

# PLANNING TOGETHER FOR A RELIABLE, COST-EFFECTIVE ELECTRICITY SYSTEM

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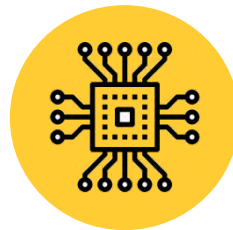
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September 11, 2019

# Who we are and what we do



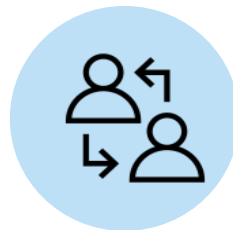
Reliably operates  
Ontario's province-wide  
system 24/7



Supports innovation



Creates electricity  
market efficiencies



Works closely with  
communities to  
explore sustainable  
options

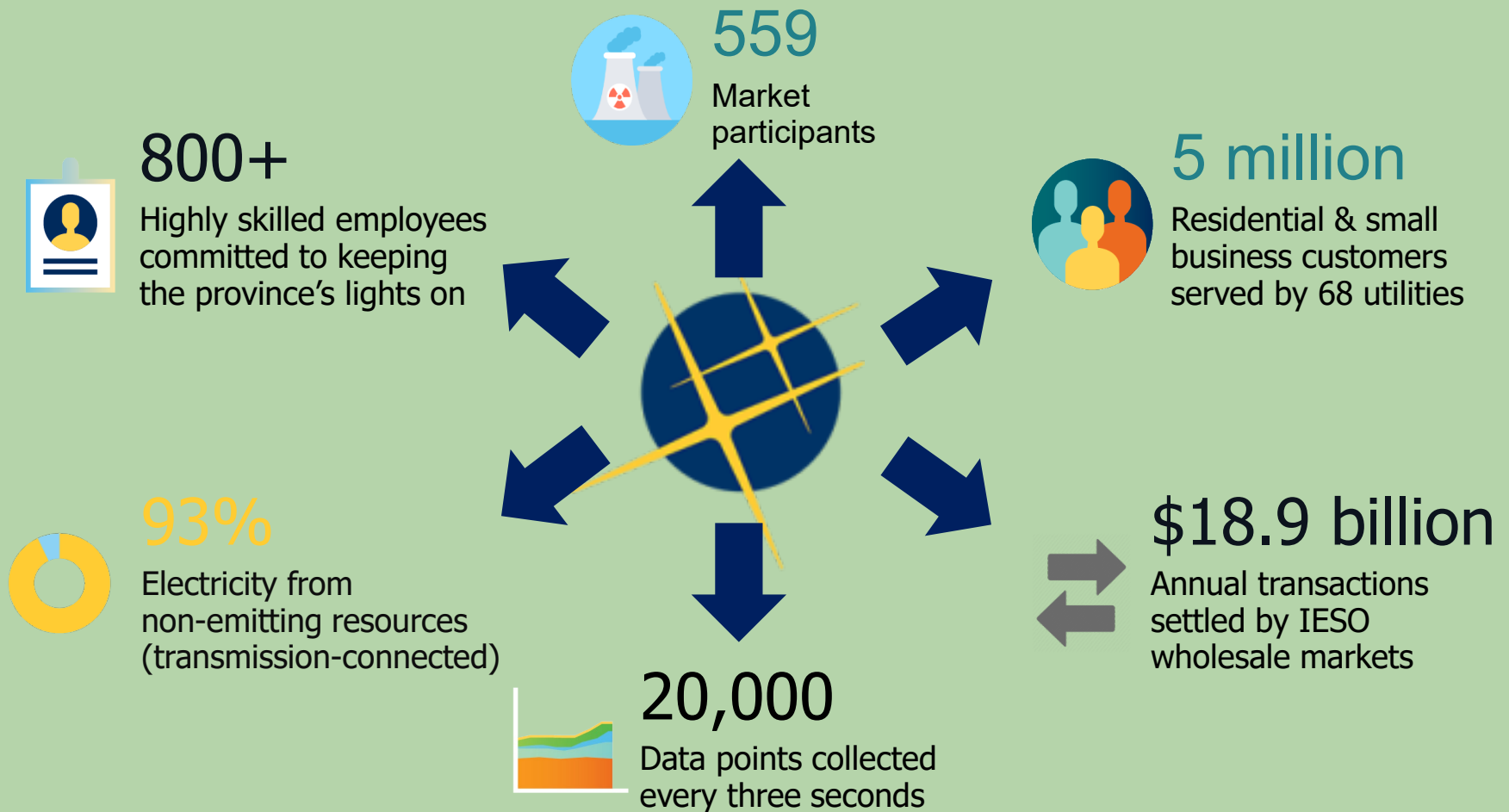


Plans for Ontario's  
future energy needs



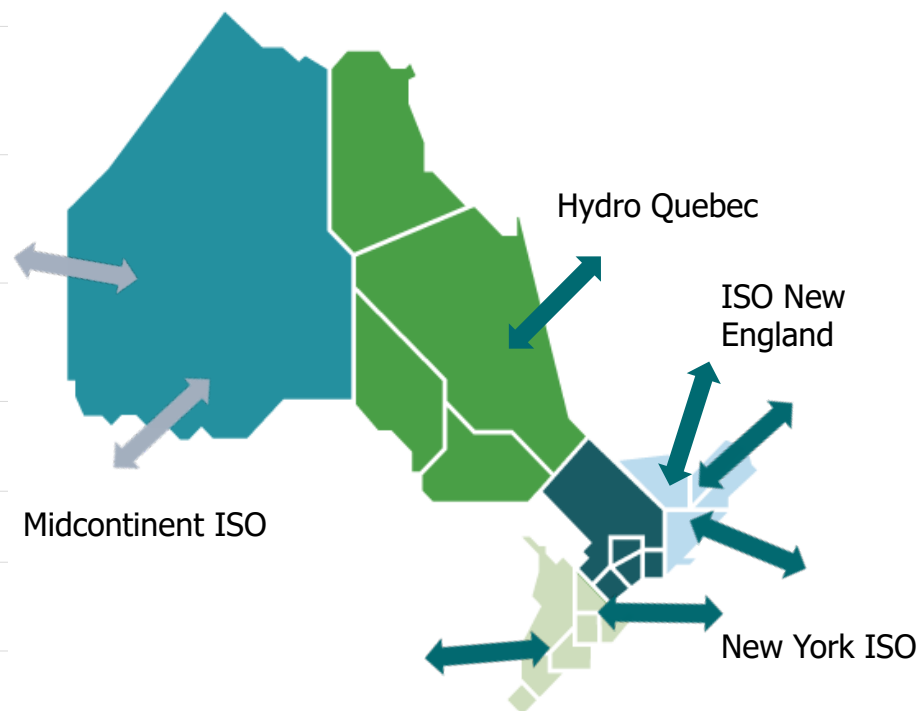
Enables province-wide  
energy efficiency

# IESO by the numbers



# Ontario's system at a glance

Installed Capacity (Dec 2018)	36,928 MW
Record Summer Peak (August 1, 2006)	27,005 MW
Record winter peak (December 20, 2004)	24,979 MW
Grid energy consumed (2018)	137.4 TWh
Customers	~ 5 million
Transmission lines	30,000 km
Planning Regions	21
Import/ Export Capability	6,500 /6,100 MW
Interconnections	NY, Quebec, Manitoba, Michigan, Minnesota





