



Take A Load Off, Texas Solar PV Program

Customer Information Session

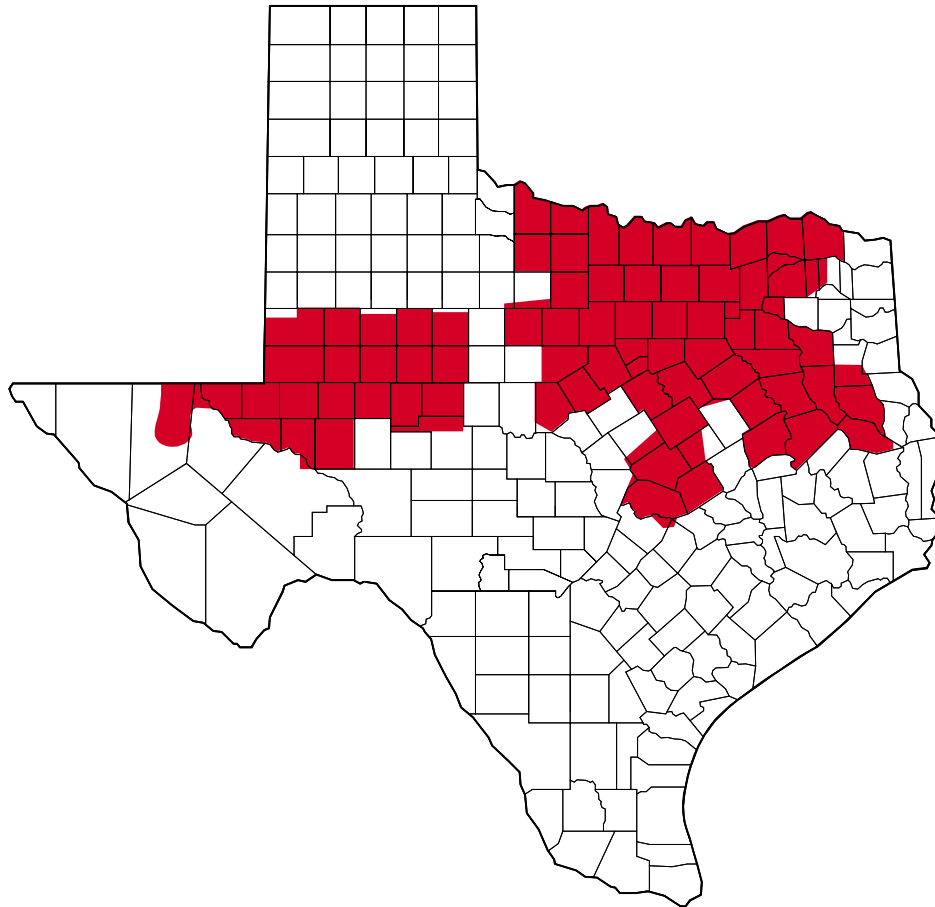
Take A Load Off, TexasSM is provided by Oncor Electric Delivery LLC as part of the company's commitment to reduce energy consumption and demand. Frontier Associates implements the Take A Load Off, Texas Solar PV Program as an independent contractor.



- Oncor
- Take A Load Off, Texas Initiative
 - Energy Efficiency Commitment Programs
 - Solar PV Program
- Why Solar?
- How to Participate
- Installer Eligibility Requirements
- Installation Requirements
- Update
- Questions



Oncor



- Texas's largest regulated electric delivery business and the sixth largest in the U.S.
- Supplies electricity to ≈ 7.5 million consumers in a service area of more than 400 communities.
- Delivers electricity to one of the nation's highest-growth regions for electricity demand, helping fuel the economy of north Texas and its forecasted long-term annual growth rate of 2%.
- A planned five-year energy efficiency investment of \$300 million, will fund aggressive new efforts to reduce electricity use.

Take A Load Off, Texas



Energy Efficiency Commitment Programs



- Targeted Industrial
- Non-Residential Audit
- Solar PV
- LED Lighting
- City Improvement Grants
- Independent School District Grants
- Home Performance with Energy Star
- Solar Water Heating
- Student Education
- Worship Facility Grants
- Not-for-Profit Facility Grants
- Residential Audits



Solar PV Program

- Oncor's Solar PV Program will give Texans an opportunity to gain experience with renewable energy and will help nurture an emerging industry
 - Incentives could offset approximately one fourth to one third of the cost of average installation
 - Average installation costs are \$6 to \$10 per watt, but **WILL VARY** from installation to installation



Solar PV Program

- Eligible incentives to homeowners, businesses, non-profits and governments to install solar photovoltaic panels
 - \$2.46 per dc watt; up to a maximum of 10 kW on residential properties and 100 kW for businesses and government
 - Program targets about 1,400 installations over four years
 - Total funding \$16 million from Oncor



Why Solar?

- Solar Systems Produce Clean Renewable Energy and Help Save Electricity
 - Solar power helps reduce emissions by running homes, businesses and government buildings on clean energy where possible
 - Average output is 1150-1400 kilowatt hours annually per KW installed
 - A 1 KW solar panel offsets about one month of electricity per year in an average home
- Solar power saves energy by reducing the amount of electricity consumers need to take from the grid.
- Consumers support the development of solar power and are looking for affordable ways to help develop the nation's solar power industry.



