About the IESO

Operate Ontario’s province-wide electricity system on a 24/7 basis

Support innovation and emerging technologies

Oversee the electricity market, driving competition to maintain affordability

Work closely with communities to explore sustainable options

Plan for Ontario’s future energy needs

Enable province-wide energy conservation
Electricity Planning in Ontario

Bulk System Planning

Addresses provincial electricity system needs and policy directions

Regional Planning & Community Engagement

Integrates local electricity priorities with provincial policy directions and system needs

Distribution Network Planning

Examines local electricity system needs and priorities at community level
System Planning and other IESO Processes

**Connection Approval Process**

1. Prepare Application [1 – 2 month]
2. Obtain Conditional Approval to Connect [11 – 13 month]
3. Design and Build [18 – 36 month]
5. Register Equipment [3 – 4 month]
6. Authorize Market and Program Participation [1 month]

**Resource Acquisitions & Deliverability**

![Graph showing capacity surplus/deficit over time](chart.png)
Ontario’s Supply and Demand

- Peak Demand 22,986 MW (on August 24, 2021)
- Energy demand ~134 TWh

Energy Output (TWh) in 2021

- Nuclear: 83 TWh
- Gas/Oil: 12.2 TWh
- Hydroelectric: 34.2 TWh
- Wind: 12 TWh
- Solar: 0.75 TWh
- Biofuel: 0.4 TWh
- Import: 8.7 TWh
- Other: 0.01 TWh
Planning for the Energy Transition

Energy Demand (P2D Study)

2050 Supply Mix (P2D Study)