Supporting energy service market development

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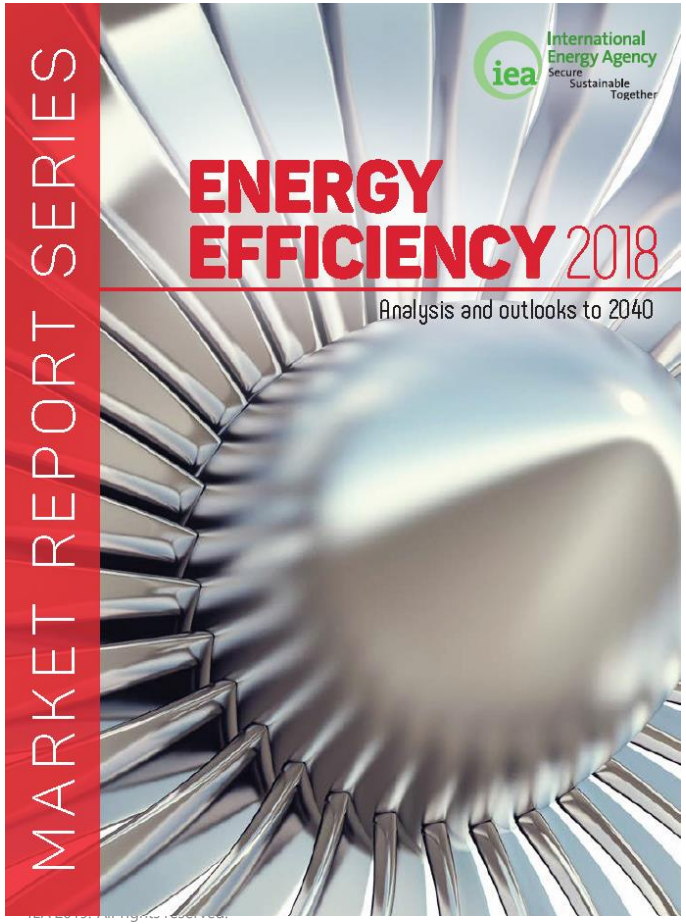
IEA

International Energy Agency

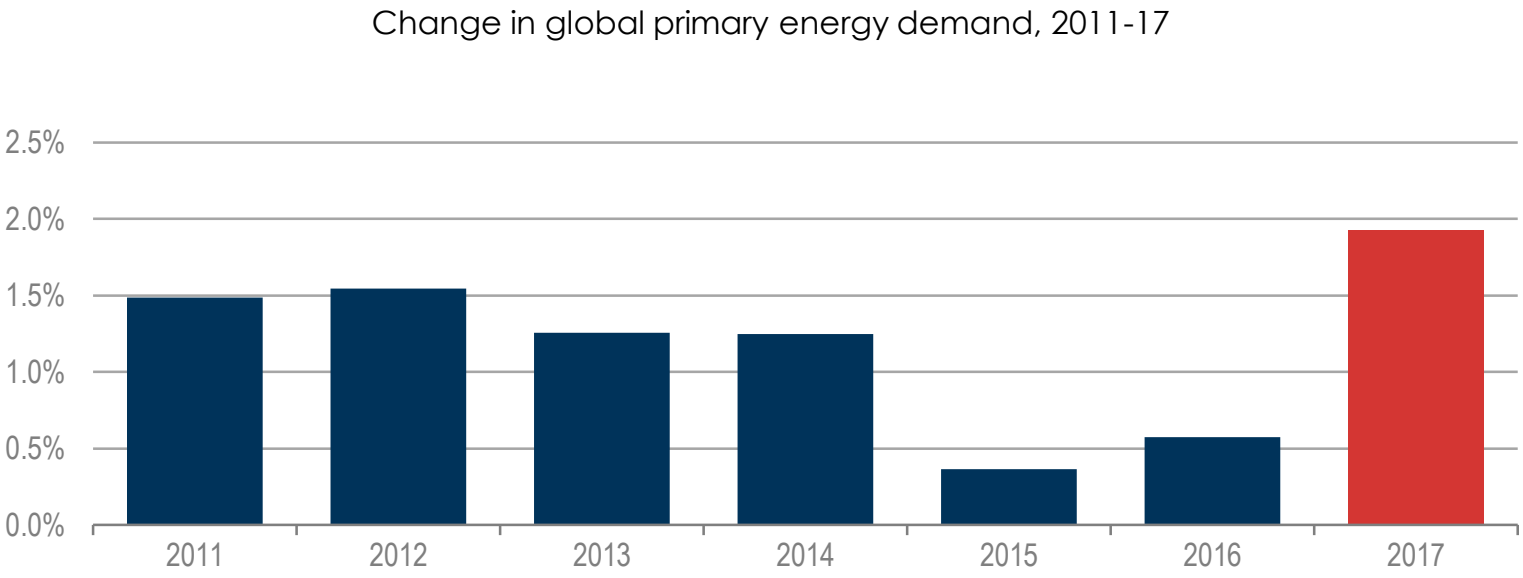
- Energy Security
- Economic Development
- Environmental Awareness
- Engagement Worldwide
    - Data
    - Analysis
    - Policy advice
    - Training and capacity building

