



IFOM Solar

Prepared For: Clean Energy 805 Workshops

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Photovoltaic Solar

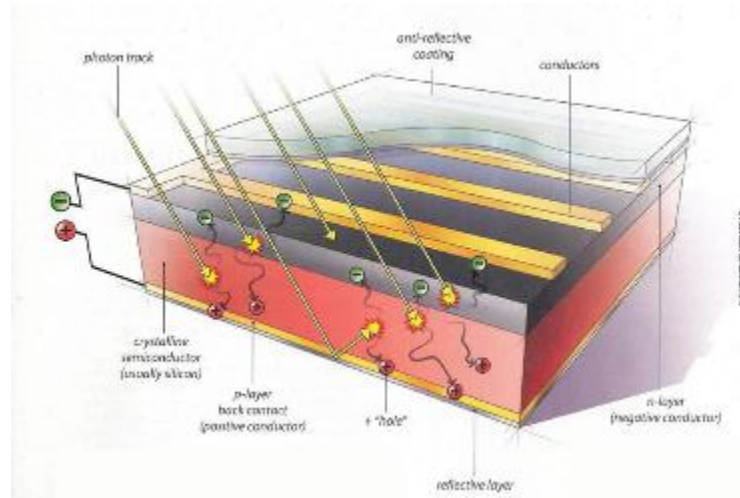


Solar PV

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

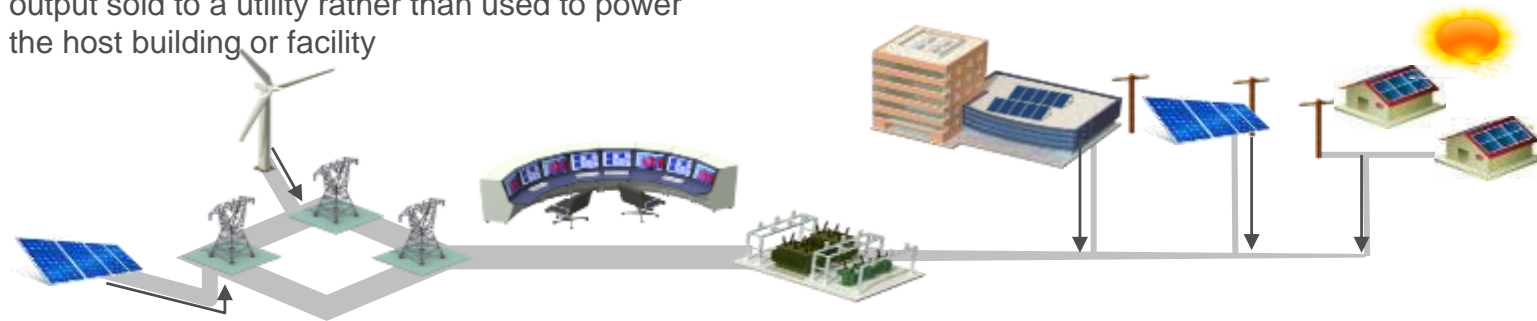
Semiconductors (modules) → sunlight → electricity

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

