



THE STELLA GROUP, LTD

Scott Sklar, President

Sklar Facilities (October 2011)

Scott Sklar, lives in a solar home and has a zero energy office building in Arlington, Virginia and a unique PV system atop his DC office building overlooking Lafayette Square.

Scott Sklar, the Group's founder and president, lives in a solar home in Arlington, Virginia which has solar water heating, passive solar building features (including double-paned, argon-filled windows and SageE electrochromic glass on the sunroom, LO/MIT thermal barrier paint in the attic, R38 insulation), energy efficient fixtures and appliances (such as Whirlpool Cabrio washer), 1.2 kW of Solarex polycrystalline photovoltaics (installed in 1985), 1 kW assorted companies, and 0.5 kW of UniSolar 'peel-and-stick' modules on a metal-seamed roof on the front porch, and a 24 gel cell battery bank tied to a Xantrex SWPlus inverter. The house is heat and cooled by a direct-exchange (no ducts) ground-coupled (geothermal) heat pump.

The Stella Group's Virginia office building (behind the residence) has 1 kW of UniSolar photovoltaic roofing shingles, a 3.6 kW GridPoint smart battery bank, a 0.5 kW small wind turbine by Southwest Windpower, and had the first commercial lease of a 5 kW Plug Power fuel cell (running on recycled industrial hydrogen in canisters) now replaced by a 1 kW ReliOn fuel cell tied to a dedicated Xantrex inverter. The building has LED lighting, solar daylighting by SunOptics to the bathroom, and a solar-driven Nextek ceiling fan.

The Stella Group's Washington, DC office is located in The Grange Building one block from The White House, which has 0.5 kW of UniSolar photovoltaic roofing shingles, and 2.0 kW of various modules from Isofoton (Spain), Schott Solar (MA), Shell Solar (CA), Spire Corp (MA), MXSolar (NJ) Suniva (GA) and Sanyo (Japan), with a Xantrex SW Inverter and 4 deep cycle batteries. The system was funded, in part, by a grant from the DC Energy Office.

Sklar drives a 2010 Toyota Prius with photovoltaics integrated into the roof (by Toyota) to charge its battery. To educate the general public (aside from hosting weekly tours of his two zero-energy buildings and four "drop and play" renewable systems at his North Arlington location) TSG retrofitted a Dodge Caravan with a 48 inch all-weather flat screen which hangs on either exterior side of the van. To run the DVD player and the all-weather flat screen, two 450 watt Sanyo SIT photovoltaics panels, a 150 watt Marlec windturbine and a 60 watt DynGlobal flexible PV module – all mounted on the van rooftop. The generated electricity is stored in Axion Power hybrid carbon/supercapacitor batteries and are augmented by a 100 watt ReliOn PEM fuel cell powered by recycled industrial hydrogen. A host of clean energy informational materials, and of course renewable energy-powered videos run continually at the demonstration van.

Sitting on the facility are three "drop and play" renewable energy systems, including a mobile PV trailer generator, Zerobase's hybrid pv/propane generator, and DynGlobal's solar-driven water purifier using DOW filters.

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