



Energy Efficiency 2017

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2016 confirmed the recent step up in global energy efficiency gains

- The world is generating more value than ever from its energy use, and there has been a noticeable acceleration in recent years

This is generating economic, social and environmental benefits

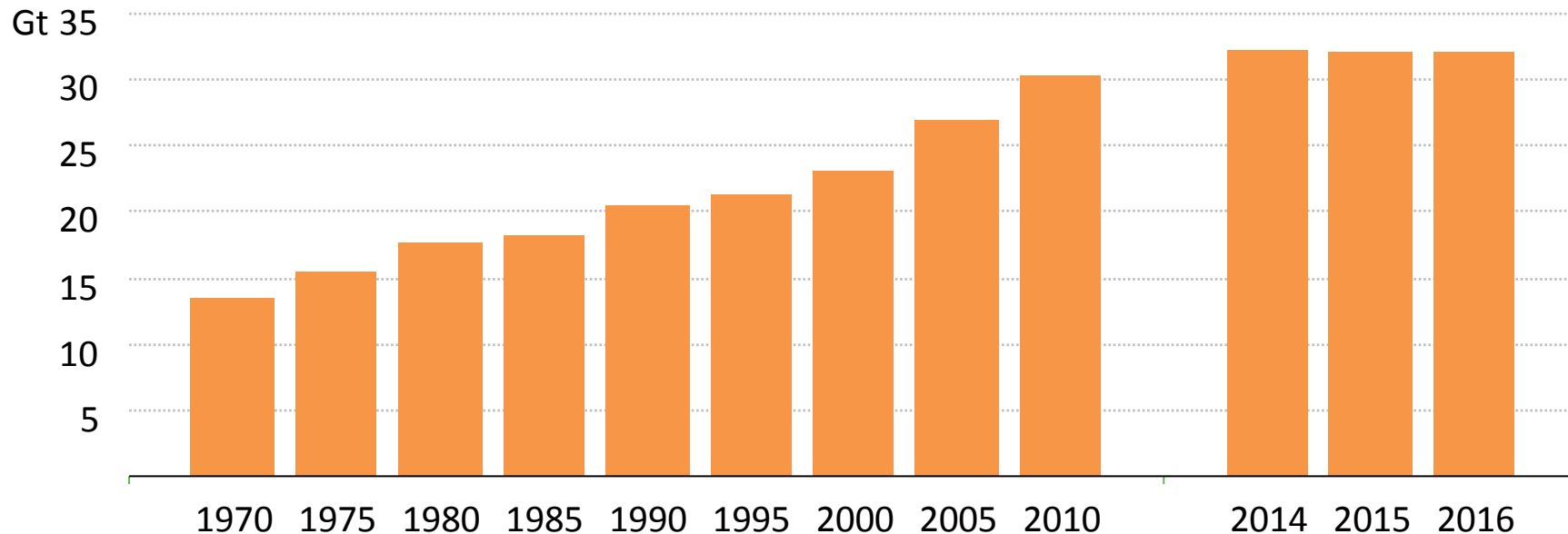
- Energy intensity improvement is the main reason energy related emissions have levelled off
- Because of energy efficiency, global energy use was 12% lower in 2016, resulting in global economic gains and significant savings for households

But stronger policy implementation is essential

- The global picture masks very different country performances and low rates of new policy implementation. Gains will erode quickly if the pace of policy delivery does not accelerate

