SBDC PENNSYLVANIA

ask emap Environmental Management Assistance Program

Is Solar a Good Option for your Small Business?

As energy prices continue to climb, many businesses are considering installing solar energy (photovoltaic or solar thermal) as a way to "get off the grid" and reduce their energy costs. New grants and other federal and state tax incentives are making solar a more attractive option, but solar projects still have a fairly long payback and don't generally offset all your energy needs so they should be considered very carefully. We recommend starting with a **self-assessment** of your business to help determine if you are a good candidate for a solar project.

Small Business Solar Assessment:

Step 1: Determine your current utility usage. On your electric or gas bill, find the number of kilowatts you're using each month and add them up for a yearly usage number. That's what you will try to offset with solar, though you'll see that it's hard to offset all of your energy use.

Step 2: Have an **energy assessment** performed on your building to determine where you can make other improvements to help increase energy efficiency and decrease electricity consumption. Often there are simple and inexpensive ways to "tighten your ship", which can make solar a much more worthwhile investment.

Step 3: Assess your property for physical attributes that make it a good candidate for maximizing the solar panel technology:

1. **Do you have space on your roof or property?**
   General rule: You will need 100 square feet per installed kilowatt (KW) - so if you're trying to offset 3-5 KW, you'll need 300-500 square feet of available roof space

2. **Is your roof south-facing (which is best for ensuring maximum efficiency of solar panels)?**
   Tip: Use a free satellite program like Google Earth (www.googlearth.com) to determine your building's orientation

3. **Are there obstructions that shade your roof or property?**
   Tip: Trees, chimneys, vent pipes, HVAC units, and neighboring buildings – anything that blocks sun even partially or during portions of the day can affect how viable solar panels will be

4. **Is your roof exposed to the sun during peak hours (between 10am and 2pm)?**

Step 4: Understand the costs - solar photovoltaic projects cost $10,000 per installed kilowatt, so a 3 -5 KW project installation costs approximately $30,000-50,000. Tax credits and grants can help offset the capital costs. Solar thermal projects can be less expensive depending on the amount of hot water you need to produce for your business.

Step 5: Once you've decided you could be a good candidate for a solar project, you should select a qualified solar contractor to have an evaluation done and an estimate provided for your site.