# Super-Efficient Equipment and Appliance Deployment (SEAD)

## Thematic Area ENERGY DEMAND

### Goals

SEAD engages governments and the private sector to accelerate the pace of market transformation for energy-efficient equipment and appliances.

### Potential Impact

Employing current appliance efficiency best practices in SEAD economies can, by 2030, reduce annual electricity demand by over 2,000 billion kilowatt-hours (terawatt-hours, or TWh)—equivalent to the annual output of 650 mid-sized power plants—and decrease annual fuel energy demand by 30 million tonnes of oil equivalent (Mtoe). These measures would decrease $CO_2$ emissions over the next two decades by 11 billion tonnes. For globally traded appliances and equipment, concerted action is needed for the greatest impact and to facilitate trade of efficient products.

### Why?

Product energy efficiency can be a key component of all countries' plans to meet their Nationally Determined Contributions to mitigate climate change under the Paris Agreement. Policies addressing energy performance of end-use products are a proven, highly cost-effective tool for achieving energy savings, emissions reductions, and macroeconomic benefits. Further, they can help expand access to modern energy services in countries where demand is growing quickly and supply is highly constrained.

### Activities

SEAD activities increase demand for efficient products and encourage manufacturers and retailers to produce and promote efficient products. Activities are conducted in five areas:

- **Awards:** Encourages the production and sale of super-efficient products by recognizing the most efficient products in different categories and regions, as well as an overall global winner.
- **Incentives:** Seeks to connect international energy efficiency stakeholders at all levels to inform program design and maximize efficiency benefits.
- **Procurement:** Develops effective policy instruments and advances best practice public procurement of energy efficient products.
- **Standards and labeling:** Accelerates the pace of efficiency standards and labeling programs to achieve cost-effective savings, while making the most efficient use of government resources.
- **Technical analysis:** Undertakes a range of technical analysis activities to support SEAD activities.

## Progress

SEAD has raised the profile of appliance and equipment energy efficiency, as well as developing tools and assisting with analysis for appliance efficiency standards and labeling programs.

- **Launched the CEM Global Lighting Challenge at COP21 in December 2015**. The campaign raises awareness of lighting efficiency and aims to reach cumulative global sales of 10 billion high-efficiency, high-quality, and affordable advanced lighting products, such as light-emitting diode (LED) lamps. Thirteen countries and the European Commission endorsed the Challenge, and a host of lighting manufacturers and retailers have made commitments to the Challenge.
- **Created the new SEAD Policy Exchange Forum (SPEx)** to promote open and candid discussions among policy makers from all of the SEAD member governments.
- **Advanced product energy efficiency through the SEAD Global Efficiency Medal Awards,** launching the competition for televisions at the Consumer Electronics Show in Las Vegas in January 2015; highlighting the winners of the competition for electric motors during the sixth Clean Energy Ministerial in May 2015; and announcing winners of the competition for super-efficient lighting products in August 2015, with winning products demonstrating efficiencies of 85 to 121 lumens per watt.
- **Realigned SEAD working groups to better address early-stage market transformation**, bringing together awards, incentives, and procurement work streams.
- **Provided technical assistance training on minimum performance standards in Indonesia** focused on standards and labeling for electric equipment, financial incentives, and electricity demand and peak load reduction modeling.
- **Provided a two-day hands-on training session on the Policy Analysis Modeling System (PAMS) model** to Ministry of Energy and Mineral Resources (MEMR) staff and various stakeholders, focusing on refrigerators and air conditioners, two major appliances with high efficiency potential.
- **Held a Mexico–United States Technical Exchange meeting** (with Canada as observer) to discuss current levels of harmonization between the programs and practical steps to address harmonization issues. The meeting will be followed by further exchanges and updates.
- On December 14, National Energy Conservation Day, India's Bureau of Energy Efficiency launched a Standards and Labels mobile application.
- **Increased SEAD membership and participation.** Chile joined the SEAD initiative, and China's participation continues to increase.

## Next Steps

- Continue to foster multilateral engagement through the SPEx.
- Launch the SEAD Global Efficiency Medal competition for industrial and outdoor (street) lighting; link to government procurement programs to enable it to have a measurable effect on the energy performance of new products.

- Launch a CEM Advanced Cooling Campaign to challenge governments and industry to develop and deploy at scale super-efficient, smart, climate-friendly, and affordable cooling technologies critical for prosperous and healthy societies.

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| Lead CEM Government(s) | India, United States of America |
| Participating CEM Government(s) | Australia, Brazil, Canada, European Commission, Germany, Indonesia, Mexico, Republic of Korea, Russia, Saudi Arabia, South Africa, Sweden, United Arab Emirates, United Kingdom |
| Observer | China |
| Other Key Partners | Chile; APEC EGEEC, ASEAN-SHINE, CLASP, ClimateWorks Foundation, IEA, International Copper Association, LBNL, UNEP U4E, UNEP en.lighten |