



**Communities working together
to educate each other about solar
and capture discounted installation
costs by buying in bulk.**

www.SolarizeTexas.org

Solar Basics

- Photovoltaic (PV) solar panels convert sunlight directly into electricity.
- Solar panels can be installed on your roof or ground mounted on your property.
- Solar panels are warranted to achieve minimum energy output for 25 years, but panels can last much longer (30 or 40 years).
- Solar panels are tested to withstand hail of at least 1 inch in diameter.
- Energy production and use is measured in kilowatt hours (kWh).
- The amount of energy a system can produce at one time is measured in kilowatts (kW).
- Solar panels produce direct current, which must then be converted to alternating current to use in your home or business, with either a string inverter or micro inverters.

What is Solarize Texas?

- Solarize is a term used for solar **group purchasing** programs.
 - Customers purchase individual installations for their property, but at a discounted price awarded to the group by an installer.
 - Generally for residential installations, but could be made to work for commercial
- Solarize programs have a strong **educational** component.
- Public Citizen and the Texas Solar Energy Society, both nonprofit organizations, are helping organize **community driven** solarize programs. We'll provide information and help with educational events, but community participation will be the key to success.

What are the benefits of Solarize?

- **Save Money**
 - Solar installers will discount the fees for their services because the closing rate for contracts is much higher than normal.
 - Usually, the larger the combined installation, the greater the discount
- **Education**
 - Solarize programs help educate the community about the benefits of solar, which can help increase the rate of solar adoption.
 - Solarize participants help each other ask smart questions and will be better educated consumers.
- **Grow the Local Economy**
 - Growing demand for local solar will encourage solar businesses to locate in the area.
 - Indirect jobs and sales tax revenues add to the local economic impact.

Comparing Energy Costs

- **The cost of solar PV panels has declined very rapidly over the past few years (more than 60% in the past 2 years).**
 - Cost of installed solar systems has declined rapidly as well, although not as much as the cost of panels
 - Solar prices that are even just a few months old are no longer accurate.
- **Utility energy prices will almost certainly go up in the coming years.**
 - The Texas Public Utility Commission (PUC) increased the energy price cap from \$4,500 per megawatt hour to \$9,000 per megawatt hour (that's \$9 per kilowatt hour).
 - The PUC is also looking to create a capacity market, which would pay power generators just for existing—currently, they only get paid for the energy they produce. This will result in additional cost to the end consumer.
 - EPA is developing new regulations for carbon emissions from existing coal plants.
- **Fixed prices vs. variable prices:**
 - Natural gas prices are very low now, but have historically fluctuated greatly. When natural gas prices go up, so does the cost of buying electricity from the grid.
 - Solar installations provide energy at a fixed price for 25 years or more. Unlike the cost of utility bills, this can be calculated up front and planned for.

Financial Considerations

- **Federal Solar Investment Tax Credit:** up to 30% of cost with no upper limit
 - **Texas Property Tax Incentive:** renewable energy 100% tax exempt
 - **Net metering** with payment for excess energy put out onto the electric grid
 - Offset purchasing energy: retail costs
 - Credit for excess on monthly basis: usually avoided cost of wholesale energy
 - With net metering, systems should be sized to approximate average monthly usage.
 - **Financing:**
 - Some solar installers offer 0% financing for one year to give customers time to benefit from their tax credit before paying for their system.
 - Longer term financing can be obtained from banks and credit unions.
 - With the right size solar system to meet your needs and competitive installation and financing rates, your total monthly expense can be neutral even during the payback period.
 - Homes with solar installations sell for more in solar savvy markets.
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The Solarize Process

- Establish program leaders and points of contact
- Recruit volunteers—That could be you!
- Develop partnerships (utilities, businesses, etc.)
- Educational and outreach events—Solarize Gillespie County has already had 2 educational meetings and we will have more over the coming months.
- Enroll potential participants—Not all participants will chose to buy a solar installation right away, but all can still learn from the process and help make the program a success.
- Establish contracting committee
 - Issue requests for proposals from solar installers
 - Select contractor
- Potential customers get site assessments
- Individuals sign contracts with the solar installer selected by the contracting committee.
- Solar systems installed
- Start generating you own energy!

Get Involved!

- Email us if:
 - You are interested in **getting a solar installation** at your home and want join with others for a group purchase.
 - You would like to **volunteer** to help organize a local solarize group.
 - You want to **learn** more about solar.

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