

Energy Efficiency Hub

APEC Expert Group on Energy Efficiency & Conservation: EGEEC 60

15 March 2023



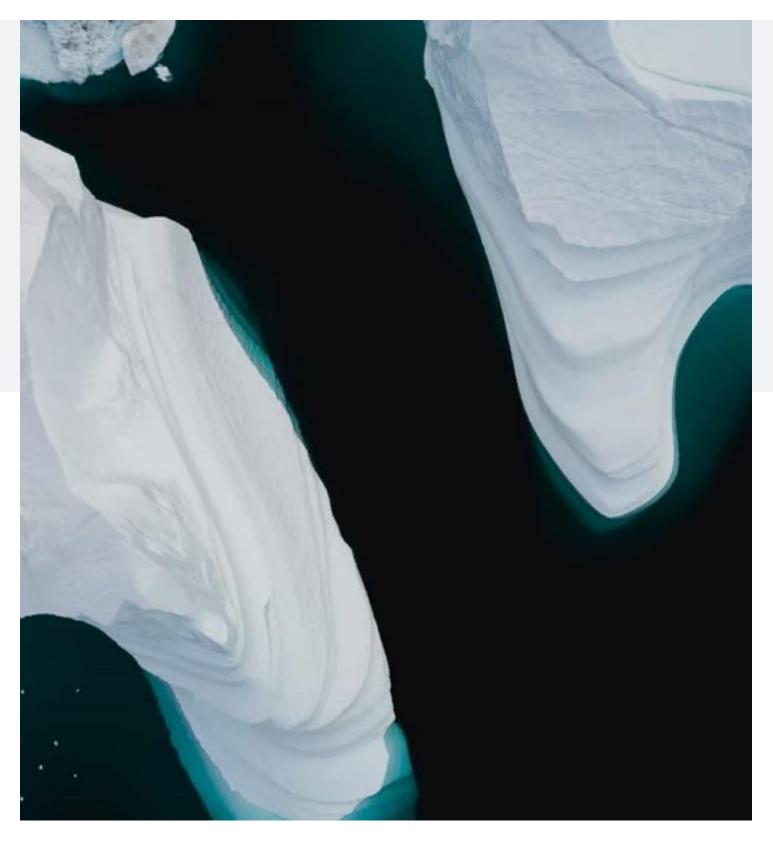


HUB AT A GLANCE

Fostering collaboration to enhance energy efficiency work globally

The Hub helps its 16 Member governments from across the globe:

- share information and best practices to help each other strengthen deployment of energy efficiency,
- give greater visibility and a stronger presence internationally to energy efficiency, and
- enhance Hub Members' collaboration with the International Energy Agency and other international organisations.

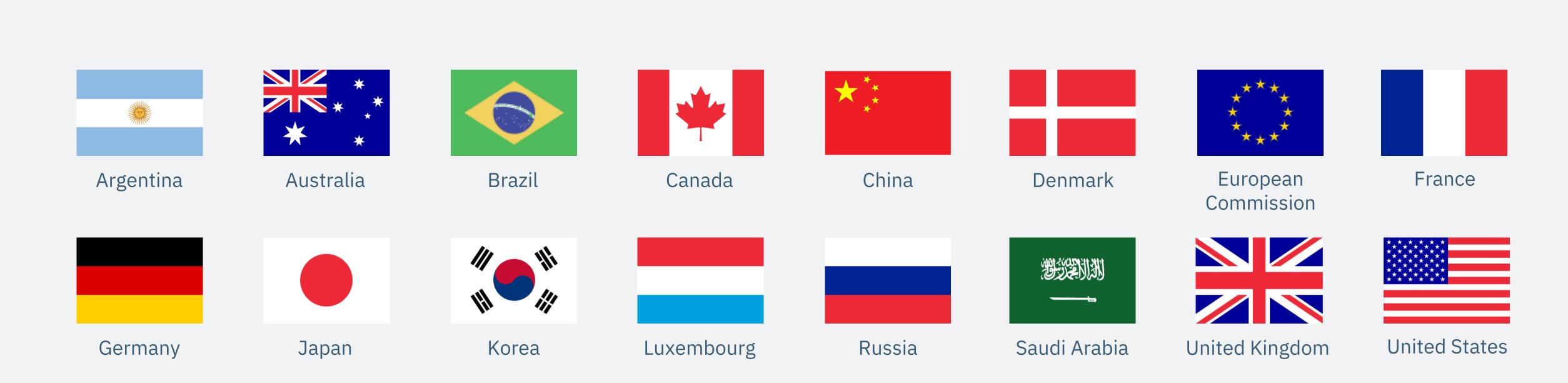






16 MEMBERS Our Members

efficiency.



