IFOM Solar

Prepared For: Clean Energy 805 Workshops
Presented By: Sean Yovan
March 13th and 15th 2018
Photovoltaic Solar

Solar PV

Photovoltaic (PV): Converts sunlight into electricity using semiconductors.

Semiconductors (modules) → sunlight → electricity

PV cells embedded onto flat panels combined into arrays of panels that can be mounted on the ground or on rooftops.

In Front of Meter

Solar-generated electricity is metered and 100% of output sold to a utility rather than used to power the host building or facility.
Where can you put Solar Panels?

Rooftop
Advantages
• Roofs exist everywhere

Challenges
• Limited space
• Shade from other buildings/structures
• Potential weight restrictions
• Expected life of roof
• Point of interconnection to grid

Ground Mounted
Advantages
• Economies of scale in construction cost
• Optimize solar production

Challenges
• Land is expensive
• Limited use of land when solar power plant is built

Carports | Solar Canopy
Advantages
• Provides shade for cars
• Parking lots are abundant

Challenges
• Construction limits use of parking lot
• Steel/structure is expensive
• Less optimal solar production versus open spaces
Solar Installation Examples

- **Up to 4 MW, 40 Acres**
- **50 kW-1MW, Commercial Building**
- **500+ kW, large parking lot**
- **5 kW-10 kW, Residential roof**
Impact to Site Hosts

Benefits for Site Hosts

- Lease payments for pre-determined period of time
- In-kind consideration (e.g., property improvements for equipment)
- Open negotiations with site host to determine what benefits work best for everyone

Site Host Impacts

- For safety reasons, landowner could have restricted access to areas with electrical equipment
- Potential need for roof upgrade, earthwork grading or other land improvements to support the equipment
Solar Development

What makes a good site?
• Flat land with a lot of sunshine
• Rooftop
• Minimal shading or future shading (future buildings, tree growth, etc.)
• Close to distribution feeder with interconnection capacity

Interconnection Process
• SCE provides high-level distribution maps (DERiM)
• WDAT (Wholesale Distribution Access Tariff) process can take up to 2 years

IFOM Solar Projects Bid to SCE
• Minimum of 0.5 MW
• Energy bid to SCE on a $/MWh basis through a Power Purchase Agreement (PPA)
• SCE will model for lowest cost, best fit
Southern Power Long-Term Owner Operator Experience

Owns and operates:
- 48 generating facilities
- In 11 states
- 12,820 MW owned

In California:
- 12 solar facilities
- In 5 counties
- 813 MW owned