Energy Efficiency 2018



- Global trends and outlooks
  - Energy intensity and efficiency trends
  - Introduction to efficient world scenario
  - Policy progress and trends
  - IEA Efficient World Strategy
- Sector chapters
  - Transport, Buildings and Industry
- Investment finance and business models
- Energy Efficiency in Emerging Economies
  - Brazil, China, India, Indonesia, Mexico and South Africa
- Available for free from www.iea.org/efficiency2018

2017 saw a resurgence in global demand growth

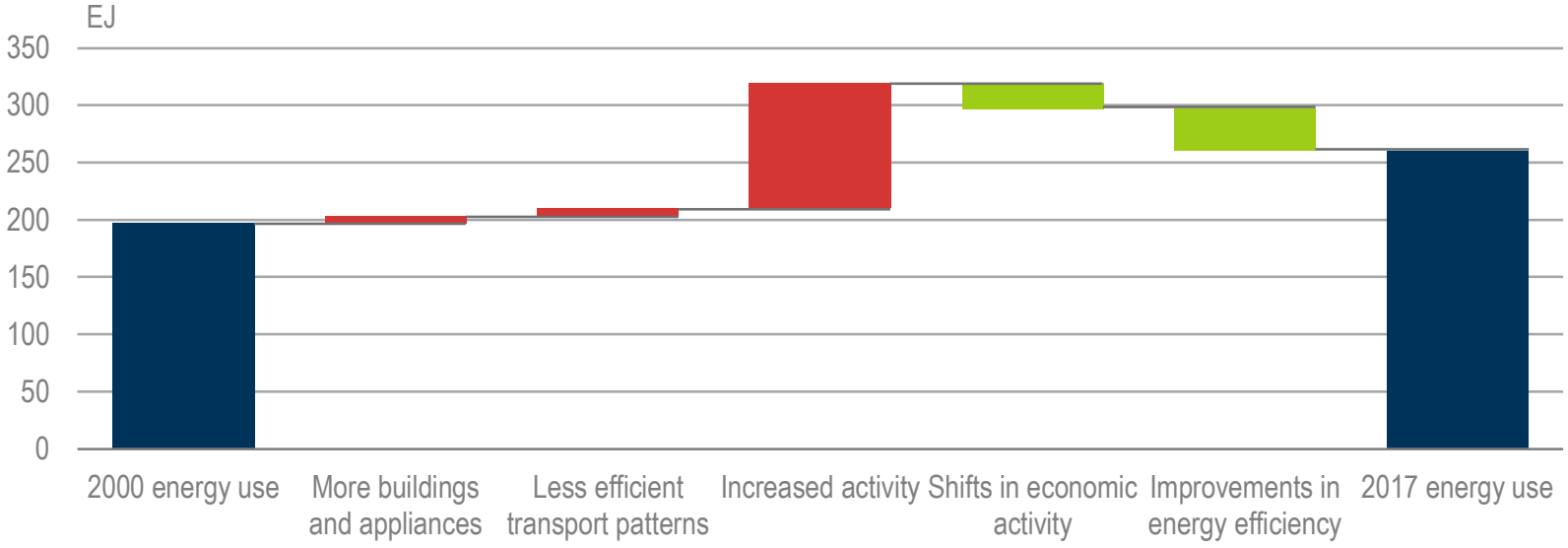


Source: Adapted from IEA (forthcoming), *World Energy Outlook 2018*; IEA (2018c) *World Energy Statistics and Balances 2018* (database)

Global energy demand rose by nearly 2% in 2017, the fastest rise this decade, driven by economic growth and changes in consumer behaviour.

Why is energy use on the rise?

