



## ***Solar PV Projects in Ontario Challenges and Opportunities***

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# Agenda

- About SunEdison
- Challenges
- Opportunities



# About SunEdison

- North America's largest solar energy service provider
- Global Operations: 450 employees
- Deliver predictably priced solar energy services
- Compliment existing utility services
- Finance, install, operate, monitor and maintain PV power plants
- Commercial, government and utility customers
- No capital outlay from host customer
- Ontario Projects
  - Pipeline                      79 MW
  - Construction                9 MW

# Challenges

## **Meeting the Province's targets for renewable energy and conservation**

- Artificially low pricing inhibits real conservation
- Lack of clarity on objectives (RESOP, IPSP)
- Lack of alignment across Ministries, Energy Agencies and Municipalities
- Stop/Start of renewable programs inhibits investment
- Marginal economics for renewable energy projects

## **Managing Load Growth and NIMBY**

- GTA / Southern Ontario load growth may not be met with local generation or transmission
- Easy for NIMBY opposition to jeopardize renewable projects

## **Slowing Economy Driven by Manufacturing Sector**

- Manufacturing jobs are being lost with few manufacturing alternatives available for re-training or employment

# Opportunities

- **Solar is scalable and growing**
  - Solar combined with other smart grid technologies can meet 100% peak load growth
- **Solar is complementary with Nuclear**
  - 2000MW Nuclear plan = billions in construction cost; 10-15 years to in-service; payback over 40yrs
  - Transmission infrastructure required for nuclear capacity
  - Distributed technologies built incrementally, avoids over/under building
- **Solar space is available**
  - Multi-tiered approach brings value to otherwise underutilized assets
    - Brownfields, airports, wastewater treatment facilities, public lands, parking lots, agricultural lands are excellent sites for solar parks
    - Acres of new and existing rooftops in urban areas to meet local demand (in US over 2 billion sq. ft. of new roof installed annually\*)



# Opportunities

- **Solar can help reduce need for distribution capacity investment to meet future peak growth**
    - Ideal for installation right at customer's site in large urban areas
    - Does not negatively impact environment/wildlife
  - **Solar works best when Ontario needs it most**
    - Ontario is a summer peaking province due to air conditioning load
    - Solar capacity is maximized at time of summer peak demand
    - Distributed technologies built incrementally, avoids over/under building
  - **Solar creates green jobs**
    - Navigant study indicates 28 new jobs per MW – 14 direct; 14 indirect
    - Jobs creation tends to be local
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# Call to Action

## **Meeting the Province's targets for renewable energy and conservation**

- Demand RFP's that seek "viable-scale" solar PV (over 5MW) with no capital cost:
  - Portfolio of 10 roof-tops (at least 125,000 square-foot each)
  - Portfolio of 5 roof-tops (at least 250,000 square-foot each)
  - 50 acres of municipal land
- Demand municipal property tax relief for solar PV (same as wind)

## **Managing Load Growth and NIMBY**

- Educate local distributors and city councilors on realities of solar PV
- Establish policies that "fast-track" approvals for solar PV projects

## **Slowing Economy Driven by Manufacturing Sector**

- Bring solar PV to your municipality and you bring local jobs and investment