The Hub is a voluntary collaboration among 16 governments seeking to strengthen their effectiveness in deploying energy



5 MEMBER-LED TASK GROUPS Our Task Groups







EMAK

Energy Management Action Network

The Hub takes on issues important to its Members through thematic Task Groups.

Super-Efficient Equipment & Appliances Deployment Initiative

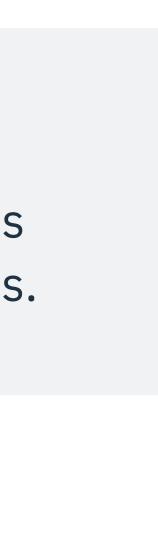


EEB Energy Efficiency in Buildings



TOP TENs

Top Ten Energy Efficiency Best-Available Technologies and Practices





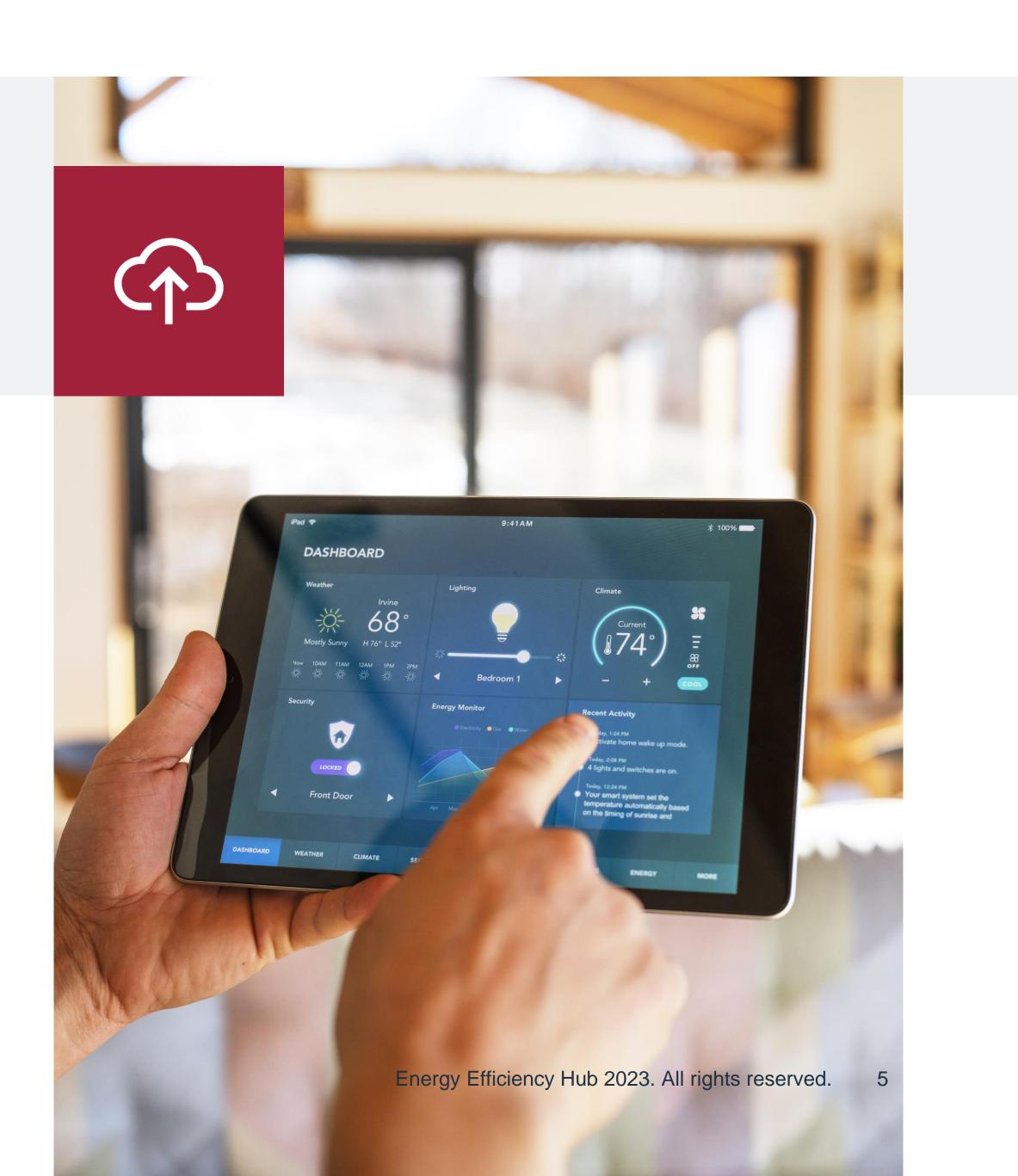
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Digitalisation Working Group