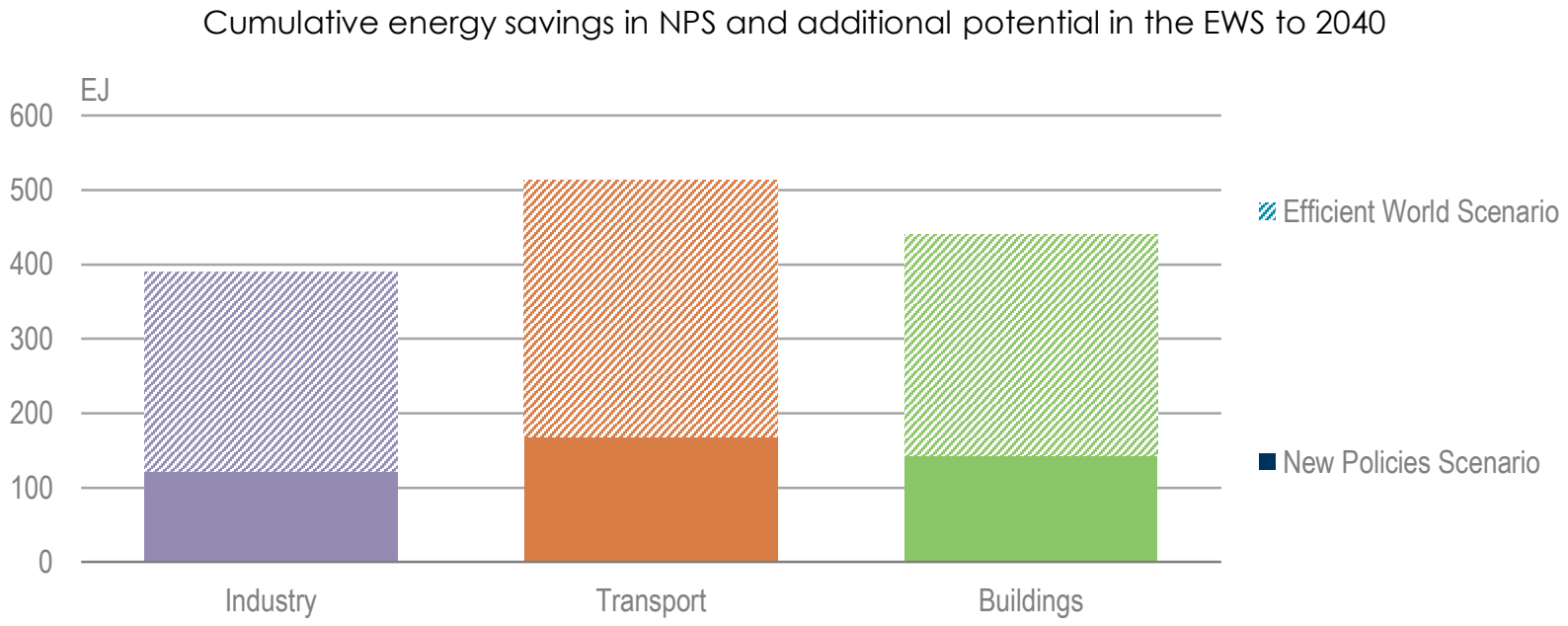
Decomposition of final energy use in the world's major economies



Note: Countries covered are IEA countries plus China, India, Brazil, Indonesia, Russia, South Africa and Argentina.

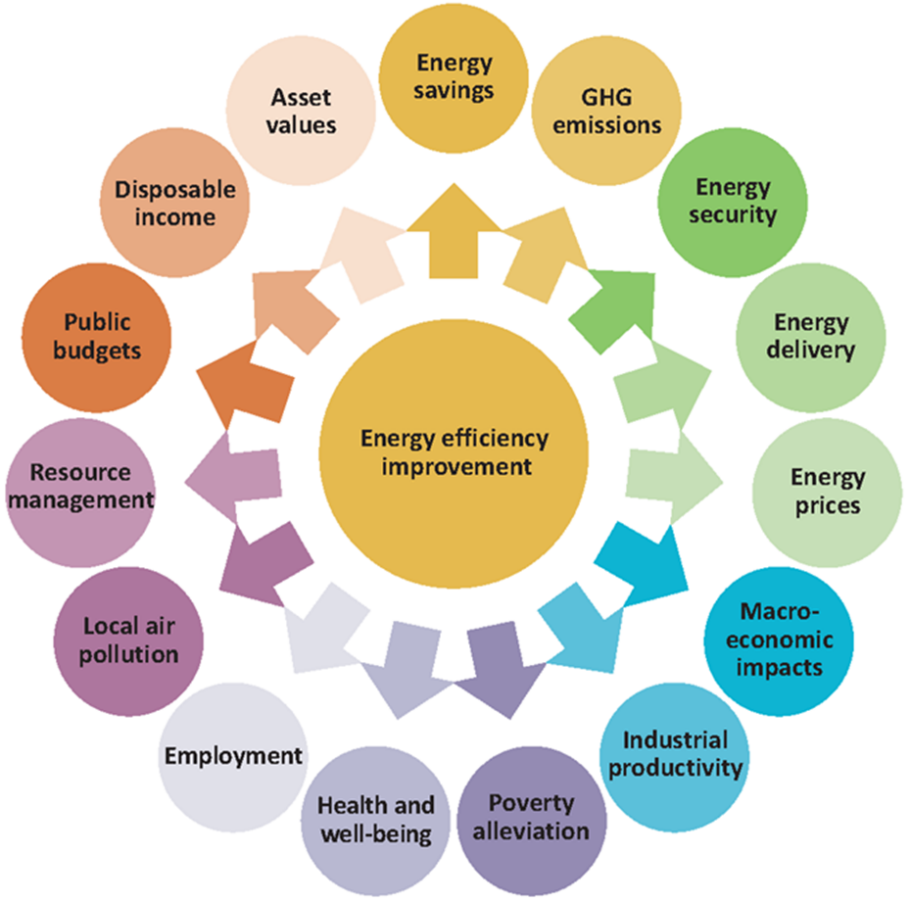
Global energy efficiency is improving, but its impact is being overwhelmed by factors that create more demand for energy.

