

Changes in US solar distribution



Dr Ganesan Visvabharathy

Dr Ganesan Visvabharathy, founder CEO of Solar Micronics Incorporated, shares his enthusiasm for providing clean energy to low income families with PES. The company has a wide portfolio, in a variety of areas and so brings a plethora of skills and expertise to the solar market.

PES: We are pleased to welcome you to PES Solar/PV. Would you like to begin by explaining a little about the background of your organisation and how you currently serve the solar/PV industry?

Dr Ganesan Visvabharathy: My background is electrical engineering, but I spent most of the past 27 years developing real estate. But, the great recession of 2008 made me focus on a burgeoning solar industry, with the bottom having fallen out of the real estate market. We started Solar Micronics in late 2009. Historically, we have focused providing clean energy for commercial and industrial sector.

Our operation base is Chicago, Illinois. Over the last years, Illinois hasn't been known for solar, but the recent fixing of the state's renewable portfolio (standards RPS) is changing all that.

Illinois is now poised to be the third largest solar market in US, with the recently announced changes to the renewable energy credit (REC) program. A bit more about us--our firm has a core set of professionals for design, and engineering, and procurement, but oftentimes, we hire installers on a per job basis.

All our installers are NABCEP-certified and have undergone the required OSHA training. As you know, NABCEP is the gold standard for installers in the US.

Solar Micronics has been blessed with a substantial order book with over 30 commercial installations pending, all of which will bloom when the state's adjustable block incentive (ABI) program comes into place.

We are not operating in just Illinois, but also in North Carolina, South Carolina, Massachusetts, and Rhode Island. In our efforts, we are ably assisted by Yolanda Contreras, our Vice President for Operations and Bill Zastrow, our design engineer.

PES: We have been reading about Solar Micronics' participation in the national contest for bringing affordable solar to housing residents, could you explain to us what this entails?

GV: This is a national contest sponsored by the Department of Energy (DOE) to spur on creative business models to bring the benefits of solar to low income residents. Several firms around the nation are participating in this challenge.

The DOE nurtures the teams by bringing various professionals, such as community organizations, solar designers, as well as finance experts to assist the teams in bringing out successful models. In this respect, this is truly an innovative, and trend-setting attempt.

But then, that is what the DOE is known for. They always push things to the edge to

achieve their goals. We are excited to be one of the participants.

Our participation is particularly gratifying to me personally, since I am also a developer of affordable housing in many communities and I know only too well the challenges faced by my residents in paying their utility bills.

PES: What is special about Solar Micronics that is likely to make you successful in this endeavor?

GV: One of the advantages of our firm is that our skill set extends far beyond pure solar. Apart from solar, we do geothermal systems, we use building construction techniques that provide for super insulated buildings, we use the most efficient HVAC systems such as VRF (variable refrigerant flow) systems, etc. etc.

Thus, via a combination of these techniques, we are able to minimize the needs, for the renewable system to the lowest possible level. What sets us apart is the combination of our multiple areas of expertise to deliver the lowest cost product to our low income residents.

Our experience, from having developed over 4 million square feet of properties, stands us in good stead when we consider options for energy cost reductions.

PES: Is there any financial or other participation by the state for the residents?

GV: In the US, incentives for renewable energy varies from state to state, and also from utility to utility within each state. Thus, we have 50 different solar policies adopted by the 50 states, and maybe, more than 500 different utilities have a right to offer their own set of incentives.

Many local governments also have the right to issue bonds for the purpose of promoting clean energy. States such as California, Massachusetts, and Pennsylvania are pioneers in this area and offer numerous incentives, although not specifically geared toward low income communities. This is why DOE is taking up this task to get working models to provide affordable solar to low income residents.

PES: Is this feasible for low income families, what difficulties would you need to overcome?

GV: This attempt is not without its challenges. The purpose of the contest is to arrive at a business model that can be

replicated all over the nation irrespective of local governmental policies or incentives.

Thus, it requires the joint efforts of real estate developers, building contractors, solar installers, solar engineers and local community organizations to come up with a viable plan.

If a policy change is to occur, it has to happen at the local level, and not at the federal level, since the latter is a monumental task. Hence, the need for local community organizations' participation in any effort to bring solar to low income residents.

PES: How long would it take for the residential user to benefit financially from this project?

GV: Fortunately, the residents can enjoy the benefits as soon as the system is energized. Usually, this process can take anywhere from six months to a year!

PES: How different is working in the domestic sector to the industrial sector from a company point of view?

GV: I must say it is much easier to work in the industrial sector, since there is only one customer and the interconnection process is much simpler. No need for virtual net metering, as long as we have the space to produce the solar power.

In the housing sector with multifamily components, we have 200 customers, with no ability to connect just 5 panels, say, to each customer's meter. Thus, this makes life a lot more complicated.

PES: What makes Solar Micronics stand out from the competition and how do you intend to stay one step ahead?

GV: We are an innovative company, not just in technical terms, but in business models as well. For your information, I am the inventor of the Airline Overbooking Compensation plan, which is now the accepted and mandated practice not just in the US, but throughout the world.

Likewise, if my business model is successfully implemented in the State of North Carolina and accepted by the Department of Energy, it can serve as a national model.

In our program, we combine the benefit of cost savings with solar installation training for residents so that they can go out and get jobs in this booming industry and get themselves out of poverty.

This is where community organizations come in, since they have access to space and local support in many instances, thus enabling us to conduct classes, either full or part time. Many times, these classes are conducted in a building space donated by a local philanthropist, or even a community center that has been built by the city for its residents.

PES: Do you have any other projects on the horizon?

GV: Yes, we have over 30 commercial and industrial projects in the pipeline, and 3-4 utility scale projects waiting to happen.

Once our revised 'Renewable Portfolio Standards' takes effect in a few months, solar will be booming in Illinois.

RPS stands for the mandate that each state has adopted to promote renewable energy. For instance, Illinois has to procure 20% of its power needs from renewable sources by the year 2025. Hawaii has to procure 100% of its power needs from renewable sources by 2050 and so on.

PES: Speaking from a global standpoint, which geographical regions do you anticipate being key for you as we move to the end of 2017?

GV: At a global level, one of the hottest markets today is India and we are looking at certain Southern States for large scale solar deployment.

PES: Now that BREXIT is a reality do you think this will have any impact on the market?

GV: Not at all. The rest of Europe will work with redoubled vigor to make solar happen. The high utility costs prevalent in Europe will automatically act as a boost to solar development. Additionally, BREXIT itself is being re-evaluated by British citizens and may still not happen!

PES: Has 2017 been a good year so far for Solar Micronics and how are things looking for the end of the year?

GV: Yes, this has been a good year, but next year, it is going to be even better, with several Eastern States offering so many new programs. It is now the States' responsibility to make solar happen, since the Feds will offer no help, under the new administration, but the States are up to the challenge and it is gratifying to note that.