

**Minutes of Local Codes Study Panel Stakeholders Meeting**  
**Wednesday, August 20, 2008 2:00 pm ET - 3:10 pm ET**

Hosted by Panel Members and Key Players:

Jerry Ventre (Moderator, FSEC), Gobind Atmaram (FSEC), Stephen Barkaszi (FSEC), Bob Reedy (FSEC), Bill Brooks (Brooks Engineering), Jane Weissman (IREC), Colleen O'Brien (BEW Engineering), Larry Sherwood (Sherwood Associates).

Bill Brooks and Bob Reedy were not able to participate.

Participants

Present:	Frank Andazola	PNM
	Sara Baldwin	Utah Clean Energy
	Denise Brinley	Pennsylvania Dept. of Environments
	Thomas Brown	Interstate Testing Services
	Becky Campbell	Pennsylvania Dept. of Environments
	Joe Felker	Pfister Energy
	Michael Gumm	SolarPower Restoration Systems, Inc.
	Michael Harrison	Utah Clean Energy
	Rusty Haynes	North Carolina State Univ. Solar Center
	George Kelly	BP Solar
	Courtney Lane	PennFuture
	Alejo Lopez de Arm	Solar Direct
	Meredith McClintock	Ready Solar Inc.
	Erika Morgan	Citizenre Corporation
	Arnold Offner	Phoenix Contract
	Bill Reaugh	Old Country Roofing
	Dan Retz	Schuco USA
	James Rose	Network for New Energy Choices
	Chris Smith	Schuco USA
	Keith Vinchkoski	Apollo Solar
	David Williams	NMA Renewable Ventures
	Robert Willis	Intergrid
	Jonathan Wright	AquaMagic

Note: FSEC was closed August 18-22, 2008 due to heavy rains (for three-day period) and flooding in local area caused by the tropical storm (TS) Fay, and many roads were closed to traffic. Hence, most of FSEC associated panel members participated under adverse conditions by phone from their residences with limited communication facilities.

1. **Introduction**

The meeting began at 2:05 p.m. ET. Jerry Ventre started the meeting with an overview of the Solar ABCs Project and the Local Codes Study Panel. The critical issues to be investigated during the first year of the project include expedited permitting, solar access and solar rights laws, and codes for structural compliance in high wind load environments.

The Local Codes Study Panel, which is led by the Florida Solar Energy Center (FSEC) and the Interstate Renewable Energy Council (IREC), was introduced. Panel members include Gobind Atmaram, Stephen Barkaszi, Bill Brooks, Colleen Kettles, Keith McAllister, Colleen O'Brien, Bob Reedy, and Jane Weissman.

Stakeholders were encouraged to participate in panel meetings, website forums, discussion groups and related activities; and to provide input into and their reports, including recommendations, technical information, data and any other resources that would enhance the value of the reports.

Larry Sherwood took the roll call of the stakeholders present for the conference call meeting.

## **2. Solar Access and Solar Rights Laws**

Colleen Kettles, presented the material of her recently prepared draft report, *A Comprehensive Review of Solar Access Law in the United States*, and led the discussion on solar access and solar rights laws.

During the discussion period, Alex (Alenjo) Lopez of Solar Direct, a Florida company offered comments about difficulties with getting homeowners to trim trees when they are blocking solar collectors, as well issues with obtaining permits and permit fees. Colleen Kettles explained that Florida's solar easement statute was voluntary in nature and lacking a pre-existing solar statute, the neighbor was not required to trim trees blocking solar access. This is one area that the model statute in her draft report tries to address. The permitting questions were deferred until the presentation on Expedited Permitting.

Rob (Robert) Willis of Intergrid advised that New Hampshire recently, in July 2008, passed a law NHP 310 pertaining to solar access and wind flow protection that essentially says that the authority of designing for renewable energy or small wind system is given to municipality, so the installation will not be unreasonably compromised (based on the first draft of the master's thesis by a graduate student) and suggested that it be considered in the review of model statute. Colleen Kettles agreed to look up the New Hampshire law to evaluate its applicability to the draft of the model statute in her report.

## **3. Expedited Permitting**

Gobind Atmaram presented the material from the forthcoming draft report on Expedited Permitting (to be completed in September 2008), including the recommended approach for Listing/Approval of PV systems and related recommendations on promoting the use of PV system design review process (by FSEC) and simplified PV system schematics (by Brooks Engineering) to facilitate permitting by building inspectors and officials.

Bill Reaugh of Old Country Roofing enquired as to which states had solar licensing. Colleen Kettles responded that Florida, Oregon, California, Wisconsin, and some other states had solar licensing

Meredith McClintock of Ready Solar Inc. asked about NABCEP certification. Jane Weissman explained that NABCEP certification was a voluntary credential rather than a requirement.

One participant commented that he liked the approach on PV system Listing/Approval, and another offered favorable comments on simplified PV schematic of Brooks Engineering to facilitate permitting. Alex Lopez of Direct Solar mentioned about the difficulties in obtaining permitting in Miami-Dade County due to their high wind loading requirements on PV modules for which most commercially available modules are not tested. The questions on wind loading requirements were deferred until the presentation on High Wind Loading Considerations for PV Array Installation.

#### **4. High Wind Loading Consideration for PV Array Installation**

Stephen Barkaszi presented the material on High Wind Loading Considerations. He referred to ASCE/SEI Standard 7-2005 Standard for Minimum Design Loads for Buildings and Other Structures, and mentioned that the current test methods used to determine module pressure ratings in pounds per square foot (psf) will be evaluated for the roof-mounted arrays to verify if they comply with the ASCE/SEI Standard. Though a number of wind tunnel studies have been conducted, the test data and results are mostly proprietary, so additional testing is required to generate empirical data for model calibration.

George Kelly of BP Solar enquired if there were any codes or references from other roof-mounted structures such as satellite dishes. Colleen O'Brien responded that there is one paragraph in ASCE/SEI code that refers to the roof-mounted structures, which was written for cylindrical objects by a member of the review team, participating in our study. George Kelly mentioned that he is a member of ASTM 44.09 Committee and would look into ASTM standards.

Alex Lopez of Solar Direct mentioned that in Miami-Dade county permitting for PV array installations require that the PV modules be tested to wind speed of 140 mph, whereas the commercially available modules are only tested to 90 mph wind speed for meeting the IEC 61215 (or IEC 61646 for thin-film PV modules) and UL 1703 requirements. Stephen Barkaszi responded that Solar ABCs and FSEC are trying to be responsive to this need by using analytical approach to use the interpretation of ASCE/SEI code requirements to roof mounted arrays in high wind location and complementing that approach with empirical data to calibrate the analytical model. This will require additional wind tunnel testing.

Some discussion ensued between Alex Lopez, Rob Willis of Intergrid and Jonathan Wright of AquaMagic on other issues, including utilization of PV for water pumping, clean drinking water, etc.

## **5. Final Wrap Up**

Jerry Ventre encouraged stakeholder to provide comments and suggestions to the Study Panel Topics via the web site, [solarabcs.org](http://solarabcs.org), and thanked the speakers and other participants in the meeting.

The meeting adjourned at 3:10 p.m. ET.

