

Project Updates:

APEC Capacity Building Workshop for Energy Efficiency and Conservation Policy (EWG_208_2025A)

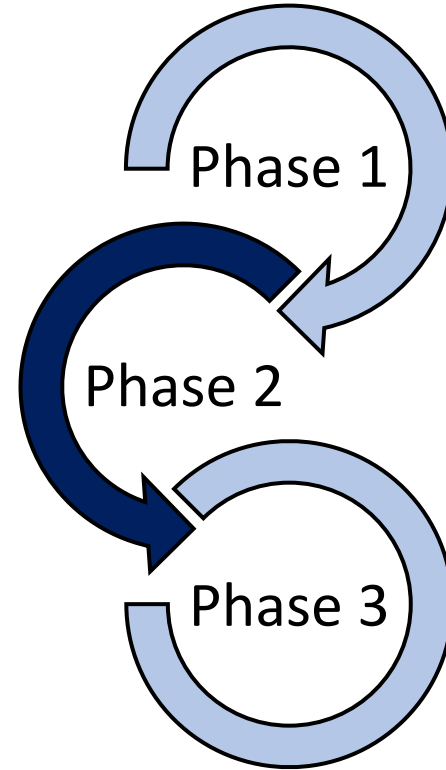
APEC Expert Group on Energy Efficiency and Conservation 67th meeting (EGEEC 67)
30 July 2026 – Shenzhen, China

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Outline

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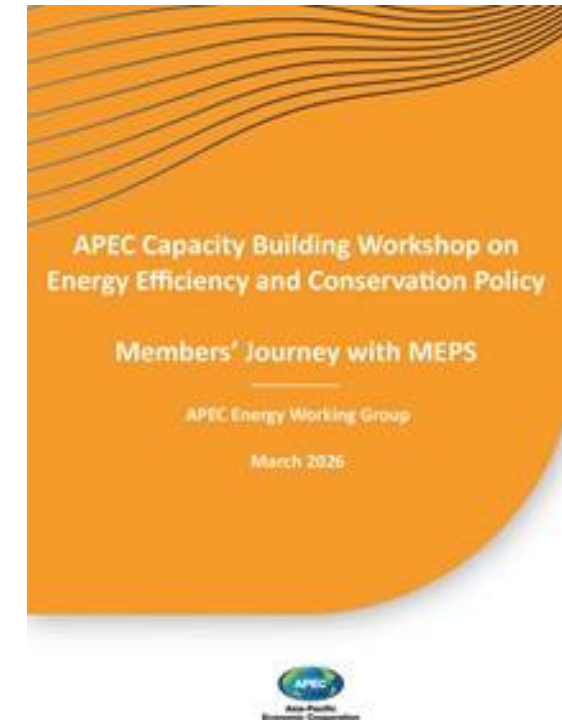
Background

- The project “APEC Capacity Building Workshop for Energy Efficiency and Conservation Policy” aims to support APEC economies in **strengthening their capacity** to develop and implement **energy efficiency and conservation policies**.
- The need for **capacity building** is particularly high across the **diverse APEC region**, where economies differ in development levels, energy resources, infrastructure, and policy frameworks.
- The project aligns with APEC’s Putrajaya Vision 2040 and Aotearoa Plan of Action.
- A one-day in-person workshop is held annually alongside an EGEEC meeting.
- Each workshop has a different theme and different objectives.
- The project succeeds PREE (2009–2024) and expands its scope to benefit a wider range of member economies.
- The Phase 1 workshop (*Theme: “Members’ Journey with MEPS”*) was held in Seoul in November 2025.
- The **Phase 2 workshop** (*Theme: “AI-Enabled Smart Buildings Policies”: Advancing Energy Efficiency in APEC’s Buildings Sector*) was held in **Shenzhen in July 2026**.



Phase 1 Workshop Recap

- **Theme:** *"Members' Journey with MEPS"* (Minimum Energy Performance Standards)
- **Date/Venue:** November 18, 2025 / Seoul, Korea
- **Total Participants** (52)
- **Key Takeaways:**
 - APEC economies are at different stages of MEPS development
 - The workshop identified clear, actionable priorities for strengthening MEPS implementation across the region
 - Workshop recommendations provide key guidance tailored to economies at varying levels of MEPS maturity and identify opportunities for regional collaboration, capacity building, and evidence-based policy design



Phase 2 Workshop Overview (1)

- **Theme:** *"AI-Enabled Smart Buildings Policies: Advancing Energy Efficiency in APEC's Buildings Sector"*
- **Date/Venue:** July 29, 2026 / Shenzhen, China
- **Total Participants:** 36
 - Member Economies (10): PRC; HKC; JPN; MAS; MEX; PNG; PHL; RUS; CT; VN
 - APEC Fora (5): EWG Secretariat, EGEEC, EGEDA, EGCFC, APERC
- **Invited Speakers:** 5
 - Imperial College London, Institute of Energy Economics Japan, Blueprint Energy Solutions, International Energy Agency, United Nations Environment Program
- **Workshop Energy Experts:** 3



