International Energy Agency

The context for modernising EEOs

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Modernising Energy Efficiency Obligation Programmes workshop, 10 December 2019

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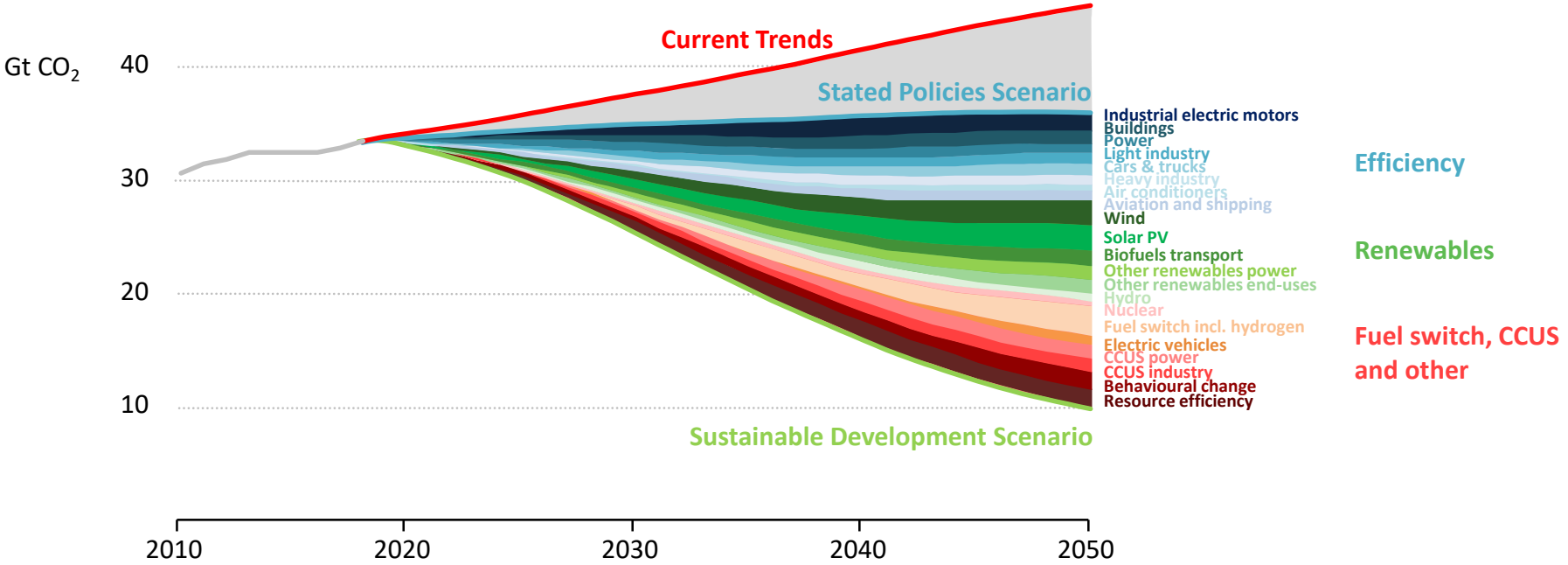
Overview

- Global energy efficiency improvements are slowing down. Opportunities to reduce costs and emissions are being lost.
- The slowdown is caused by a mixture of societal and economic trends that are driving more energy use, combined with some recent, exceptional factors.
- Energy efficiency policies are bringing benefits, but aren't doing enough to drive the investments necessary to overcome these wider trends.
- The opportunity for 3% annual gains identified by the IEA will not be realised without stronger policy action.
- As Governments seek to scale up energy efficiency, digitalisation presents both opportunities and risks, and new thinking will be required.

