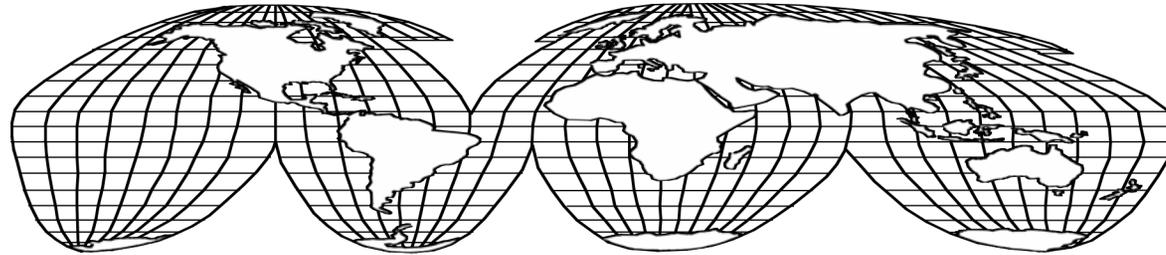




International
Electrotechnical
Commission (IEC)

Technical Committee 82
reported by the Secretary



Presented at the
National and International Standards Coordination
Panel Meeting
Golden, Colorado
June 3, 2008

Howard O. Barikmo



“Hierarchy”

TC 82 Solar photovoltaic energy systems

- Chairman:
 - Dr. Heinz A. Ossenbrink, Head of Renewable Energies Unit
European Commission, DG Joint Research Centre, Ispra, Italy
- Secretariat is held by the US
- Secretary
 - Howard O. Barikmo, Sunset Technology, Scottsdale, Arizona



Working Groups

- WG 1 Glossary
 - Mr. Hidenori Shimizu, Japan
- WG 2 Modules non-concentrating
 - Dr. John Wohlgemuth, US
- WG 3 Systems
 - Mr. Ted Spooner, Australia and Mr. Martin Cotterell, UK
- WG 6 Balance-of-system components
 - Mr. Charles Whitaker, US
- WG 7 Concentrator Modules
 - Dr. Robert McConnell, US
- JCWG
 - Vacant
- JWG--batteries
 - Patrick Jourde, France



Project stages and associated documents

<u>Project stage</u>	<u>Name</u>	<u>Abbrev.</u>	<u>Time</u>
Preliminary stage	Preliminary work item	PWI	
Proposal stage	New work item proposal	NP	
Preparatory stage	Working draft(s)	WD	6 mo
Committee stage	Committee draft(s)	CD	12 mo
Enquiry stage	Enquiry draft	CDV	24 mo
Approval stage	Final draft international standard	FDIS	33 mo
Publication stage	International standard		36 mo



Participating Countries

Forty countries are participants in TC 82:

Twenty five as full voting members meaning they are expected to review and/or vote on all draft documents

Fifteen observer members who may make comments on documents of their choice



TC 82 Publications

Publication

Language

- IEC 60891 (1987-04) English and French
Procedures for temperature and irradiance corrections to measured I-V characteristics of crystalline silicon photovoltaic devices
- IEC 60891-am1 (1992-06) English and French
Amendment 1 - Procedures for temperature and irradiance corrections to measured I-V characteristics of crystalline silicon photovoltaic devices
- IEC 60904-1 (2006-09) English and French
Photovoltaic devices - Part 1: Measurement of photovoltaic current-voltage characteristics



TC 82 Publications

- IEC 60904-1 (2006-09) English
Photovoltaic devices - Part 1: Measurement of photovoltaic current-voltage characteristics
- IEC 60904-2 (2007-03) English and French
Photovoltaic devices - Part 2: Requirements for reference solar devices
- IEC 60904-3 (2008-04) English and French
Photovoltaic devices - Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data



TC 82 Publications

- IEC 60904-5 (1993-10) English and French
Photovoltaic devices - Part 5: Determination of the equivalent cell temperature (ECT) of photovoltaic (PV) devices by the open-circuit voltage method
- IEC 60904-7 (1998-03) English and French
Photovoltaic devices - Part 7: Computation of spectral mismatch error introduced in the testing of a photovoltaic device
- 60904-8 (1998-02) English and French
Photovoltaic devices - Part 8: Measurement of spectral response of a photovoltaic (PV) device



TC 82 Publications

- IEC 60904-9 (2007-10) English and French
Photovoltaic devices - Part 9: Solar simulator
performance requirements
- IEC 60904-10 (1998-02) English and French
Photovoltaic devices - Part 10: Methods of linearity
measurement
- IEC 61173 (1992-09) English and French
Overvoltage protection for photovoltaic (PV) power
generating systems - Guide
- IEC 61173 (1992-09) English
Overvoltage protection for photovoltaic (PV) power
generating systems - Guide