Why Solar?

- Supporting solar power protects the environment, encourages energy independence and creates jobs
 - Good for business and for the economy
 - Will help offset future electricity demand.
 - Oncor's goal is to reduce future demand growth for electricity by 20 percent in 2009 through energy efficiency programs
 - Oncor's energy efficiency programs have saved enough energy to run 75,500 homes for one year over the last five years.



Customer Eligibility Requirements

- Anyone who takes power from Oncor lines is eligible for Oncor energy efficiency programs
 - ESI-ID # on your electric bill



How to Participate

- Step 1: Work with a SP to determine eligibility and define technical specs of system
- Step 2: SP completes incentive application and submits technical details of system
 - If accepted, given letter and incentives reserved
- Step 3: SP constructs system and submits final application
 - Some projects will be inspected before disbursing funds



Installer Eligibility Requirements

- General Liability Insurance AND
 - Either NABCEP-certified PV Installer or;
 - TX Electrical Contractor and will complete 40 hours of PV installation training by June 30, 2009 or;
 - 3 grid-tied PV installations in Texas or;
 - 40 hours of PV installation training



Installation Requirements

- Solar panels, inverters and other major equipment must be new, UL-listed, and meet the latest safety standards
- Each project must be pre-approved by the Program Manager and must meet Oncor's requirements for interconnection of distributed generation
- Every installation must be locally permitted and must pass inspection by the local jurisdiction having authority
- Systems are required to meet an 80% of optimal design threshold in order to qualify for an incentive
- Systems must be designed to offset customer consumption.



Program to Date

- Opened Service Providers: December 19, 2008
- Opened Project Applications: February 2, 2009
- Prospective customers should work through registered Service Providers to participate
- Projects will be addressed on a first-come, first-serve basis

For more information, please visit:
<http://www.takealloadofftexas.com>



Questions?

- **Oncor's TALOT Web site:** <http://www.takealoadoftexas.com>
- **Solar PV Program Web site:** <http://www.txreincentives.com/opv/>

Key Contacts:

