Do Your Homework While Investing in Renewable Energy

Advances in technology make renewable energy equipment, particularly for solar and wind, more practical for on-site use than it was a decade ago. With advances in technology and opportunity, the industry is no longer the exclusive home to a handful of dedicated service providers all adhering to a mission helping consumers and communities reach sustainability and energy independence. It's time to do more homework.

Consumers need to do research, establish relationships and start asking critical questions to ensure their investment is an effective tool to help them control energy costs. Some service providers say that they will "handle all the paperwork," only to leave a consumer with considerable financial, regulatory and pressing legal issues. Topics for investigation include:

Investing in an energy audit. To ensure that consumers purchase the right system that maximizes their potential to control energy costs, many need to know exactly how their farm, home and/or business utilizes energy. A good energy audit is needed. Start with a load profile showing the times of the day you use energy; analyze billing data for similar month by month and annual trends. Hire a qualified energy auditor that can examine your home and facility and create a number of energy saving steps, starting from least expensive to those requiring additional investment. A good energy auditor can determine also how you use energy in relation to similar homes and facilities in your community and region.

Many community action agencies, utilities and residential energy services networks offer assistance. Larger businesses could invest in American Society of Heating, Refrigeration & Air Conditioning Engineers (ASHRAE) Benchmark Level 1-3 Audit Programs.

Follow your auditor's suggestions. Get your home or facility down to the basic level of kilowatts needed; then start looking for technologies. No one wants to pay additional dollars for overcapacity.

Check local zoning regulations and community development plans. While many neighborhoods welcome renewable energy development, aesthetics and other potential safety and environmental concerns need to be addressed with strategic placement of technology on your property.

For instance, wind turbine height might mean certain setbacks need to be followed to ensure that in case of an adverse weather event, the falling turbine tower stays on your property. Moreover, setting a solar array in the back corner of your lot because you don't want to see it might draw the ire of your neighbor who has to look at it from his front yard.

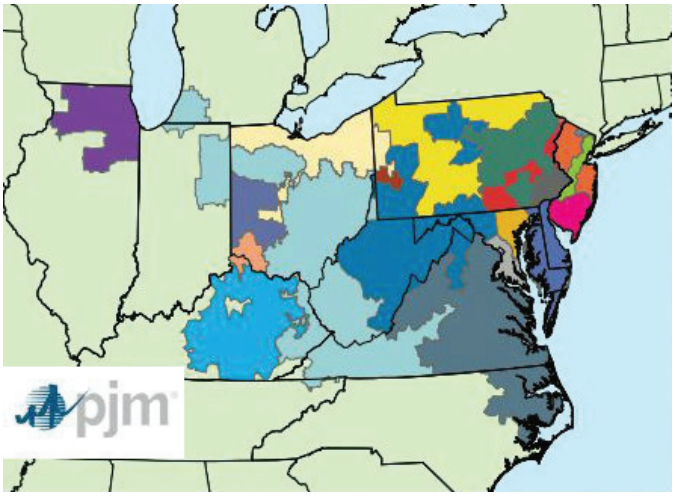
Work with your respective zoning inspector and get involved on planning committees when your community creates policies to address these issues.

Engage your local utility on interconnection standards. The Ohio Administrative Code, Public Utilities Commission of Ohio (PUCO), investor-owned, cooperative and municipal utilities provide a foundation for interconnection standards. Rules and policies ensure that you can safely and effectively interconnect an on-site generation system utilizing an interconnection and net metering arrangement.

In many cases, your system needs to be designed at a minimum of 90 percent of the generation you create in a year is used on site. Excess generation could be delivered into the local distribution circuit, and the on-site generator utilizes credit and annual true up provisions as part of their utility bill. Under no circumstances is the distribution system a "battery". You can't load up the circuit one month; then call back free power later in the year. In short, it is your responsibility to talk with you utility representative about your project.

Use references to identify renewable energy service providers. Discovering if an energy service provider is certified by the North American Board of Certified Energy Practitioners (NABCEP) and adheres to their management and customer service standards is a start. Request a list of five customers and systems that the provider has installed and continues to service in your area.

Make the time to contact the references and visit their installations. As a matter of fact, ask the references who they talked with before purchasing technology from the service provider.



Understand Renewable Energy Credits; learn to work with aggregators and brokerage firms. There are state, regional and federal programs that support development of alternative generation, environmental quality and renewable energy technology through Renewable Energy Credit (REC) markets.

No matter how small the system, it generates power and it generates credits that could be sold to service providers, utilities, government entities and other programs as part of sustainability and environmental assurance efforts. Depending on the exchange, these credits are worth several hundred dollars per year for a homeowner, and tens of thousands per year for farm, business and other larger consumers. If you own the system; you own the REC credits.

Dale Arnold presentation to GEO Northeast Ohio Clean Energy Network Meeting, May 18, 2015 at Cuyahoga County Fairgrounds Sustainable Energy Center - Photo by Anita Cook

REC credit income could be used to defray energy costs, invest in more on-site energy efficiency technology, or could be combined in aggregate with other consumers to support community projects and philanthropy. Consumers in Ohio should learn about the PJM Generation Attribute Tracking System (PJM – GATS) to discover more about RECs, certified brokers and aggregators. For more information on the PJM GATS registry and exchange, visit their website at: http://www.pjm-eis.com/.

If you are being offered an equipment purchase contract and it contains wording that you "surrender any RECs generated by the system," or you are being asked to sign additional paperwork to receive a special rebate that looks more like a commodity purchase agreement, it's time to find another service provider.

Seek legal counsel to address complex contract terms. Some service providers promote grants, special loans and rebates to reduce purchase costs. All of these programs are governed by contracts that obligate the technology owner for system performance or generation delivery. In some cases, something as simple as a system breakdown due to storm damage or replacing the current system several years later with newer, cost-saving technology could generate substantial financial penalties.

Employing good legal counsel to review all contracts is a great strategy. Every dollar invested now could save several thousand later.

Farm, small business and residential energy consumers looking to invest in on-site renewable energy technology are starting to enjoy some great opportunities to control energy costs. For greater advances, comes greater responsibility. Those doing research and using the same frame of mind as they would when purchasing a major piece of farm equipment, expanding business operations or refinancing a home will do well in the future.

- Dale Arnold, is Director, Energy, Utility & Local Government Policy for Ohio Farm Bureau Federation, Columbus, Ohio, Secretary, GEO Board of Directors and GEO Pioneer of the Year 2012