Feedback Form

South & Central Bulk Study – Data Tables

Feedback Provided by:

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Unless otherwise requested by the sender, all feedback we receive will be posted publicly on this engagement webpage to promote transparency.

The IESO has launched a South and Central Bulk Planning engagement to actively involve stakeholders and communities in shaping the future of Ontario's transmission system. On September 30, 2025, a public engagement webinar provided an update for Bulk Planning studies throughout Ontario. For the South & Central Bulk plan, this webinar provided an update on the refined draft portfolios and the energy modelling.

As a follow-up to this webinar, this IESO is sharing details of the portfolios of transmission investments being considered, generation assumptions for each scenario in the energy model, the sub-zonal load forecast used in the energy model, and the revised zonal diagram demarking the sub-zones created for the energy model. Note that as this is still an active planning process, changes to these scenarios are still possible before a final recommendation is made.

Please submit feedback to engagement@ieso.ca by December 19, 2025.

Draft Transmission Investment Portfolios

In the South and Central Bulk Data Tables spreadsheet, Tables 1 through 3 present the three draft portfolios of transmission investment options being compared for the South & Central Bulk Study. For transmission lines, the circuit type, voltage, length, from station, to station, and other circuit details are presented. For stations, details of the bus work, number of autotransformers, number of reactors, and number of capacitors are presented. The draft portfolios are also mapped in Figure 1 through 3.

Topic	Feedback
Is it clear which transmission investment options are being considered in the three scenarios presented? Is there further information you would require to better understand the transmission investment options?	Although there is a detailed listing of scenario considerations, we recommend including information on clear timelines and priorities for each component within the scenarios.
What feedback do you have on the transmission investment options?	Please refer to section A) Comments/Feedback – Clarification of Information, under General Comments/Feedback.

Energy Modelling Assumptions

In the South and Central Bulk Data Tables spreadsheet, Tables 4 through 6 and Figure 1 present the generation and load assumptions, transmission interface limits, and the zonal bubble diagram for energy modelling. Each of the three portfolios presented in Tables 1 through 3 will be assessed through the energy modelling exercise under three different generation scenarios. Table 4 presents the generation assumptions broken down by zone and by resource type. Table 5 presents the peak load assumptions by zone, based on the IESO's 2025 Annual Planning Outlook, which do not vary by portfolio or generation scenario. Table 6 provides the interface names and their definitions – as depicted in the zonal bubble diagram – as well as the interface limit in megawatts (MW). These are the summer interface limits prior to any of the portfolio investments coming into service. Finally, Figure 1 depicts the zonal definitions used in the energy modelling as a bubble diagram. The energy modelling aggregates generation resources and load within a zone and simulates the economic transfer of generation between zones constrained by the interface limits. The IESO controlled grid is currently divided into ten zones which have been further divided into fourteen zones for the purpose of this study.

Topic	Feedback
Do you have any feedback on the specific resource type potential per zone as presented in the generation scenarios?	
Do you have any other feedback on the generation scenarios?	
Is it clear which interfaces are being modelled?	
Is it clear how the zones are broken down and how those interface limits are applied?	

General Comments/Feedback

TC Energy is pleased to provide the following commentary on IESO's South and Central Bulk Planning engagement.

TC Energy supports IESO's efforts to facilitate future generation connections and demand growth in southern and central Ontario, as well as province-wide, with the aim of delivering home-grown solutions that ensure an affordable, secure, reliable, and clean energy system.

In particular, TC Energy supports the transmission expansion of a 500 kV double-circuit line between Bruce and Essa TS to enable future growth at Bruce Power, enable a synergistic method of interconnection of the Ontario Pumped Storage Project (OPS) to the grid, and enable more effective Flow North. As Ontario builds its electricity system to support demand growth, the future will be powered by a portfolio of new generation and storage. With a prominent focus on baseload nuclear power along with additional variable renewables, Ontario will require significant amounts of energy storage capacity to balance and optimize existing and future nuclear and renewable generation. In response to this need, TC Energy is developing the Ontario Pumped Storage Project, designed to provide 1,000 megawatts of flexible, clean energy to Ontario's electricity system.

Strategically located in Meaford, between Bruce Power and hydroelectric generation in northern Ontario, the Project can ensure that we are optimizing these assets and future assets - getting the most out of core electricity resources that Ontarians have relied on for generations and new investments needed to support Ontario's growth. The recent passing of Bill 40 further supports advantages offered by the Ontario Pumped Storage, which would be constructed with a highly

domestic supply chain, providing jobs and economic development, as well as providing a home-grown made-in-Ontario solution for providing increased system efficiency and resiliency in a time of high demand growth.

The transmission expansion of a 500 kV double-circuit line between Bruce and Essa TS would not only enable the connection of the Ontario Pumped Storage Project to the grid, but also provide a more effective path for energy to Flow North, improve efficiency, enhance grid resiliency and restoration capabilities, support long-duration energy storage, and deliver ratepayer savings through coordinated transmission routing. This line would connect two large-scale, long life, clean energy assets (Ontario Pumped Storage and Bruce expansion) to Canada's largest electricity demand centres, the Greater Toronto Area and the developing Ring of Fire region, allowing Ontario to both serve a growing economy and achieve lower emissions targets. It would also synergistically support IESO's draft recommended option in the Northern Ontario System Bulk Plan to build a new 500 kV transmission line from Essa TS to Hanmer TS in Sudbury to support economic development, load growth, and more generation in Northern Ontario.

A) Comments/Feedback – Clarification of Information

While TC Energy's Ontario Pumped Storage Project is specifically referenced (see IESO engagement page: "Consider the potential for future pumped storage at Meaford…"), it is unclear if the tables or map include it. As the anticipated in-service date for the Ontario Pumped Storage Project is 2035, and the anticipated in-service date for its connection point to the Bruce-to-Essa 500kV transmission line is 2034 (note: the anticipated connection point is located south of Meaford, with the exact location to be confirmed and dependent on the route selected for the Bruce-to-Essa 500 kV line). Given IESO's December 12 public webinar presentation indicated a 2037+ energy modelling timing, we look forward to working with IESO to align Ontario Pumped Storage's Commercial Operation Date timelines with Bruce-to-Essa TS, to maximize ratepayer value and to ensure a timely grid connection.