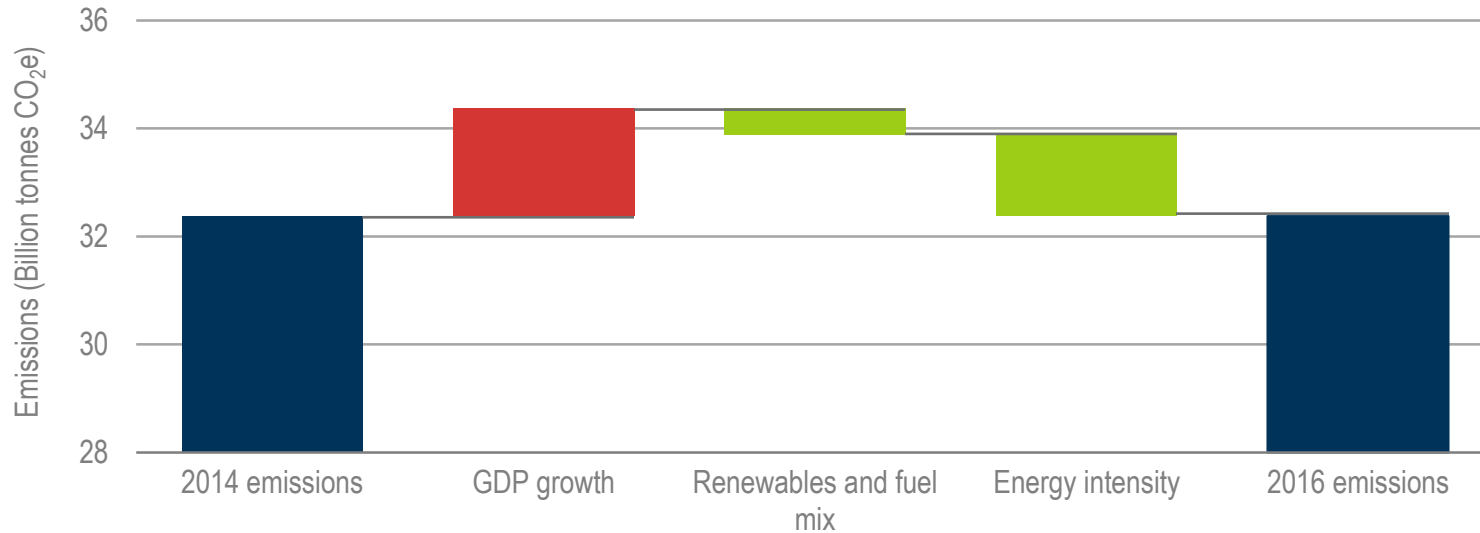
Energy-related CO₂ emissions have been flat since 2014

Global energy-related CO₂ emissions



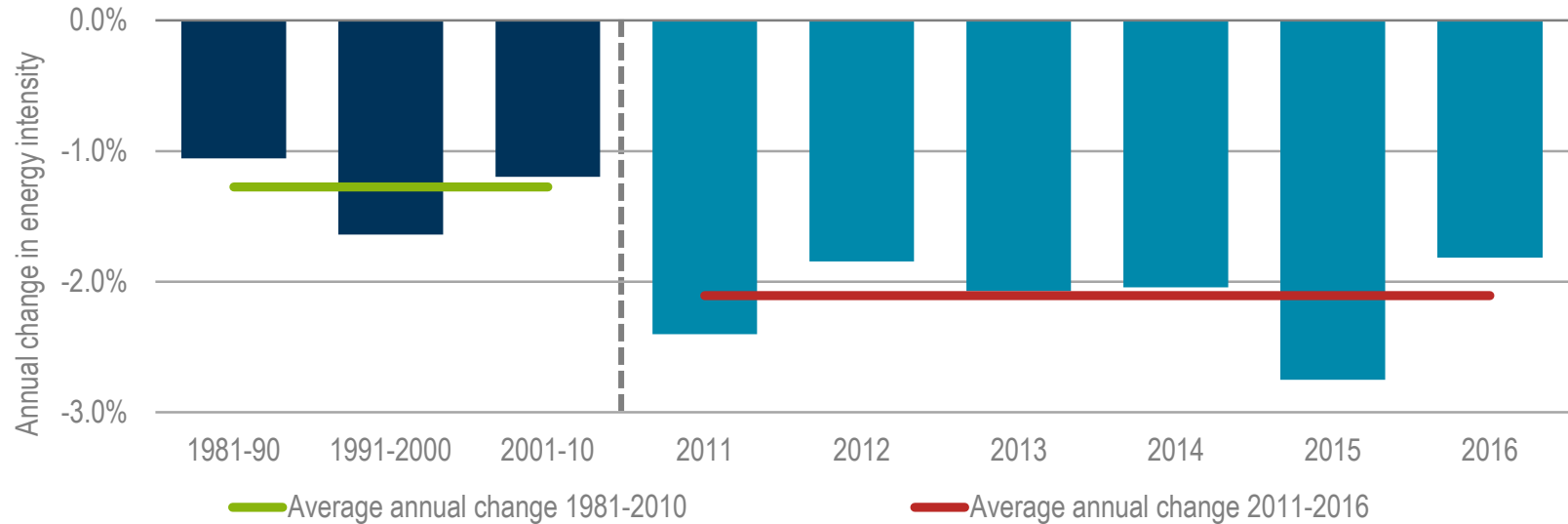
IEA analysis shows that global energy-related CO₂ emissions remained flat in 2016 for the third year in a row, even though the global economy grew

