



## Smarter energy use in a warming world: EP100 Cooling Challenge

### Purpose

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As the world adapts to climate change impacts and as emerging economies grow and develop, demand for cooling is rising at an alarming rate. Global electricity demand for air conditioning is projected to increase by more than 140%<sup>1</sup> by 2050. If space cooling demand is left unchecked, the International Energy Agency estimates that the related emissions could nearly double compared to 2016.<sup>2</sup>

EP100 companies have an immediate opportunity to help reduce emissions by improving the energy efficiency of their cold chains and the cooling of their plants, server rooms, and stores. In addition, enhancing cooling efficiency can generate substantial financial savings and improve economic competitiveness. For example, low-cost fixes such as reducing fan speed and cleaning air filters can reduce energy consumption from heating, ventilation and air conditioning by up to 15%<sup>3</sup> and 20%<sup>4</sup>, respectively.

The EP100 Cooling Challenge is led by The Climate Group in partnership with the Alliance to Save Energy. By participating, EP100 member companies can help optimize the contribution of efficient, clean<sup>5</sup> cooling in meeting their energy productivity goals.

We need businesses to lead by example. Is your company up to the challenge?

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<sup>1</sup> <https://www.renewableenergyworld.com/articles/2019/07/air-conditioning-is-the-worlds-next-big-threat.html>

<sup>2</sup> [https://webstore.iea.org/download/direct/1036?fileName=The\\_Future\\_of\\_Cooling.pdf](https://webstore.iea.org/download/direct/1036?fileName=The_Future_of_Cooling.pdf)

<sup>3</sup> <https://www.masssave.com/en/learn/blog/business/add-efficiency-to-your-commercial-hvac-system-with-these-small-changes/>

<sup>4</sup> <https://www.hvac.com/blog/commercial-hvac-maintenance-checklist-following/>

<sup>5</sup> "Clean" cooling systems use low-GWP refrigerants and are powered by renewable electricity.

## How to participate

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**Step 1: Schedule a cool treasure hunt in at least one major facility.** This will help identify opportunities to save energy and prevent refrigerant leaks in cooling and refrigeration systems, as well as adopt low-global warming (GWP) refrigerants, thermal cooling, and systems powered by renewable electricity. The treasure hunt must take place by March 2020.

**Step 2: Get hunting for opportunities.** Using our checklist<sup>6</sup>, work with your team to identify energy efficient measures (EEMs), ranging from no/low-cost maintenance and adjustments (e.g., to controls and setpoints) to investment-grade retrofits (e.g., for chilled water systems, temperature controls, or refrigerant replacements).

**Step 3: Identify and inform The Climate Group of your chosen EEMs.** Please use the checklist to indicate your intended EEMs and email a copy to Maria Rojas, EP100 Campaign Manager, The Climate Group [MRojas@theclimategroup.org](mailto:MRojas@theclimategroup.org).

**Step 4: Implement your chosen EEMs.** Complete no/low-cost EEMs by 15 October 2020. Investment grade retrofits must be implemented by your EP100 target year.

**Step 5: Report on progress.** Send in completed checklists by 15 October 2020, specifying the state of implementation of selected EEMs, as well as actual or expected energy, emissions, and financial savings.

## Guiding principles

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- Aim for all equipment retrofits and installations to be above local minimum equipment standards and building code requirements.
- Aim to implement strategies for regular maintenance and continuous improvement.
- Align with the company's other commitments (e.g. RE100, net-zero carbon buildings, Science-Based Targets).
- Consider utilizing a cooling-as-a-service business model through a local district energy provider or a lease of higher performance equipment.
- Design equipment upgrades to help accelerate a phasedown of the use of ozone-depleting fluorinated greenhouse gases (f-gases).

## How we work

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The first 10 companies to sign up to the EP100 Cooling Challenge may be eligible to receive a pro bono ASHRAE Level 1 Energy Audit in one facility (located in an emerging market).

The audit will include a preliminary energy use assessment and site visit from an ASHRAE representative, who will suggest appropriate cooling efficiency measures.

**Get in touch now to sign up to the EP100 Cooling Challenge.**  
**Contact Maria Rojas at [MRojas@theclimategroup.org](mailto:MRojas@theclimategroup.org)**

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<sup>6</sup> Our checklist provides an easily accessible guide to identifying opportunities, but we also encourage a more comprehensive audit such as the ASHRAE Level 1 Energy Audit.