

Solar Power – An Investment Whose Time has Arrived

by Peter A. Roos

*If
you have
been anxiously
waiting,
as we were,
for the time
to arrive
when
solar electric power
was an affordable
alternative,
you need wait
no longer.*

The falling cost of solar panels, the increasing cost of electrical power and the paltry returns being realized on investments in general have suddenly made returns from an investment in solar power look pretty exciting.

If you haven't already looked at your insulation levels, energy-saving appliances, including a high-efficiency air conditioner, it may be time to consider this as well. If you have investment money sitting in a low-interest-bearing savings account, or a CD, and a south facing roof you could mount solar panels on, you can likely improve your return right away by investing in a solar system. The size of the system you'll want depends on your average monthly power bill.

A 5 kilowatt (5,000 watt) system will likely produce enough power to eliminate a \$160 per month bill, producing an "income" stream of \$2,000 per year. Such a system, which likely could be installed for around \$20,000 would offer a 10% cash on cash return on investment. If you pay federal income taxes, there is a 30% federal tax credit applicable for alternative energy and certain energy

-saving investments through 2016.

That is a direct reduction of income tax due, which can be taken the first year if you would otherwise owe that much income tax, or it can be used for a number of years.

Assuming you can benefit from the credit, your net investment goes down to \$14,000 after the tax credit, making your \$2,000 per year income a 14%+ return on investment. Realizing that the cost of electric power from the utility is likely to increase steadily in the future, the actual return from becoming your own energy producer can only increase in the future. If your neighbors power bill goes up 50%, your return on investment increases an equal amount.

Once you decide that an investment in solar might make sense for you, you will need to identify a solar contractor to use for your project. There are a handful of solar providers that have been in the industry for decades. These folks have the experience, they know the pitfalls, the regulations and sources of the dependable components. There are also a host of newer firms – make sure you select one that is licensed and has the knowledge



and experience to complete your project.

Solar Direct, for example, was founded in 1986 by Kirk Maust and Dale Gulden. Maust had graduated in 1981 with one of the country's first degrees in solar and renewable technology from Pennsylvania State University's Department of Mechanical and Nuclear Engineering. Gulden, President and Director of Marketing, brought sales experience in the solar industry to the table.

Maust got excited about a solar engineering career in college. "During orientation for my Business Management degree, the college presented a new Solar Energy degree program." He jumped in. He'd worked with his dad wiring houses and building mechanical things; Florida was a great escape from the Pennsylvania cold and a great place for solar engineering. "I have grown to love my career and the impact of my business on people and our planet; it feels good to give back and to make a difference."

Early on, he engineered inventive solutions for applications in the emerging geothermal, indoor air quality and energy management fields. He also built and

launched a website with an electronic shopping cart – one of the first e-commerce initiatives in the early days of the Internet. As CEO and Senior Engineer, Maust holds a Florida State Certified Solar License, is a member and former officer of the Florida Solar Energy Industry Association. He is North American Board of Certified Energy Practitioners (NABCEP) Certified for Solar Thermal and Solar Photovoltaic (PV) – the first one in Florida and one of only six in the State to get both certifications.

With a product line of over 300 Eco-friendly products, Solar Direct's primary market is e-commerce sales of DIY products throughout the entire United States. "Many of our products are DIY, so we handle the sale and shipment and the homeowner or their contractor does the installation," said Maust. "Larger projects are handled by our licensed installers."

The company is currently expanding with a national installer network and expansion into larger projects within the U.S., such as 100 Kilowatt to megawatt PV, commercial solar pool and solar

water heating installations. Maust notes, "Solar electric is very popular now due to its trendiness and 'glamour' appeal, but solar water heating is gaining ground due to its superior economic payback."

