Standards - *Improving Quality & Efficiency for your Industry*

George Kelly, ASTM E44
What We Will Cover

- About ASTM International
- Standards Development
- Global Acceptance and Use
- E44 PV Standards
Primary Objective:

...is to be the foremost developer and provider of consensus standards, related technical information, and services having globally recognized quality and market relevance
About ASTM International

ASTM International

- 111 year-old international not-for-profit organization that develops consensus standards – including test methods
- Participation open to all - 30,000 technical experts from across the globe

ASTM’s Objectives

- Promote public health and safety
- Contribute to the reliability of materials, products, systems and services
- Facilitate national, regional, and international commerce

ASTM Standards

- Voluntary until referenced in a code, regulation or contract.
- Known for high technical quality and usability.
- Over 12,000 ASTM standards for more than 100 industry sectors
- 6,000 ASTM standards used in regulation or adopted as national standards around the world in at least 80 countries
### WTO / TBT Principles
- Transparency
- Openness
- Impartiality and consensus
- Effectiveness and relevance
- Coherence
- Consideration of developing nations

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“Constraints on developing countries, in particular to effectively participate in standards development should be taken into consideration in the standards development process.”
About ASTM International

Forum

- All stakeholders involved
- Every member has equal say
- Consensus-based procedures
- Private and public sector cooperation
- One vote per organization

Examples:

Manufacturers, Regulatory agencies, Associations, Professional societies, Professionals and Consultants, Academia, Research Institutions and laboratories
Balance of Interest

Technical Committees are balanced. No excess influence by any interest group. Ensures market relevance of the content of standards.
COS – 30 day ballot, Review Due Process, Appeals

Main – 30 day ballot, 60% return, 90% approval

Sub – 30 day ballot, 60% return, 2/3 approval

TG – no official ballot, bulk of work completed here, unofficial voting sometimes takes place
Subcommittee E44.09
Photovoltaic Electric Power Conversion

Formed in 1978
- 24 published standards
- 100+ members

Scope:
- Evaluating the design and performance of PV power systems.
- Include all components necessary for
  - conversion,
  - conditioning,
  - storage,
  - control,
  - distribution of power
Key Standards Covering:

- E1036 Test Methods for Electrical Performance of Nonconcentrator Terrestrial Photovoltaic Modules and Arrays Using Reference Cells
- E1125 Test Method for Calibration of Primary Non-Concentrator Terrestrial Photovoltaic Reference Cells Using a Tabular Spectrum
- E2766 Practice for Installation of Roof Mounted Photovoltaic Arrays on Steep-Slope Roofs
- E2848 Test Method for Reporting Photovoltaic Non-Concentrator System Performance
- E2939 Practice for Determining Expected Capacity and Reporting Conditions for Photovoltaic Non-Concentrating Systems NEW SEPT 2013
Other Photovoltaic Standards

E44.44 PV Fire Safety
- E2908 Guide for Fire Prevention for Photovoltaic Panels, Modules, and Systems

E44.01 Terminology
- E772 Terminology of Solar Energy Conversion

New Standards Under Development
- WK38365 Test Methods for Ultraviolet Conditioning of Photovoltaic Modules or Mini-Modules Using a Fluorescent Ultraviolet (UV) Lamp Apparatus
- WK43549 Practice for Installation Commissioning Operation and Maintenance Process (ICOMP)
How to Get In the Know?

Become a Member:

- 24 hour online access to ballots, meeting minutes and agenda
- Networking and roster access
- Free copy of the ASTM standards for $75 annual membership

Notifications:

- Sign up for free email alerts
- Electronic News releases

Task Group Participation:

- Open Meetings
- Online Collaboration Areas
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