

# The Solar Energy Association of Connecticut invites you to A Seminar

on

## " MicroGrids / SmartGrids "

on

Saturday, March 22, 2014 (1:30 pm)

at the

St. Bridget Church ( School Cafeteria )  
80 Main Street, Manchester, Connecticut

featuring presentations by

**David Ferrante ( CL&P; Supervisor, Distributed Resources )** as the lead speaker ; and  
**Michael Skroski, Dan Haim, Michael Licata, Wayne Donaldson, Peng Zhang** -- from DEEP grant programs

**SPACE IS LIMITED -- PLEASE CALL & RESERVE YOUR PLACE AS SOON AS POSSIBLE.**

It has long been realized that the conventional Centralized Power Grid, on which we depend for most of our electrical needs, has limitations, and needs to be re-designed. It is vulnerable to catastrophic failures. A hurricane, an ice-storm, damaged lines resulting from fallen trees, or glitches in computer or communications circuits, can leave millions of users without power for an extended period, without any capability of remedying it themselves. A new approach to power generation, distribution and control is needed, esp. as the nation's growing electricity needs may approach 400 Gigawatts by 2025, which would traditionally require about 1000 new power plants, and burden the existing transmission lines even more.

The **Microgrid** has been developed as part of the answer. It is a small-scale version of the Centralized Grid, with access to the essential features of the larger grid. Instead of relying on large centralized power plants, a network of small generators (e.g. each smaller than 1/2 Megawatt ) could supply the power requirements of a community, which could have control of much of its own electrical needs. The local generators can be diversified to include, for instance, conventional small turbines and devices such as fuel cells, as well as renewable energy sources such as PV and wind systems. The choice may be determined by local needs, resource availability, cost, and environmental requirements.

A Microgrid can be connected to the centralized power grid, and get part of its needs from this main grid, or be isolated from it when appropriate. During a power shortage, it can shed non-essential loads, so that critical equipment and needs (e.g. computers, communications and control systems) could be maintained. Local control would make the system much less vulnerable to disruption. e.g. by vandalism and terrorism. Advantages of MicroGrids include higher reliability & security, the possibility of selling locally-generated power to the Main grid, and local community participation in selecting / managing the energy sources and technology, e.g. diversifying sources, & including renewable and non-polluting sources.

The State of Conn (through DEEP) has completed the first round of Microgrid grant awards. In this seminar, the lead speaker, **David Ferrante**, will discuss the essentials of MicroGrid systems and their operation, and what is being done overall in the DEEP-sponsored program in Connecticut. This will be supplemented by **Mike Skroski, Dan Haim, Michael Licata, Wayne Donaldson, & Peng Zhang** -- from selected DEEP grant programs, who will present summary descriptions of what is being done in their local programs, and their perspectives as local 'User' institutions.

***You are encouraged to bring in your ideas and questions, and help enrich the discussion.***

**ALL are requested to register in advance, by March 14, 2014.** **Call** (860) 233-5684 or (860) 649-9827 or (860) 489-9555 or (203) 613-4363 , or **Write to:** Solar Energy Assoc of Conn., Box 541, Hartford, CT 06101.

**DIRECTIONS:** From I-84 -- take **Exit 63** -- go straight on Rte 83 south -- 2 lights to North Main St -- turn right -- go one block to Main St -- turn left -- go 3 blocks. The rear of the **white church** will be on the right. **PARKING:** **Turn into the lot on the LEFT, which is across Main Street from the Church.** Walk back across Main St, & bear right to go to the Cafeteria -- on the ground floor level. [ **Please do NOT park in the lot adjacent to the Church.** It may be needed for other Church activities. ]

*This event is organized by the*

**Solar Energy Association of Connecticut, Inc. ,**

**A nonprofit, professional, educational organization ( active since 1976 ) which supports and promotes the use of renewable energies and environmentally benign technologies.**

[ Solar Energy Assoc. of Conn. Inc.; P.O. Box 541; Hartford CT 06101. **Web Site:** [www.SolarEnergyOfCT.org](http://www.SolarEnergyOfCT.org) ]

***We invite you to become a member and help plan and support our activities.***

**[ Please visit the Web Site for relevant information. ]**