There is significant cost-effective savings potential in every sector



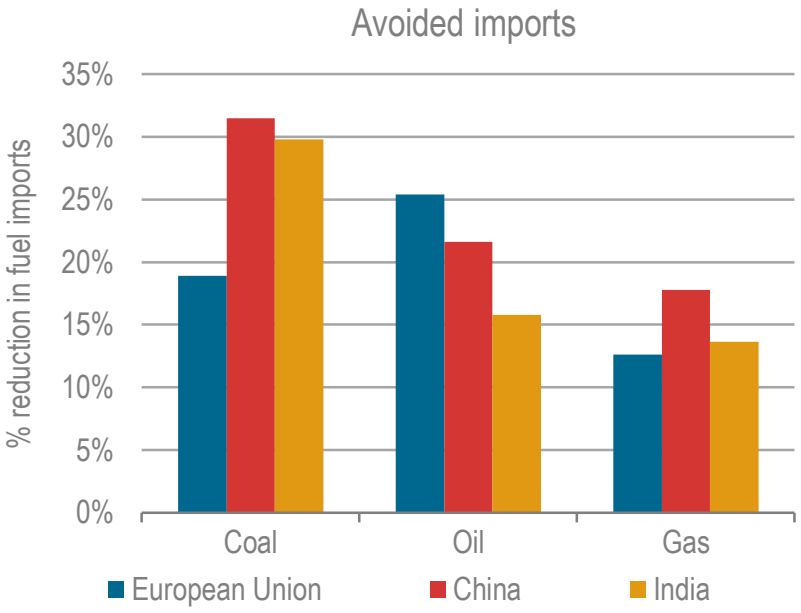
Only one third of the potential cumulative energy savings from efficiency gains by 2040 are realised in the New Policy Scenario. The majority of potential across all sectors is realised in the Efficient World Scenario.