# Three levels of planning



Bulk  
system  
planning



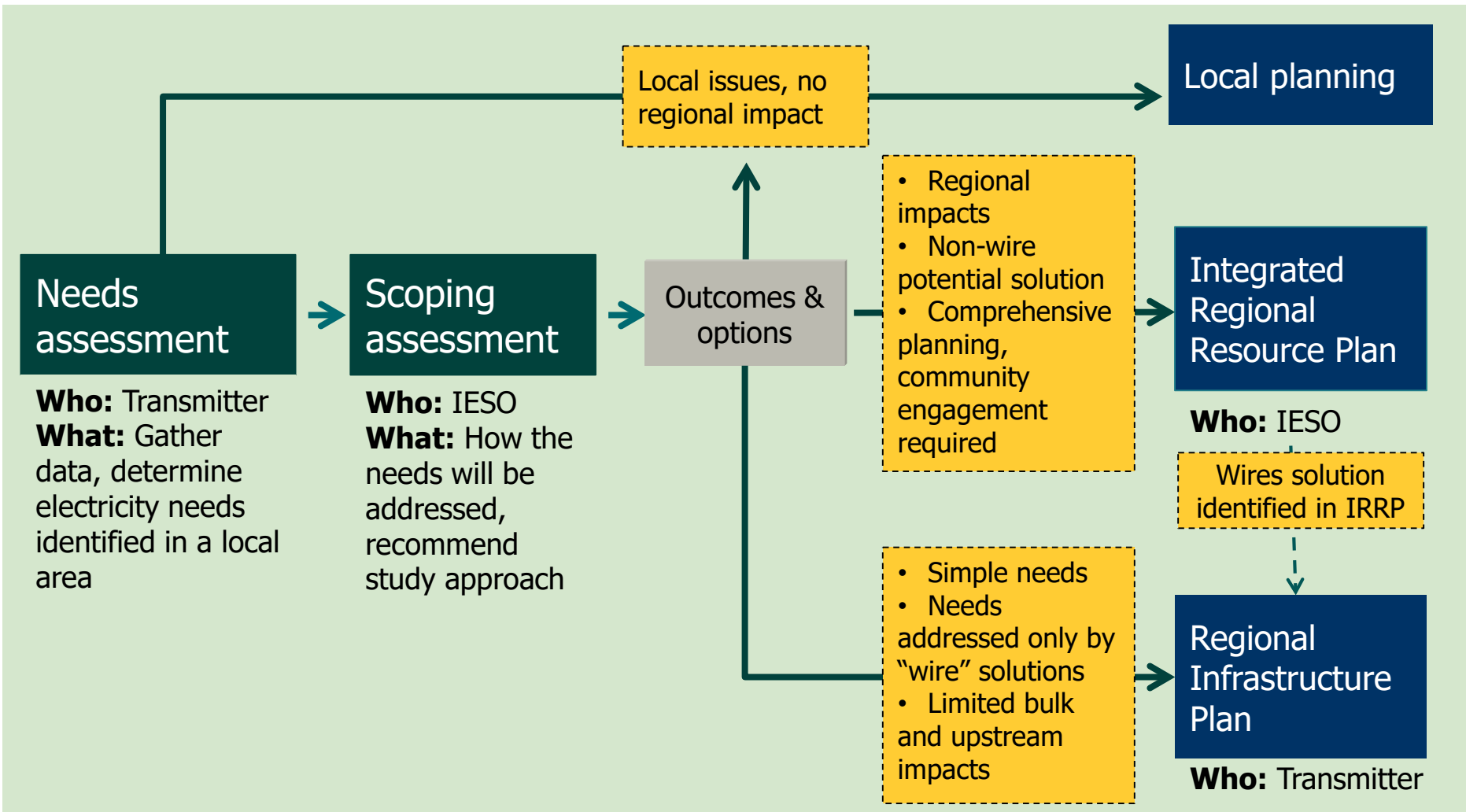
Regional  
planning



Distribution  
network  
planning



# Regional planning process



# Getting started

- Understand community priorities and goals
- Know how, when and where you are using energy
- Understand what resources are available, set targets
- Ensure that energy supply and demand is part of planning



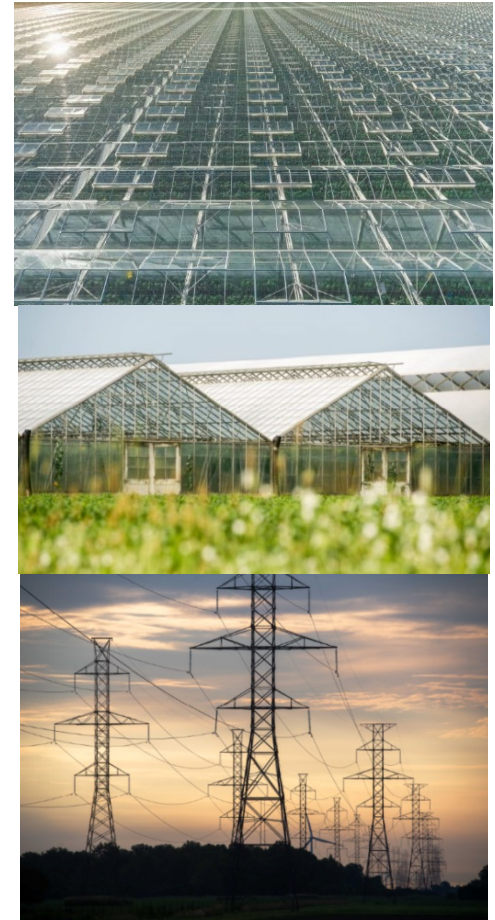
# Get involved

- Participate in stakeholder engagement meetings on IESO initiatives
- Invite us to your community
- Join a regional electricity network (set to launch this fall)



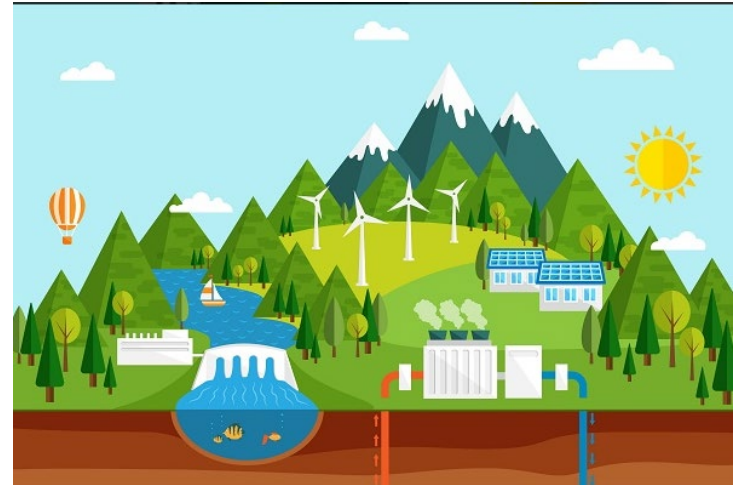
# Windsor-Essex – Increased capacity required

- Demand expected to double in next five years because of unprecedented growth in indoor agriculture
- Worked with communities to learn about needs, concerns and current plans, made recommendations



# North Bay – First utility-scale microgrid

- Partially funded by IESO Grid Innovation Fund
- Provides sustainable, locally generated energy for community energy park
- Can power 51,000 homes in the event of an emergency



# Gull Bay – Community microgrid

- First fully integrated, community-owned solar energy storage system in a remote community
- Displaces use of 120,000 litres of diesel
- Offsets 350 tonnes of greenhouse gas emissions



# Energy-efficiency

- Lowest-cost energy resource at 2 cents/kWh – a critical resource to balance supply and demand
- Municipal energy profile, water and wastewater treatment report
- Save on Energy: Retrofit Program, Small Business Lighting, Energy Performance Program, Energy Manager Program



# Thank you



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