Along with the global expansion, Solar Direct has also initiated a new focus on serving Sarasota, Manatee, Hillsborough and Pinellas County markets with installation services. "We really want to emphasize our roots," Maust said. Their e-commerce business currently provides about 70 percent of the company's total revenue; the new installation initiative hopes to increase revenue share to 50%. Marketing plans include outreach to consumers, homeowners, commercial and government projects, and online and contractor resellers.

Solar Direct's products include solar pool and spa heating (Vortex is their primary brand and best seller), solar water heating, solar PV electric, solar pool pumps, solar air conditioning, solar attic ventilation, geothermal and insulation.

Corporate offices and a 10,000 square foot warehouse are in Sarasota.



The roof of the Hampton Inn & Suites, Sarasota, FL



The roof of Solar Direct HQ

Not surprisingly, more than half of the electrical power for the building is produced by solar panels mounted on the roof. This year they will expand the system to become 100 percent solar-powered. Other efforts such as recycling are being implemented by the company to move toward a carbon neutral footprint. Staff includes 35 professionals in administration, sales, engineering and operations, with an additional 20 installation people in Florida. They added 11 staff members in 2011 and plan to expand again in 2012.

"More than 90 percent of the people we hire remain with the company for at least three years. We are proud to support the community by hiring local workers, and we've always been impressed with the quality of commitment, loyalty and expertise that our staff brings to the table. We continue to expand our workforce with local expertise," noted Maust.

Solar Direct has taken a holistic approach to producing alternative energy. "First, you conserve," explained Maust, "then you produce the power. Consumer education in this area has always been top-of-mind. We have a complete in-house engineering department with professional engineers on staff. We recently added two Home Energy Rating System (HERS) specialists to our team, and this year adding a Heating, Ventilation and Air Conditioning (HVAC) license for one-stop whole house design services." This conservation mindset is a result of the relatively high cost of power producing panels, relative to the cost of savings

in other areas. Sufficient insulation, well-sealed windows, efficient appliances and lighting can all help to substantially reduce the investment required to eliminate the power bill.

Maust is proud that Solar Direct was selected to supply solar power for the Community Coalition on Homelessness in Manatee County through a block grant in 2010.

"We designed a system that would reduce their electric bill and provide power during hurricanes and power outages," Maust said, "the system provides more than 30 percent of electricity for the homeless shelter and food kitchen. Their electric savings allows them to use more funds for the needs of the homeless."

At the Hampton Inn and Suites located at the Sarasota Airport, Solar Direct was able to supplement the electrical system in the hotel, contributing to their success as being one of the first LEED Certified hotels. "We have provided over 110 million BTUs of energy in the last two years with a solar hot water heating system installed during construction, and added a 32 kW solar PV system in December of 2011. I love challenging projects like these," Maust said.

The company holds Florida State Licenses as follows: Certified Solar Contractor, Certified Electrical Contractor, Certified Commercial Pool and Spa Contractor, and Engineering

Certificate of Authority and Professional Engineer.

Maust acknowledged the role that federal and local rebates have played on expanding solar installations, but also notes that the Company's products have reached grid parity in many areas of the U.S. He explained, "Grid parity is the point when a renewable energy such as solar, costs less than fossil fuels. For Floridians, it is now possible to 'go solar' and pay less than the utility company's rate for power. System investments are so low that most average homeowners can afford it, as savings pay for the system within two to eight years. It is now actually possible to have a net zero electric bill."

Solar Direct was the installer we used to install a 10kW system in the backyard of our son's home in Brandon. The roof was not an option there, since the home is shaded by huge grandfather oaks. There was a sunny spot, however, in the back yard, where Solar Direct poured a concrete slab, 65' by 10' and anchored the panels to it. They installed an inverter, ran a cable to the new "reversing meter" and put all the labeling in place that the utility required.

We feel very comfortable recommending them for your project. For more information, please contact Solar Direct at 800-333-9276 or visit their website, Tampa.SolarDirect.com. If you choose to do business with them, please let them know you learned about them in Paradise NEWS. PN