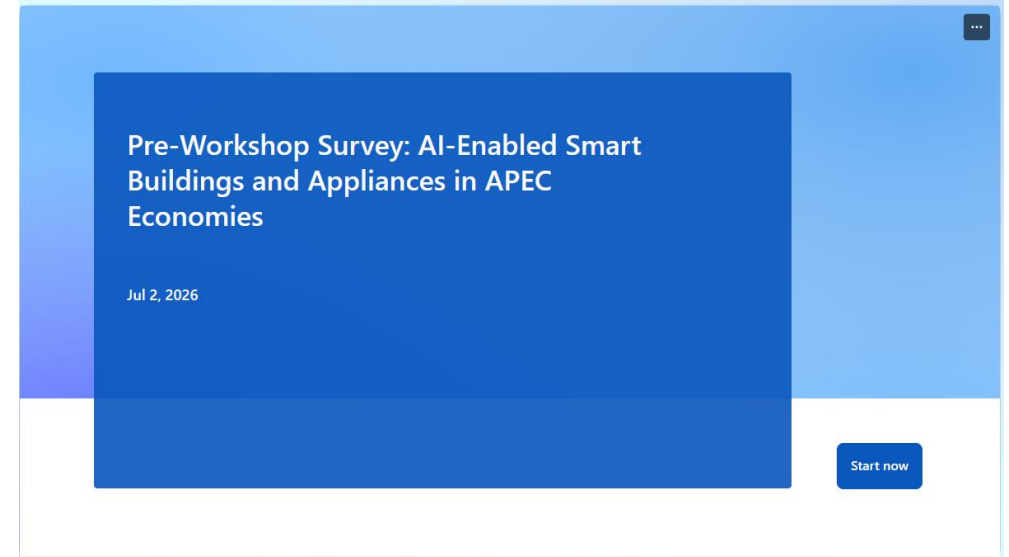
Phase 2 Workshop Overview (2)

- **This Workshop aims to:**

- Identify common challenges and policy gaps related to AI-enabled building energy efficiency
- Facilitate peer learning and exchange of practical experiences, including case studies and lessons learned, and evidence of energy efficiency gains from AI systems
- Develop actionable, policy-relevant recommendations to support implementation

- **Pre-workshop Survey:**

- Case studies and practical examples
 - Policies and regulations
 - Incentives and programs
 - Smart grid and demand response progress
 - Key challenges and priorities
- => 13 responses from 8 economies, more to come



Phase 2 Workshop Overview (3)

HIGHLIGHTS

Time	Content	Session Lead
08:00 - 09:00	Registration and Informal Networking	
09:00 - 09:30	Opening Session	Moderator: Asia Pacific Energy Research Centre
09:00 - 09:05	Welcoming Remarks	Host Economy Representative
09:05 - 09:10	Opening Remarks	Asia Pacific Energy Research Centre
09:10 - 09:15	Group Photo	—
09:15 - 09:30	Workshop Overview and Introduction • Overview of workshop aims and expected outcomes	Asia Pacific Energy Research Centre
09:30 - 11:00	Session 1: Context and Host Economy Experience	Moderator: Consultant
09:30 - 10:10	Setting the Context – Digitalization and AI for Improving Energy Efficiency in the Buildings Sector - Key trends in the buildings sector's energy demand and efficiency across APEC - Role of digital infrastructure (sensors, controls, BEMS) as the foundation for AI-enabled applications - Status of AI applications in buildings in APEC Member economies. Insights from the pre-workshop survey. - Evidence of AI potential and system benefits - Key policy challenges and opportunities identified from pre-workshop inputs This session will be delivered by the consultants and Professor Ian Hamilton. We will also include Menti Poll Surveys to engage the audience	TBC
10:10 - 10:35	Host Economy Case Study - Smart Buildings and AI in Practice - Domestic strategy and policy frameworks - Real-world applications of energy efficiency-related AI applications in buildings - Key initiatives and achievements - Lessons learned and future priorities	Host Economy (TBD)
10:35 - 11:00	Q&A and reflections	Experts provide insights; audience Q&A
11:00 - 11:30	Coffee Break	
11:30 - 12:30	Session 2: Digital Foundations for AI-Enabled Buildings	Moderator: Consultant
12:30 - 13:30	Importance of data availability and digital infrastructure for energy efficiency-related AI applications - Efficiency impacts of smart systems, controls, and demand response readiness - Enabling factors: communication protocols, interoperability, building codes, standards, and policy frameworks This session will include two to three expert speakers and one member economy. Would also include Menti poll questions.	Potential Expert Speakers: TBC
12:30 - 13:30	Networking Lunch	—
13:30 - 15:30	Session 3: Scaling AI in Buildings - Case Studies and Lessons for Policy	Moderator: Consultant
13:30 - 15:00	Expert Case Study Presentations - Real-world applications of energy efficiency-related AI applications and digital solutions in buildings (e.g. AI in Smart HVAC Systems, AI-Powered Demand Response, Digital Twins). - Policy, regulatory, and institutional contexts supporting implementation - Measured impacts on energy use, peak demand, and operational performance, especially from AI-enabled controls - Lessons learned, key challenges, and scalability considerations	Potential speakers: TBC
15:00 - 15:30	Plenary Session (Q&A and Discussions) for Session 2 & 3	Moderator: Consultant
15:30 - 17:30	Coffee Break	—
15:30 - 17:00	Session 4: Enabling Ecosystems and Next Steps	Moderator: Consultant
15:30 - 17:00	Breakout Discussion: From Pilots to Policy Integration This session builds on the case study insights to identify practical pathways for policy integration across APEC economies. Facilitated Group Discussions - Current policy and regulatory status - Key gaps (data, codes, incentives, capacity) - Opportunities to integrate energy efficiency-related AI applications and digitalization into policy frameworks - Priority actions and next steps - Understanding the outcomes from AI-enhanced systems	
17:00 - 17:25	Reflections and Next Steps - Key takeaways from breakout discussions - Priority policy actions for APEC economies - Opportunities for regional collaboration and future work	Consultants and Asia Pacific Energy Research Centre
17:25 - 17:30	Closing remarks	EGEE Chair (TBC)