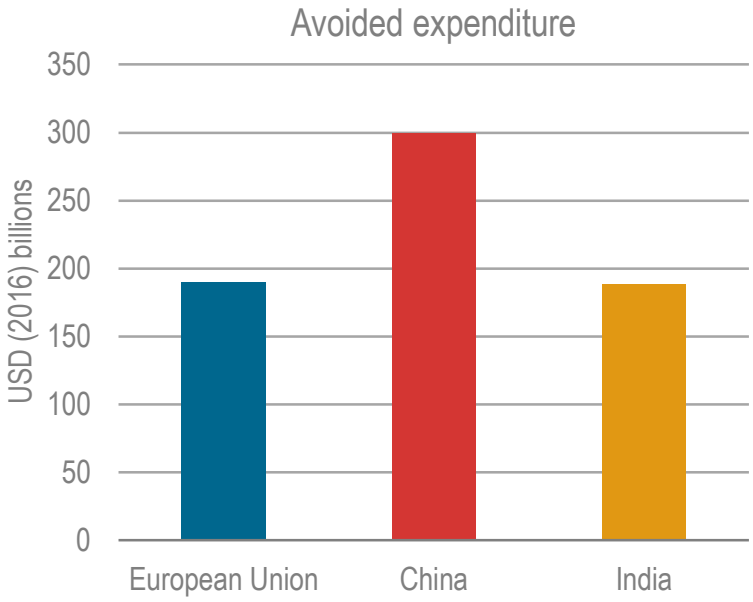
Energy efficiency has multiple benefits



Energy efficiency enhances energy security

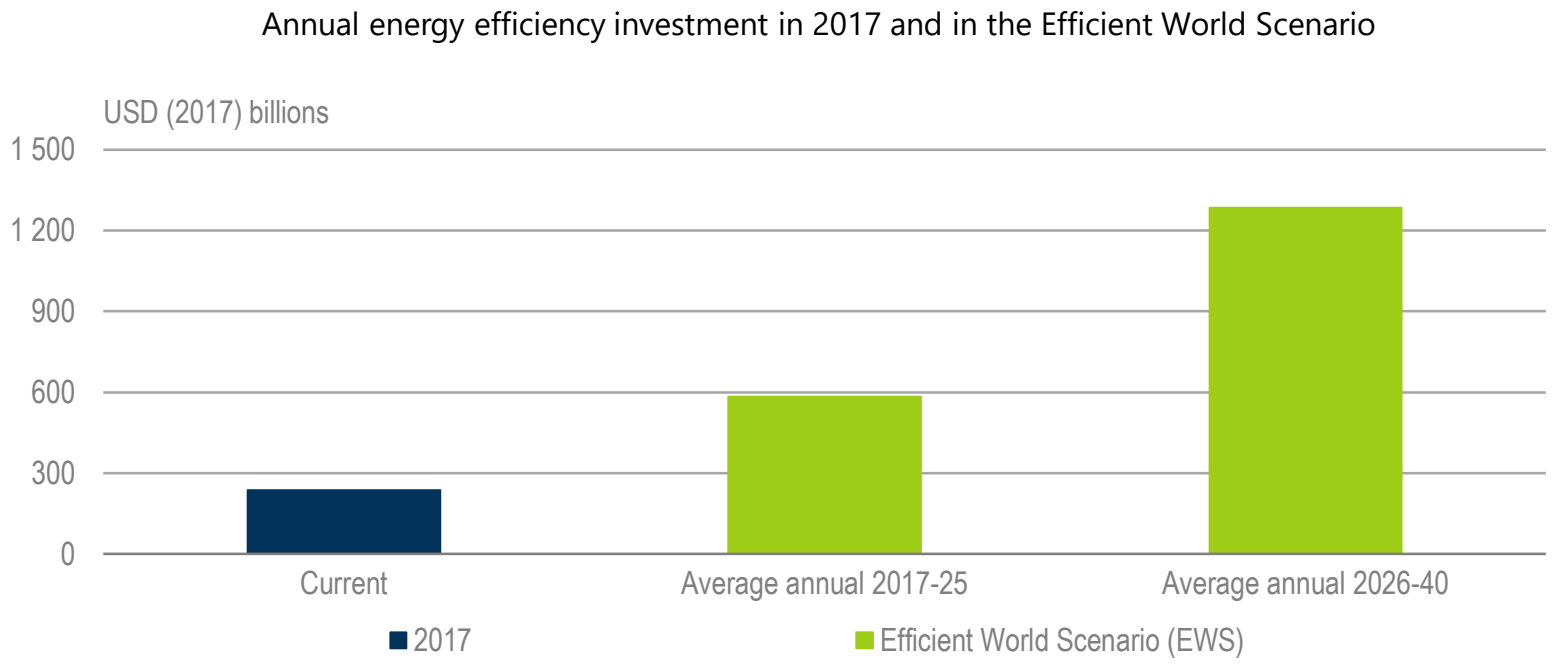
Avoided imports (left) and reduction in fossil-fuel net-import bills (right) in the Efficient World Scenario compared with the New Policies Scenario in 2040





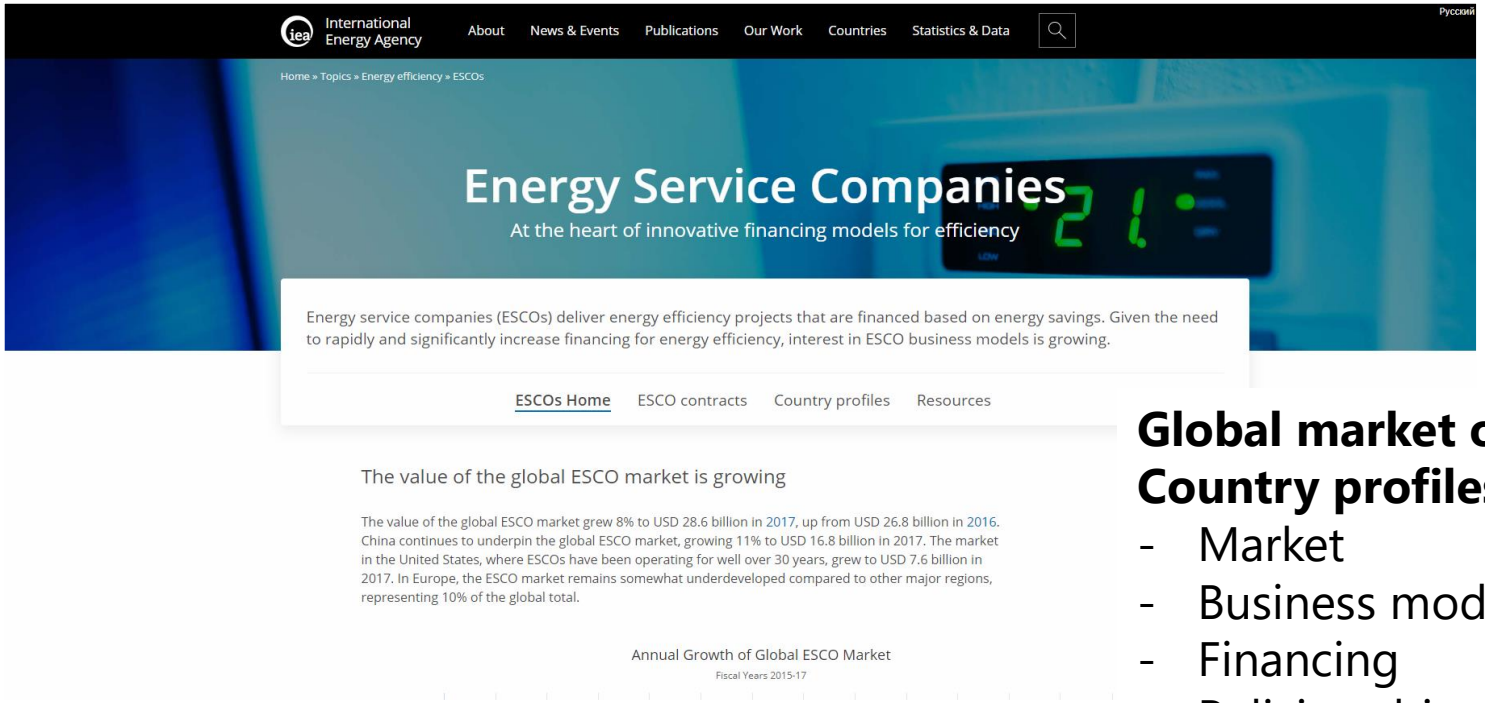
The EU, China and India, could avoid nearly USD 700 billion in fossil fuel imports by 2040.

