

OES NEWS September 2011

HEADLINES

Elwha River Dam Removal Commences on the Olympic Peninsula
Solyndra files for bankruptcy (despite its \$500M loan guarantee from the Federal Government)
Relaxed Ozone Rules upsetting to environmentalists and more
Alberta Tar Sands Pipeline pushes forward
AeroVironment installs EV Chargers in Oregon
Clallam PUD provides on loan Energy Meters at the Port Angeles Library

There is a lot of news with a lot of implications. We are just reporting headlines today, though affirming by our actual attendance that Elwha hydropower dam removal festivities in mid-September were historical and modestly grand, understanding the Solyndra collapse and its relevance to global competition (especially from China), sharing concern for lax air rules, opposing the Alberta Tar Sands Pipeline to Texas, sharing excitement for the vast array of EV chargers going in around the country (while OES had one ten years ago), and appreciating the energy efficiency tools the Clallam PUD provided the local community. Our discussion on the role of Client Advocate is our real news this month.

EDITORIAL – The Client Advocate

When Olympic Energy Systems incorporated in April 2001, a grid-tied solar electric system may have cost a minimum of \$8 per watt, where \$2.50 per watt would have been needed for parity with utility grid electricity. Solar was expensive, despite Green Tags and capped Tax Credits existing at the time.

The owner of Clallam County's first grid-tied solar electric system was an OES client in 2003, installed for about \$7 per watt while providing hardware at cost! That pioneer was an advocate for green building and living, serving to demonstrate that the solar age has arrived.

The founder and electrical engineer – Jonathan A. Clemens – considered the high costs of renewable energy, the relative energy ignorance of the general public, and his systems engineering background to establish OES as a client advocate firm developing renewable energy systems – solar, wind, and hydropower.

What is a client advocate? It seems self-evident, but what does it mean now that solar electric systems can cost \$5 per watt or less (\$3 per watt or less with incentives), energy costs are set to rise steadily, and competition from China is set to drive PV panel prices to below \$1 per watt? When the perceived cost of solar is “affordable”, and perceived to be green and carbon reducing, then acquisition becomes a consumer choice, set for explosive growth in buying and implementation. OES believes now as much as ten years ago that renewable energy inquirers and implementers need client advocates...especially as the horizon for the Great Recession is headed toward several years, possibly decades, and perhaps even a lifetime.

Client advocacy is a goal oriented endeavor. Want to be green? Want to live sustainably? Want energy security? Want a backup to the utility grid? Want to actually save money? Want to make money? Want to know the best investment for the time? OES believes that solar energy costs should have never been a barrier to “going solar” or going green. Solar energy applications can be cost effective long before mass (automated) production brings the cost of solar panels down to a small portion of overall system

costs. Case in point, solar energized electric vehicles can be cost effective now. Solar can be implemented in a home on an auxiliary basis, without the expense of tying to the grid.

A lot of myths surround contractors, with many customers believing there are big differences. Or, that there are some good ones, and some bad ones. Despite the variety of contracts and agreements and liabilities and such, they do about the same work under the same legal obligations. OES has worked with several dozen contractors over the years and finds that an overwhelming majority are competent and fair. OES clients directly hire contractors for implementation. Any licensed electrician can implement a known design with the assistance of a client advocate and system architect – OES. Most of what an electrical contractor needs to know for implementation is already learned from their conventional experience.

The subtlety is the fact that contractor interests are not the same as the client/customer interests. A solar contractor is selling you something, so your interests are not served unless you need what they are selling. Many of us “want” solar, but look at development now...the vast majority of solar panels produced today are going into large commercial projects and large solar farms. That production will shift to smaller, residential customers in the future, when production costs are down and embodied energy is reduced. Reality and economics suggests that people might want to wait to implement solar, or at least ponder alternatives – says this solar energy system development firm!

A client advocate provides an opportunity for the client/customer to reduce system development costs, as contracted labor can be reduced (by client – owner involvement) AND more alternatives can be considered beyond what the self-interests of contractors tend to produce. Competition amongst contractors in a mature industry tends to produce similar bids and quotes and limited system options. Do folks really know how to evaluate what is proposed to them? Do folks think that contractors will share information with you that might push you away from their product or service?

Bottom line...the contractor community will never be able to fully offer the options and alternatives and information that clients deserve to have and communities need in order to accomplish sustainability.

In the early years (2001 – 2005), OES was

- Developing cost effective solar energy systems, such as their EV solar charging stations and hydro power systems (yes, it's solar)
- Encouraging clients NOT to buy grid-tied solar electric systems without first considering other energy investment projects AND considering the inevitable trend toward lower system costs and improved technology
- Encouraging the subsidization of solar with savings from energy efficiency and conservation investments
- Encouraging goal specification by clients (as many people actually have varying goals, beyond the obvious “green” attributes of solar energy systems)

In 2005, Stephanie Parks of Sequim, WA contacted OES and expressed interest in a solar electric system. OES asked why...come to find out that she was paying \$3500 per year in electricity and propane usage. OES insisted on NOT going solar (thus deferring profit), but encouraged replacement of the propane furnace with an electric heat pump (which she indeed installed in 2005), from which savings were effectively used to subsidize her pole mounted solar electric system in 2006.