The <u>Digitalisation Working Group</u> informs and advances the digitalisation of energy-efficiency in end uses.

The Task Group is a platform for Hub Members to learn about each other's experiences with digitalisation and to understand key gaps, priority areas and effective approaches.

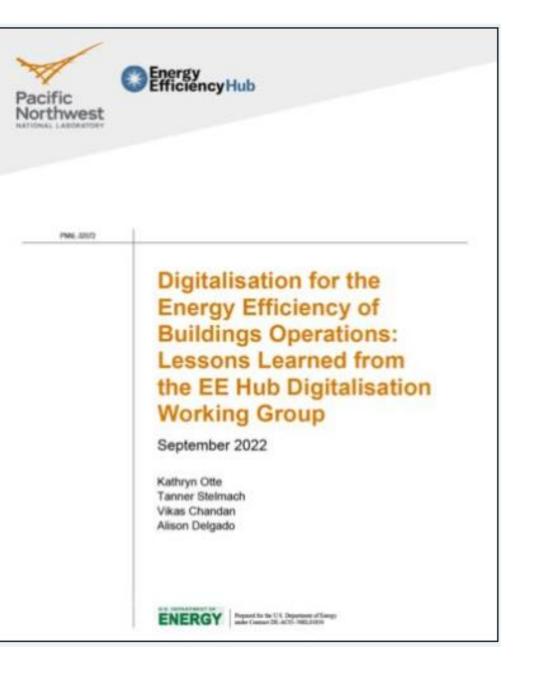


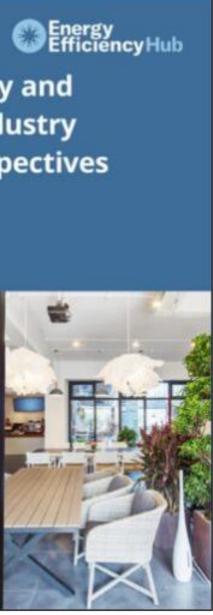


[DWG] Digitalisation Working Group

- The Digitalisation Working Group (DWG) released its first report, <u>Digitalisation for the Energy Efficiency of Buildings</u> **Operations**, in September 2022.
- Building on this report, in November 2022 DWG published a <u>roadmap</u> on approaches and challenges in implementing digitalisation policies for energy efficiency.
- DWG also produced an article, <u>Building Efficiency and</u> **Digitalisation: Industry Stakeholder Perspectives**, that presents diverse insights from industry leaders.







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11 November 2022







Super-Efficient Equipment & **Appliances Deployment Initiative**

<u>SEAD</u> is a collaboration among governments to promote the manufacture, purchase and use of efficient appliances, lighting, and equipment worldwide.

For over a decade, SEAD has helped the uptake of energy-efficient products, by supporting governments to implement ambitious policy packages and harmonising markets. SEAD is both a Task Group of the Hub and an Initiative of the <u>Clean Energy Ministerial</u>.

SEAD's *Product Efficiency Call to Action* aims to double the efficiency of four key products by 2030.









Super-Efficient Equipment & Appliances Deployment Initiative

Work plan for 2023

- Continue policy support to participants, product & country-specific fact sheets.
- Engage Members on data & analysis, connecting technical assistance to national projects.
- Collaborate with Cool Coalition for COP28.
- Increase communication & promotion with public bodies and banks, promoting events.
- Strengthen resources and commitments to increase the scope of SEAD's activities.