Global investment levels need to rise



Annual energy efficiency investment must double to 2025 and then double again to 2040. Policy will need to facilitate finance and business model innovation to stimulate this investment.

Online resource on energy services

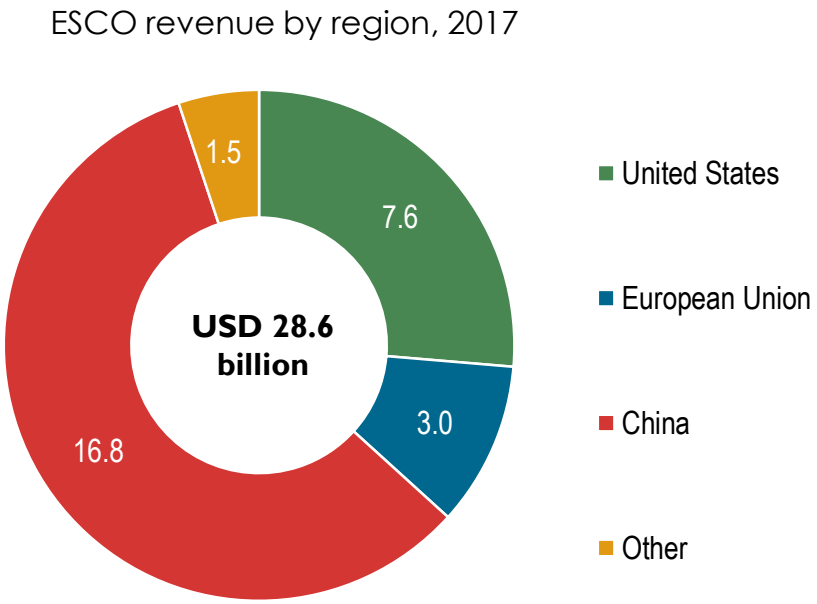


www.iea.org/topics/energyefficiency/escos/

Global market overview
Country profiles
- Market
- Business models
- Financing
- Policies, drivers
- Barriers

Resources

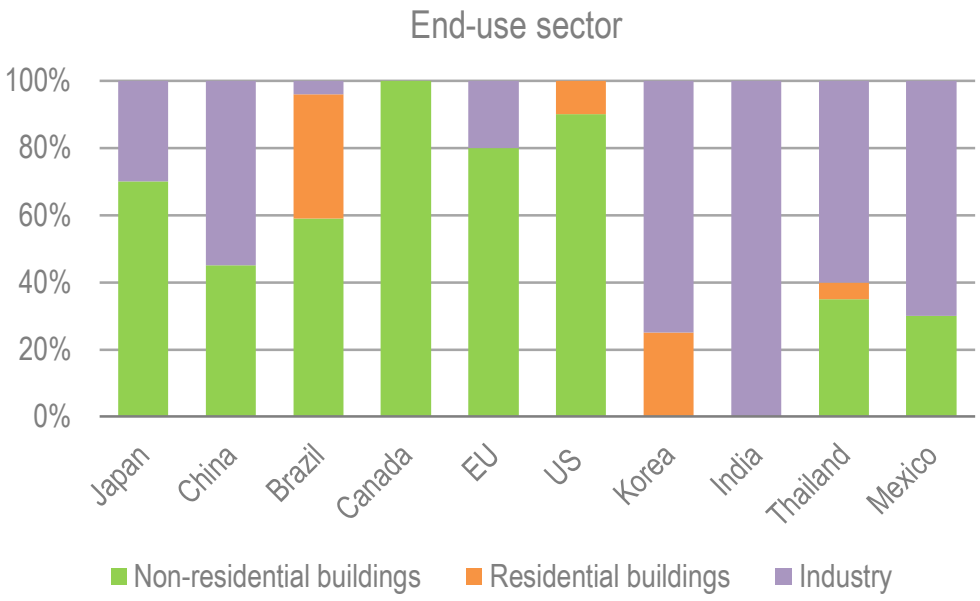
The global ESCO market continues to grow

