

Solar America Board for Codes and Standards (Solar ABCs)

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Project Administrator

International Photovoltaic Reliability Workshop
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Solar ABCs

Solar ABCs is a collaborative effort among experts to provide coordinated recommendations to codes and standards making bodies for existing and new solar technologies.

Acknowledgement

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Solar ABCs

- Removes long-standing barriers and concerns such as grounding and fire safety issues
- Coordinates resources and expertise to develop consensus on important topics
- Engages stakeholders helps codes and standards enable new technologies
- Conducts stakeholder meetings and responding to concerns keeps Solar ABCs relevant.

Solar ABCs

Steering Committee



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SHERWOOD ASSOCIATES

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Solar America Board for Codes and Standards



Solar ABCs

Advisory Committee

- Chair: Nick Chaset
- Jim Baak, Vote Solar
- Jon Bertolino, Sacramento Municipal Utility District
- Suzanne Borek, NJ Department of Community Affairs
- Marv Dargatz, Enphase Energy
- Adam Detrick, SunPower Corp.
- Mark Dougherty, Long Island Power Authority
- Ryan Gaston, Dow
- Smita Gupta, California Energy Commission
- Edwin Iracki, DuPont
- Tom McCalmont, ReGrid Power
- Colin Murchie, Solar City
- Rhone Resch, Solar Energy Industries Association
- Wilson Rickerson, Rickerson Energy
- Mike Taylor, Solar Electric Power Association
- Peter Varadi, Consultant
- Donald Warfield, BP Solar



Standards Activities



International Electrotechnical Commission (IEC)

- Secretariat for TC 82
- U.S. Technical Advisory Group

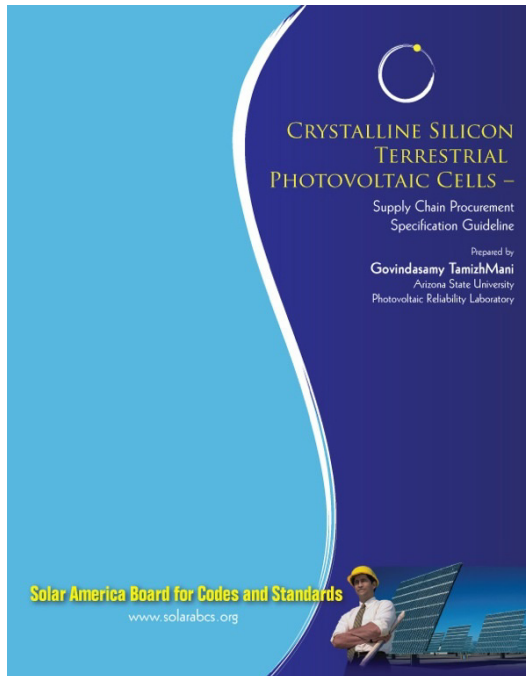


Collaborations

- ASTM International
- IEEE
- SEMI



Study Report Completed



- *Crystalline Silicon Terrestrial Photovoltaic Cells – Supply Chain Procurement Specification Guideline*
- SEMI developing *Guide for Specifying c-Si Terrestrial Solar Cells* based on report

PV Module Ratings

- Module Power Deviations in the U.S. should be $\pm 5\%$
- Develop more detailed policy and venue for certification (April 2010)
- Develop standardized module rating and reporting requirements (Fall 2010)



System Energy Ratings

- Stakeholder Meetings in late 2009 and early 2010



Inverter Meter Standard

- Draft Standard to Certify the Accuracy of Inverter Meters (July 2010)



Accelerated Lifetime Testing

- Collect and review public data to identify most common failure modes (May 2010)
- Draft Standard for Accelerated Lifetime Testing or Recommended Procedure for Multi-Year PV Module Performance (early 2011)



Code Activities



Code Revisions

- *National Electrical Code*®
- Building Codes
- Fire Codes



Grounding Issues

- Requirements for Equipment Ground Connection (early 2011)
- Test Methods to Evaluate Long-Term Reliability of Grounded Components (early 2011)



Expedited Permit Process



An easy and quick permit process for small PV systems

Expedited Permit Process for PV Systems: A Standardized Process for the Review of Small-Scale PV Systems (available soon)

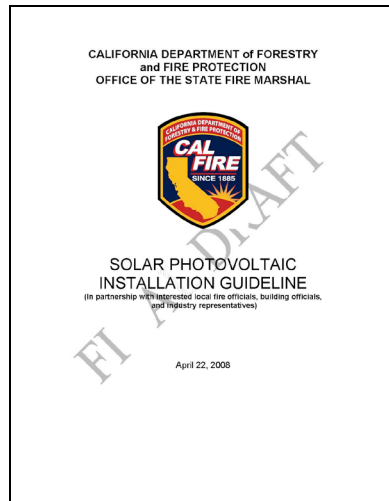


Wind Load Issues

- *High Wind Loads and Model Codes for PV Arrays* (Late 2009)
- Wind Tunnel Testing (2010-2011)
- Recommended additions or changes to code (2012)



Fire Codes



- California Fire Marshal *Solar Photovoltaic Installation Guideline*
- Solar ABCs developing a companion document to explain guideline (available in 2010)



Fire Rating Issues

- California is increasing fire rating requirements for roofs to Class A in many areas. Does a Class C rated PV module mounted on a Class A roof change the roof rating?
- UL (with funding from Solar ABCs) is conducting research at their fire protection laboratory. Should have results by the end of the year.



Other Completed Solar ABCs Reports

- *A Comprehensive Review of Solar Access Law in the United State: Suggested Standards for a Model Statute and Ordinance*
- *Utility External Disconnect Switch: Practical, Legal, and Technical Reasons to Eliminate the Requirement*
- *Comparison of the Four Leading Small Generator Interconnection Procedures*



Other Study Reports Under Development

- *Impact of Advanced Metering Infrastructure on Small Distributed Generation (Fall 2009)*
- *Review of FERC's Interconnection Screens (Summer 2010)*
- *Rate Impact of Net Metering (Summer 2010)*
- *Evolution of Net Metering (Summer 2010)*
- *Potential of AMI Data to Reduce the Technical Issues Related to Net Metering (2011)*



Opportunities for Involvement

- Stakeholder Meetings
- Quarterly Newsletter
- Comment on draft Reports and other documents

<http://www.solarabcs.org>



For more information

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