Factors influencing greenhouse gas emissions, 2014-16



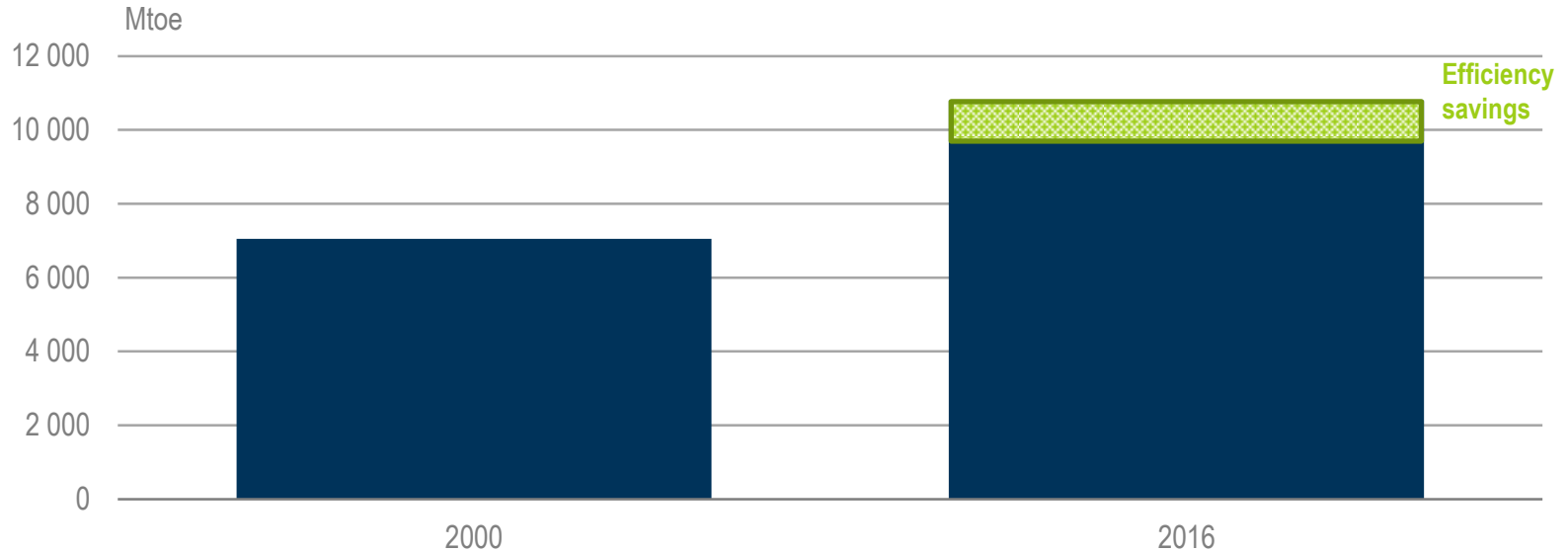
The combination of energy efficiency improvement and the move towards renewables and cleaner fuels has been key to avoiding 2 billion tonnes of additional greenhouse gas emissions

Changes in global energy intensity (energy per unit of GDP)