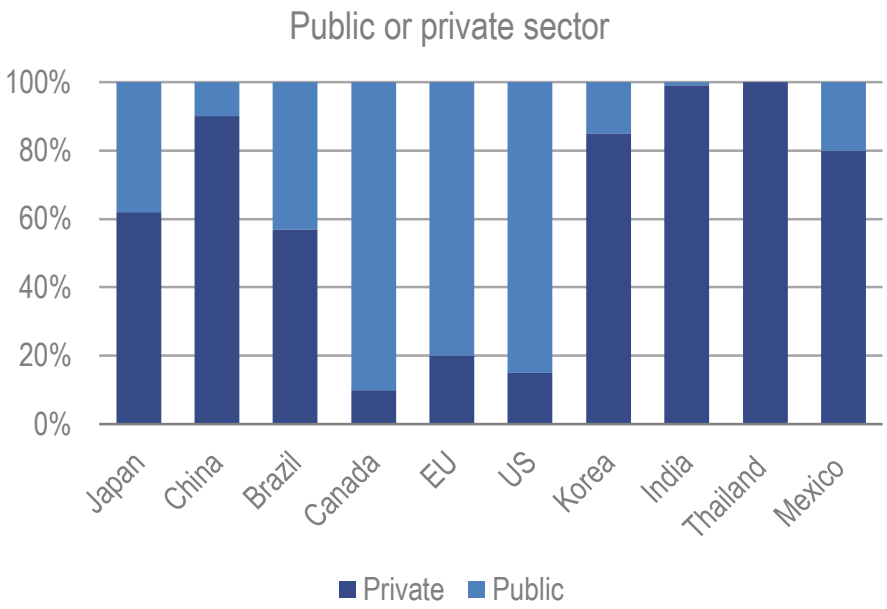


The value of the global ESCO market grew by 8% to USD 28.6 billion in 2017. China's ESCO market continues to underpin the global market, growing 11% to nearly USD 17 billion in 2017.

ESCO activity varies across regions

ESCO market activity by country and sector

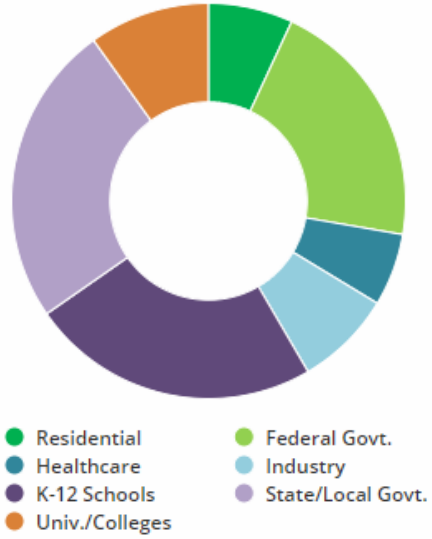




ESCO activity varies between industry and buildings, with transport projects still negligible. The split between public and private sector customers also varies, depending on regulation.