Policy Support

SEAD Data™

Communication and Promotion

Product Efficiency Call to Action

Management and Coordination





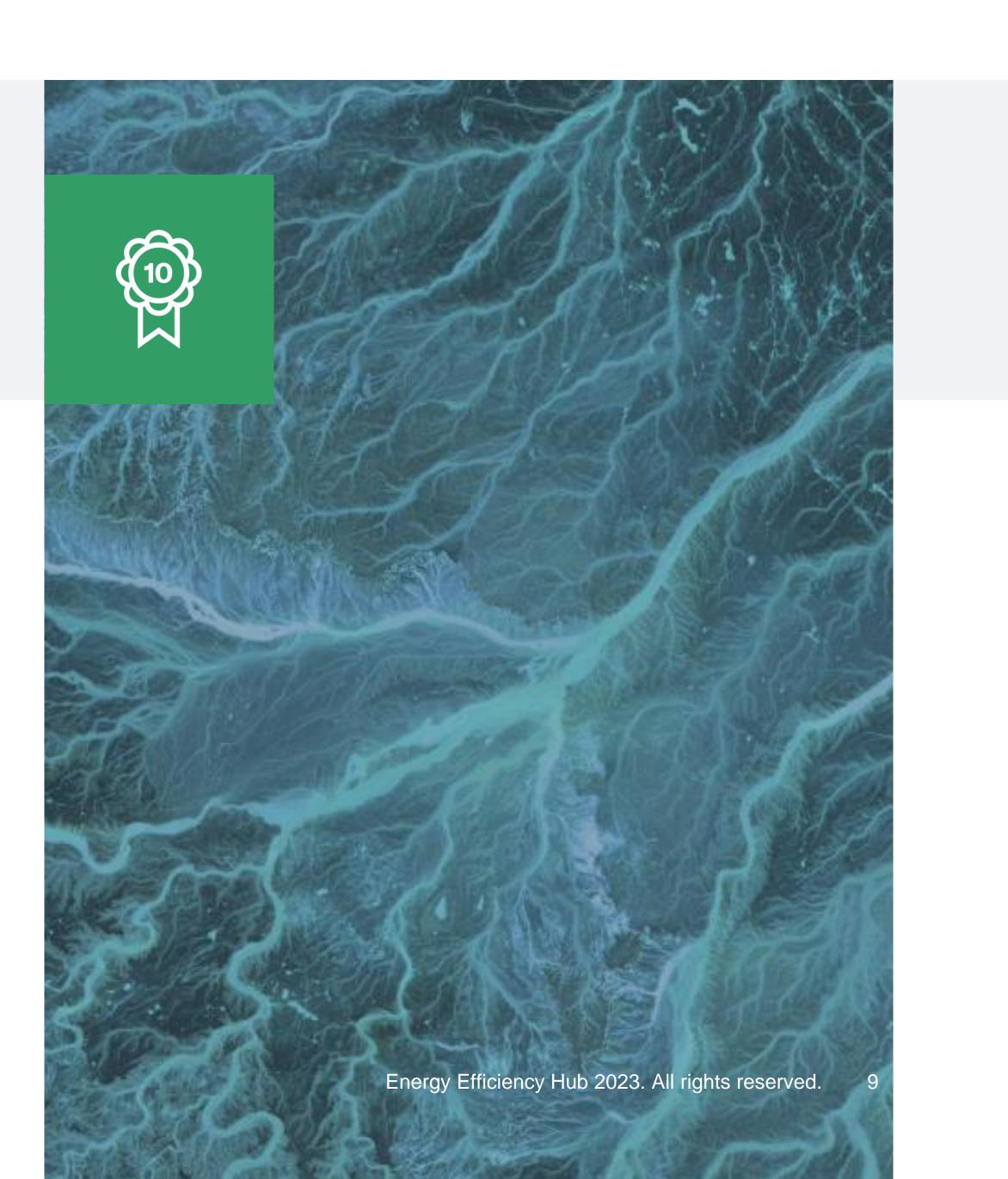
[TOP TENS]

Ten Energy Efficiency Best Available Technologies and Best Practices

<u>TOP TENs</u> prepares lists of best energy-efficiency technologies and practices in key-consuming sectors that governments can promote through their policy measures.

