



**Asia-Pacific
Economic Cooperation**



APEC
USA 2011

Subcommittee on Standards and Conformance (SCSC) Energy Efficiency and Renewable Energy Related Activities

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Presented by, Cary Bloyd, Pacific Northwest National Laboratory
Report to the EWG/EGEEC
November 8, 2011

Summary

- APEC 2011 Themes
- What is the SCSC?
- SCSC 3rd Quarter Projects
 - Solar Technologies
 - Green Buildings
 - ICT Energy Efficiency
 - ISO Energy Management Systems Standards
- Projects on the Horizon of Interest to the EGEEC
 - Smart Grid
 - Regulatory Approaches
 - Electric Vehicles
- New Ideas for 2012
 - Is there potential for a MYP with EGEEC on Green Buildings?
 - Follow up on ICT EE?

Priorities

- Strengthening regional economic integration and expanding trade;
- Promoting green growth;
- Expanding regulatory cooperation and advancing regulatory convergence.

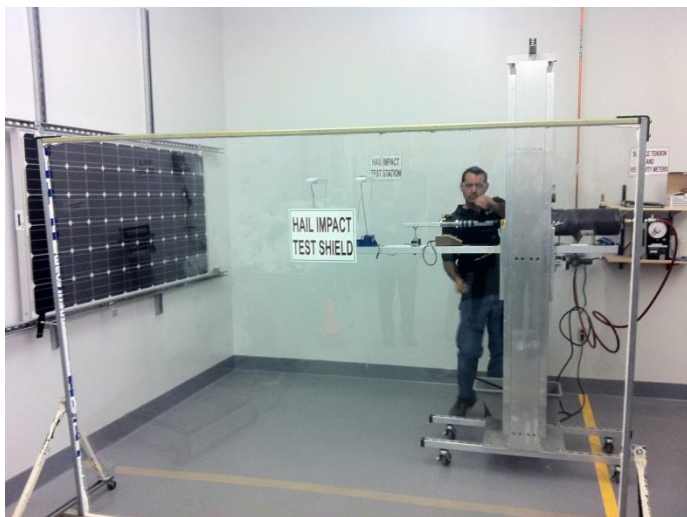
What is the SCSC?

- Reports to the Committee on Trade and Investment
- Chair: Julia Doherty, Office of the U.S. Trade Representative
- Composition: All 21 economies with representation from trade agencies, regulators, academics and national standards bodies
- General Goals of the SCSC:
 - Increase Member alignment to international standards;
 - Encourage regulatory cooperation and good regulatory practices;
 - Engage business in its activities;
 - Increase acceptance and understanding of conformity assessment and international mechanisms as a tool to facilitate trade.



Summary

- Initiated 9.13.2010; Expected completion 12.31.2011
- Project Co-Sponsors: Chinese Taipei, Indonesia, Japan, Peru
- Documents for this project can be found in the APEC Meeting Documents Database by searching SCSC documents.
- Project Overseers
 - Jennifer Stradtman, U.S. Department of Commerce, Jennifer.Stradtman@trade.gov
 - Khoi Do, Underwriters Laboratories Khoi.Do@us.ul.com



CEO Keith Williams providing conference participants tour of UL's San Jose Laboratory



Deliverables

- **2011 Current Practices Survey**
 - Included Photovoltaics (PV), Concentrated Solar Power (CSP), and Solar Water Heating (SWH)
 - 15/21 Economies participated, results presented 9.15.2011 and submitted to the SCSC 9.21.2011
 - Organizational sponsors – U.S. Government (DOE, USTR, Commerce), Solar Energy Industry Association (SEIA), UL
- **Conference on Facilitating Trade of Solar Technologies through Standards and Conformity Assessment**
 - September 15-16, 2011, San Francisco, CA, United States
 - 90 participants from 20/21 Economies
 - Included a tour of the UL's PV Laboratory in San Jose, CA
 - Organizational sponsors – UL, USAID, SEIA, Intertek
- **Conference on Ensuring PV Reliability and Durability**
 - 120 participants from 17/21 Economies
 - October 12-13, 2011, Taipei, Chinese Taipei
 - Included a tour of TERTEC's PV Laboratory in Taipei
 - Organizational sponsors – USAID, UL, BSMI, SEIA, Intertek, TERTEC



