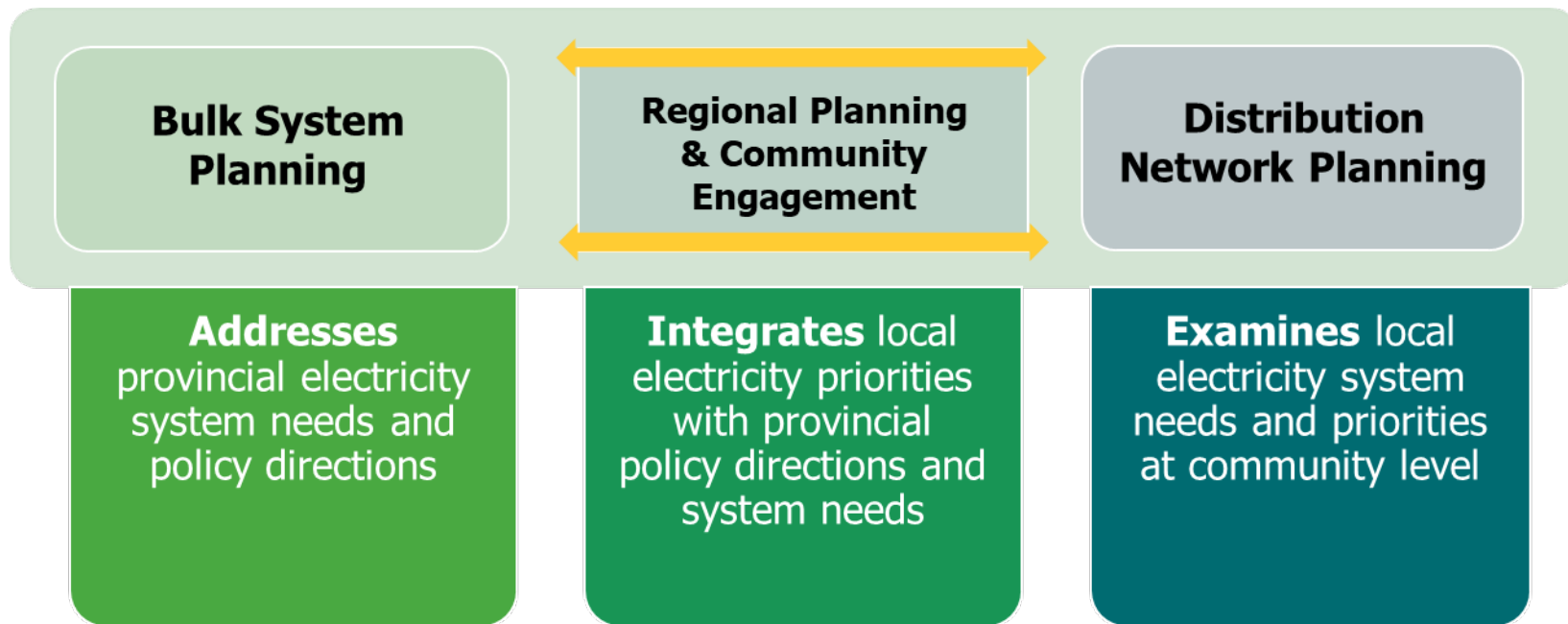


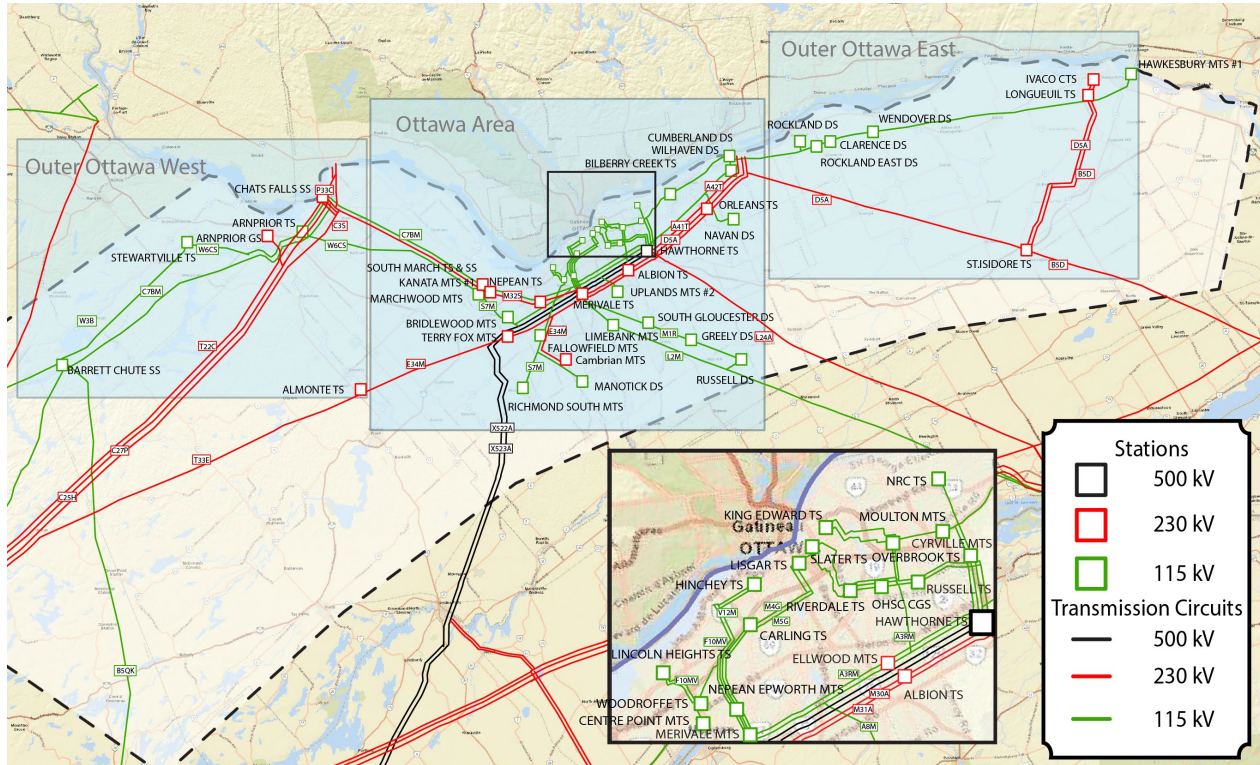
FEBRUARY 27, 2023

Transmission Issues Overview for Greater Ottawa

Electricity Planning in Ontario



Greater Ottawa Region Diagram



Transmission Planning Studies (Active/Recently Completed)

- The recently completed Gatineau Corridor EOL Study ([link](#)) included an assessment of the bulk system supplying Ottawa. The study identified a forecast need arising in the near- to medium-term and recommended a combination of transmission upgrades, targeted energy efficiency, and remedial action schemes to defer the forecast need into the long-term (~20 years).
- The IESO has been engaged in a study of the Ottawa 115 kV system, which is evaluating a near-term capacity need. This study will continue in parallel with the upcoming Ottawa Area Sub-region IRRP to leverage updated planning forecasts and to ensure co-ordination of solutions as the two studies are interdependent.
- The IESO will be launching the next Ottawa Area Sub-region Integrated Regional Resource Plan in March 2023 which will evaluate the needs identified through the Greater Ottawa Region Needs Assessment ([link](#)) and recommend solutions to mitigate those needs.

