CLEAN ENERGY MINISTERIAL
Advancing Clean Energy Together

AC | ADVANCED COOLING CHALLENGE
A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

Advanced Cooling Challenge (ACC)

Campaign associated with the Super-efficient Equipment and Appliance Deployment Initiative (SEAD)

Goals

The Advanced Cooling Challenge (ACC) urges governments, companies, and other stakeholders to make, sell, promote, or install super-efficient air conditioner or cooling solutions that are smart, climate friendly, and affordable. The campaign seeks commitments, supporting actions, and endorsing statements from energy and related government agencies, public sector organisations, manufacturers, retailers, institutional buyers, and foundations.

Rationale for being included in the CEM

Improving the average efficiency of air conditioners sold in 2030 by 30% compared to today's models would reduce emissions of CO_2 by up to 25 billion metric tons over the lifetime of the equipment. This reduction is equivalent to wiping out the annual emissions of 1,550 coal-fired power plants.

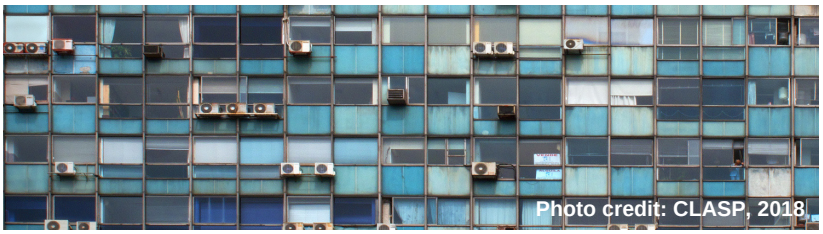
Photo credit: CLASP, 2018

High-efficiency room air conditioners would also reduce peak electricity demand by as much as 790 gigawatts. Energy-efficient air conditioners that use refrigerants with a low global warming potential (GWP) would double the climate benefit of a refrigerant transition alone and help clean the air in our cities.

Activities and deliverables

Linked to the SEAD Initiative, the ACC undertakes various activities to fast track the deployment of high efficient cooling equipment globally. Some of the key activities reported under the campaign are:

- Developed the Global AC Market Tracking Tool for mini-split air conditioning units in the ACC member countries - China, India, Saudi Arabian and US markets.
- In 2018, 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, with representatives from UNEP, LBL, ICA, research institutes, and manufacturers.
- Exploring potential cooling project with SEAD members and partners.
- At CEM 9, Mexico hosted, with support from China, the IEA, and K-CEP, a side-event on "Delivering Sustainable Cooling in a Warming World".


Source: Flickr - tinou bao

Energy demand

Lead CEM Member(s)

India · United States*

CEM Member Participant(s)

Canada · Chile · China · Mexico* · Saudi Arabia

Operating Agent(s)/ Coordinator(s)

CLASP · Lawrence Berkeley National Laboratory (LBNL)[1] · International Energy Agency (IEA)[1]

Global and In-Country Partner(s)

Children's Investment Fund Foundation (CIFF), ClimateWorks Foundation, Environmental Investigation Agency (EIA-Global), Institute for Governance & Sustainable Development (IGSD), Natural Resources Defense Council (NRDC), North American Sustainable Refrigeration Council (NASRC), K-CEP, TERI, UN Environment.

Business Participant(s)

Daikin Airconditioning India, Daikin Applied, Daikin India, Danfoss, Godrej & Boyce India, Energy Efficiency Services Limited (EESL) Goodman Air Conditioning & Heating, Honeywell, Panasonic India Pvt. Ltd., San Francisco Airport, TORO WATT, Trane/Ingersoll Rand, Underwriters Laboratory (UL), Voltas Limited.

*Participation and leadership are under review.

[1] LBNL and IEA served as the technical implementer and administrator of the global AC market database and tracking tool.

Version: June 2019