Steve Wiese

Clean Energy Associates

(512) 323-6629

steve.wiese@cleanenergyassociates.com

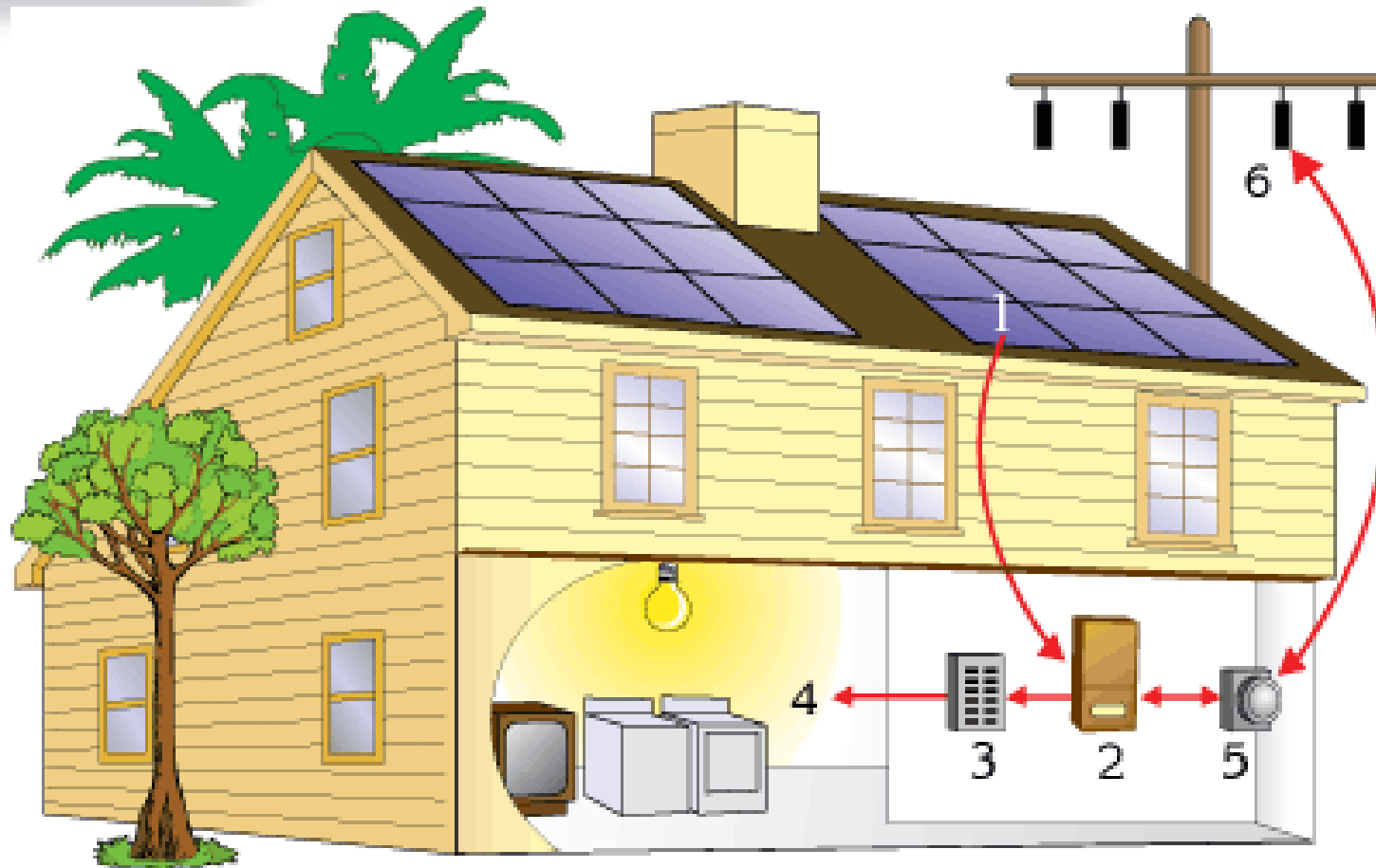
Anne Castello

Frontier Associates

(512) 372-8778 x127

acastello@frontierassoc.com

How Solar Works



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1. solar panels 2. inverter 3. breaker box 4. home power and appliances 5. meter 6. utility power grid.



How Solar Works





How Solar Works



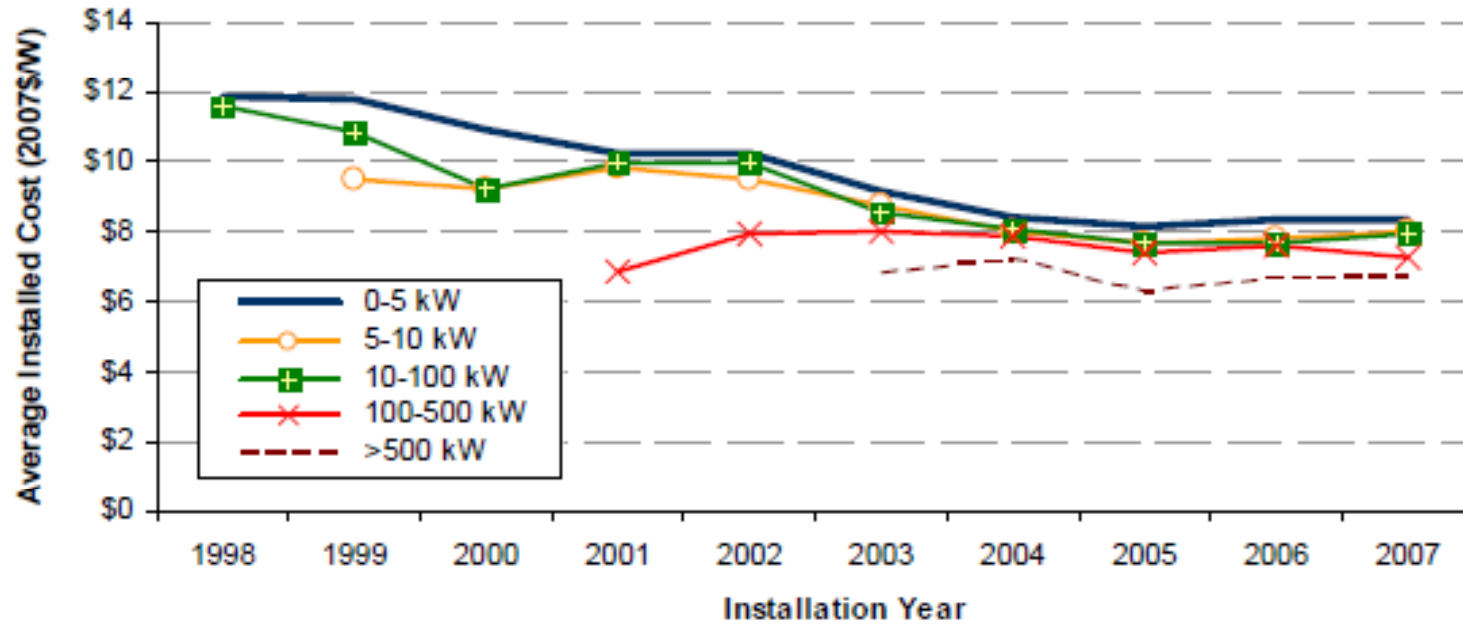


About Net Metering

- **Oncor's Role**
 - Transmission and Distribution Company
 - Offer Meter to Customers to measure In-Flow and Out-Flow of generation
- **Retail Electric Provider Role**
 - Responsible for billing you for the energy you receive
 - Not required to credit or buy back Out-Flow generation



Average Cost of Solar



Note: Averages shown only if more than five observations were available for a given size category in a given year.

Figure 6. Installed Cost Trends over Time, by PV System Size

<http://leedtbl.gov/ea/ems/re-pubs.html>
Lawrence Berkley National Laboratory
The Installed Cost of Photovoltaics, February 2009