

Report Description

TITLE:	Adequacy
CONFIDENTIALITY:	Public
PURPOSE:	<p>Publish information on Ontario’s electricity requirements for today through 34 days out. The resources offered, forecasted and bid are included for the hours of today and the next day. The report identifies the capacity and energy excesses or shortfalls in all hours. The following information is included in this report:</p> <ol style="list-style-type: none">1. Capacity – the net amount of generation capacity in-service in Ontario from nuclear, gas, hydro, wind, solar and biofuel resources.2. Energy – the amount of energy available from generation sources in Ontario plus estimated imports from other control areas.3. Internal Resources Capacity – the net amount of capacity from generation facilities in Ontario, subdivided by type as nuclear, gas, hydro, wind, solar, biofuel and other fuel types.4. Internal Resources Outages – the total amount of MW from generation facilities that are unavailable due to outage or de-rating, subdivided by type as nuclear, gas, hydro, wind, solar, biofuel and other fuel types. The amount also reflects the unscheduled amount of variable, intermittent and self-scheduling generation.5. Internal Resources Offered – the internal generation offered, subdivided by type as nuclear, gas, hydro, biofuel and other fuel types.6. Internal Resources Forecasted – the internal generation forecasted for hydro, wind and solar. The hourly value for wind and solar will be blank if the forecast is unavailable or disabled for that hour.7. Internal Resources Scheduled – the internal generation scheduled, subdivided by type as nuclear, gas, hydro, wind, solar, biofuel and other fuel types.8. Total Internal Resources Outages – the sum of internal resources outages for all fuel types, increased by 2% of available dispatchable capacity.¹9. Total Internal Resources Offered/Forecasted – the sum of internal generation offered plus forecasted wind and solar generation.10. Total Internal Resources Scheduled – the sum of internal generation scheduled for all fuel types.11. Offered Imports – the sum of imports offered, by intertie zone (Manitoba, Minnesota, Michigan, New York, Quebec).12. Scheduled Imports – the sum of imports scheduled, by intertie zone (Manitoba, Minnesota, Michigan, New York, Quebec).13. Total Imports Offered – the total imports offered on all intertie zones.

¹ Available dispatchable capacity is Capacity minus total Internal Resources Outages minus Bottled Capacity.

14. Total Imports Scheduled – the total imports scheduled on all intertie zones.
15. Estimated Imports – the amount of potential imports from other control areas that are assumed to be available.
16. Total Capacity Imports – the quantity of capacity imports that can be relied upon from other control areas.
17. Bottled Capacity – the total estimated quantity of bottled generation capacity.
18. Total Supply – the total forecasted amount of available resources, equal to the total capacity plus estimated imports and capacity imports, minus total internal resources outages and bottled capacity.
19. Peak Demand – the forecast of Ontario’s hourly peak demand. The value will include non-dispatchable load, dispatchable load, system losses and is adjusted to reflect the wind and solar embedded forecasts.
20. Average Demand – the forecast of Ontario’s hourly average demand. The value will include non-dispatchable load, dispatchable load, system losses and is adjusted to reflect the wind and solar embedded forecasts.
21. Wind Embedded Forecast – the forecast of embedded wind generation. The hourly value will be blank if the forecast is unavailable or disabled for that hour.
22. Solar Embedded Forecast – the forecast of embedded solar generation. The hourly value will be blank if the forecast is unavailable or disabled for that hour.
23. Dispatchable Load Capacity – the net amount of capacity from dispatchable load facilities in Ontario.
24. Dispatchable Load Bid/Forecasted – the sum of dispatchable load bid, or forecasted amount of dispatchable load that is expected to be available to be dispatched off. The amount of dispatchable load bid is presented in all reports published for today, and reports published for the next day subsequent to the day-ahead commitment process.
25. Dispatchable Load Scheduled ON – sum of dispatchable load scheduled on.
26. Dispatchable Load Scheduled OFF – sum of dispatchable load scheduled off.
27. Hourly Demand Response Bid – the sum of hourly demand response resources bid.
28. Hourly Demand Response Scheduled – the sum of hourly demand response resources scheduled on.
29. Hourly Demand Response Curtailed – the sum of hourly demand response resources scheduled off.
30. Exports Bid – the sum of exports bid, by intertie zone (Manitoba, Minnesota, Michigan, New York, Quebec)
31. Exports Scheduled – the sum of exports scheduled, by intertie zone (Manitoba, Minnesota, Michigan, New York, Quebec).