Project Outcomes

- Commitment to greater participation and use of international standards, recognizing that local conditions such as building construction and installation codes and grid design may require limited national differences.
- Cooperation on the development of a strong technical basis for all test procedures including those used as the basis for product certification, labeling and product safety standards.
- Greater recognition of certification bodies' audits of production facilities to decrease the needs for multiple audits of one facility.
- Training and education programs for customers, such as government procurement programs, the effective use of international standards for quality assurance and quality management.
- Training and certification of solar technology professionals, specifically installers, is important to ensure codes and standards are properly applied throughout the APEC economies.
- The establishment of standardized monitoring methods and surveillance requirements for solar resource measurement and evaluation to assure project investors of accurate site resource prediction.
- Continued cooperation between experts on reliability and durability in research and development and standardization efforts regarding standards and testing for PV.

Green Buildings

Summary



- Initiated December 2010; Expected Completion December 2011
- Project Co-sponsors: Singapore, Japan, New Zealand, Peru, Indonesia, and Canada
- Documents for this project can be found in the APEC Meetings Documents Database <http://aimp.apec.org/MDDDB/default.aspx>
- Project Overseers:
 - Kelsey Scheich, U.S. Department of Commerce, Kelsey.Sheich@trade.gov
 - Renee Hancher, U.S. Department of Commerce, Renee.Hancher@trade.gov
 - Teresa Cendrowska, ASTM International, tcendrow@astm.org

Deliverables

- **Sustainability in Building Construction (Commercial Buildings) - Efficiency and Conservation Survey (March 2011)**
 - Performed by Helen Delaney of Delaney Consulting
 - APEC Publication: http://publications.apec.org/publication-detail.php?pub_id=1144
 - Sponsors: ASTM, Aluminum Association, AHRI, IAPMO, ICC
- **Green Buildings and Green Growth: The Enabling Role of Standards and Trade - Meeting Outcomes (March 3-4, 2011, Washington, DC)**
 - 150 Participants from 21 APEC Economies
 - APEC Publication: http://publications.apec.org/publication-detail.php?pub_id=1146
 - Sponsors: ASTM, USAID, NFRC
- **Green Building and Green Growth: Approaches to Encouraging a Positive Green Building Climate (September 12-13, 2011, Singapore)**
 - 200 Participants from 18 APEC Economies
 - Conference hosted by the Singapore Building and Construction Authority on the margins of the International Conference on Green Buildings September 12-13, Singapore.
 - Sponsors: USAID, ASTM, Singapore's BCA
- **USAID Case Study on the Trade Impacts of Life Cycle Assessment for Flooring and Plumbing**
 - Performed by Dana Kenney of DAI Consultants
 - Presented September 12 in Singapore; sent to the SCSC for comment September 21; awaiting final draft for APEC publication.
- **USAID Case Study on the Trade Impacts of Green Buildings Rating Systems**
 - Performed by Cindy Lowry and Dana Kenney of DAI Consultants
 - Case study presented September 12 in Singapore; awaiting draft case study for APEC SCSC intercessional comment.

Green Buildings Outcomes

- **Greater transparency**
 - The *APEC Survey on Sustainability in Buildings* completed by 19/21 APEC economies
 - Case studies on green building rating programs and trade impact of Life Cycle Assessment in plumbing and flooring certification programs
 - Knowledge exchange with World Bank/IFC, World Green Building Council
- **Consensus that voluntary initiatives, market-driven programs and government-led efforts all have roles in promoting greater sustainability in the built environment**
- **Standards and conformity assessment provide consensus solutions**
 - Encourage greater stakeholder engagement and maximizing use of international standards and referencing existing standards in meeting objectives
- **Enhanced policy coordination**
 - Joint APEC-ASEAN work considered a model for future cooperation
 - Cooperation with UNEP and other organizations on understanding of green metrics and expanding availability of data on green performance

ICT Energy Efficiency

Summary

- Initiated May 2011; Completion expected January 2012.
- Project co-sponsors: Japan, Australia, Korea and Chinese Taipei.
- APEC Conference on ICT Energy Efficiency held in San Francisco, September 12, 2011.
- 75 participants from 20/21 economies.
- Documents for this project can be found in the APEC Meetings Documents Database
<http://aimp.apec.org/MDDDB/default.aspx>.