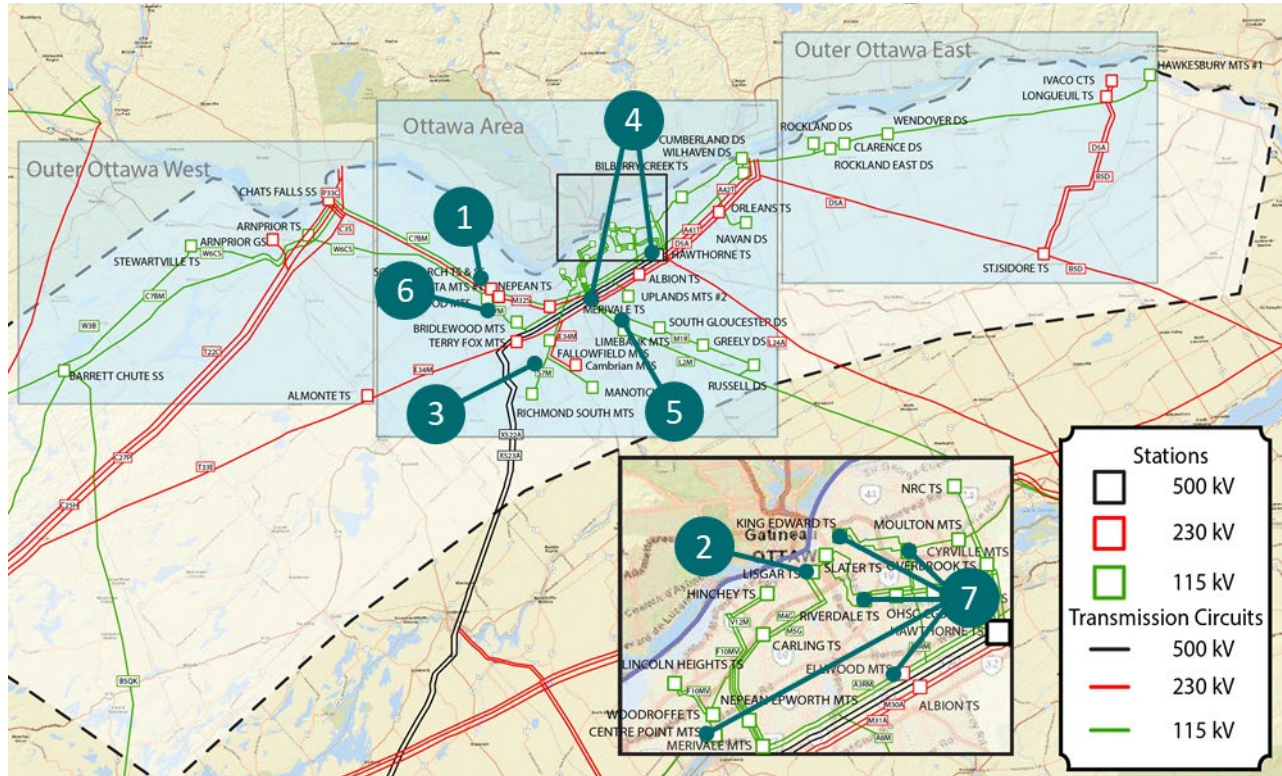
Energy Efficiency Opportunities

- The [Local Initiative Program](#), under the 2021-2024 CDM Framework, is one tool available to target delivery of additional CDM savings to specific areas of the province with identified system needs
- The IESO posted a Request for Proposals for targeted energy efficiency programs in the Ottawa region as part of the Local Initiatives Program under the 2021-2024 CDM Framework
- The Request for Proposals, which sought proposals for programs that will deliver approximately 7 MW of peak demand savings in the Kanata-Stittsville area and an additional 7 MW in outside of the area, closed on February 1, 2023. Energy efficiency measures delivered under this program are expected to be installed between 2023 and 2025.

