Harnessing the power of renewables

Ten installation considerations

IMPLEMENT ENERGY EFFICIENCY

Completing a thorough energy efficiency audit is an important first step when considering distributed generation (DG).

By implementing energy efficiency measures before installing a distributed generation system you save money by reducing your overall energy consumption, and reduce the size of the distributed generation system you'll need to meet your energy needs.

Many energy efficiency projects have a quicker payback than certain DG installations.

DO YOUR HOMEWORK BEFORE YOU WRITE THE CHECK

If you are considering investing in a distributed generation system, talk to your electric cooperative before you begin.

Also talk to credible, reputable and skilled professionals who are knowledgeable in distributed generation systems. They can direct you to additional resources that will help you understand the economics of a distributed generation system, including the type of renewable energy technology best for your property; and financing, potential incentives, and other requirements, such as insurance required.

In addition to professionals, ask for the advice of others who have installed a DG system to learn what they like about their system or what they wished they would have done differently.

Your cooperative representative may know about systems installed in your area.

KNOW YOUR CO-OP'S RATE STRUCTURE AND INTERCONNECTION AND PURCHASED POWER POLICIES

Your local not-for-profit energy provider can help you understand the rate structure your services fall under and the types of charges likely to be incurred, as well as how you may be compensated for the excess energy you do not use that is generated by your distributed generation system.

ANALYZE YOUR ELECTRIC LOAD AND UNDERSTAND THE DG SYSTEM'S CAPABILITIES

A thorough examination of your electricity needs will help you determine the size and type of the system necessary.

Record how your energy use fluctuates throughout the day, both seasonally and over the year. Research when various distributed generation systems produce peak energy and compare that information to your current and expected energy use.

You'll most likely still need power from a centralized energy grid. Distributed generation is intended for supplemental power to meet your own energy needs.

DETERMINE THE COSTS UPFRONT

Most electric co-ops do not install or maintain member-owned distributed generation systems.

You will be responsible for the initial costs to install the system and ongoing maintenance and repair costs. Doing your homework before investing in a system will help you understand costs involved, such as installation and interconnection costs, insurance, taxes, as well as incentives and tax credits. Your research will help determine if a distributed generation system is economical for your energy needs.

RESEARCH POTENTIAL INCENTIVES AND TAX CREDITS

Financial incentives, such as the Investment Tax Credit (ITC), may be available to offset your investment costs. We encourage you to talk with a tax advisor and your perspective vendors to learn more.

Incentives are often driven by laws or policies, have expiration dates, and can vary by type and size of system, whether it is for residential or commercial/industrial use, and other factors.

The Database of State Incentives for Renewables & Efficiency (www.dsireusa.org) is one source of information on incentives and policies that support renewables and energy efficiency in the U.S.

For more information

Contact Southeastern IN REMC

Website: www.seiremc.com

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Southeastern Indiana REMC

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UNDERSTAND RESPONSIBILITIES

Installing a distributed generation system requires that certain responsibilities are met by all parties involved with the process.

For example, the owner of the distributed energy system is responsible for obtaining the proper equipment and ensuring that all requirements of the electric co-op's interconnection agreement are met, including paying any necessary costs.

Local and/or state officials are responsible for conducting safety inspections, but the owner of the distributed generation system must notify the local and state officials in order to set this in motion.

Once all interconnection requirements are met and the safety and integrity of the system meet all necessary criteria, then the cooperative is responsible for the final stages of interconnection.

Ongoing maintenance and system repairs are the responsibility of the generation system owner.

KNOW SAFETY REQUIREMENTS

Your electric cooperative provides electricity when your distributed generation system is not producing sufficient energy to meet your needs, which keeps member-owners connected to the grid.

Because of this connection, distributed generation owners must work with their co-op to meet their requirements to keep the grid reliable and safe.

All interconnection and safety requirements must be met prior to operating a distributed generation system in parallel with your co-op's electric distribution system.

This is necessary to protect other member-owners, cooperative employees, public safety personnel, and the general public from risks that could result from the improper installation of distributed generation.

CHOOSE A REPUTABLE VENDOR

It's important to find a reputable installer who will size the system properly and who will give you realistic expectations.

Ask for references, check online consumer reviews, and ask for third-party input from credible resources.

Refer to the North American Board of Certified Energy Practitioners (NABCEP) at NABCEP.org to locate certified installers and practitioners in your area.

KEEP THOROUGH RECORDS

Retain all data and research that you gather as well as information that is provided by your electric cooperative, vendors and other credible third-party sources.

If you proceed with a distributed generation system, you will want to track and compare actual system performance with expected performance based on vendor information.