February 12, 2007

Citizenre: A House of Cards?

by Jeffery D. Wolfe, P.E., groSolar, CEO & Co-Founder

There has been a buzz in the air lately. It's the sound of U.S.-based Citizenre, a new multi-level marketing machine targeting solar power. Their plan? Build "the world's largest" solar cell and module manufacturing plant with the stated intention to install 100,000 residential systems annually. Their pitch? You can have solar electric power for the same price that you currently pay for electricity. Sign up now and they will do the installation in September as long as your state offers net metering.

Does this mean that solar electricity has finally hit the mainstream? Is solar now affordable for all and at a scale that will make a difference in the U.S. and worldwide? Not so fast.

After several weeks of reviewing this new company's claims, discussing the manufacturing build out plan and its network marketing approach with others in the solar energy industry, plus reading online commentaries from a variety of sources and actually talking with representatives of the company, I have pieced together enough information to express my opinion that Citizenre is not going to be able to stand up to their promises.

There has been no financial announcement for a deal of significant proportion, which would be the enabling factor to meet the product or installation capacity required. This company is building is a "house of cards" and attracting a lot of customers who want a deal that's too good to be true.

So, you ask, what's the problem if Citizenre is not real or if they fail, and the public just gives early buyers a told-you-so, buyer beware shrug of the shoulders? The answer is we all lose.

As soon as someone signs up for a Citizenre solar system, they are removed from the pool of potential customers for other reputable solar dealers in the U.S. Already, photovoltaic (PV) dealers are telling me that they are losing business because potential customers are signing up with Citizenre -- people are waiting until the reported 500 megawatt "largest fully-integrated PV manufacturing plant in the world" comes online this fall.

But it will be September -- the deadline for the build out of the manufacturing facility and beginning installations will have come and gone -- before reality sets in for these customers when they do not receive their solar system on time as promised. Plans seem poised to fall apart, and at that point we'll have four results:

* A lot of very disappointed and upset people.
* A lot of traditional PV dealers who are out of business.
* Reduced or eliminated federal and state incentives for solar electricity due to a perceived lack of need.

* A solar electric industry in the U.S. that has been set backwards 5 years.

What follows is an exploration of Citizenre's claims based upon extensive communication from others in the industry, Internet postings and a telephone conversation with Rob Wills, Citizenre's Chief Technical Officer. Wills volunteered to join an industry list serve (RE-Markets@Topica.com) and answer questions regarding the company. From all sources, I have consolidated the results in each "Summary Opinion" below.

This summary represents my opinion of the viability and status of Citizenre today:

Questions & Issues: Citizenre is indicating publicly that they have raised $650 million, and are constructing the world's largest PV manufacturing facility (PR Web, January 23, 2007, "Is the Sun Finally Rising on Solar Power? An Interview with Rob Styler, President of Powur of Citizenre. This would be the single largest investment in solar power ever, yet we've heard not one detail -- not who, when, or where..

Summary Opinion: What I found is that construction has not even started on the proposed manufacturing facility -- again the largest in the world. A ground breaking date is not set, nor a location. They will not break ground until they have closed on their major financing. They have not closed on their financing although they indicate it is lined up and they simply need to clear a few hurdles. Citizenre stated that they could have a plant on line in 12 months. In my opinion, that puts their available manufactured product supply out by at least 18 months.

Questions & Issues: The PV manufacturers worldwide are experiencing a shortage of polysilicon. Industrial-strength PV giants have been forced to their knees, and signed up in advance for long term multi-million dollar contracts for silicon. New-comer Citizenre apparently plans on making silicon appear on command, at pricing they dictate. There has been no announced contract like every other major silicon deal. Like "where's the beef", I ask "where's the silicon"?

Summary Opinion: Rob Wills indicated that Citizenre has a source for silicon at "significantly below $60/kg". My opinion is that when an established international PV companies like SCHOTT Solar cannot obtain sufficient silicon, there is no way for an unproven startup to obtain silicon, and certainly not at below market prices. Without public details, there is no way to justify this position.

Questions & Issues: Citizenre claims they will install 100,000 systems. At $20,000 each (about half the cost of an average system today) that's $2 billion of installations per year. That's equivalent to 450 installations every business day -- a great goal. But 100,000 installations is more than the total number of installations completed in the U.S. to date. From zero to 100,000 is not an easy ramp up. Before millions of dollars in customer contracts are sold, we should know much more about the company's plan and its team to manage this steep trajectory of growth and speed.

Summary Opinion: It turns out that the entire marketing effort to-date has been a

"pilot program", according to Wills. He says they are now thinking 25,000 systems, yet the many Citizenre web sites and their representative "downline distributors" are still telling others 100,000. The marketing in the public domain is going to be revamped to "correct some issues" according to Mr. Wills, yet the question remains as to who is in control of the messaging to vulnerable consumers.

