

# Is Alternative Energy Generation right for you?



So you're interested in renewable energy for your home? That's great! We all need to be more responsible about energy, not only to save money, but for the greater good of the environment.

## Use Energy Wisely

The first thing you need to look at is how you currently use energy. Are you using energy inefficiently? What can you do to cut back or make your home more energy efficient? Adams Electric highly recommends conquering these hurdles first, before considering installing any type of renewable energy. It's not wise to spend thousands of dollars to generate electricity only to waste it due to inefficient windows, doors, refrigerators, or heating and air conditioning. Adams Electric has brochures and information on how to make your home more energy efficient at [www.adamsec.coop](http://www.adamsec.coop)

## Ask Questions

Let's say you have achieved a high level of energy efficiency in your home and you are ready to look at a renewable energy system. What's next? You might ask yourself the following questions before you talk to a contractor.

- Do you want a system that will provide all your power needs or do you want supplemental energy generation to reduce the amount of power you buy from the grid?
- How long do you plan to live in this house?
- Are you looking for a wind turbine or solar panel system?
- How much are you willing to spend?

For most people, residential renewable energy means a supplemental photovoltaic solar energy generation system. The main component of a photovoltaic system is the solar collector panels which change the sunlight into direct current (DC). The DC then flows through a converter which changes the DC into alternating current (AC). AC is needed to run home appliances or sell excess energy back to the power grid. The converter must comply with UL Standard 1741.

Wind generation is another option, but due to poor and unreliable wind conditions in this area, Adams Electric recommends measuring wind speed at the proposed location and elevation for one year before considering wind generation.

## Let's Talk Reputation

You're now ready to talk with reputable contractors. Find out how much it will cost, and if there are any state or federal tax credits that will help reduce your out-of-pocket cost. Ask how much energy the system will generate. Remember that the output of a renewable energy system is highly dependent on the weather and therefore will not generate at its full potential all the time. Have your contractor run numbers using local weather data. Find out how much it will cost to generate a kilowatt hour (kwh) of energy. Compare that with your current cost per kwh from Adams Electric. Will the system pay for itself in a few years? Ask your contractor about system upkeep and warranty issues.

Check out the manufacturer's and contractor's references. Ask about and visit other local installations and talk to the owners. See what lessons they learned and what they have to say

about system performance. Consider a lawyer for contract review. Be sure you pay in stages as construction progresses, and do not sign anything or pay any money until you are completely comfortable with the contractor.

## Contact Adams Electric

While you're determining which contractor to use, and before any work begins, you are required to contact Adams Electric. There are contracts to sign, forms to fill out, and safety guidelines to review. Adams Electric's safety guidelines must be adhered to in order to energize your system. Safety is of primary importance, both for you and Adams Electric's line crew. An electric disconnect collar must be installed outside, near your meter, and be easily accessible. Additionally, Adams Electric requires that your system never powers back onto co-op lines when there is a power outage. Adams Electric will test this feature and also install a new meter, capable of net metering. The meter will measure current flow in both directions and will allow for accurate metering of the power you buy and sell.

We will work with you and guide you through the application process, including: an application for operation of customer-owned generation, interconnection and power purchase agreement, and insurance requirements. Adams Electric requires that you carry liability insurance or proof of certification that you are self-insured.

Adams Electric does not offer financial assistance; but there are programs offered by state and federal agencies. Refer to the Internet addresses printed on the reverse side of this brochure to help get you started.



For more information, check out these reliable online Residential Alternative Energy resources:

**Federal**

[www.energystar.gov/taxcredits](http://www.energystar.gov/taxcredits)

**State**

[www.keystonehelp.com/](http://www.keystonehelp.com/)

**Solar**

[www.eere.energy.gov/solar/](http://www.eere.energy.gov/solar/)

(Click on: Technologies, Photovoltaics, For Consumers)

**Qualified Solar Installers**

[www.depweb.state.pa.us/energindependent](http://www.depweb.state.pa.us/energindependent)

(Click on: Funding, PA Sunshine Solar Program, List of Qualified Installers)

**Wind**

[www.awea.org/smallwind/](http://www.awea.org/smallwind/)

**Renewable Energy Certificates**

<http://gats.pjm-eis.com>

(Click on: Solar Weighted Average Price, Specify State and Dates)

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**Adams Electric Cooperative, Inc.**

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**Make the right Renewable Decision**

Select a residential alternative energy generation system

