

Update from the United States
Energy Related Work in the Sub Committee
on Standards and Conformance

April 2014

M CTI 02/12 A

Role of Standards and Conformity Assessment Measures in Enhancing the Performance and Energy Efficiency of the Commercial Building Sector

- U.S.-led APEC green building Multi-Year Project runs 2013-2015
- Builds on work begun in 2011
- EGEE&C is partner APEC fora
- Cooperation with ASEAN ACCSQ

Objectives

Encourage consistent, transparent, and appropriate green building standards-related measures, thus avoiding the creation of unnecessary obstacles to trade.

Identify best practices in standards and code development, and testing and rating of building products that support a cleaner, more energy efficient commercial building sector.

Workshop 1: Sharing Experiences in the Design and Implementation of Green Building Codes

March 2013 Lima, Peru

- A joint APEC – ASEAN workshop , developed and implemented in collaborative partnership with Peru
- Informed by:
 - **Peru survey** - “Sharing Experiences in the Design and Implementation of Green Building Codes in the APEC Economies”
 - **U.S. study** – “Building Codes and Green Codes in the APEC Economies” Sharing of information, experiences, and best practices among APEC and ASEAN economies

Study: Building Codes, Regulations, and Standards

Objective: Understand how economies utilize building codes to increase building performance.



For each of the 21 APEC economies, the study provides in-depth information about:

- Approach to building regulation
 - Development, adoption, administration, enforcement
- Roles of government and private sector
- Existing building codes
 - Minimums for key elements
 - Referenced standards
- Green elements of existing codes
- Stand-alone green codes
- Protocols for monitoring, review, and assessment

Available at: http://publications.apec.org/publication-detail.php?pub_id=1442

Workshop 2
How Building Information Modeling (BIM) Standards Can Improve
Building Performance
June 2013, Indonesia

- Joint APEC-ASEAN event
- Diverse presentations by member economies and expert BIM professionals to highlight:
 - Current status of BIM standards development
 - Benefits of BIM to policymakers, architects and designers, construction industry actors, building owners, and others
 - Case study success stories showing the practical implementation of BIM projects
 - Concrete steps that can be taken by economies to increase BIM usage toward improving building performance

Start-Up Guide Building Information Modeling

- Provides economies with specific actions to take to advance BIM uptake, with associated benefits.



START-UP GUIDE

Building Information Modeling (BIM)

Where is your economy on the BIM adoption timeline?

STATUS QUO	PILOTING	POLICY	INDUSTRY	INNOVATION
Minimal BIM adoption, no government policies or support	Exploring value and implications of implementation for the economy	Developing support, incentives, and requirements for BIM	Wide adoption of BIM and ready to spread best practices and benefits	Leading development of new capabilities and extending the value of BIM

ACTIONS SUPPORTING BIM ADVANCEMENT

Performance—Track impact and progress

Action	Benefit
Tie BIM success metrics to broader economic priorities such as Energy and Resource Savings, Sustainability, Productivity, Safety, Environment, and Health.	Measurable, reportable, and relevant indicators of benefits BIM brings to the economy help motivate investment.
Engage stakeholders to choose and implement metrics	Increases buy-in, applicability, and relevance to goals.
Identify, publish, and use success targets for established BIM goals.	Shared understanding of the value proposition, evaluation criteria, and documented success confirm and inspire accomplishments.
Measure and report progress openly and frequently	Transparent, equitable, and reliable reporting to inform timely and effective management decisions.
Benchmark progress to global achievements	Realistic capability comparison with other economies; evaluate status in relation to possible collaborators and competition.

Planning—Establish objectives and protocols

Actions	Benefits
Review effective BIM pathways	Draw benefits of international best practices, consensus standards, and other economies' accomplishments
Connect BIM to economy-specific priorities	Enables integration with regional priorities and desired results such as energy and resource savings, sustainability, productivity, environment, and health outcomes
Set specific goals for BIM development to drive BIM pilot projects, policy making, and metrics.	Publicize rationale behind BIM projects, establish basis for metrics and targets, track and demonstrate progress.
Identify and engage core stakeholders	Engagement increases buy-in, helps establish accurate basis from which to measure improvement, engagement with local industry encourages participation and promotes development of relevant programs and policies.
Assess current state of BIM awareness and adoption	
Communicate benefits of BIM	
Identify requirements for increased BIM uptake	
Conduct case studies and pilots to inform policy-making	Develops knowledge and capabilities appropriate to aspirations. Demonstrates viability of strategies and tactics.
Design stimulus, incentive, support and education to encourage rapid BIM uptake and BIM expansion.	Encourages action, reduces risk to practitioners, leverages knowledge gained from research and case studies and pilots.

The Start-Up Guide details Actions and Benefits associated with:

- Defining metrics aligned with an economy's priorities
- Planning BIM policies
- BIM policy adoption
- Technology to provide the right BIM tools

Published on APEC web site

http://publications.apec.org/publication-detail.php?pub_id=1510

Green Buildings Work in 2014

- Work reoriented to continue emphasis on green codes and BIM
- Ongoing ACCSQ engagement
- Desire stronger linkage with EGEE&C
- 2014 Events
 - BIM Workshop Beijing/ SOM 3 in August
 - Green Codes Workshop New Orleans in October

Plans for 2014 – Other Projects

- CTI 27 2013 A – Aligning Energy Efficiency Regulations for ICT Products – Implementing A Strategic Approach
 - First project under the newly formed ICT Global Energy Efficiency Convergence Forum
 - Workshop and Inaugural Meeting of ICT GEEC Forum at SOM III in Beijing, China - August 2014
 - Day 1 – Government and business discussion on aligning EE regulations
 - Day 2 – APEC Member regulators meet at ICT GEEC Forum
- Progress
 - Completed Economy survey on utilization of IEC62623 for EE testing of personal computers
 - Preparing for implement of pilot projects to examine applicability of IEC E₃ program for transportability of EE test data
- Welcome collaboration with the EGEE&C

Plans for 2014 – Other Projects

- APEC Regulatory Cooperation Advancement Mechanism (ARCAM) - Dialogue on Electric Vehicle (EV) Standards
 - Will build on discussions and recommendations from the 2011 ARCAM Smart Grid Interoperability Standards Dialogue
 - May 7, 2014, Qingdao, China
 - Session 1 – Overview of APEC Economies' EV Regulations
 - Session 2 – Challenges of Convergence in International Standards for EVs
 - Session 3 – EV Technical Areas of Harmonization and Alignment
 - Session 4 – Overview of Efforts in International Fora to Harmonize EV Standards
 - Session 5 – What can APEC do to align EV regulations and promote harmonization of EV international standards?

For more information:

Green Buildings (M CTI 02 12A)

Renee.Hancher@trade.gov

ICT (CTI 27 2013 A)

Michael.Boyles@trade.gov

ARCAM

Edward_Brzytwa@ustr.eop.gov