Questions & Issues: Citizenre states it will be able to reduce material costs sharply because they have "vertical integration" and will "be able to produce the final product at half the cost of our competitors", according to Rob Styler in the interview quoted above. Unfortunately, the price of solar power is not purely a function of volume production. Glass, aluminum extrusions, Tedlar (R) and lead wires are all commodity products, but all comprise a significant piece of the cost that Citizenre can not affect. To think that a startup is going to beat world leaders like Sharp, Kyocera and Suntech (that are currently producing at scale) is naive. What technology is Citizenre planning on using? With more knowledge, we can then understand the probable costs of the technology for comparison purposes.

Summary Opinion: I received no answer to the questions and issues above.

Questions & Issues: Rob Styler, in the above cited interview, states that installation will take "about half a day". I've done installation work. I don't care what kind of fancy technology the modules have, they still need to get fastened down to a roof, and 200 to 500 square feet of panels are needed. Then a wire needs to be run to the electric panel, through an outside disconnect. On most jobs, after half a day the ladders are set up, and the conduit to the ground is run. Installations taking a day (in areas with one story homes and low slope roofs) are possible. Does Citizenre have some secret to speeding up installations beyond their AC PV module currently in design as stated? Have any installations been done by Citizenre that have approached this time schedule?

Summary Opinion: Mr. Wills said he believes Citizenre can get to this reduced installation time. He speaks of automation and standardization to achieve this, but has presented nothing concrete on how to achieve this goal. So, Citizenre has no secret to lowering the cost of installation, they just believe they are smarter than the entire rest of the industry that has been installing on-grid non-battery systems. Even in Germany, which is so often touted as a model of efficient and quick installation, systems installs do not approach the half day goal.

Question & Issues: In one of the emails, Mr.Wills asked: "Is it better to try for a quantum leap that results in PV power costing less than retail electricity? Or should we sit back doing business as usual, letting the government tell us they are supporting solar. Please give us a chance to move this ahead and to succeed. There is plenty or work for all of us. Solar Energy is abundant."

Summary Opinion: I'd love for solar to become ubiquitous, and it will. However, it takes more than clever marketing and unsubstantiated claims to do this. It takes the following items that it seems to me Citizenre is missing:

* PV panels. The manufacturing facility will be operational in 18 months at the earliest in my opinion.

* Inverters. Inverters have proven to be very difficult to create. Most new inverter companies fail before they succeed, and many established companies have new products fail before being fixed. The real world of PV is a harsh environment, with difficult input parameters. No beta tests mean that you cannot know when or how the inverter will function, or even if it can be produced at your super low vertically integrated required cost. And that says nothing about the arduous UL certification process.

* Integrity. Say what is true, and deliver what you say. Citizenre cannot feasibly deliver what it has promised to date. Citizenre knew that the September installations could not happen at least as of January (with no plant under construction...) but has yet to make a public acknowledgment.

* Realistic Plan. A complete integrated business plan that has sales coordinated with production and supply.

In its current incarnation, it is my opinion that Citizenre represents a significant threat to the solar industry. Exaggerated claims, inability to deliver product, sales to areas where they do not intend to install soon. These issues can taint the entire solar industry. Worse, misled customers will delay or not buy products from reputable dealers, putting these sound businesses at risk.

This is not the reaction from people who are scared of change. This is the response from committed individuals and businesses who want the solar industry to succeed. To see Citizenre endanger that vision by over-promising and under-delivering reminds me of a teetering house of cards.

Jeffrey Wolfe co-founded and is Chief Executive Officer of groSolar (formerly Global Resource Options), and is in charge of engineering, marketing, PV procurement, and strategy for residential and commercial photovoltaic and solar hot water systems. Under his direction, groSolar has become a leader in residential installation in the northeast United States, and a leading national distributor of photovoltaic systems. Systems have employed both grid-connected and battery-based remote technologies. He has been active in overall industry development as PV Division Chair of the Solar Energy Industries Association, and as a founder, and former board member and Chair of Renewable Energy Vermont, and founder, and former board member and Vice Chair of the New Hampshire Sustainable Energy Association.

> Editors Note: There has been a lot of solar industry and Internet chatter recently concerning a company new to solar called Citizenre. It's touting a "new" approach to bringing solar to the masses via an old-style multi-level marketing sales approach (a.k.a. network marketing) similar to that which made Amway early adopters wealthy in the 1960s-70s. While such sales practices give many consumers -- and certainly solar companies with vested interests -- cause for skepticism, perhaps of more concern are claims by the company and its rapidly proliferating "downline distributor" websites to establish a vertically-integrated 500 megawatt solar PV production facility by September '07 and install solar on 100,000 homes annually -- the same number of installations that Germany's highly-tuned, efficient solar

infrastructure installed in 2006. groSolar's Jeff Wolfe has been tracking the Citizenre debate, the opinions expressed in this article are his own. Be sure to add your comments following this RE Insider.