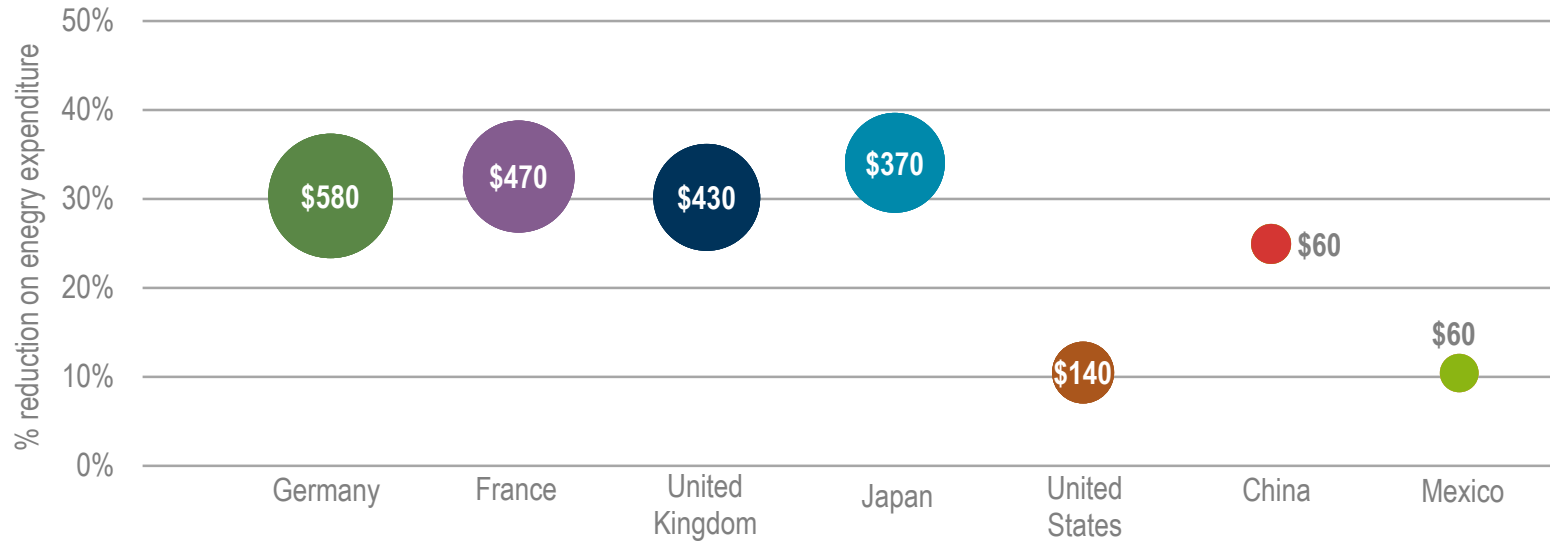
This decade has seen intensity improvement rates at almost double the historic average, suggesting that the world has entered a new era of faster intensity gains.

Global final energy consumption and savings from energy efficiency



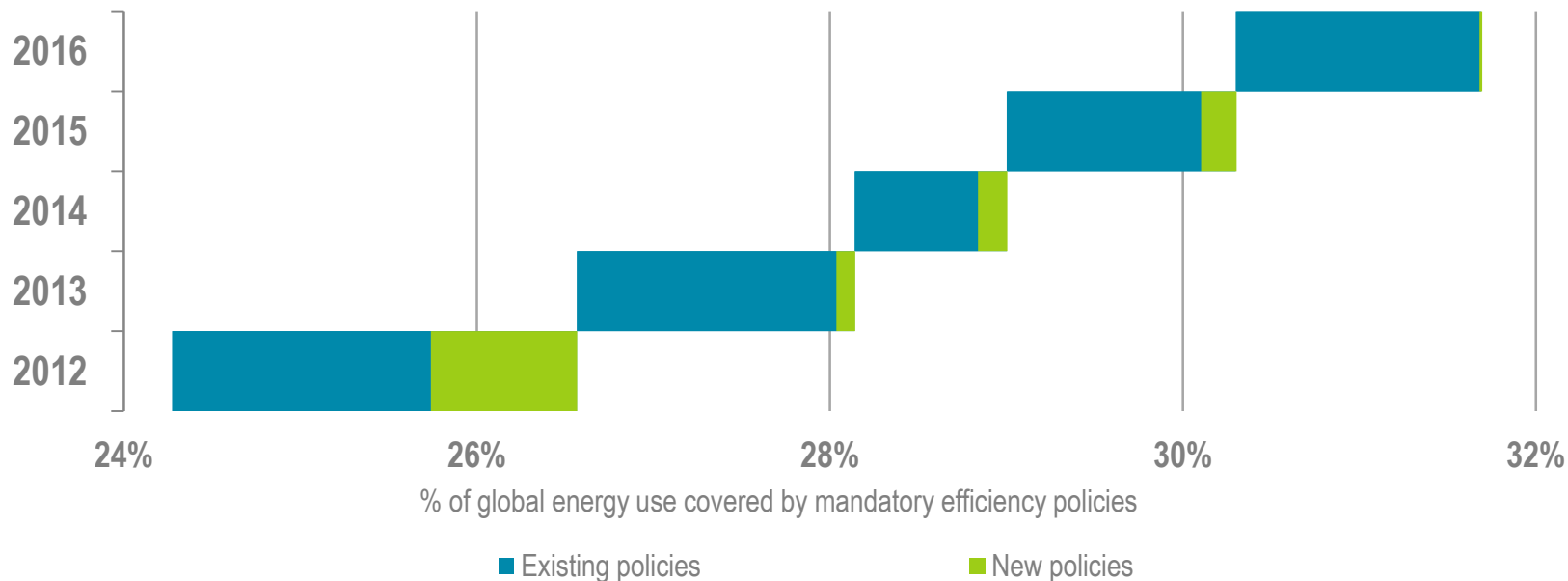
Energy efficiency reduced global energy use by 12% in 2016, an amount equivalent to the energy use of the European Union.

