

OES News July 2011

HEADLINES

Tensioned Cable System G2 due to arrive soon; the concept evolves; workshop planned for August; link to pictures in the field; design focus on two-tier mounts and KW scale solar farms.

Utilities face RPS requirements [REPRINTED from the June 2011 OES News]

Product Highlight – Prewired Systems

Editorial – Talk is Cheap

Tensioned Cable System G2 due to arrive soon

With the R1, R2, and G1 designs done, production under way, and systems being developed and installed over the summer, it is time for a workshop to tell about it. Look for a workshop on the TCS sometime in August 2011. A separate announcement will follow. The G1 (one row dual span single PV string) will be on display.

The G2 is a narrower (left to right) system for mounting a PV string, with two rows (or two tiers) and single spans (leaving out the mid stanchion). This system is good for narrower space or to avoid obstructions like buildings. Ultimately, the two tier system could be incorporated into 100 KW plus sized solar farms, as there is better land use efficiency, though more exposure to winds.

In the meantime, review and comment on our preliminary TCS Guide at http://www.olympicenergysystems.com/uploads/OES_TCS_M_Kits_Guide.pdf

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

Our development is focusing on production of our baseline TCS kits, quality assurance, two-tier mounting ground units and KW scale Solar Farms. A reminder, small farms qualify for USDA grants, as well as the 30% Federal Tax Credit and production incentive payments (in Washington State).

Oregon has significant incentives, including a buy-down, worth \$1.25 to \$1.75 per watt, a renewable energy systems property tax exemption, and even a performance-based initiative (through 2015).

We remind people of the convenient summaries of available incentives by state at www.dsireusa.org.

Product Highlight – Prewired Systems

OES has helped clients develop off-grid, backup power, and grid-tied solar electric systems, since its start in April 2001. Yes, we turned 10 this year. We celebrated by going about our business as usual and by working on innovations we hardly foresaw back then - the TCS is poised to make a difference. Anyway, prewired systems go a long way in simplifying the installation of battery-based systems.

We are happy to be currently integrating a prewired inverter system for a battery-backed grid-tied solar electric system, from Midnite Solar, an Arlington, WA based company. We save on both components cost and labor. Midnite Solar's vision for integrating, simplifying, and shrinking component sizes is bearing good fruit these days. Check out their website www.midnitesolar.com. Prewired systems are also available from Outback Power and Xantrex (Schneider Electric) and others. Midnite Solar is unique in its attention to conserving space on the wall in the equipment room and providing classy styling to otherwise boring electrical stuff.

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US Plants Under Construction by Fuel Type [Per Electric Light & Power Volume 89/03 - May/June 2011]

- 41% Natural Gas
- 21% Coal
- 18% Wind
- 10% Nuclear
- 4.3% Solar
- 1.3% Hydro
- 4.4% Other

Economical means of producing natural gas in North America has maintained the aggressive build up of natural gas electric power plants. We will not go into the "fracking" discussion right now, but feel free to seek investing in negawatts and tell your relatives on the east coast (where a high concentration of coal power plants are located). Gasland may turn into Aghastland. [Did we spell that correctly?]

Ohio has the 25% (clean energy) by 2025 mandate, California and Washington have aggressive Renewable Portfolio Standard (RPS) requirements, as well as other states. The driver for renewable energy sources for electricity, the EV era we now enter is paired with this important (legal) program of RPS and other "incentives". President Obama has called for 1 million electric vehicles on the road by 2015, a challenging goal. The initial demand can be met with the current electric transmission system, but the transformation to the Smart Grid, sought by the US and Europe alike, is imperative. No doubt, the certainty of climate change and GHG issues being on the table, which means uncertainty for utilities, means a growing overlap of the utilities, automotive industry, and personal lives. At a 1\$ per gallon equivalent price for EVs, the trend is predictable, but subject to what economic factors and principles? What does intermittent renewable energy sourcing, increasing demand, uncertainty over GHG (CO2) emissions regulation, and a long recession mean for us? Let's figure that out together. That situation is why Olympic Energy Systems is a client advocate firm, as it takes a diligent look at options, then graciously helps in the implementation of solutions.

Europe plans to source 80% of its electricity from renewable sources by 2050. They are generally turning away from nuclear (since 1986, we think...)

The US plans to source 80% of its electricity from clean sources by 2035. Clean includes solar, geothermal, wind, various other sources AND nuclear. Hmm.

The *Massachusetts v. EPA* case in 2007 gave us the regulation of CO2 and GHGs by the EPA under the Clean Air Act.

The *American Electric Power Co. v. Connecticut* case pending now before the US Supreme Court will undoubtedly rethink the issue of regulation of greenhouse gases. We may find that the EPA can not do the regulation without too much complexity, possibly landing the issue back into Congress, where honesty, cooperation, and vision - which obviously abound there - should set it right.

Editorial - Talk is Cheap

We are known to engage in discussions about the broader aspects of energy and energy policy and the relation to sustainable living. Because it is summer on the North OP, the team here is taking a break from such analysis to recharge for the upcoming TCS workshop, ASES Solar Tour, and articles for *OES News*.

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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