



U.S. DEPARTMENT OF ENERGY
SOLAR DECATHLON

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How to Select and Operate a Solar Electric System for your Home

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U.S. Department of Energy



Is my home a good candidate?





- Roof Space
- Roof Condition
- Electrical Panel
- Electrical Usage





Selecting the Right Contractor





- Multiple Quotes
- References
- Licenses
- Contracts





Selecting the Right System

ELECTRICAL CHARACTERISTICS

Maximum Power (Pmax)*	235 W
Tolerance of Pmax	+10%/-5%
Type of Cell	Monocrystalline silicon
Cell Configuration	60 in series
Open Circuit Voltage (Voc)	37.0 V
Maximum Power Voltage (Vpm)	30.1 V
Short Circuit Current (Isc)	8.50 A
Maximum Power Current (Ipm)	7.81 A
Module Efficiency (%)	14.4%
Maximum System (DC) Voltage	600 V
Series Fuse Rating	15 A
NOCT	47.5°C
Temperature Coefficient (Pmax)	-0.485%/°C
Temperature Coefficient (Voc)	-0.351%/°C
Temperature Coefficient (Isc)	0.053%/°C

- Module and Inverter Efficiencies
- Product Test Certifications
- System Sizing

NEC 2008 COMPLIANT

UL 1703 LISTED

CERTIFIED IEC61215 ED2 IEC61730 BY JET

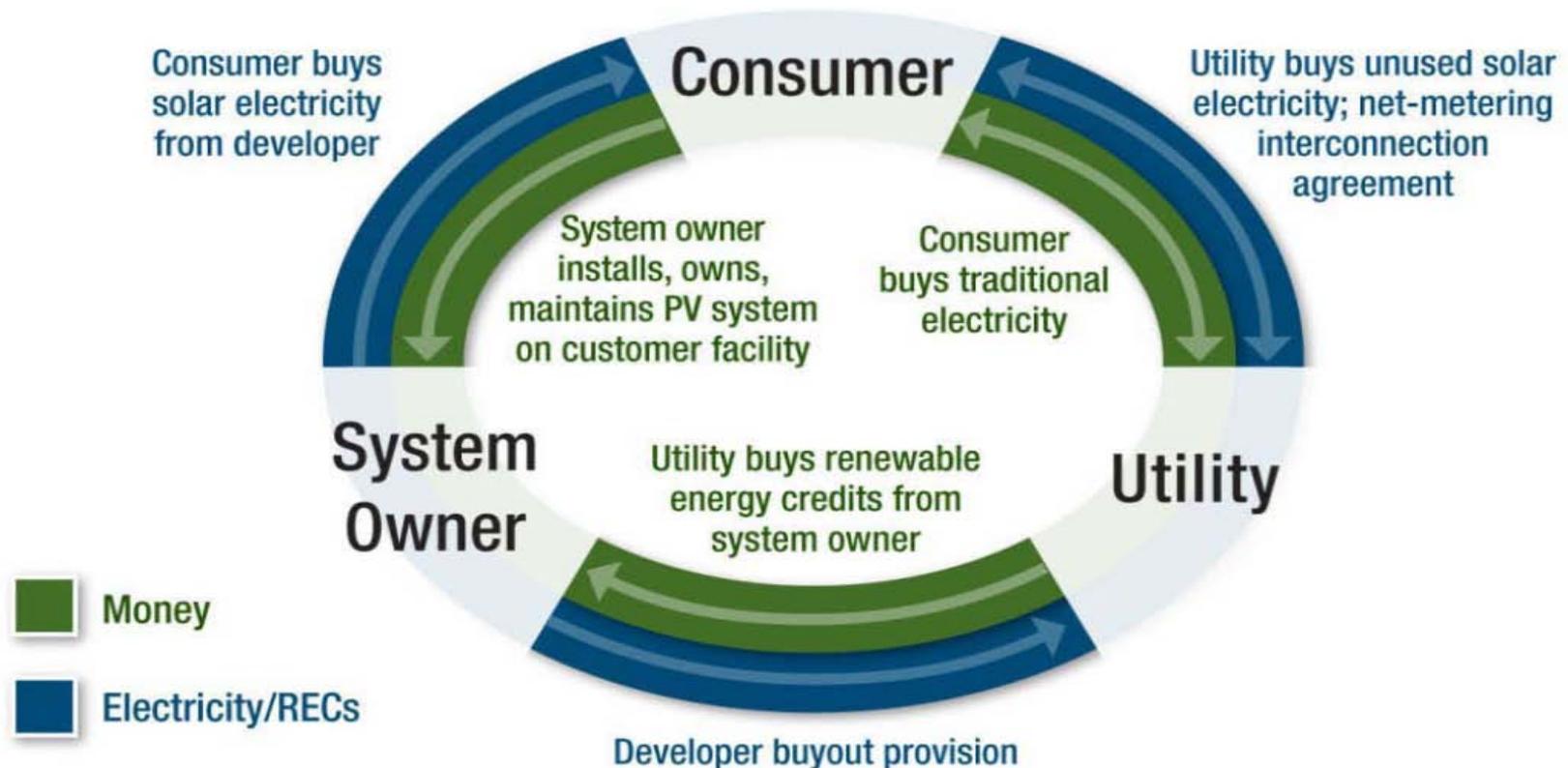


Registered to
ISO9001-2000





How to Pay for the System





- Cash Purchase
- Conventional Financing
- Lease
- Solar Services Agreement or Power Purchase Agreement



System Design





- Proper Spacing from Roof Edges
- Stand-off Height from Roof
- Conduit Runs
- Plan-set



System Install





- Installation Schedule
- Permits
- Rebate Program Documents
- Documents Required by the Utility Company
- Turning the System On
- Customer Handbook/Manual



System Monitoring and Care





- Monthly and Annual Production
- Roof or Ground Maintenance
- Panel Washing