



ABOUT THE COOL COALITION

The Cool Coalition is a global multi-stakeholder network that connects a wide range of key actors from government, international organizations, businesses, financial institutions, academia, and civil society to facilitate knowledge exchange, advocacy, and joint action toward a rapid global transition to efficient and climate-friendly cooling. The Cool Coalition promotes a 'reduce-shift-improve-protect-leverage,' cross-sectoral approach to meet the cooling needs of both industrialized and developing countries through better building design, energy efficiency, renewables, and thermal storage, as well as phasing down HFCs. Cool Coalition partners are collaborating on policy, finance, technology, and science to meet growing demands for cooling in a comprehensive manner, all aimed at raising climate ambition in the context of the Sustainable Development Goals while complementing the goals of the Kigali Amendment to the Montreal Protocol and the Paris Agreement.

How to get involved:

The Cool Coalition's members are driving change in the cooling sector through five stakeholder clusters—national governments and intergovernmental initiatives; cities; businesses; finance; and civil society. To join the Cool Coalition, stakeholders are requested to sign the Cool Coalition endorsement form indicating which cluster they would like to participate in and what actions they will take to advance the goals of the Cool Coalition. The endorsement form can be found on the Cool Coalition website www.coolcoalition.org. Follow us on Twitter: @ActOnCooling

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WE WILL:
EFFICIENT, CLIMATE-FRIENDLY COOLING FOR ALL

How the Cool Coalition is helping implement the UN Secretary General's Climate Summit call to action

HOW TO TAKE ACTION ON EFFICIENT, CLIMATE-FRIENDLY COOLING FOR ALL

The historical surge of activity announced for the Secretary-General's 2019 Climate Summit is supported by governments, businesses, financial institutions, academia, and civil society through a variety of actions that coordinate, demonstrate, finance, deploy, and measure the impact of efficient, climate-friendly cooling solutions. There is no single solution for efficient, climate-friendly cooling. A variety of actions are needed urgently and at scale to avoid a climate crisis and ensure a prosperous future.

The Cool Coalition advocates for a structured approach to efficient, climate-friendly cooling for all, which means:

REDUCING the need for mechanical cooling through better urban planning and building, including nature-based solutions such as green spaces, roofs, and walls.

SHIFTING cooling to renewables, thermal storage, and district cooling approaches.

IMPROVING conventional cooling by increasing the efficiency and reducing the GWP of air conditioning and refrigeration equipment and demand response measures.

PROTECTING vulnerable people from the effects of extreme heat and the consequences of unreliable medical and agricultural cold chains.

LEVERAGING cooperation between different actors to achieve a greater collective impact.

Many of the actions commencing across the world are mapped overleaf. Whilst not an exhaustive collection, these actions, if adopted universally, would represent a quantum leap in providing efficient, climate-friendly cooling for all. These actions include:

- **National Cooling Plans:** for governments to set out economic and societal cooling needs and how to meet them sustainably, and to link them to Nationally Determined Contributions (NDCs) for the Paris Climate Agreement
- **Minimum Energy Performance Standards (MEPS) and labels:** to remove the worst-performing products from the market and empower consumers to make better choices
- **Scaling up finance:** to cover investment in new technologies and services and to facilitate customer adoption
- **Technology pilots:** to help bring new solutions to market
- **Innovative products:** that are climate-friendly and are continually made to be more energy efficient
- **District cooling:** to maximize the efficiency of cooling and use waste heat and renewable cooling
- **Cooling as a Service agreements:** to help overcome the cost of capital and improve the servicing of cooling technology
- **Cool (reflective) and green roofs, surfaces and spaces:** to reflect heat, provide shade and reduce temperatures
- **Cooling audits:** to find and quantify energy and F-gas reduction opportunities
- **Resources and services:** for knowledge, collaboration, capacity building, and action

Progress also requires government commitments as exemplified by the Biarritz Pledge for Fast Action on Efficient Cooling, presented at the August 2019 G7 Summit in France. This pledge, which was supported by several countries, aims to promote parallel efforts to improve the energy efficiency of cooling while countries implement the phase-down of HFC refrigerants, in accordance with the Kigali Amendment to the Montreal Protocol.

Business commitments to action are also critical, as exemplified by pledges such as the 'Cooling Challenge' from EP100 members and the Consumer Goods Forum (CGF) pledge to phase down HFCs and adopt ambitious targets for the implementation of energy efficient climate-friendly cooling throughout their businesses, with transparent action plans for achieving targets. Such businesses recognize that a rapid phase down of high GWP refrigerants and sustainable management of refrigeration systems is necessary to meet the goals set out in the Paris Climate Agreement.



Cooling is central to health, prosperity, and the environment. It can be provided actively, for example via air conditioning and other technologies, or passively, for example through cool building design. Applications range from space cooling for buildings and vehicles, to cooling for industrial processes, to cold chains for food and medicines. Efficient, climate-friendly cooling for all underpins many Sustainable Development Goals and represents an opportunity to avoid substantial greenhouse gas (GHG) emissions.

Currently, most cooling is extremely polluting due to the use of high global warming potential (GWP) refrigerants and the indirect emissions from the electricity used to run appliances such as air conditioners and refrigerators. Existing pollution needs to be cut urgently and booming demand for cooling met sustainably, complementing the Kigali Amendment to the Montreal Protocol, which phases-down hydrofluorocarbon (HFCs).