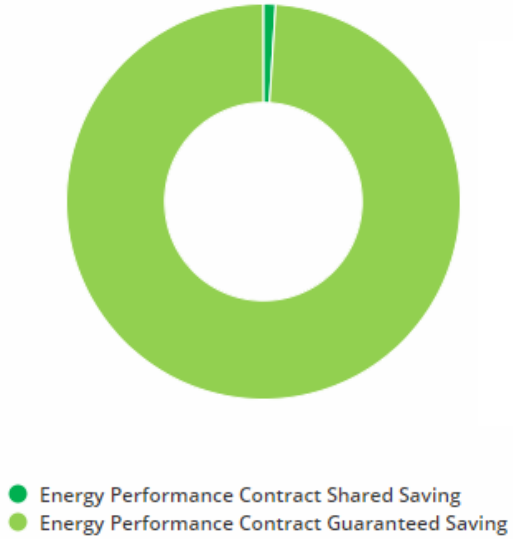
US ESCO market overview

Energy Service Companies Activity by Sector



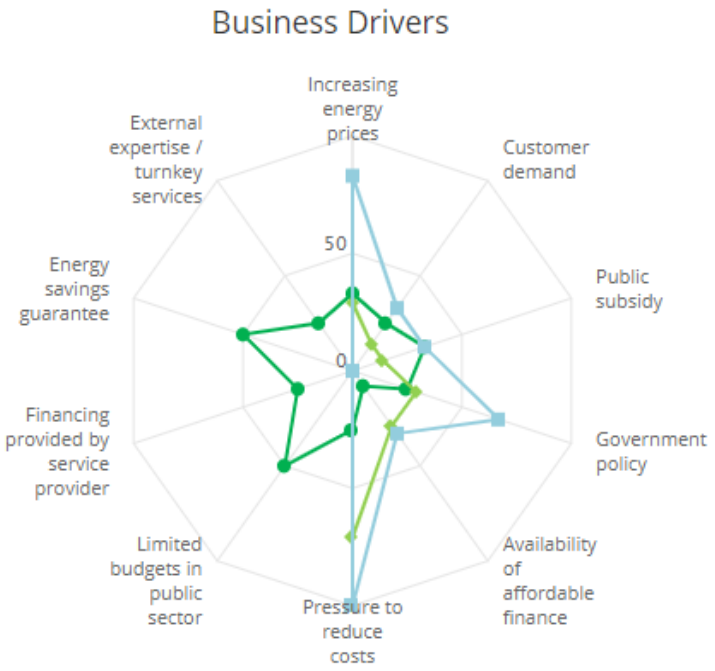
Energy Service Companies Activity: Public vs. Private

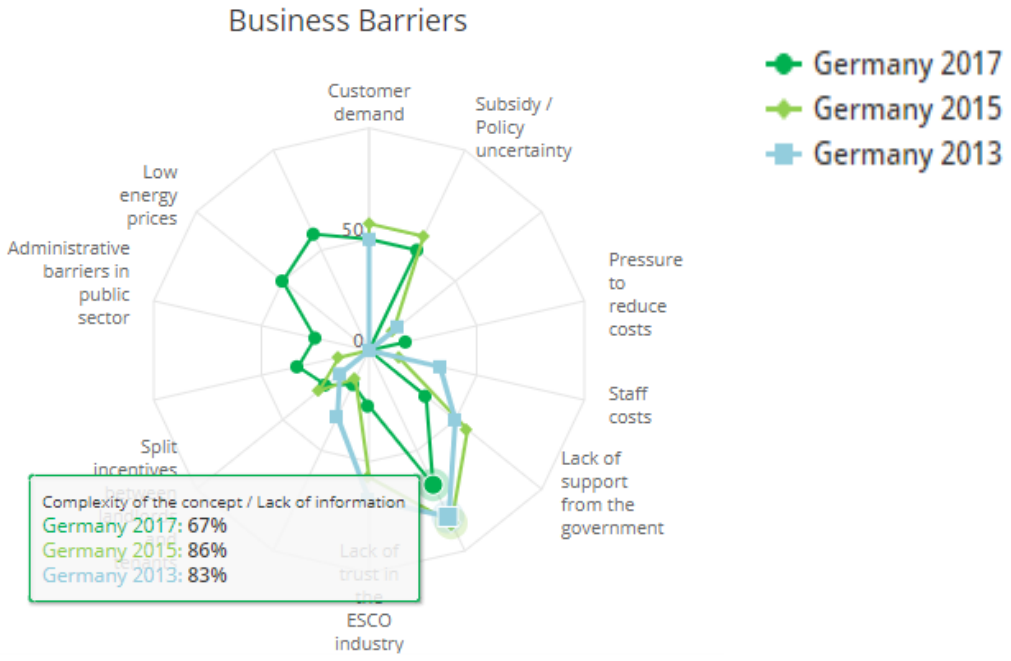
Energy Service Companies Contract Type



Efficiency upgrades in public buildings have underpinned the development and success of the US ESCO market.

Drivers and barriers in Germany





National and regional energy agency and ESCO association campaigns have helped alleviate barriers connected to perceived complexity and lack of information

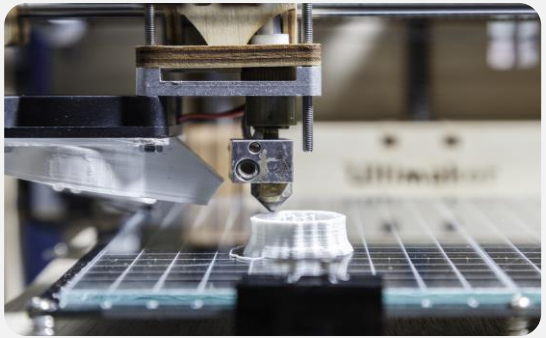
Digitalisation can further accelerate and scale up energy efficiency

Transport

- Key digital trends across all modes: connectivity, sharing, and automation
- Digital solutions for trucks and logistics could reduce energy use for road freight by 20-25%

Buildings

- Smart building controls will improve comfort and transform building energy use
- Globally buildings energy use could be reduced by 10% to 2040



Industry

- Digital energy management systems enable real time data and control
- Plant level savings in the region of 15 – 25% of energy use

Digitalization has the potential to reshape, modernise, transform demand-side sectors and the whole energy system. Policies are essential to maximise benefits and reap energy saving opportunities.

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