

Distributed Solar Energy Cost Estimating



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Distributed Solar Energy

What is it?

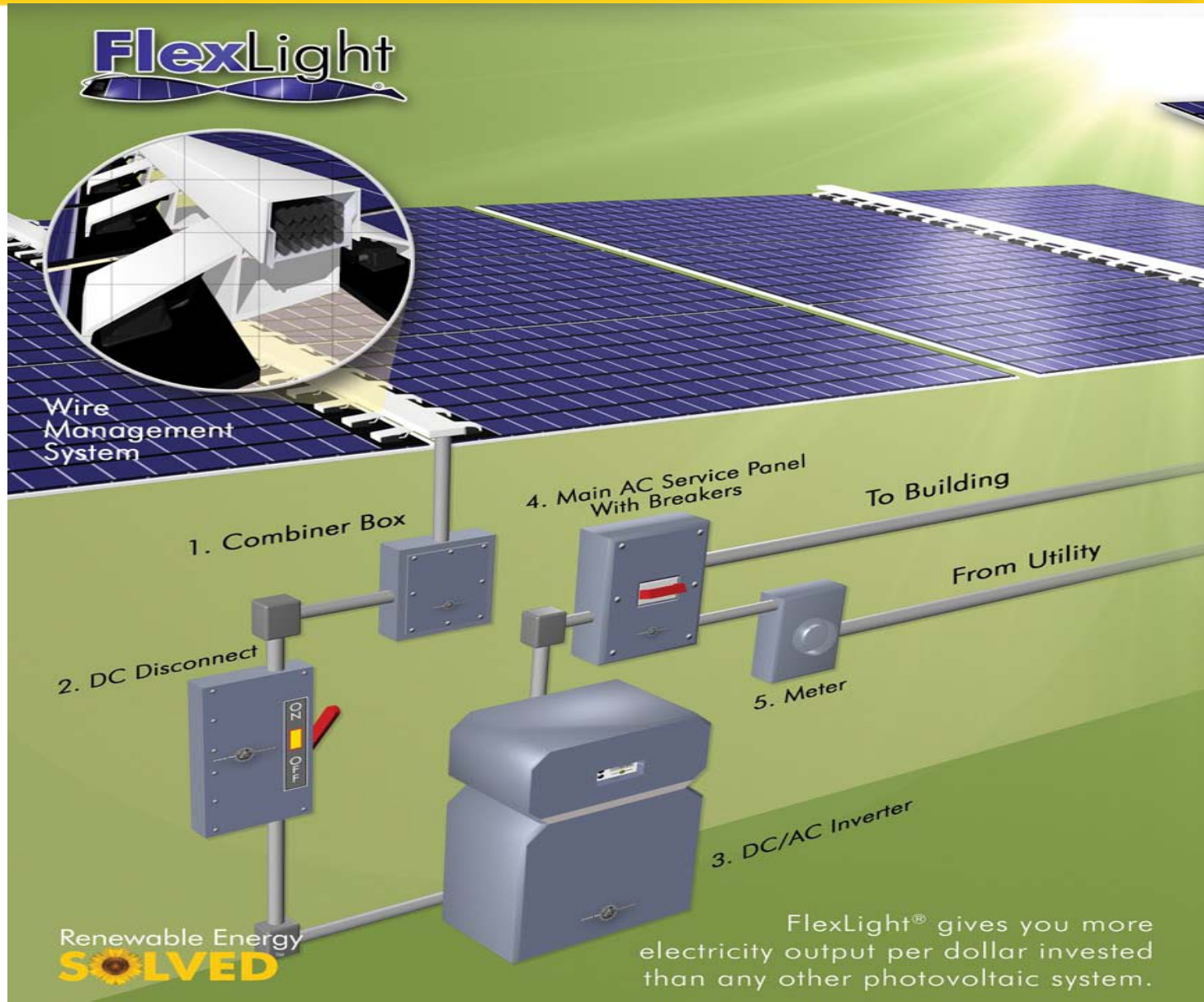


- No transmission
- Used at location primarily



Distributed Solar Energy

What does it do?



Renewable Energy
SOLVED

FlexLight® gives you more electricity output per dollar invested than any other photovoltaic system.

Distributed Solar Energy

What costs are involved?