TC 82 Publications

- IEC 61194 (1992-12) English and French
Characteristic parameters of stand-alone photovoltaic (PV) systems
- IEC 61194 (1992-12) English
Characteristic parameters of stand-alone photovoltaic (PV) systems
- IEC 61215 (2005-04) English and French
Crystalline silicon terrestrial photovoltaic (PV) modules -
Design qualification and type approval
- IEC 61277 (1995-03) English and French
Terrestrial photovoltaic (PV) power generating systems -
General and guide



TC 82 Publications

- IEC 61345 (1998-02) English and French
UV test for photovoltaic (PV) modules
- IEC 61646 (2008-05) English and French
Thin-film terrestrial photovoltaic (PV) modules - Design qualification and type approval
- IEC 61683 (1999-11) English
Photovoltaic systems - Power conditioners - Procedure for measuring efficiency



TC 82 Publications

- IEC 61701 (1995-03) English and French
Salt mist corrosion testing of photovoltaic (PV) modules
- IEC 61701 (1995-03) English
Salt mist corrosion testing of photovoltaic (PV) modules
- IEC 61702 (1995-03) English and French
Rating of direct coupled photovoltaic (PV) pumping systems
- IEC 61702 (1995-03) English
Rating of direct coupled photovoltaic (PV) pumping systems



TC 82 Publications

- IEC 61724 (1998-11) English and French
Photovoltaic system performance monitoring - Guidelines for measurement, data exchange and analysis
- IEC 61725 (1997-05) English and French
Analytical expression for daily solar profiles
- IEC 61727 (2004-12) English and French
Photovoltaic (PV) systems - Characteristics of the utility interface
- IEC 61730-1 (2004-10) English and French
Photovoltaic (PV) module safety qualification - Part 1: Requirements for construction



TC 82 Publications

- IEC 61730-2 (2004-10) English and French
Photovoltaic (PV) module safety qualification -
Part 2: Requirements for testing
- IEC 61829 (1995-03) English and French
Crystalline silicon photovoltaic (PV) array - On-
site measurement of I-V characteristics
- IEC/TS 61836 (2007-12) English
Solar photovoltaic energy systems - Terms,
definitions and symbols



TC 82 Publications

- IEC 62093 (2005-03) English and French
Balance-of-system components for photovoltaic systems -
Design qualification natural environments
- IEC 62108 (2007-12) English and French
Concentrator photovoltaic (CPV) modules and assemblies
- Design qualification and type approval
- IEC 62124 (2004-10) English and French
Photovoltaic (PV) stand alone systems - Design
verification
- IEC/TS 62257-1 (2003-08) English
Recommendations for small renewable energy and hybrid
systems for rural electrification - Part 1: General
introduction to rural electrification



TC 82 Publications

- IEC/TS 62257-2 (2004-05) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 2: From requirements to a range of electrification systems
- IEC/TS 62257-3 (2004-11) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 3: Project development and management
- IEC/TS 62257-4 (2005-07) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 4: System selection and design



TC 82 Publications

- IEC/TS 62257-5 (2005-07) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 5: Protection against electrical hazards
- IEC/TS 62257-6 (2005-06) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 6: Acceptance, operation, maintenance and replacement
- IEC/TS 62257-7 (2008-04) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 7: Generators



TC 82 Publications

- IEC/TS 62257-7-1 (2006-12) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 7-1: Generators - Photovoltaic arrays
- IEC/TS 62257-7-3 (2008-04) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 7-3: Generator set - Selection of generator sets for rural electrification systems
- IEC/TS 62257-8-1 (2007-06) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 8-1: Selection of batteries and battery management systems for stand-alone electrification systems - Specific case of automotive flooded lead-acid batteries available in developing countries



TC 82 Publications

- IEC/TS 62257-9-2 (2006-10) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 9-2: Microgrids
- IEC/TS 62257-9-3 (2006-10) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 9-3: Integrated system - User interface
- IEC/TS 62257-9-4 (2006-10) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 9-4: Integrated system - User installation



TC 82 Publications

- IEC/TS 62257-9-5 (2007-06) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 9-5: Integrated system - Selection of portable PV lanterns for rural electrification projects
- IEC/TS 62257-12-1 (2007-06) English
Recommendations for small renewable energy and hybrid systems for rural electrification - Part 12-1: Selection of self-ballasted lamps (CFL) for rural electrification systems and recommendations for household lighting equipment

48 published documents