

Using a Business Model that incorporates Software, Classes and Research, OnGrid Solar is providing the Tools needed for Individuals and Companies in the Solar Energy Industry to Make the Most Powerful Argument for Closing Sales

**Clean Technology
Solar**

OnGrid Solar
4175 Renaissance Dr, Suite 4
San Jose, CA 95134
866-966-5577
www.ongrid.net



**Andy Black
CEO**

BIO:

Andy Black has been involved with the solar industry since 1991 in design, consulting, teaching, sales, research, and is a NABCEP Certified PV Installer Emeritus. He has completed all of Solar Energy International's photovoltaic coursework, as well as many other specialty courses. He has a special interest in renewable energy for the Developing World.

Trained as an Electrical Engineer (B.S. Penn State, M.S. University of Southern California), he started his career as an Alpha computer chip designer for Digital Equipment Corporation, working on the fastest chips of the day. He then moved into solar full time (he was also a solar researcher in graduate school). In 2001, as the

California solar market developed, he began developing additional solar economic analyses (IRR, NPV, ROI, Resale, Cash Flow) as better alternatives to the 'Payback Question'.

Andy has helped the solar industry grow by teaching sales, marketing, economics, and financing classes nationwide for solar schools, utilities, and non-profits, by writing articles and papers on the economics and other aspects of solar, thru developing the OnGrid Tool, and by volunteering his time and resources to the industry and its various supporting groups and associations. He serves on the Board of Directors of the California Solar Energy Industries Association and is an Advisory Board member to the NorCal Solar Energy Association. He also served two terms on the Board of the American Solar Energy Society and is a life member.

Outside of work, Andy has enjoyed being servant and groundskeeper to his cat.

About OnGrid Solar:

OnGrid's mission is to help the solar industry develop as rapidly, yet stably as possible. OnGrid has expertise in the financial payback analysis of solar photovoltaics. OnGrid shares this expertise via software tools, classes, and research.

**Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine**

CEOCFO: Mr. Black, would you tell the vision at OnGrid Solar?

Mr. Black: We enable the solar energy industry to use the most powerful argument for closing sales i.e. the economics. We help show that the economics, in the right cases, makes great sense from a variety of different angles, so that people can further their own investigation and basically change in their hearts and minds about what they think about solar and what solar can do for them from a financial point of view, separate from any other motivation that they may or may not have, such as environmental or some form of independence.

CEOCFO: How do you do so?

Mr. Black: We put together a financial model incorporating solar performance characteristics for individual solar systems and a utility rate and incentives. We figure out what a particular solar system can do for a customer, what it is going to save them on their electric bill, what it is going to cost them before and after incentives, factoring in taxes, system performance, and electric rates, among other things. We demonstrate the rates of return, the cash flow if they finance it, the increase in the property resale value, and a variety other financial metrics that a CFO or a private homeowner may want to see to determine whether it makes sense to them.

CEOCFO: Who would be your typical customers?

Mr. Black: Solar integrators, installers; which can be anything from the small "mom and pop" installer who has difficulty putting a financial case together for solar, up to EPC (Engineering, Procurement and Construction) contractors in the solar industry.

It could be consultants, third party modelers, and other who want to see or use our results or check their own assumptions and analysis. Often times it is someone trying to make the case, so it is often sales people at one level or another, who want to spend their time selling and not figuring out detailed spreadsheets, electric rates, or incentive programs.

CEO CFO: Would the Tool basically be software, where they can plug in the figures and they would be off and running?

Mr. Black: Yes. They plug in a few figures or a few characteristics of the project site; the roof and the location so we can figure out what the performance would be. Then we can tell them what the incentives, electric rates and the net electric bill savings will be, based on the information put in. That allows those calculations to be done quickly, easily, and accurately for the expert and non-sophisticated user alike.

CEO CFO: Are there occasions where it does not come out favorably?