Since China and Australia jointly established TOP TENs in 2013, the Task Group has published several national and international lists of technologies and best practices featuring cutting-edge approaches and case studies.







[TOP TENS]

Ten Energy Efficiency Best Available **Technologies and Best Practices**

- TOP TENs has published two sets of lists of technologies, in <u>2015</u> and in <u>2019</u>.
- The Task Group produces two types of lists: international lists, applicable to most countries, and national lists, tailored to each of the participating countries.
- Task Group participants are currently preparing their third set of lists, to be released later in 2023.



First Batch of International TOP

List of Top Ten Energy Efficiency Best Available Technologies (BATs)

1	Combined heat and power (Cogeneration)	Co-generation projects	Japan
			Australia
			United State
2	Drying optimisation	Pre-drying technologies	Australia
3	Heat pump Technology	Two-stage heat pump technology	China
		Heat pump for high-temperatures: Steam condensation typy vacuum degreaser	Japan
		Heat pump for low-temperatures: Heat pump system for high-efficiency steam supply	Japan
		The simultaneous heating and cooling heat pump	Japan
4	High-efficiency light emitting diodes (LED) lighing	Japan
	Low-emission boiler	Boiler economiser	Australia
		Flue gas heat recovery system	United States
5		Low NOx regenerative burners: High-performance industrial furnace (regenerative burner)	Japan
		High-efficiency industrial pulverised coal Boiler	China
		Small once-through boilers	Japan
6	Premium light dimming technology		Japan
7	Pumping System Optimisation	Reduce throttling losses	Australia
2	Recovery of industrial waste heat	Slag water waste heat recovery blast furnace	China
8		Heat recovery and conversion to electricity	Australia

Second Batch of International TOP TENS List

List of Top Ten Energy Efficiency Best Available Technologies(BATs)

Industrial Secto

No.	BAT Title		
1	Energy-saving control chip technology on body voltage sensor		
2	Energy saving technology based on three-phase sampling and fast response		
3	Heat, cold and electricity generation by tri-generation		
4	High-strength and low thermal conductivity heat insulating materials "ROSLIM TM Board GH"		
5	Infrared technologies for drying and baking thin products or coating		
6	Matrix Converter U1000		
7	Optimum control of high efficiency inverter centrifugal chillers using a heat source integrated control system		
8	Selective and mass heating by microwaves		
9	The high-effective energy-conservation recovery technology of the excavator's potential energy		
10	Variable speed drives (VSD) applied to centrifugal and other dynamic machine (pumps,fans, compressors)		