Per capita household energy expenditure savings in 2016 due to efficiency



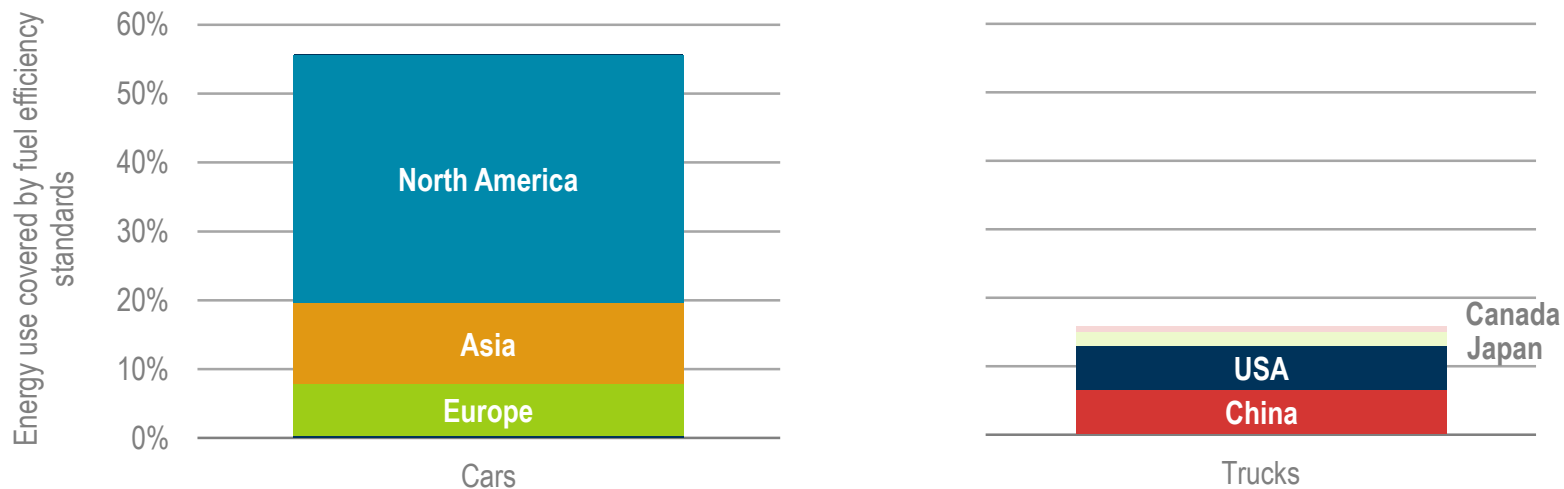
Efficiency improvements made since 2000 reduced energy spending in 2016. German consumers saved nearly USD 50 billion on their annual home and travel energy costs.