In response to the United Nations Secretary-General's call to action on climate change for the 2019 Climate Summit, over the next 18 months the Cool Coalition—a global collaboration of governments, businesses, and civil society—is taking forward the biggest coordinated surge of activity in history to make efficient, climate-friendly cooling accessible to all.

WE WILL: EFFICIENT, CLIMATE-FRIENDLY COOLING FOR ALL

In the next 18 months, the world will experience the biggest coordinated surge of activity in history to advance efficient, climate-friendly cooling for all

- Developing national cooling plans
- Developing minimum energy performance standards
- Developing national cooling plans + Developing minimum energy performance standards



SCALING UP FINANCE INITIATIVES

- China Industrial Bank
- MGM Innova
- Palau Energy Administration
- PT Sarana Multi Infrastruktur
- Rwanda Green Fund
- Sustainable Development Capital Limited
- Synergy Energy Solutions
- The African Development Bank
- The Asian Infrastructure Investment Bank
- The European Bank of Reconstruction and Development
- The Green Climate Fund
- The World Bank Group
- UNIDO: Private Finance Advisory Network for Cooling

COOLING AUDITS

- Amang Rodriguez Memorial Medical Center
- ASHRAE (EP100 Cooling Challenge)
- Beijing Ditan Hospital
- Beijing Fuwai Hospital
- Beijing Huilongguan Hospital
- Centro de Especialidades Médicas Ambulatorias de Rosario
- Godrej Industries (EP100 Cooling Challenge)
- Hospital de Pediatría Profesor Juan P. Garrahan
- Hospital Dr. José Giordano, Albardón
- Jinko Solar (EP100 Cooling Challenge)
- Johnson Controls (EP100 Cooling Challenge)
- Mahindra Holidays and Resorts (EP100 Challenge)
- Mahindra & Mahindra (EP100 Cooling Challenge)
- Majid Al Futtaim Group (EP100 Cooling Challenge)
- Philippine General Hospital
- Qinhuangdao Maternity and Children's Hospital
- St. Paul Hospital Iloilo

COOL ROOF DEPLOYMENTS

- American University Beirut and ASHRAE
- ARUP
- BRAC University
- Cool Roof France
- Cornland International AB
- Mercy Corps
- Mon Artisan
- Rwanda Green Building Organization
- SANEDI
- Steam Plant Ltd
- Universitas Pendidikan Indonesia

COOLING TECHNOLOGY PILOTS

- Empower: district cooling
- GIZ - air-conditioners
- Goans Engineering – air-conditioners
- JD.Com – cold chains
- Ministry of Climate Change – solar cold storage
- Refrigeration and Air-Conditioning Association – air-conditioning
- RMI Cooling Prize – air-conditioning
- Project-X – vaccine cooling
- Tuff Boats Limited – refrigeration
- UK Department for Business, Energy and Industrial Strategy
- WWF – fisheries cold storage

EFFICIENT, CLIMATE-FRIENDLY REFRIGERATORS

- Bricket SA
- ECASA
- Fogel de Centroamérica
- GETS
- Indurama
- Lematic
- Mabe
- Mabe-Kronen Int
- Manar
- Talleres Metalurgicos Bambi
- Walton

COOLING AS A SERVICE AGREEMENTS

- Caribbean Basin Sustainable Energy Fund
- Daikin
- Smart Joules in hospitals
- Sphere Solutions

DISTRICT COOLING IN CITIES

- Colombia: Medellin, Cartagena
- Chile: Independencia (Santiago)
- Morocco: Marrakech
- Tunisia: Tunis
- Egypt: El Alamein
- India: Amaravati, Bhopal, Coimbatore, Chennai, Pune, Rajkot, Thane, Nagpur
- Malaysia: Medini



RESOURCES AND SERVICES (22)

- AEEE: research and advice on sustainable cooling in India
- Alto Analytics: Cooling community and conversation mapping
- Ashden: Awards, assistance and advocacy for proven cooling solutions
- BASE: Standardized contracts for Cooling as a Service
- Carbon Trust: Research on 'Clean Cold Chains and Philanthropy'
- CIFF: \$20m of new philanthropic support for efficient, clean cooling
- Climate Policy Initiative: Technical assistance to financial institutions
- Climate and Clean Air Coalition: Efficient Cooling Initiative
- District Energy in Cities: Best Practice Guide for District Cooling
- Danfoss: training 30,000 cooling industry professionals globally every year
- E3G: Stakeholder mapping and economic opportunity analysis
- EP100: 'The Business Case for Cooling Efficiency' report
- EPEE: Sustainable cooling campaign, outlook and tools
- GIZ: training of air-conditioning engineers Indonesia
- Health Care Without Harm: 'Cool Hospitals' report
- International Energy Agency (IEA): 'Future of Cold Chains' report
- K-CEP: \$6.6m of new philanthropic support for efficient, clean cooling
- K-CEP: Climate investment assessment of major cooling companies
- NRDC: 'The true cost of inefficient cooling' report
- Oxford University: 'Future of Cooling' research program
- SEforAll: Access to cooling Outlook 2019
- The Economist Intelligence Unit: 'Sizing the global cooling market' report
- United4Efficiency: Model MEPS for air-conditioners and refrigerators
- United4Efficiency: RAC energy savings assessments and product registration guidance
- UN Environment/IEA: 'Scientific assessment of climate-friendly cooling'
- University of Birmingham: launching a research 'Centre for Sustainable Cooling'
- World Bank: 'Development Financing for Clean Cooling' note
- WWF: 'Cold Chains in China' policy brief