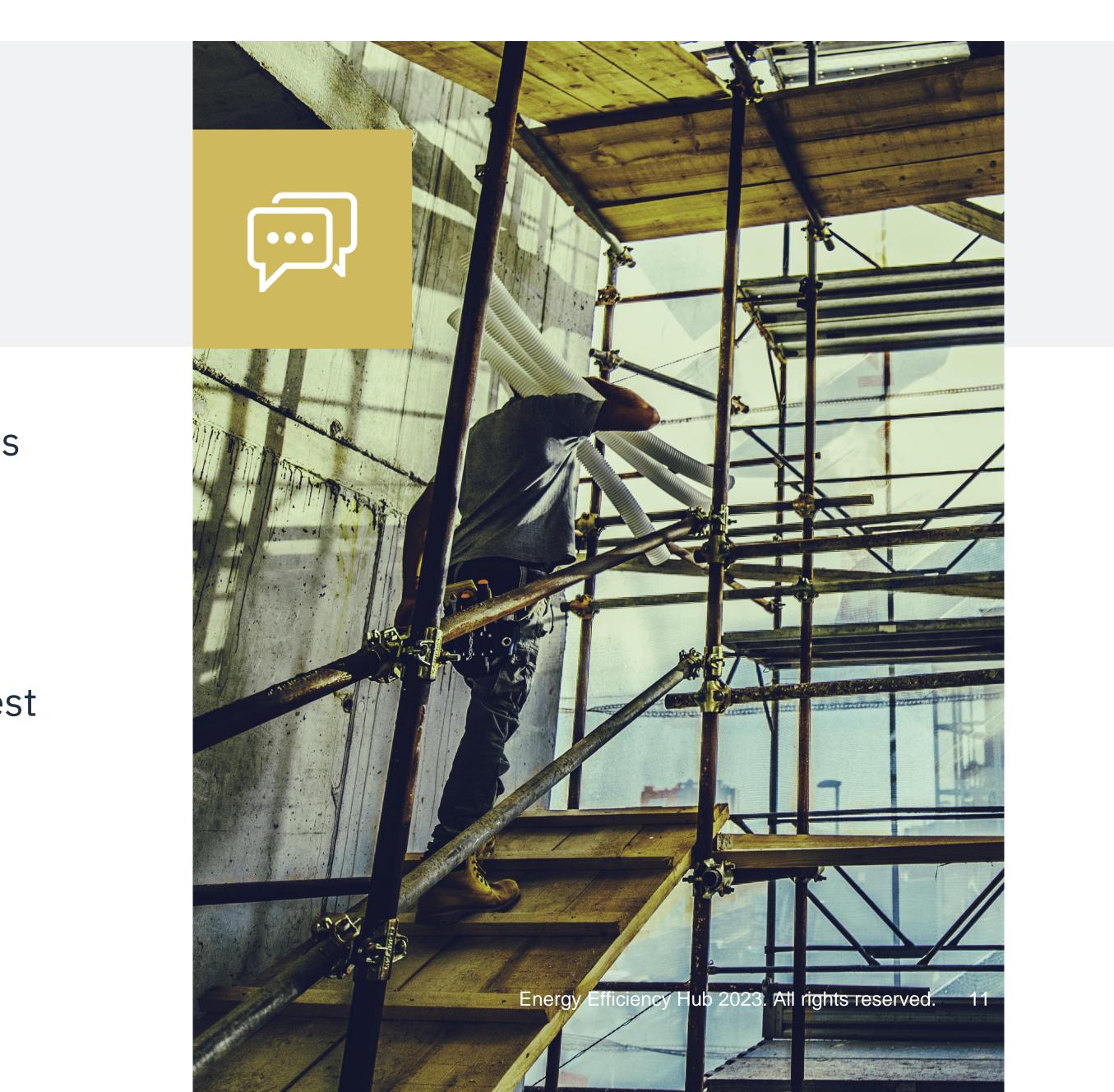




Energy Management Action Network

The <u>Energy Management Action Network</u> facilitates public-private exchanges on systems for raising energy efficiency in industry and buildings.

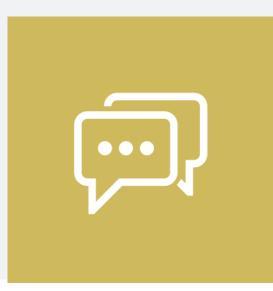
EMAK, was established in 2009 and led by Japan supports Hub Members to do better and shares best practices developed by Members with emerging economies.

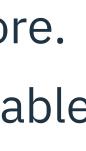




[EMAK] Energy Management Action Network

- EMAK has a long-running series of regional workshops on energy management systems.
- <u>EMAK's 11th workshop</u> on transition to net-zero buildings was held on February 2023 in Singapore.
- Session 1: Effective Policy Packages for Sustainable and Energy Efficient Building
- Session 2: Best Practice examples in the Building sector.
- Private and the public sector participants discussed challenges and practical ways forward.







