

# International Electrotechnical Commission (IEC) is based in Geneva, Switzerland

**Technical Committee 82** 

# SOLAR PHOTOVOLTAIC ENERGY SYSTEMS

The secretariat for TC 82 rests in the US. The secretary is Howard Barikmo, Sunset Technology, Inc., who is making this presentation.

- Standard writing is done through Working Groups:
  - WG 1: Glossary
  - WG 2: Modules, non-concentrating
  - WG 3: Systems
  - WG 6: Balance-of-system components
  - WG 7: Concentrator modules
  - JCWG: JCG TC 82/TC 88/TC 21/SC 21A

• To find out what we do, go to www.iec.ch. Go toward bottom of page and click on TC Dashboard. In the TC Dashboard window, type in 82, then click on Submit. That window will give you a menu with 8 options for you to navigate to your heart's content learning the TC 82 mission and its work. Some locations are only open to members of the US Technical Advisory Group of TC 82 (US TAG TC 82). Alex Mikonowicz will discuss the TAG shortly.

The major "workhorse" standards published by TC 82 are (by Working Group):

**WG** 1

IEC 61836 Solar photovoltaic energy systems – Terms and symbols (Ed 3 should be published in mid-year.)

# WG 2 (Dr. John Wohlgemuth)

IEC 61215 Ed. 2.0 Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and type approval. (Ed 3 in process of being written.)

IEC 61646 Ed. 2.0, Thin-film terrestial photovoltaic (PV) modules — Design qualification and type approval. (Ed 2 will be published by mid-year.)

IEC 61730-1 Ed. 1.0, Photovoltaic module safety qualification – Part 1: Requirements for construction.

IEC 61730-2 Ed. 1.0, Photovoltaic module safety qualification – Part 2: Requirements for testing.

IEC 61853-1, Power and energy rating of photovoltaic (PV) modules – Power Rating. (In process of being written.)

IEC 61853-2, Power and energy rating of photovoltaic (PV) modules – Test Methods. (In process of being written.)

IEC 61853-3, Power and energy rating of photovoltaic (PV) modules – Energy Rating. (In process of being written.)

#### **WG 3**

IEC 62253 Ed. 1.0, Equipment and safety specifications for direct coupled photovoltaic (PV) – pumping systems. (In process of being written.)

IEC 62446 Ed.1: Grid connected PV systems - Minimum system documentation, commissioning tests and inspection requirements. (In process of being written.)

Installation and Safety Requirements for Photovoltaic (PV) Generators. (In process of being written.)

## WG 6 (Chuck Whitaker)

IEC 62109-1 Safety of power converters for use in photovoltaic power systems - Part 1: General requirements (In process of being written.)

IEC 62109-2 Safety of power converters for use in photovoltaic power systems - Part 2: Particular requirements for inverters (In process of being written.)

IEC 62109-3 Safety of power converters for use in photovoltaic power systems - Part 3: Controllers (In process of being written.)

EC 62116 Test procedure of islanding prevention measures for utility-interconnected photovoltaic inverters (In process of being written.)

## WG 7 (Dr. Robert McConnell)

IEC 62108 Concentrator photovoltaic (CPV) modules and assemblies – Design qualification and type approval (Published December 2007.)

All work in TC 82 is through the US TAG. Experts from the TAG *may* be appointed to various working groups--all dependent on the convenor and not making the WG US-centric or European-centric or Asian-centric.

ANSI dues for US TAG members is \$285 per year. Must be a member of ANSI to participate in the TAG. TAG presentation discussion follows.