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Energy efficiency is central to achieving climate goals

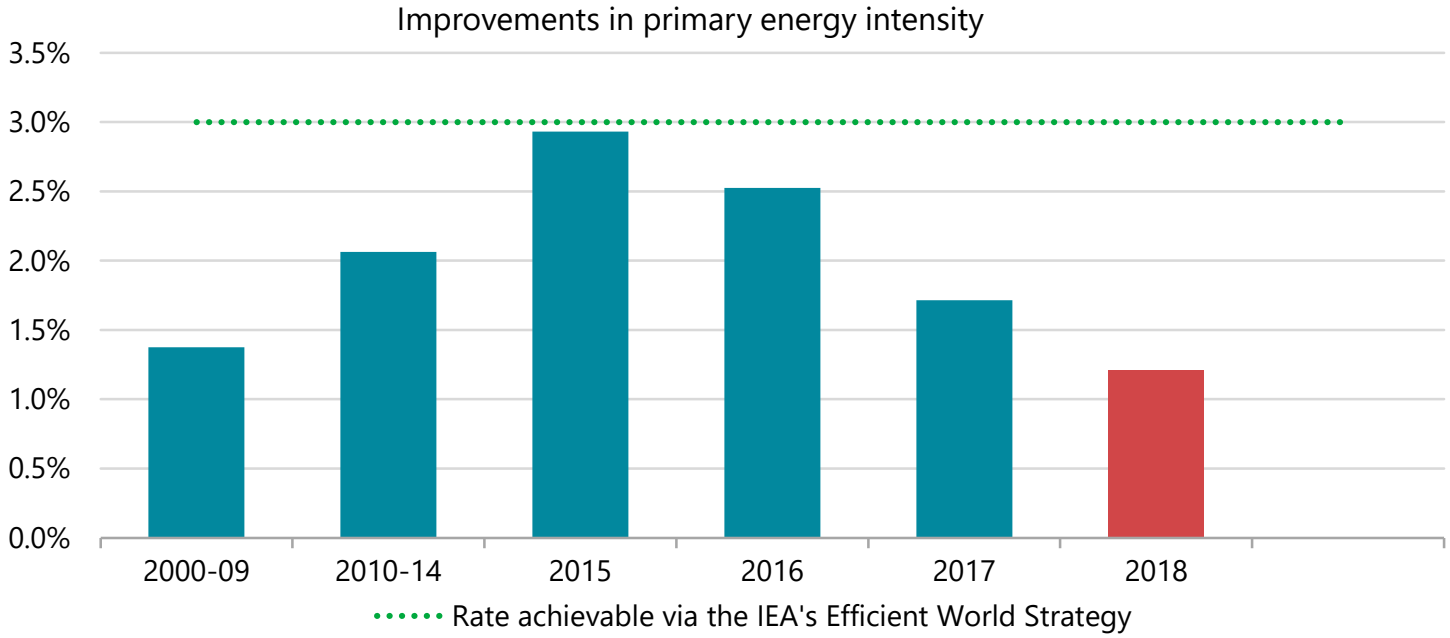
Energy-related CO_2 emissions and reductions in the Sustainable Development Scenario by source



A host of policies and technologies will be needed across every sector to keep climate targets within reach, and further technology innovation will be essential to aid the pursuit of a 1.5°C stabilisation

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But global energy efficiency improvements are slowing down



In 2018 the global economy produced 1.2% more value for every unit of energy used compared to 2017. Cost-effective opportunities exist to deliver an annual improvement rate of 3%.

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What's behind the slowdown?

Three factors are driving the efficiency slowdown:

1. Short term factors: recent jumps in industrial activity and exceptional weather have pushed up demand

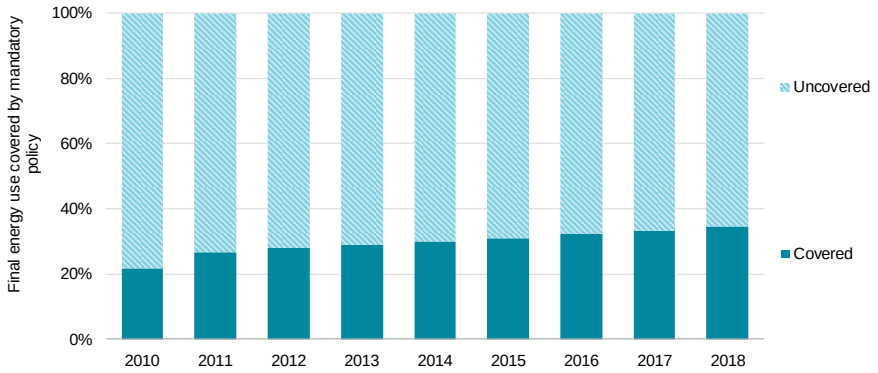
2. Broader trends: overarching structural trends are blunting the impact of technical efficiency improvements

3. **Policy progress and investment are flat**, and are not keeping up with the upward pressures on demand

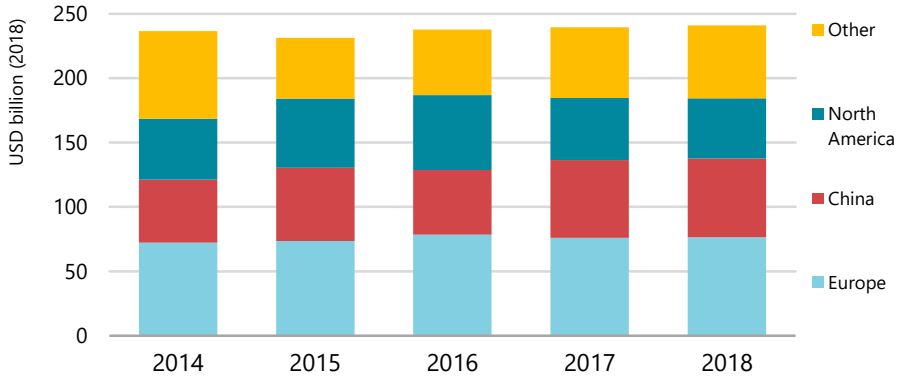
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Policy progress and investment are flat, just when they need to grow

Mandatory policy coverage



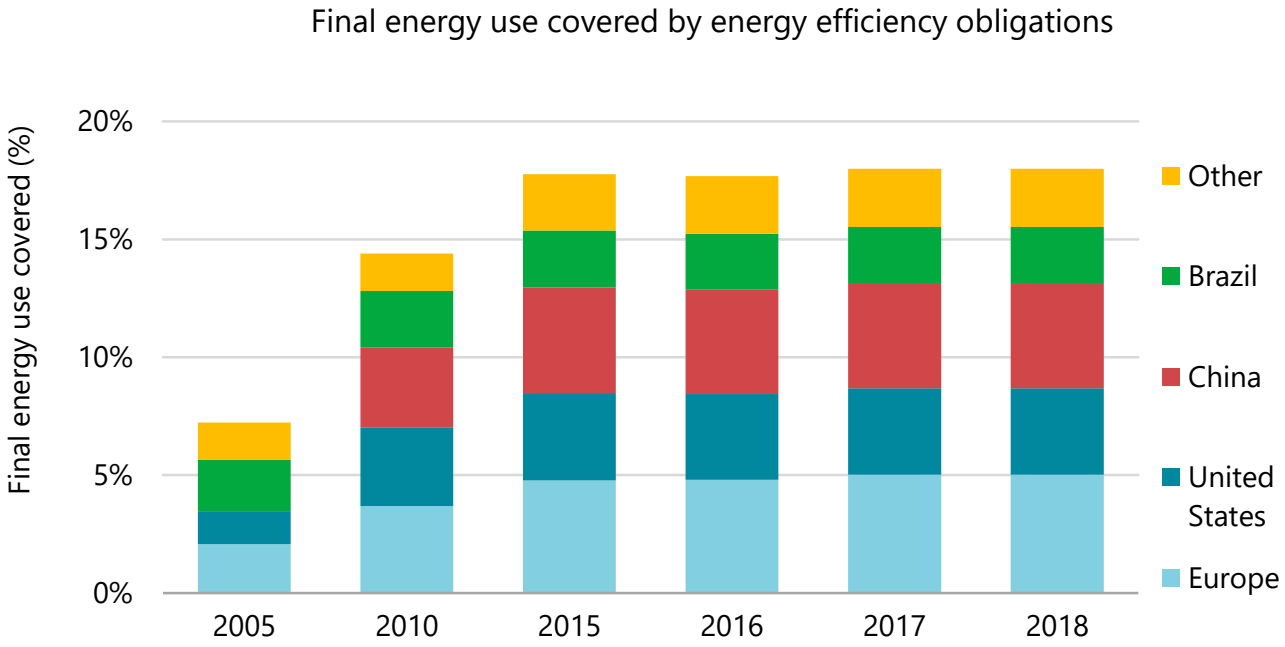
Investments in energy efficiency by region