ward Net-Zero ergy Building

ebruary 2023 at 10 AM GMT+8 Singapore and online

Energy Efficiency Hub

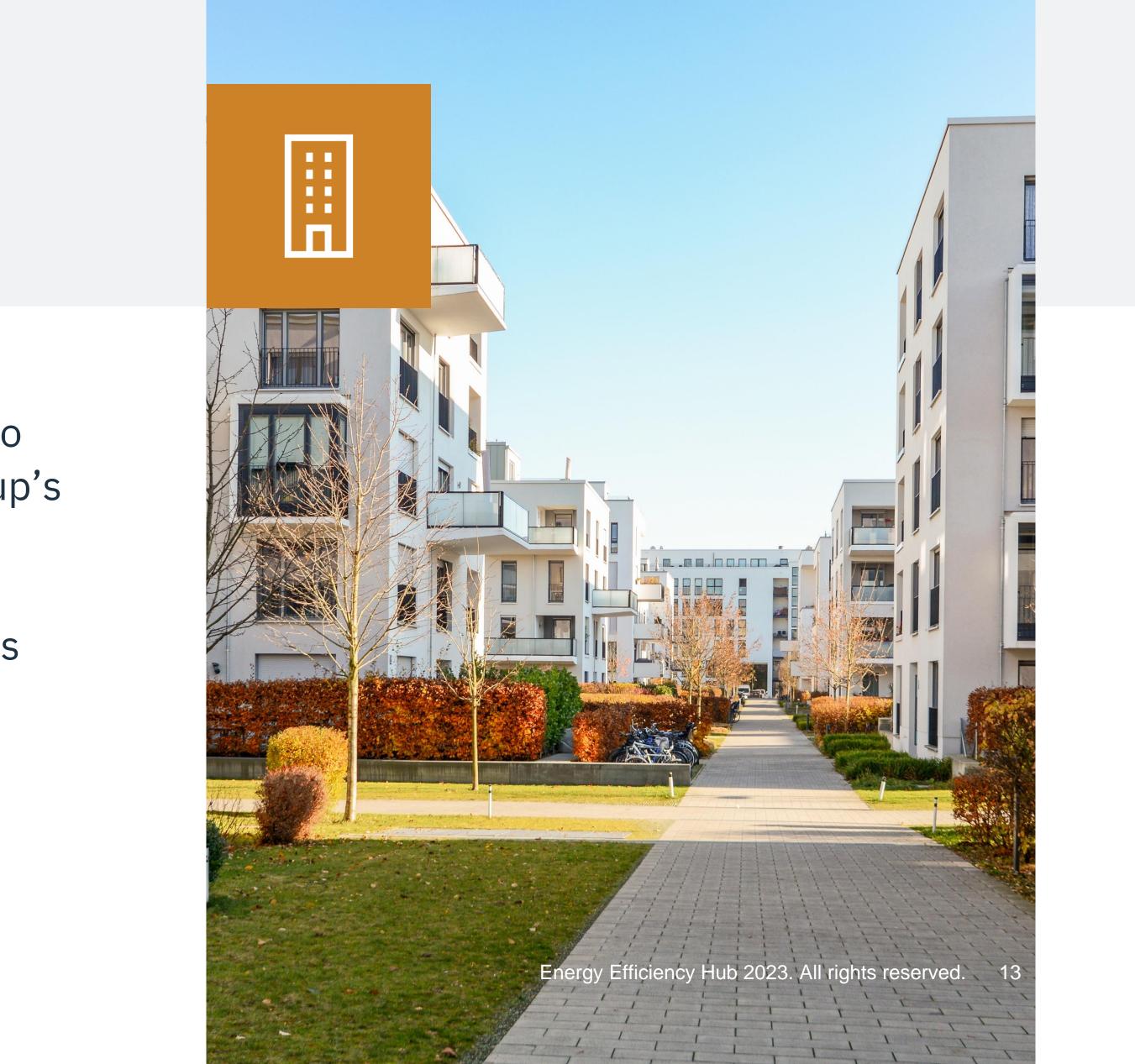




[EEB] Energy Efficiency in Buildings

Energy Efficiency in Buildings is a platform for Member exchanges on improving policy practice to raise energy efficiency in buildings. The Task Group's Members:

- discuss challenges and share lessons to address the issues that are most pressing to them,
- foster development of policies to improve implementation of buildings energy efficiency measures.