Mr. Black: Absolutely. There are only some places in the US where solar makes great sense, and there are some places in the US where solar clearly makes no economic sense. Interestingly, it has less to do with what people perceive the sunlight levels to be, and an awful lot more to do with what the electric rates, incentives and policies are in various locations. Therefore, one of the best states in the country, right now, is Massachusetts. It is not really known for its sunlight, but not known to be cloudy like Seattle, either. However, because you get paid so much for the electricity and because electric rates are so high there, solar makes great sense there; as good as Southern California or Arizona.

CEO CFO: Is there much competition for you?

Mr. Black: There are a couple of others. Interestingly, most of the people have moved into the financing space rather than the financial analysis space. We consider ourselves to be in

the financial analysis space. Your readers will understand that the difference between those are; with financing you are helping people find money for a project that you know you want to do or you can do if you can "cash flow" it. However, with financial analysis you are helping to decide whether you want to go find money, or you are trying to decide whether you want to do this project at all. The latter is what we do. We help people figure out whether they want to do projects at all, rather than trying to push our financing model onto people. Most of our competition has moved into the financing space, because it is more lucrative. Frankly, they can make a lot more money there. We are interested in doing the financial analysis. I am an engineer, not a financier, by training. Therefore,

"There is a variety of little things that we put in there that do not always make the picture more optimistic. Sometimes it makes it more pessimistic, or as I like to say "realistic", because once the CFO or the accountants get hold of the analysis of the taxes at the end of the year, they are going to find these things. It is better to tell the customer up front, in my opinion, that they will be facing certain tax consequences."- Andy Black

I like doing modeling and enabling people, and I am less focused on the financing side.

CEO CFO: How do you reach potential customers?

Mr. Black: A variety of ways. We teach a lot of classes. This morning, for example, I am off to one of the larger utilities in Northern California to present, yet another in a long series of classes that I have taught for them. Therefore, we get a lot of interested customers from those places, and those classes are free and open to the public. We teach, for NABCEP, the North American Board of Certified Energy Practitioners. We teach for Solar Energy International and other solar related schools. We teach at lots of solar and other conferences, so teaching is a big way to show our knowledge and keep our credibility high. We publish articles. We have a

broad variety of financial and other types of analysis articles on our website, www.ongrid.net, that we make available for free, as well as the slides from our classes. People find our website very "information rich" and not very "salesy", so they tend to gravitate towards it and use it as a major resource for how to understand the economics. That brings a lot of web traffic in. We have excellent word of mouth in the industry. This is obviously inside the solar industry, so we are reaching them on our own. Other trades are getting into the solar industry; roofing, electrical, HVAC, potentially plumbing. We would like to reach those people as well. That is why we are interested in doing more outreach at trade shows, exhibit stands, and things like that.

CEO CFO: Are there factors that your program takes into account that many people realize are available?

Mr. Black: Yes. We have by far the most detailed financial analysis model out there, which, unfortunately, means that it is also the greatest learning curve. It has the most flexibility and control. Other people are focused on an easier tool that ignores the realities of certain parts of electric rate structures, sometimes to their detriment,

because some of those things can actually lead to an advantage when it comes to presenting solar and certain ways you could save on the utility bill such as taking advantage of time-of-use rates and reduced demand charges.

CEO CFO: What is an example of one of the more complex features that you have that you are able to assess?

Mr. Black: Two of them are time-of-use and demand charge electric rates. Most customers are either on a flat rate or on a tiered rate right now. Many commercial customers are on time-of-use and demand rates already, but sometimes there are better electric rate schedules and solar often works well with those. That is because solar produces its electricity during the day and that is often when the electric rates are highest. Therefore,

