

Solar America Board for Codes and Standards

LOCAL CODES STUDY PANEL

Stakeholders Meeting of March 25, 2008

Minutes

Introduction

The meeting began at 2:10 p.m. ET. Jerry Ventre started the meeting with an overview of the Solar ABCs Project and the Local Codes Study Panel. The first objective of this effort is to investigate critical issues associated with permitting, fees, solar access, local codes and ordinances. The second objective is to develop a model ordinance for solar access rights and a model building code for high wind locations.

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, Rusty Haynes, Keith McAllister, Colleen O'Brien, Bob Reedy, Jane Weissman and Chuck Whitaker. Colleen Kettles serves as consultant to the Panel.

The due date for the Panel's final report is May 31, 2008. Stakeholders were encouraged to assist the Panel in prioritizing issues and needs; participating 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 this effort.

Solar Access and Solar Rights Laws

Colleen Kettles, special consultant to the Panel, presented and led the discussion on solar access and solar rights laws. Solar access refers to the ability of one property to continue to receive sunlight across the property lines without obstruction from another's property (buildings, foliage or other impediment). In contrast to solar access, solar rights refer to the ability to install solar energy systems on residential and commercial property that are subject to private restrictions (i.e., covenants, conditions, restrictions, bylaws, condominium declarations, as well as local government ordinances). Thirty-four states and a handful of municipalities have some kind of protection for solar access or solar rights. Solar rights laws can effectively void private land use restrictions that deny the use of a solar energy device. Solar access laws are virtually all voluntary, meaning that the owner cannot require that their neighbor agree to a solar easement. Solar rights and

solar access laws in force today are either unenforceable, impractical or require extensive and expensive litigation to protect the rights of the solar owner. In order to be effective, solar rights and solar access laws must pertain to new enforcement mechanisms, and address current and emerging solar (and other renewable energy) technologies. This Panel is pursuing a model statute that effectively protects solar rights and solar access.

Question: How can a sales contract prohibit the use of solar?

Answer: Florida's law does not cover sales contracts. It includes deed restrictions, condominium declarations and other provisions that are contained in deeds or that attach to purchases after the sales contract is closed.

Question: Does Florida's law not provide for penalties?

Answer: No, the only penalty is the award of attorney fees to the prevailing party. A homeowner can only bring an action for a Declaratory Judgment to order the community association to allow the installation or install the system without permission and wait for the association to sue them for removal.

Expedited Permitting

Gobind Atmaram began this session by the objectives of the expedited permitting study, which are to a) develop procedures and recommendations for timely and efficient permitting of PV systems by building inspectors and other jurisdiction officials, and b) to minimize the costs of permitting for PV systems. Two different approaches were discussed. The first encourages the use of FSEC's PV system design review and approval process, from which approved systems can be listed similar to many other building components that are listed by states and local building departments. With this PV systems listing approach, the plan review and permitting process is expedited significantly. On-site inspection is expedited also because of better documentation of the installed systems.

For states and authorities having jurisdiction (AHJs) that do not use listed systems, and for unlisted PV systems in general, an alternative approach is recommended. As with other building components, the permitting process starts with a required plan review. If the application materials are acceptable, a building permit is awarded. Once the PV system has been installed, it is inspected for compliance with local codes. To expedite this process, Bill Brooks presented a template for a generic PV system electrical diagram for systems less than or equal to 10 kW. The template contains blank spaces for electrical specifications that easily can be filled in and completed for the overwhelming majority of small system installations. With increased use, it will familiarize building department officials with acceptable electrical diagrams for PV systems. It will also address the common problem in California of poor quality electrical diagrams being submitted with permit applications.

Colleen O'Brien suggested adding either a table or a second page to the electrical diagram template to include information on wire type and size, and conduit type and size. Bill Brooks acknowledged that it was a good suggestion.

Question: Where will the electrical template be used and is it going to be available to everybody that needs it?

Answer: The intent is that the template diagram will be a standard part of the permit application package. The template will have as its companion document the *Inspector Guidelines for PV Systems*, which was developed by Brooks Engineering. The template and checklists with the guidelines will minimize the calculations and time required to prepare an acceptable permit application.

High Wind Loads and Model Code for PV Arrays

Stephen Barkaszi began this session by referring to ASCE/SEI 7-2005 Standard for Minimum Design Loads for Buildings and Other Structures. This and other codes and standards are being reviewed to better interpret how they apply to roof mounted PV arrays. As part of this effort, current test methods that are used to determine module pressure ratings in pounds per square foot (psf) will be evaluated.

This task will develop a design method for architects and engineers using existing codes and design parameters. Design guidelines will be developed for two types of array configurations: arrays mounted parallel to sloped roofs and arrays tilted on flat roofs.

Final Wrap Up

Jerry Ventre briefly reviewed the three areas covered during the meeting, encourage comments and suggestions to the Study Panel via the web site, solarabcs.org, and thanked the speakers and other participants in the meeting.

The meeting adjourned at 2:10 p.m. ET.