In the later years (2006 – 2010), OES was faced with a growing consumerism and corporatism in the local (and national) solar industry. Notable is the misrepresentation in a local newspaper in 2006 that

essentially gave the local solar business to another firm by the paper's packaging of a National Solar Tour as another local company's tour, to the exclusion of others in the industry locally, and without acknowledging the sponsor of the tour, the American Solar Energy Society.

Imagine a for-profit business manipulating an educational event, sponsored by a non-profit entity, into a subtle marketing event, via published newspaper media that excluded others in the same industry and while misrepresenting other company's work product as their own. AND imagine the publishing media NOT making and publishing corrections when the problems were identified. We call this free enterprise? Most local folks do not realize that because of that situation, the local solar industry is merely a race toward consumerism and a shift away from education and community building. The OES president feels that loss every day.

The newspaper (not the PDN) went so far as to attribute half of the tour sites as those of a "competitor" (the featured company in an otherwise non-profit event – never mentioned in the article - with rules against marketing). The newspaper (again, it is not the Peninsula Daily News) refused to publish corrections (plural). OES local business dropped in 2007, especially when the other company hired away its main installer, who signed an exclusivity agreement to not help OES further. The same newspaper refused to publish a press release about a National Solar Tour in 2009, leaving local OES client sites with zero attendees. One of those sites demonstrated the successful integration of solar thermal energy with a home's heating system through innovative engineering, but the story remains untold. The same newspaper was more than happy to publish a story about a private solar tour in 2009 that only served to misinform and under inform the public about solar options in Port Townsend and the area.

Where is OES in 2011? Still developing systems. OES is also developing its patent pending roof and ground solar panel mounting systems – the Tensioned Cable System, or TCS. OES had true sustainability and harsh economic realities in mind when it conceived, prototyped, developed its TCS.

OES is capable of developing 10KW to 100KW scale solar farms (with its TCS ground system) at a cost per watt on par with 1MW to 10MW scale solar farms, and with a true sustainability index and local content of labor and material. This goes beyond the idea of Community Solar, which was conceived as a means of pooling community dollars to build "expensive" solar facilities for the community, allowing individual participation where expense precluded them otherwise. Indeed, OES client advocacy also means community advocacy. Why else are we doing this solar thing, if not for community?

Olympic Energy Systems recently completed a system development with a large degree of client – customer involvement, from installing the pole mount, trenching (for electrical cables), performing some of the contractor coordination, to constructing the battery box. The client was offered early access and discussion about system and component options. Though the main goal of backup to grid outages could have been implemented at less than half the cost (an option presented early on), an 1800 Watt solar electric system with battery backup was pursued - with solar tracking (using a solar PV panel array on a pole), grid-tied connection (with its net metering and solar production metering), and propane generator backup...*for thousands of dollars less than any other developer could have done...*because the owner was involved in the development process and implementation and the owner's interests were considered and responsibilities were shared. **For further information about this successful experience using a Client Advocate, contact the owner – Joe Pullara, at jmpullara@olyopen.com.** He has some interesting lessons to tell about. Ask Joe if he accomplished the goals he set out to achieve, as low cost was certainly one of them. Feel free to share with Joe YOUR experiences with using a Client Advocate firm like Olympic Energy Systems. OES clients are often encouraged to consider seeking system quotes from

other developers and contractors, so it would be interesting for you to know what Joe saved and what he achieved in this project.

In summary, a client advocate looks out for the interests of the client. The client is actually a part of the due diligence process and jointly achieve a (verifiable) firm system specification and cost that is implemented by any of a number of licensed contractors. If you can trust yourself, you can trust a client advocate. The fee based aspect assures that the client advocate's profit is not dependent on the sale of equipment or the number of solar PV panels or the size of the system. By having a portion of the fee payable at the end of the project, the client advocate is incentivized, too. In reality, the client advocate has earned much of the fee even before the owner has plunked down the money to buy the equipment and/or material, while the client is informed at that point. Development has lower risk and higher rewards, mainly because the advocate has empowered the client.

[Sincerely submitted by the President]

You can review and comment on our preliminary TCS Manual at http://www.olympicenergysystems.com/uploads/OES_TCS_Manual_Rev_NEW.pdf

You can view pictures from the field of detail aspects of the TCS at http://www.olympicenergynetwork.com/OES_News_Info.html

Our President, Jonathan Clemens, is still doing free initial consultations and further (fee based) site assessments, designs, and development of systems, both on-grid and off-grid, though the company is pursuing product development of its Tensioned Cable System for mounting solar panels on roofs and the ground without penetrations or foundations, and will be emphasizing off-grid electric vehicle charging stations energized from solar.

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