

# NISC: National and International Standards Coordination Panel

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Solar ABCs PV Stakeholder Meeting

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# National and International Standards Coordination Panel - NISC

- Purpose: Re-engage and better coordinate the US PV industry involvement in PV-related standards development
- Scope of activities includes
  - IEEE SCC 21
  - UL PV STPs
  - ASTM E44.09
  - IEC TC 82
- Facilitate stakeholder interactions and provide central information resources for PV-related standards
  - Web page with committee information and links
  - Meeting announcements

# NISC Functions

- Primary Functions:
  - Develop list of Stakeholders and solicit their participation
  - Help coordinate and facilitate meetings in conjunction with IEEE SCC 21, IEC TC82 USTAG, UL STPs, and ASTM E44.09
- Solar ABCs funding will also support
  - IEC TC 82 Secretariat (H. Barikmo)
  - TC82 US TAG Technical Advisor (S. Chalmers/A. Mikonowicz)
  - TC82 Working Group 6 Convener (C. Whitaker)

# National PV Standards Activities

- IEEE SCC21 - Standards Coordinating Committee on Fuel Cells, Photovoltaics, Dispersed Generation, and Energy Storage (SCC21)
  - Published world's first consensus standards for PV
  - IEEE American National Standards drafts and published standards act as starting point for some IEC standards
  - Since 2000
    - US PV manufacturers have focused on IEC standards (foreign sales dominate)
    - SCC21 had a strong, successful focus on USA utility DG interconnection (IEEE 1547 series)
  - Some SCC21 PV activities ongoing: batteries, stand-alone systems, concentrator modules

# National PV Standards Activities

- UL Standards Technical Panels
  - UL1703/61730
    - Defines safety tests and requirements for PV modules
    - Reviewing IEC 61730 to replace 1703
      - Developing “national differences” to create UL61730
    - Working with AHJs and others on PV grounding issues
  - UL 1741
    - Defines safety tests and requirements for PV Inverters, charge controllers, etc.
    - Updated to reference new IEEE 1547.1 tests
    - Incorporating requirements for ungrounded/non-isolated PV systems in parallel with IEC 62109

# National PV Standards Activities

- ASTM E44.09 Committee on Photovoltaic Electric Power Conversion
  - Develops PV product and system test procedures
    - E1143-05 *Standard Test Method for Determining the Linearity of a Photovoltaic Device Parameter with Respect To a Test Parameter*
    - E2047-05 *Standard Test Method for Wet Insulation Integrity Testing of Photovoltaic Arrays*
  - Two new standards under development
    - Performance of Concentrator PV Modules
    - Steel Blades for Photovoltaic Module Surface Cut Test

# International PV Standards

- IEC Technical Committee 82 Solar Photovoltaic Energy System (TC 82)
  - Très International: 16 active+21 participant countries
  - IEC Standards often adopted as mandatory in Europe
  - 61215/61646 PV Module Qualification Standards
  - 61730 PV Module Safety Standards
  - 61727 Characteristics of the utility interface
  - 62109 PV Inverter Safety Standards (under development)

# International Standards

- Working Groups: Primary standards development
  - WG 1 : Glossary
  - WG 2 : Modules, non-concentrating
  - WG 3 : Systems
  - WG 6 : Balance-of-system components
  - WG 7 : Concentrator modules
- National Committees: Comment and approve
  - ANSI oversees US participation in IEC
  - US Technical Advisory Group (US TAG) organizes and presents comments/voting recommendations to ANSI

# Solar ABCs NISC: here to help

- Coordinate standards development groups
- Help facilitate combined meetings
- Encourage and support broad industry participation
- Provide industry feedback on standards needs

*...We don't make the standards you use, we help you make the standards you use better...*