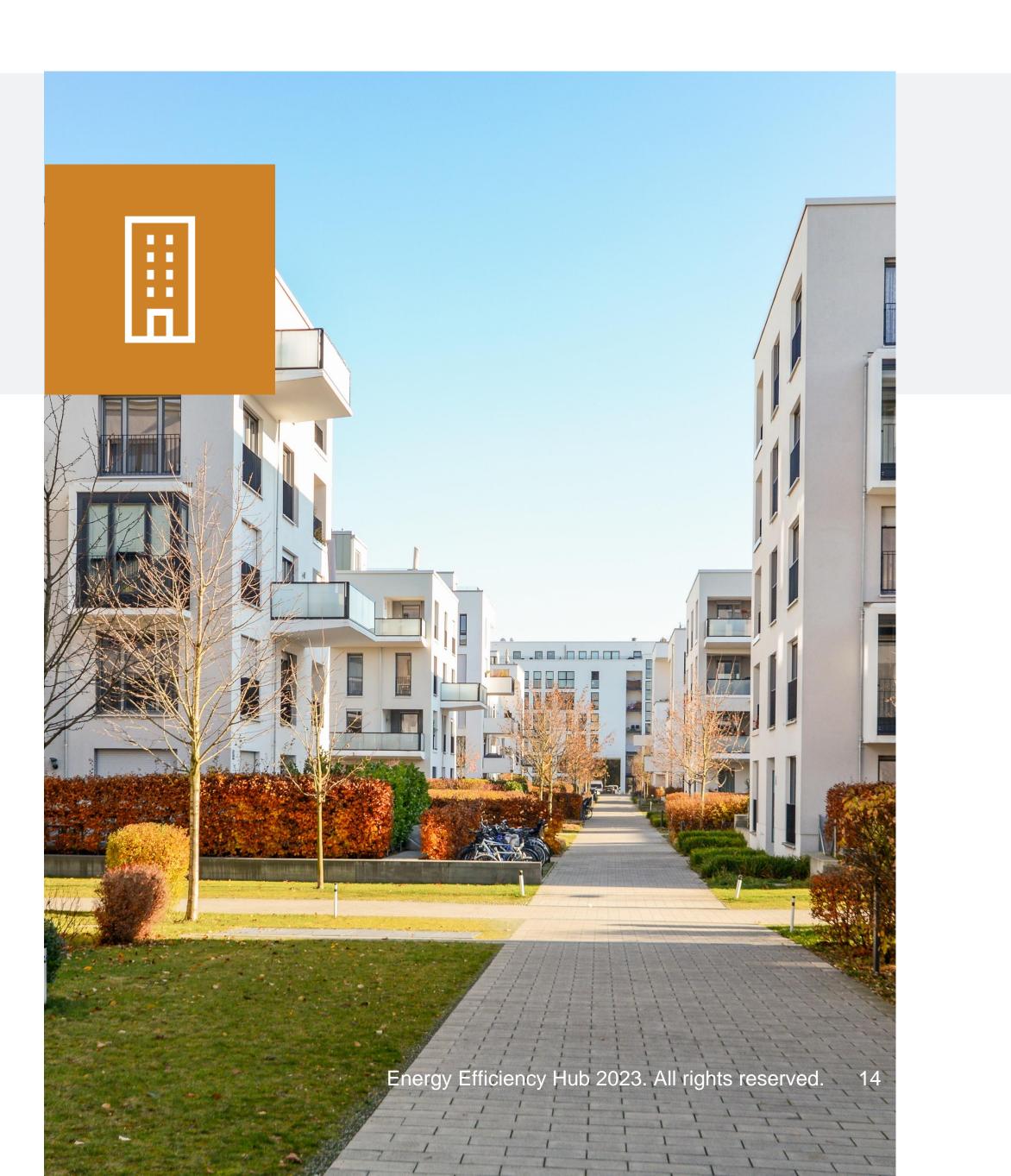


[EEB] Energy Efficiency in Buildings

The Task Group held its kick-off meeting in February 2023. The focus in 2023 is on:

- Short-term actions, such as heat pump deployment, energy poverty alleviation, awareness campaigns and funding programs among others.
- Life Cycle Perspective, including policy approaches, methodologies and software tools.
- Deep Retrofit Models, including enabling policies, financing models, skills and replicability.







6-8 JUNE 2023, PARIS 8th Global Conference on Energy Efficiency- Overview

Strong focus on learning from the global crisis while getting on track for net zero.

Co-hosted by IEA Executive Director and Minister of the Energy Transition of France and held in partnership with Schneider Electric. Attendance is by invitation only.

Pre-conference day: Side events and welcome reception

Main conference day: High-level panel discussions and VIP Gala Dinner

Ministerial day: Closed-door discussion; separate CEO roundtable

Energy Efficiency Hub side event: Lessons from Addressing the Energy Crisis through Energy Efficiency Measures









BECOMING A MEMBER Membership

Membership presents an opportunity for governments to learn from each other about how to design and implement energy efficiency policy and overcome common challenges.

The Hub offers informal work processes, lively exchanges, and opportunities to interact with other policy practitioners and experts with wide ranges of experience. Hub discussions are topical and apolitical, with a focus on what works in practice.

Governments interested in joining the Hub are invited to contact us at <u>secretariat@energyefficiencyhub.org</u>.





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