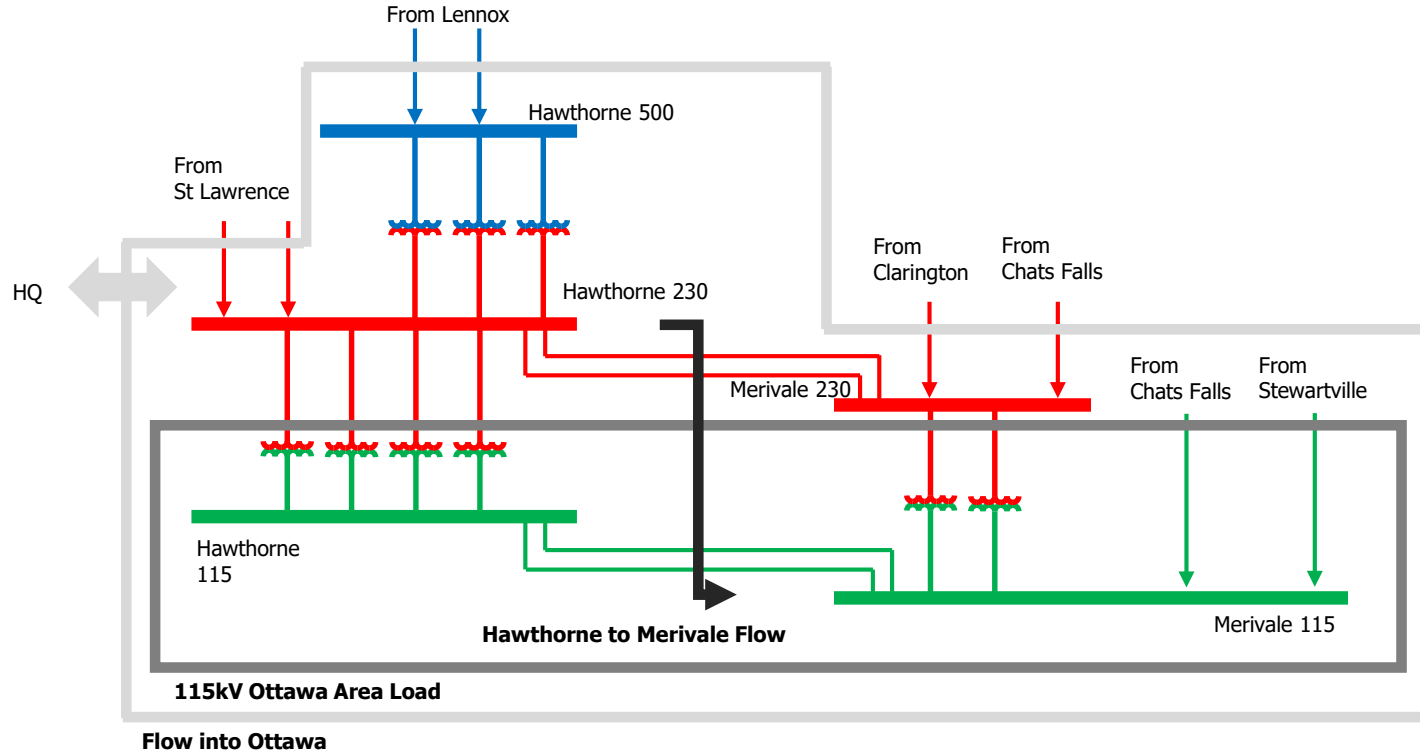
Regional Planning Needs Assessment Findings

Need #	Need	Timing	Need Description
1	South March TS: T1/T2 EOL	2030-32	Transformers are nearing EOL and requires replacement in the medium-term
2	Lisgar TS: T1 EOL	2031-33	Transformers are nearing EOL and requires replacement in the medium-term
3	S7M EOL	TBC	Two sections of 115 kV circuit S7M are nearing EOL and requires replacement over the near-term
4	Regional 115 kV System Capacity	> 2032	Auto-transformers at Hawthorne are approaching their long-term emergency ratings and may become overloaded beyond the 10 year forecast period
5	L2M Supply Capacity	2029-2031	Circuit becomes overloaded, additional supply capacity needed
6	Kanata-Stitsville Area Capacity	2027-2031	The transformer stations supplying the Kanata-Stitsville area which include Kanata MTS, Marchwood MTS, and Terry Fox MTS are overloaded, additional supply capacity needed
7	King Edward TS, Riverdale TS, Ellwood MTS, Cyrville MTS, Centrepoint MTS Station Capacity	2022-2029	Various transformer stations across Ottawa becomes overloaded, additional supply capacity needed
8	Voltage on Circuit 79M1	N/A	The voltage on circuit 79M1, which supply Rockland DS, Rockland East DS, Clarence DS, Wendover DS, and Hawkesbury MTS, approaches the low voltage limit post-contingency (loss of circuit A2). While this is an existing issue, need is being mitigated through planned transmission upgrades in the Orleans area.

Geographic Location of Identified Needs



Nested Nature of Needs



Decarbonization

- The IESO published the Pathways to Decarbonization report in December 2022 to evaluate a moratorium on new natural gas generation and to develop an achievable path to decarbonization
- The Ottawa Area Sub-region IRRP will include a de-carbonization scenario, which is consistent with the recommendation made in the Pathways to Decarbonization report to incorporate planning for the decarbonization of the grid/economy in regional planning
- In the previous cycle of regional planning the Technical Working Group recommended monitoring the City of Ottawa's Energy Evolution plan and exploring the potential for alignment between integrated regional planning and the Energy Evolution plan
- To help support this work, the City of Ottawa, the local distribution companies, and the IESO will participate in focused discussions on the impacts of Energy Evolution and GHG emission reduction targets on the demand forecast. Outcomes of these discussions seek to inform considerations (e.g., timing and magnitude of electrification and effective tracking against the EE plan) that can be used to make refinements to the demand forecast scenario(s) to be contemplated as part of the upcoming Ottawa Area Sub-region IRRP.

Thank You

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