The multiple benefits of Cooling Efficiency

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Introduction

K-CEP genesis

• Developing country demanded help on energy efficiency
• 18 philanthropists responded with an offer of help ($50m+) subject to an ambitious Kigali agreement
• ClimateWorks offered to coordinate
• In partnership with: UN, IEA, WB, ASHRAE, academia, NGOs

K-CEP aims:

• to support developing countries to integrate energy efficiency into the refrigerant transition
• to help countries explore opportunities, learn and share lessons

Carbon Pollution

• 80 GT from F-gases
• 80 GT from energy efficiency
• 1 degree C – largest single climate solution
Articulating needs

- **SDGs**: cooling supports a plethora of SDGs

Four examples and critical policy aims:
- **Health**: calculate people at risk from excess heat, from food poisoning, from vaccines and medicine spoiled
- **Economy**: calculate value at risk, eg spoiled food, calculate jobs in cooling manufacture AND servicing (compare with supply side)
- **Education**: impact on concentration and exam results
- **Energy**: cooling is often the biggest driver of peak demand

Various existing studies (IEA, LBNL, Clasp, NRDC, ACEEE, GAVI..)

Forthcoming studies
- Cooling for All report by SE4All
- Cool jobs: briefing paper by K-CEP, UNDP and others
- Cooling in hospitals: briefing paper by K-CEP and partners
Cooling has a Significant Peak Load Impact

Cooling comprises 40%–60% of summer peak load in large metropolitan cities with hot climates, such as Delhi, India...

...and can triple load on the hottest days in some areas, e.g., New South Wales, Australia.
Articulating needs

Top 3 policy levers to improve cooling efficiency (and access):

1. Minimum energy performance standards: knock out the ‘junk’
2. Labels / enforcement: disclose and police
3. Financial mechanisms: incentives, bulk procurement

All require: market analysis (technology, prices, consumer preferences), industry impacts, environmental impacts, equity impacts, trade restrictions, energy savings, comparisons with supply side solution costs....
A warming world

• World getting hotter: 10 warmest years since 2005
• Cities growing: urban heat island. 5 Degree C more. Pheonix = 1 degree more just from AC!
• Disposable income up
• Population growing

= Demand for AC: 900-1.5bn-2.5bn!
= Business boom - Environmental crises
= Cooling will continue to be a huge cost to governments, society and business. Efficiency can change that.
Thank you!