**MONDAY, JUNE 12, 2023** 

Planning the Energy Transition: Global Perspectives

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### 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** 

Regional Planning & Community Engagement

Distribution Network Planning

Addresses
provincial electricity
system needs and
policy directions

Integrates local electricity priorities with provincial policy directions and system needs

**Examines** local electricity system needs and priorities at community level



## System Planning and other IESO Processes

### **Connection Approval Process**

Prepare Application [1 – 2 month] Obtain Conditional Approval to Connect

[11 – 13 month]

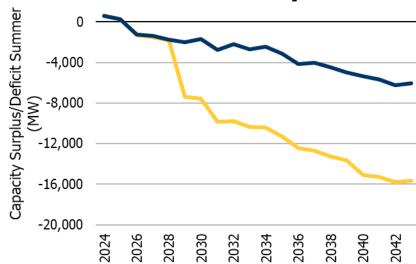
Design and Build [18 – 36

month]

Commission Equipment and Validate Performance [3 – 4 month]

Register Equipment [3 – 4 month] Authorize
Market and
Program
Participation
[1 month]

# Resource Acquisitions & Deliverability

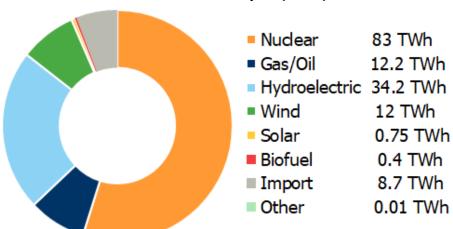


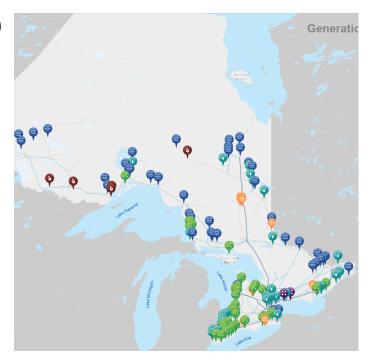


## Ontario's Supply and Demand

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

#### **Energy Output (TWh) in 2021**

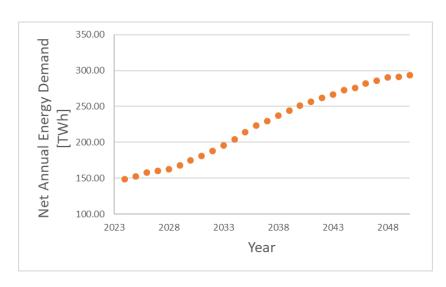




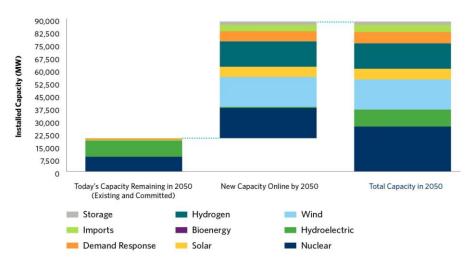


## Planning for the Energy Transition

### **Energy Demand (P2D Study)**



### 2050 Supply Mix (P2D Study)





## Thank You

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