

Super-efficient Equipment and Appliance Deployment (SEAD)

Fostering governments working together to save energy, turn knowledge into action, and advance global markets to encompass energy efficient products

Goals

SEAD is a voluntary collaboration among governments working to promote the manufacture, purchase, and use of energy-efficient appliances, lighting, and equipment worldwide. SEAD's 19 member governments engage with global initiatives, industry and civil society, and each other to identify and share best practices and promote policies and programs that encourage, facilitate, and accelerate the pace of market transformation for energy efficient equipment and appliances.

Rationale for being included in the CEM

Worldwide electricity consumption is expected to grow 60 percent by 2030, driven in part by the increasing use of equipment, appliances, lighting, and other devices. However, the associated growth in energy demand poses a challenge for governments trying to satisfy existing demand while continuing to address air pollution and combat global climate change. In addition, many countries face electric grid overloads, power outages, and declining air quality. The need for more efficient appliances is greater than ever.

With global market shaping potential, SEAD supports the design and implementation of energy efficiency policies and programs for appliances, equipment, lighting, and other electronic devices.

Key accomplishments

SEAD has provided valuable opportunities for collaboration among members since its launch, impacting policies and tools to support market transformation.

“The SEAD Global Efficiency Medal is like the World Cup for energy efficiency. As a member of SEAD, Sweden is delighted to work with leading manufacturers from all around the world and to promote the most energy efficient products”

Ibrahim Baylan, Minister for Policy Coordination and Energy, Sweden



Fostering deployment of efficient technologies

Since 2012, the Global Efficiency Medal competition has identified innovative new technologies that push the boundaries of efficiency and slash energy consumption

Country impact

In **South Africa**, SEAD's work led to the adoption of more ambitious standards for water heaters with the potential for 46% in energy savings.

In 2018, **Mexico** adapted and updated the SEAD Street Lighting Tool which provides a quick, easy way for government procurement officials to evaluate the quality, efficiency, technical compatibility, and lifetime cost of different street lighting products.

In collaboration with **India's Bureau of Energy Efficiency (BEE)**, SEAD developed a mobile app to give consumers on-demand access to the energy performance data in BEE's Star Label database.

The Bottom-Up Energy Analysis System (BUENAS) model developed under SEAD to forecast daily electricity demands across sectors estimated that policies to fast track energy efficiency in appliances could reduce peak electricity demand by nearly 30,000 MW in **Indonesia**.

Energy demand

Lead CEM Member(s)



CEM Member Participant(s)



Non-CEM Member Participant(s)



*Participation and leadership are under review.

Key actions

SEAD accelerates market transformation for super-efficient products by different approaches:

- **Research and analysis:** Providing member governments with access to high-quality research and expertise around a variety of product areas and market transformation policies.
- **Implementation and training:** Driving high-quality, high-efficiency products into markets by building tools and campaigns, testing and awarding products for efficiency, and developing national capacity through training and workshops.
- **Dialogue and collaboration:** Fostering peer-to-peer exchange between policy-makers to drive collaboration and the sharing of policy best practices and technical information.
- **Awards:** Fostering competition among manufacturers to bring forward the best available technologies.

Highlights and deliverables since CEM9

- Updated its leadership structure to a more collaborative model, with the European Commission joining India and United States as co-leads. Canada and United Kingdom are engaged as sponsor members on the **new SEAD Leadership Team structure**.
- Developed **new terms of reference** to reflect the new leadership structure and increased collaborative model of work delivery.
- Hosted a **SPEX on Low Carbon Heating Systems** on 4 October, 2018. The webinar examined the key challenges in the adoption of low carbon heating systems for the residential sector, and the efforts to address them with presentations from NRCAN, Swedish Energy Agency and European Heat Pump Association.
- On 2 April 2019, hosted a **SPEX on Motors**, in collaboration with IEA 4E EMSA for information exchange on technical policies on regulating motor driven units for developed programs.
- Executed the **Global Appliance Testing Costs Analysis research project** to collate and catalogue global testing costs for high-impact appliances, including cost of testing products, costs of setting up and operating test labs, and alternatives to building in-country capacity.
- Mexico adapted and updated the SEAD Street Lighting Tool.

SEAD member activities

- China organised a workshop to launch the Kigali Cooling Efficiency Program (K-CEP – China) to improve the energy efficiency of cooling products. China also organised a workshop for cooling efficiency on 7 November 2018, with representatives from UNEP, LBL, ICA, research institutes, and manufacturers.
- Mexico's Comisión Nacional para el Uso Eficiente de la Energía (CONUEE) developed NOM-ENER, a mobile application for android smartphones to improve accessibility to all of Mexico's appliance standards. This simple, user-friendly app is intended to enable residential end-use consumers in Mexico to access information on minimum energy performance standards (MEPS) for appliances and lighting.
- The South African Department of Energy has also launched the new Appliance Energy Calculator mobile app, which calculates the estimated running cost of an appliance over a 1 or 10 year period from the information consumers can find on mandatory energy labels. The app supports their newly introduced standards and labeling (S&L) programme to help provide customers with accurate and comparable information on the energy efficiency of appliances from 11 product categories.

Operating Agent(s) /
Coordinator(s)



Lawrence Berkeley National Laboratory provides technical assistance with US in-kind support

Funding
Government(s)/
Organisation(s)

United States Department of Energy, Natural Resources Canada, United Kingdom Department of Business, Energy and Industrial Strategy, and other SEAD Member governments.

Global and
In-Country Technical
Partner(s)

APEC Expert Group for Energy Efficiency & Conservation, ASEAN SHINE, ECREEE, G20 Connected Devices Alliance, International Energy Agency (IEA), IEA 4E Technology Collaboration Partnership, International Partnership for Energy Efficiency Cooperation (IPEEC), Sustainable Energy for All, United 4 Efficiency, and UN Environment, K-CEP.

In addition to the departments and government counterparts listed above, the following in-country partners are or have recently been involved in SEAD: Saudi Energy Efficiency Center in Saudi Arabia, The Electricity & Co-Generation Regulatory Authority in Saudi Arabia, and Energy Efficiency Services Limited (EESL) in India.