

Report Description

TITLE: Realtime Constrained Totals Report

CONFIDENTIALITY: Public

PURPOSE Provides the total energy and operating reserve scheduled, and Ontario Demand, as established by the constrained run of the IESO's Dispatch Scheduling and Optimization (DSO) algorithm, for each 5-minute interval of the hour. This includes the following components:

- Total energy
- Total dispatchable load
- Total load
- Total loss
- Total 10-minute spinning reserve
- Total 10-minute non-spinning reserve
- Total 30-minute non-spinning reserve

FREQUENCY: Published every 5 minutes

GRANULARITY: 5-minute intervals

NOTES: A value shown in red indicates it has been administered

DEFINITIONS:

TOTAL ENERGY: Total energy dispatched into the IESO-controlled grid, calculated as Ontario generation plus imports

TOTAL LOSS: Total losses in the IESO-controlled grid, calculated by the load flow

TOTAL LOAD: Total system load, calculated as Total Energy - Total Loss

TOTAL DISP LOAD: Total MW withdrawn from the IESO-controlled grid by dispatchable load, where the value represents the system-wide amount of dispatchable load that was dispatched down. For example, if the load is bidding 100 MW and gets dispatched down to 90 MW, then the Total Disp Load quantity is 10 MW

ONTARIO DEMAND: Total Ontario electricity demand, calculated as:

Total Energy + Total Generation Without Offers - Total Exports + Total Off Market +/- Over/Under Generation

Where:

- **Total Energy:** Total energy dispatched into the IESO controlled grid, calculated as Ontario generation plus imports
- **Total Generation Without Offers:** Total energy injected into the IESO controlled grid from generators that have not submitted offers

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- **Total Exports:** Total energy dispatched outside Ontario from the IESO-controlled grid
- **Total Off Market:** Off market consists of the following types of transactions:
 - **Segregated Mode of Operation:** Total energy from resources in the IESO-controlled grid that are disconnected from the Ontario system and connected to an interconnected transmission system for a period of time, known as the Segregated Mode of Operation (SMO)
 - **Emergency:** IESO acquires emergency energy in order to maintain the reliability of the IESO-controlled grid or provides emergency energy to an interconnected transmission system
 - **Simultaneous Activation of Reserve** IESO and other control areas may simultaneously activate their 10-minute operating reserve to address contingency events
 - **Inadvertent Interchange:** The difference between the scheduled intertie flow and actual intertie flow
- **Over/Under Generation:** Total energy resulting from over or under generation in the event of differences when the Dispatch Scheduling and Optimization (DSO) tool is balancing supply and demand