Annual additions to the global policy coverage of mandatory codes and standards



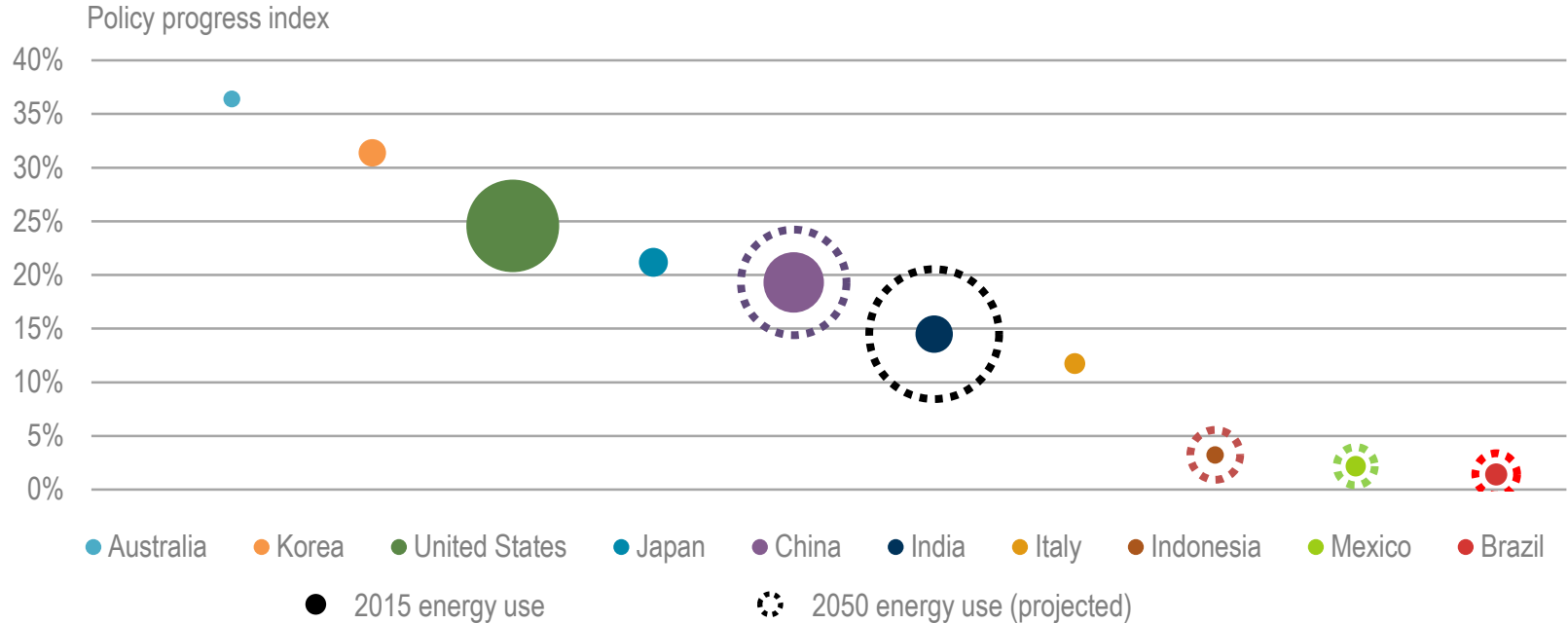
The amount of global energy use covered by mandatory efficiency policies grew in 2016, but 68% of energy use remains uncovered. We owe the efficiency gains of today to the policies of the past.

Efficiency standard coverage by transport end-use, 2016



**Nearly 40 countries have fuel efficiency standards for cars.
Only Canada, China, Japan and the United States have standards for trucks.**

Space cooling energy use and policy progress



**Space cooling is the fastest growing source of electricity demand.
There is significant future cooling energy growth that has minimal policy progress today**

- *Energy Efficiency 2017* shows the critical importance of energy efficiency to economies, households and the environment.
- There has been a step up in efficiency gains in recent years, despite lower energy prices, and this is having many positive impacts.
- However, 68% of global energy use remains uncovered by mandatory efficiency policy and the current low rate of policy implementation needs to accelerate.
- Decarbonisation requires the integration of efficiency and renewables into the energy system through a harmonised policy approach.
- The IEA is attacking the unmet energy efficiency potential by facilitating knowledge sharing and providing concrete policy recommendations.