Efficiency policy progress is slow, and investments in efficiency stayed flat. Returning to a 3% annual improvement in intensity requires annual investments to double on average, between now and 2025.

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Growth in energy use covered by obligations is flat



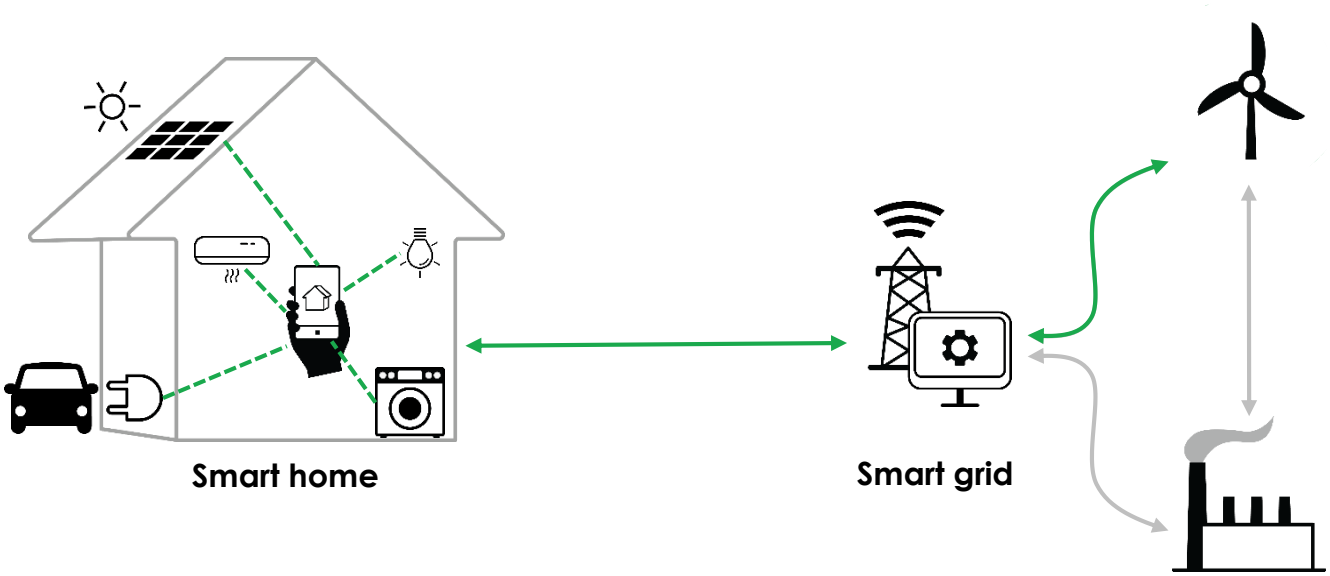
Energy efficiency obligations cover about 18% of global final energy use, a level that has not changed significantly since 2015.

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Digitalisation: A paradigm shift?

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Digitalisation: From end-use to system efficiency



Traditional efficiency policy addresses devices individually. Digitalisation, with the right policies, enables a progression to optimising the efficiency of the whole energy system.

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