switching to the most favorable time-of-use rates (if that option is available; and in some of the biggest markets it is), you can take advantage of that and sell your electricity back to the utility at an even higher rate than your current rate, and buy it back at night at a lower rate. You would not normally do that without solar, because most businesses are also open during the day and that might increase their bill, were it not for the solar eliminating their bill during the day. The other part is demand charges. Most commercial customers pay some sort of demand charge and some of our competitors simplify away the analysis for those. Unfortunately, that can lead to dissatisfied customers who expected to save more than they really will. That is because solar cannot reliably offset demand charges. The calculation is complicated. A poor analysis takes the whole bill and divides by the kWh usage and claims solar will offset the bill at that rate, but that is not accurate. The accurate way to do it is to look at the kWh charges separately from the other charges and calculate the actual savings from reducing the kWh usage due to solar. It produces a more conservative savings number, but it's more accurate. We put in all the negatives; the tax complications, the interactions between rebates and tax credits, the taxability of rebates and the effective savings on the electric bill. There is a variety of little things that we put in there that do not always make the picture more optimistic. Sometimes it makes it more pessimistic, or as I like to say "realistic", because once the CFO or the accountants get hold of the analysis of the taxes at the end of the year, they are going to find these things. It is better to tell the customer up front, in my opinion, that they will be facing certain tax consequences. For example, one of the common ones is that most business gets to write off its electric bill. Well, if you save a business their electric bill they have lost a valuable write off. Therefore, though you saved a business a thousand dol-

lars on their electric bill, you did not really save them a thousand dollars; you only saved them six hundred dollars once you factor in the fact that they have lost a thousand dollar tax deduction against net income, and therefore they are really only in their bottom line after tax saving six hundred. Many people overlook that, but that is a very important thing. Businesses need to understand that for true after tax IRR, Internal Rate of Return, you have to factor in that lost tax deduction.

CEOCFO: How is business these days?

Mr. Black: It is very nice. Different parts of the solar industry are doing very well. The installation and integration side are benefiting from the very low prices. The low prices are killing the manufacturers, naturally. They would love to see prices stay high, but we buyers, so to speak; I consider myself "we" with the installers, because I used to be a sales person for installers in commercial and residential, which is how I got started in this part of it; love the fact that the products are coming at much, much lower prices due to so much competition from the manufacturers. Therefore, we can offer products to businesses and homes at an even better price. The incentives are dwindling down, but the electric rates in general are staying flat or slightly rising. Therefore, the cases are getting better and better for solar. Therefore, more sales and more people are getting involved and we are finding more opportunities.

CEOCFO: Why should investors and people in the business communities pay attention to OnGrid Solar?

Mr. Black: We are a bellwether for this space of the industry. We are not only a bellwether, but a recognized entity. We have been around the industry for a long time. We have been influential. We initiated a new standard with the NABCEP certification organization for technical sales proficiency. We have been on the boards

and involved in the industry across the country for quite a time, because of our experience and because of our reputation for accuracy and integrity. Therefore, we are able to provide valuable, and yet relatively unbiased advice to those looking at the industry. We will not sugar coat things. We will not say, "Yes, you should jump into solar and make a million dollars", because you will not necessarily make a million dollars. We tell you what the risks and pitfalls are. There are many people getting into solar. We would like to see people who are getting into solar get into right, and get into it to last. Many people think that there is more profit here than there really is, and unfortunately they get disappointed. They come in and do a bunch of projects; they get disappointed and leave, and leave a legacy of customers who no longer have their original provider to service and maintain their system. That can end up repeating the pattern from the 1980's where people think solar is a bunch of "fly by nights". I am interested in seeing solar succeed on its own merits with as little incentive as possible, and last and be a thorough and strong business like any other contracting business, and eliminate the customer fear that we will not be around to service them. I am very optimistic about solar's long term prospects. Solar has moved through the tipping point where, essentially, you can do it in many, many places without subsidy. I think that is going to keep solar moving forward successfully, even once the incentives go away. Solar will continue to expand across the country at a hopefully reasonable and healthy growth rate, rather than an excessive growth rate that it has been on. I believe our business prospects, and anyone getting into this, are reasonable good, as long as you are not in the manufacturing space. However, in the service space, in the integration space, in the contracting space, I believe the prospects are excellent!



OnGrid Solar

4175 Renaissance Dr, Suite 4

San Jose, CA 95134

866-966-5577

www.ongrid.net