- Solar Panels
- Inverters
- Balance of System components
 - Wiring
 - Conduit/wire management
 - Disconnects
 - Combiner Boxes
- Electrical Labor
 - Wiring assembly
 - Interconnection
- Roofing/Construction Labor
 - Site preparation
- Engineering
- Administrative
 - FERC/PSC Compliance
 - Interconnection Fee



Distributed Solar Energy

Design considerations



- Electrical Interconnection
- Design for expansion
- Cost benefit?
 - Tracking
 - Racking
 - Wind resistance
- Products
 - Panels
 - Inverters



Distributed Solar Energy

Distributed vs Solar Farm



The Ultimate Debate/Portfolio Cost per kW vs kWh

- Installation Price
- Infrastructure Work
 - Electrical
 - Land use
- Scale
- Land costs
- Maintenance costs



Small

Residential



LOCATION: Sarasota, Florida
CONTRACTOR: ECO Technologies
COMPLETION DATE: October 2008

ROOF TYPE: Metal
SYSTEM SIZE: 12,000 Watts
SYSTEM TYPE: FlexLight 68 & 136 PVL



Smaller *Residential*



LOCATION: Lighthouse Point, Florida
CONTRACTOR: Advanced Roofing
COMPLETION DATE: 2008
ROOF TYPE: TPO & Metal

SYSTEM SIZE: 5,600 Watts
SYSTEM TYPE: FlexLight 68 & 136 PVL
INVERTER SIZES: 4800 W
INVERTER TYPE: PV Powered



Smallest

Residential



LOCATION:

CONTRACTOR: Drexel Metals

COMPLETION DATE:

ROOF TYPE:

SYSTEM SIZE: Watts

SYSTEM TYPE: FlexLight 68 & 136 PVL

INVERTER SIZES:

INVERTER TYPE:



PUBLIX Greenwise



AGT worked with Publix to develop and integrate solar systems on their "Greenwise" stores. AGT integrated the solar systems into the existing roof system. The solar systems exceed the requirements of Miami-Dade County approvals. "These systems are hurricane resistant," Michael Kornahrens reports.



LOCATION: Boca Raton, Florida
CONTRACTOR: Advanced Roofing
COMPLETION DATE: May 2008
ROOF TYPE: TPO
SYSTEM SIZE: 26,112 W
SYSTEM TYPE: FlexLight
INVERTER SIZE: 30 kW
INVERTER TYPE: PVPowered

LOCATION: Palm Beach, Florida
CONTRACTOR: Advanced Roofing
COMPLETION DATE: May 2008
ROOF TYPE: TPO
SYSTEM SIZE: 26,112 W
SYSTEM TYPE: FlexLight
INVERTER SIZE: 30 kW
INVERTER TYPE: PVPowered



PUBLIX Greenwise



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LOCATION: Miami Lakes, Florida
CONTRACTOR: Advanced Roofing
ROOF TYPE: Modified
SYSTEM SIZE: 26,112 W
SYSTEM TYPE: FlexLight
INVERTER SIZE: 30 kW
INVERTER TYPE: PVPowered

LOCATION: Lakeland, Florida
CONTRACTOR: Advanced Roofing
ROOF TYPE: Modified
SYSTEM SIZE: 26,112 W
SYSTEM TYPE: FlexLight
INVERTER SIZE: 30 kW
INVERTER TYPE: PVPowered



Hamlin Roofing



LOCATION: Garner, North Carolina
CONTRACTOR: Hamlin Roofing
COMPLETION DATE: January 15, 2008
ROOF TYPE: TPO

SYSTEM SIZE: 107,000 Watts
SYSTEM TYPE: FlexLight 136 PVL
INVERTER SIZES: (3) 30 kW
INVERTER TYPE: PVPowered



Nike Child Care Center



LOCATION: Beaverton, Oregon
CONTRACTOR: Snyder Roofing
COMPLETION DATE: May 2008
ROOF TYPE: Modified

SYSTEM SIZE: 74,254 Watts
SYSTEM TYPE: FlexLight 952-T PVL
INVERTER SIZES: (2) 30 kW; (2) 4800 W
INVERTER TYPE: PVPowered



DEERS



LOCATION:

Zaragoza, Spain

SYSTEM SIZE:

12 Mega Watts

SYSTEM TYPE:

FlexLight 136 PVL