32. Total Exports Bid – the total exports bid on all intertie zones.
33. Total Exports Scheduled – the total of all exports scheduled on all intertie zones.
34. Total Capacity Exports – the quantity of capacity exports that the IESO is obligated to provide to other control areas.
35. Total Operating Reserve Requirement – the total operating reserve requirement for Ontario, comprised of the 30-minute operating reserve requirement and the 10-minute operating reserve requirement.
36. Minimum 10-Minute OR – the 10-minute operating reserve requirement for Ontario.
37. Minimum 10-Minute Spin OR – the 10-minute spinning operating reserve requirement for Ontario.
38. Load Forecast Uncertainty – the value representing a factor to account for the degree of weather-related uncertainties in the demand forecast.
39. Additional Contingency Allowance – the value to account for additional contingency not included in the demand forecast.
40. Total Requirement – the total forecasted requirement for each hour, equal to Ontario’s demand plus generation reserve holdback, plus capacity exports, minus dispatchable load scheduled off or forecasted, minus hourly demand response resources curtailed. The amount of dispatchable load scheduled off and hourly demand response resources curtailed are used in the calculation for all reports published for today, and reports published for the next day subsequent to the day-ahead commitment process.
41. Capacity Excess/Shortfall – the capacity excess or shortfall, calculated as the total supply minus the total requirement. Negative values indicate shortfalls.
42. Energy Capacity Excess/Shortfall – the energy excess or shortfall, in MWhr, calculated as the total energy minus Ontario demand plus dispatchable load forecasted. Negative values indicate shortfalls.
43. Offered Capacity Excess/Shortfall – the sum of internal resources offered/forecasted plus import offers (minus linked wheels), plus dispatchable load bid and hourly demand response resources bid, minus demand and total operating reserve requirement. Negative values indicate shortfalls.
44. Resources Not Scheduled – the total internal resources offered/forecasted plus dispatchable load and hourly demand response bid, minus internal generation scheduled, dispatchable loads scheduled off, and hourly demand response resources curtailed.²
45. Imports Not Scheduled – the sum of all import offers, minus the sum of all imports scheduled.

² The calculation in each report published at approximately 45 minutes past the hour on the current day is based on the offers, bids, forecasts and schedules from the pre-dispatch run at 07 minutes past the hour.

FREQUENCY: Published twice per hour for today, at approximately 15 minutes and 45 minutes past the hour

Published 13 times for the next day, with the following schedule:

- by 05:30 and 09:00 EST
- at approximately 11:15 and 13:45 EST
- hourly starting at approximately 15 minutes past the hour

Published twice per day for days 2 to 34, at approximately 08:45 and 15:07 EST.

GRANULARITY: Hourly

NOTES: There may be differences between the adequacy picture from the Pre-dispatch results and the Adequacy report itself. These discrepancies exist because the Adequacy report is based on a mix of Pre-dispatch results and submitted bids, forecasts and offers and can differ from the Pre-dispatch schedules that can limit bids, forecasts and offers scheduled because of ramp constraints, energy limits, unavailable or disabled wind or solar forecasts, etc.

There may also be differences between the capabilities (capacity less outages and derates) by fuel type in the Adequacy report and the capabilities by fuel type in the Generator Output and Capability report. These discrepancies exist because the Generator Output and Capability report only displays resources with capacities 20 MW or greater.