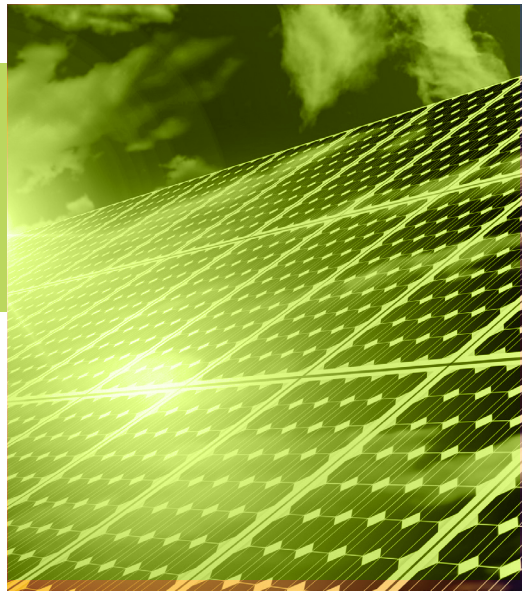
Customer-Owned Solar Checklist



Investing in solar is a big decision as the investment is large for a long-term project. Whether you are motivated to put solar on your home or business for environmental, economic, or other reasons, your local public power utility is here to provide information to assist you in the process. Following is a checklist of facts and best practices to assist you in making informed decisions:

Initial Considerations

- Determine if your home or business is adequately sealed and insulated and that you have energy efficient space conditioning and appliances. Doing this first may reduce the size and cost of the solar array you need to install. Suppose your property has no wall insulation and/or minimal attic insulation, or you plan to replace air conditioning, a heat pump, or an electric water heater. In that case, you may qualify for EnergyWise program incentives and Federal Income Tax Credits.

- Make sure your home or business is ideally suited for solar. To maximize energy production solar systems should be tilted unshaded, oriented to the south and tilted 20 to 40 degrees. East or west-facing system will reduce energy production by approximately 17% and 15%, respectively. Northerly will reduce energy production by approximately 35%.

- Make sure your roof is in good condition (or location for a ground mount system) with ample southerly, westerly and/or easterly space to support solar panels and racking system.

- For the safety of utility crews, PV solar systems automatically shut down and are not available for backup power during a utility outage unless a specialized inverter or a battery storage system is included in the project that prevents back feeding to the utility distribution system.

- Review your annual electric energy history to see how much you would like to reduce through onsite generation. Contact your local public power utility and request a copy of your home or business' electric billing history report.

- Learn how net-metering works by contacting your local public power utility.

Financial Consideration

- Acquire multiple quotes from different solar contractors. A list of Solar Trade Ally contractors is available on your public power utility's website. These contractors have committed to the Solar Trade Ally requirements.

Financial considerations continued on the back...

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Financial Considerations Continued

- Financial savings is primarily achieved by reducing the energy you will need to purchase from your local public power utility. The value of that energy is determined by the energy rate component of your bill.

- Residential Summer energy rate with taxes, including 5.5% state sales tax is $0.1287/kWh.

- Residential Winter energy rate with taxes, including 5.5% state sales tax is $0.1028/kWh for the first 750 kWh, then $0.08897/kWh for all kWh over 750 kWh.

- Customer charges will continue to be assessed no matter how much energy your system produces. The fixed customer charges recover costs to build and maintain infrastructure and provide customer account support to provide highly reliable service.

- When reviewing solar proposals, make sure the correct energy rate, customer facility charge, and a reasonable annual rate adjustment factor are being used.

- Projected financial savings should be calculated based on the current energy rate.

- According to the Energy Information Administration's Annual Energy Outlook, nominal (not adjusted for inflation) retail electric rates are projected to increase up to 1.5% annually over the next 30 years for the west north-central region. Understand what annual rate escalation amount your contractor is using in their proposal.

- Familiarize yourself with the Federal Investment Tax Credit and low-interest financing offered by the Nebraska Department of Environment and Energy's Dollar and Savings Loan Program for residential and commercial PV solar projects. Commercial PV solar projects can also qualify for additional Federal tax credits through accelerated depreciation Modified Accelerated Cost-Recovery System, and the USDA Rural Development Rural Energy for America Program.

- Check out the WattPlan Solar calculator at **publicpowered.wattplan.com/pv** to model energy production and associated savings with different size solar systems. Be sure to use the current residential or commercial energy rate to accurately reflect savings from the solar system's annual production.

- According to the WattPlan solar calculator, one kilowatt DC of optimally oriented and tilted solar (southerly facing, unshaded) should produce approximately 1,400 kWh annually. (Approximately 150 kWh/month during the summer months — June - September, and 100 kWh/month during the winter months — October – May).

- According to the National Renewable Energy Lab, an owner should budget at least $20/kW annually for ongoing maintenance, inverter replacement, insurance, and other expenses. Ensure this is included in your Solar Contractor's proposal.

Other Considerations

- Only sign a contract if you understand the terms and only after your local public power utility has approved the project's Interconnection Application.

Next Steps

- **Contact your local public power utility.**
- **Check the Solar Trade Ally contractor list on your local public power utility's website.**
- **Ask about current EnergyWise incentives and rebates to help you make energy-efficient upgrades to your home or business.**

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