

So You Think You Want to Go Solar.....

STEP 1: Self Assessment of Why Solar?

The first step to making a solar commitment or business is to determine why you want to do so in the first place. What is occurring that makes you think Solar is the right solution? Some examples:

- Have you done an analysis regarding your Kilo Watt usage and the energy efficiency of your home or business?
- Have you checked for proper installation and weatherization of doors and windows? Are the windows double or single-pane windows? Putting in new double pane windows can have a tremendous impact with lower energy usage.
- What about your Air Conditioners and heating? How old are your compressors and AC system? Newer systems are much more efficient and can cut 50% or more to cool your home or business.

If you are satisfied with your answers above, are confident that your current home or business environment is energy sound, then we are ready to move on to discussing Solar. However, if you are not sure about the above, then it is the responsibility of the Solar Company you select to check out these items.

- I want to lower my carbon footprint and do the right thing for our planet. This is very commendable, and a very good reason to go solar.

Adding renewable energy is a wise move, as I absolutely guarantee that electric bills will skyrocket in the next few years. Solar (or other renewable energies) are a tremendous hedge against these pending increased costs. A solar plant on your roof is your Energy Producing Facility that will for forty years or more with little or no maintenance. No cartel can control the sun and the electric utilities will be forced to “grandfather” you in their upcoming monopolistic programs.

STEP 2: Assessment of Energy Requirements & Site Analysis

The second step is to meet with you to review your current usage and determine your goals regarding a solar system. How much do you want to lower your current energy expenses – do you want to lower your electric bill by 25%, 50% or more? Many customers believe they want to “go off the Grid completely” which we do not recommend. Our suggestion is to stop at about 75%-80% (unless you live in Alaska) reduction in electric company power consumption. Our logic behind this statement is driven by the fact that reducing your power bill by 75% may cost “X” but reducing your power bill by 95% may cost you 3 times “X”. The reduction from 75% to 95% is very expensive and not just from a materials perspective.

The second step which is completed at your home or business is to check your insulation, current cooling system and general condition of your house and the size of your roof (square feet of roof space will give us an idea of the size system that can be installed). We also take compass readings to determine how much sun your system will receive and whether you have any obstacles that might block the Sun such as trees or other buildings.

STEP 3: Preliminary Design, Savings Estimate, and Regulatory Review

Renewable energy and fiscal responsibility are not mutually exclusive! Quite the contrary is true. It is at this time that the customer should determine what Federal, State, local and Utility Company rebates exist that will reduce the cost of the solar installation and will provide accurate analysis of savings from *utility cost savings, advanced depreciation* and *all available tax credits*.

Solar PV continues to improve in efficiency and cost as a large number of firms are competing to build the most cost effective panels. Utilizing a supplier’s agnostic approach, a solar company can select the best solution for each customer by being tied into a wide source of solar products. This has been accomplished by aligning with industry distribution leaders.

Solar thermal systems utilize flat plate or evacuated tube collectors to harvest the sun’s energy. This energy is then transferred to the usable water supply by a heat exchanger. Pumps and computerized controllers are used to control the water circulation in both the solar and potable loops.

Solar thermal components can be sourced from many reputable manufacturers. Once again, picking the best solution and supplier are the responsibility of the Solar Company. These components will be selected for their price-to-performance ratio, internet reviews and warranty coverage.

Starting with a thorough qualification process to ensure a proper fit with the customer, all steps will be taken with the customer outcome in mind. The latest evaluation tools will be utilized to quantifiably demonstrate the system performance and economic benefit of the recommended solar system. Tools currently being used include Solar Pathfinder™, RETSCREEN™, PV Watts from the National Renewable Energy Lab and the Department of Energy's Solar Advisor.

Using in-house templates, the solar provider will streamline and manage the rebate and permitting process for the customer. For PV systems, this includes providing information and interfacing with your power company, the Federal Energy Regulatory Commission (FERC), the State Utilities Commission, and the utility provider such as GA Power.

While the performance of the system is key, it is also important to provide an aesthetically pleasing design and clean install, always working to enhance the appearance of the system. This is done by utilizing visioning software and following the natural contours of the building or landscape.

The Solar company will become your trusted advisor, providing specialized consulting for needs assessment, independent solution and product selection; as well as financial analysis with ROI, incentives, and depreciation information. The Solar Company management team will provide turn-key installation with a single point of contact (your Project Manager) for you during your solar project installation.

The system design provided to you will not only include technical specifications, but also include full regulatory review in both Executive Summary and Detail Specification formats and Breakeven Point?

STEP 4: Presentation, Understanding, and Agreement of Proposed Solution A formal presentation to you and your team will be made in person, ensuring all expectations are understood and addressed. We know you want to understand and be comfortable with any solar solution. Our solutions are economically defensible and we provide you with the facts to support your decision.

Also, if you are interested, we will make recommendations for maximizing the marketing benefits of your decision to go green!

STEP 5: Final Design

The final design is the last step before actual implementation of your solar system. This is an implementation planning meeting that includes review of regulatory certificates, confirmation of currently available energy rates, and an implementation timeline. We can provide stamped engineered drawings if required or requested.

STEP 6: Installation and Commissioning with minimal business impact

We understand that your business must continue with minimal disruption during your solar system installation. We make that a priority. We will work around your business schedule to quickly and seamlessly install and integrate your solar solution. Appropriate inspections are scheduled with local regulatory agencies. Our team will take the time to explain the system operation and applicable safety equipment.

STEP 7: Monitor results

Your extend Solar team will be your long-term business partner, ensuring your ability to monitor and report results. Solar PV and Thermal systems are now available with on-board or remote monitoring systems.

Article by Dick Alme

America Solar & Alternative Energies

dalme@asae.comcastbiz.net

www.americansolarenergies.com

Office 678-395-6380