Presentations by the Host Economy, Experts, and Members



- Set the policy and technical context
- Share practical experience, challenges and opportunities

Breakout Discussions



- Identify key policy and regulatory gaps
- Explore practical pathways for policy integration across APEC economies

Plenary Reflections



- Consolidate key insights, priority policy actions, and next steps

Key Takeaways from Phase 2 (Preliminary)

Key Outcomes

- **AI and digitalisation** highlighted as key opportunities for advancing building energy efficiency.
- Strong evidence supporting **AI-enabled BEMS** for operational energy savings.
- Discussions underscored the importance of **interoperable digital infrastructure** and **open communication standards**.
- Increasing recognition of **smart buildings** as **grid flexibility assets**.
- **Performance-based approaches** and **continuous digital monitoring** emerged as important policy directions.
- Common **implementation barriers** identified, reinforcing the need for **capacity building** and **regional cooperation**.

Key Recommendations

- Foundational Readiness (Early-Stage Digital Economies)
 - **Mandate basic digital infrastructure** (smart meters, sub-metering, BEMS)
 - **Embed demand-response requirements** into MEPS for major cooling appliances.
 - **Build institutional capacity** in data governance, cybersecurity, and digital building auditing
- Scaling & System Integration (Advanced Economies)
 - **Mandate open communication protocols** in public building codes to prevent vendor lock-in.
 - **Introduce dynamic tariff and time-of-use pricing** to reward automated load shifting and grid interactivity.
 - **Link energy efficiency financial subsidies to verified operational savings**.
- Near-Term "Quick Wins" (1–3 Years)
 - Strengthen **public procurement leadership**
 - Integrate **Smart Readiness Indicators** into green building rating systems
 - **Regional Knowledge Exchange**

Phase 3 Project Outline

Project Title	APEC Capacity Building Workshop for Energy Efficiency and Conservation Policy (Phase 3)
Proposing Economy	Japan
Co-Sponsoring Economies	CHL; HKC; PHL; CT; VN
Objectives	Since member economies must develop their own pathways for energy transition, building capacity for policy formulation is essential. The main objective of the project is to develop policies addressing issues on energy efficiency and conservation. Specifically, this project aims to: - Identify common challenges across APEC economies; - Share best practices and lessons learned - Develop new ideas to improve energy efficiency and conservation policies of the member economies.
Outputs	1. APEC Capacity Building Workshop for Energy Efficiency and Conservation Policy 2. Workshop Summary Report

Phase 3 Project Outline

Date & Venue	TBD (to be held in conjunction with EGEE68)
(Potential) Theme	<i>Advancing Energy Efficiency in APEC's Industry Sector</i> • The workshop will showcase the implementation policies of member economies to boost energy performance and reduce emissions in the industry sector. The best practices sharing by member economies on effective industry standards will help in empowering APEC economies to lead in sustainable industry practices.
Draft Agenda	• Host Economy Presentation • Policy Review and Expert Insights • Economy Presentations: Policy Implementation Experiences and Challenges • Expert Discussion: Observations and Recommendations

Tentative Timeline for Phase 3

Date	Actions
March 2027	• Coordination with EGEEC on the date and host economy for the next EGEEC meeting. Discussion of possible theme/topic.
April 2027	• Selection of consultant • Identify and invite speakers and experts
May – November 2027	• Share General Information Circular (GIC) • Finalize draft agenda • Confirm experts and participants • Seek nominations from member economies
November 2027	• Conduct Phase 3 workshop (in conjunction with EGEEC)
December 2027 – February 2028	• Draft Workshop Summary Report
March 2028	• Submit Workshop Summary Report

We would like to encourage active engagement from APEC member economies throughout Phase 3 project.

Thank you.

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