

## Commercial Solar Electric (PV) Systems

- Tennessee has a grant for businesses and non-profits, the Solar Installation Grant through the TN Solar Institute. The grant amount is structured by system size: For 1-30 kW, the grant is \$2 per watt; for 31-60 kW, the grant is \$1.50 per watt; and for 61-200 kW, the grant is \$1 per watt. For example, a 75 kW system would be eligible for a \$120,000 grant. For more detailed info, please call us or visit <http://solar.tennessee.edu/>.
- There is an uncapped 30% federal tax credit. Most companies count the grant money as income so that the 30% tax credit can apply to the entire cost and not just the amount beyond the grant. The US Treasury is now accepting applications for direct payments in lieu of the tax credit. For more info, click [here](#).
- Five year accelerated depreciation (MACRS) is available on solar electric property. For more information, click [here](#).
- TVA Generation Partners - Through TVA, local utilities pay customers the GSA1 rate plus 12 cents per kWh for all solar electric production. In Middle TN, we expect production of approximately 1200 kWh a year for each kW of installed capacity. For example, a 25 kW system generates about 30,000 kWh/year - therefore, the utility pays the customer \$6,300/year at a GSA1 rate of 9 cents.
- The USDA offers a 25% grant for agricultural producers and rural small businesses that install solar PV. Click [here](#) for info on USDA REAP eligibility.

The public relations can be valuable for some companies, depending on location, circumstances and the desire to use and promote clean, renewable energy and be an environmentally responsible company.

After exchanging general information, if the client chooses to proceed with system design, we conduct a site assessment. We inspect and measure the roof, determine potential locations of the array(s), evaluate shading conditions at all times throughout the year, decide on appropriate supports and mounting, conduct a structural review, and determine how the PV system will be tied to the electrical system and grid. This information is used in designing and pricing a turn-key system that will perform optimally for your site conditions.

Approximately 100 square feet of roof space is needed per kW DC installed. Commercial systems range generally from 5kW to 250kW.

Solar panels come with 25-year limited warranties, and there is a widening view in the industry that they may last substantially longer than that, as some terrestrial photovoltaic systems have been producing energy now for 35 years. There are no moving parts and the cells are encapsulated and framed in aluminum.

How much will electricity cost in 10 years or 20 years? With solar electricity you lock in your fuel costs with today's prices and benefit from inflation and market volatility as well as future charges for carbon or other emissions. .

Generally, people are motivated to install these systems by a desire to produce clean energy locally, an uncertainty over future energy prices, the independence from market manipulation, and/or for environmental concerns. Electricity produced by solar energy has no fuel cost, so the future price of electricity is known, unlike conventional sources, such as coal, which are market-based commodities.

Please call or email for clarification or to discuss the specifics of your project.