Project Overseers

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Dave Ling from Hewlett Packard moderating a panel on The Role of Global Energy Efficiency Standards in Facilitating Trade in ICT Products

ICT EE Principles

- Conference participants encouraged economies, in coordination with industry and other stakeholders, to seek to:
 - Ensure energy efficiency programs for ICT products help promote, and not impede, energy efficient economic growth and innovation.
 - Ensure energy efficiency programs for ICT products are based on accurate data and sound analysis.
 - Use proven successful voluntary and mandatory energy efficiency programs for ICT products as a basis for regulatory convergence and product energy efficiency gains.
 - Avoid using voluntary energy efficiency program metrics as minimum energy performance standards (MEPS) for market access of ICT products.
 - Adopt international standards and metrics in energy efficiency programs for ICT products.
 - Ensure transparency and stakeholder participation in the regulatory process for energy efficient ICT products.
 - Adopt minimally trade-restrictive conformity assessment requirements in energy efficiency programs for ICT products.

ICT EE Next Steps

- The conference key outcomes were endorsed by the SCSC on September 21, and sent for information to the EWG EGEE&C November 3.
- The participants in this conference encourage the SCSC and EGEE&C to work together to strengthen energy efficiency for ICT products and promote regulatory convergence, consistent with the principles stated above. In particular, and building on the EGEE&C mapping exercise: identify test methods and technology standards ripe for further international harmonization (to include definitions and modes); and, data sharing on energy performance of ICT products.
- Further, the SCSC and EGEE&C should look to identify and promote data center best practices, as well as best practices for ICT-enabled intelligent efficiency and carbon emissions reduction throughout the economy.
- Therefore, conference participants expressed strong support for convening a follow-up conference in 2012 to continue the dialogue between the regulators and industry on this important topic.

PASC EnMSCAT⁺

Summary

- Initiated December 2010; Completion expected January 2012.
- Project co-sponsors: Japan, Korea, and Canada.
- APEC Conference ISO Energy Management Systems Standards held in San Francisco, September 13-14, 2011.
- 70 participants from 20/21 economies.
- Documents for this project can be found in the APEC Meetings Documents Database
<http://aimp.apec.org/MDDDB/default.aspx>.

Project Overseers

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"Individual organizations cannot control energy prices, government policies, or the global economy, but they can improve the way they manage energy, and they can do it today," said S. Joe Bhatia, president and CEO of the American National Standards Institute (ANSI) in his welcome remarks. "An organization's commitment to more effective energy management makes positive contributions toward reducing depletion of energy resources, and smart energy use can also free up budget dollars for other initiatives. When companies can link energy efficiency to profitability, it is a win-win situation."

Outcomes

Conference participants agreed:

- There is a worldwide need for organizations and facilities to establish a management process to proactively assess, manage, and measure energy usage to continuously improve their energy efficiency. ISO 50001 was created to meet this need and serve as an international framework for commercial and industrial plants and companies to manage energy, including all aspects of procurement and use. It is predicted that as much as 60% of the world's energy consumption could be affected by the ISO 50001 Energy Management Standard if widely implemented.
- Participants:
 - Sought to identify concrete areas for collaboration on this standard and related certification programs.
 - Discussed how government and companies can effectively implement the standard and respond to multiple national certification programs.
 - Agreed ISO 50001 energy management standard can positively impact businesses, governments, academia, as energy consumers and provide a practical approach to improving and increasing energy efficiencies and reducing costs, climate change, and energy consumption across facilities, particularly in developing countries.
 - Assessed the role that energy management standards can play in assisting organizations in the Asia Pacific to become more internationally competitive.

Projects on the Horizon of Interest to the SCSC and the EGEEC

– Smart Grid

- Regulatory Approaches

- Concept Note has received “in principle” funding from the BMC
- Co-sponsors are Japan, Korea and China
- Project Overseer: Cuong Nguyen, NIST, United States
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- Meeting of Smart Grid regulators on the margins of the World Forum on Energy Regulation in Quebec City, Canada in May 2012

- Electric Vehicles

- Concept Note now has enough co-sponsors to be considered for funding for BMC 1 2012

New Ideas for SCSC and EGEEEC for 2012

- For Discussion in the upcoming months
 - Is there potential for the SCSC and EGEEEC to develop a MYP on Green Buildings?
 - U.S. IT industry intends to submit another project proposal on energy efficiency.
 - Others?

Thank you!

Questions?

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