Energy Efficiency Market Report 2016

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Good policy delivers the benefits of energy efficiency

- Energy efficiency is the one energy resource all countries possess in abundance, and is an essential part of delivering all energy goals.
- Global energy efficiency gains are accelerating, even in the current low price environment.
- 2015 saw global investment in energy efficiency grow 6% to $221 billion.
- Energy efficiency is now at a scale to influence global energy markets, and is becoming more central in climate change responses.
- Strong Government policies are essential to deliver the energy efficiency improvements the world requires.

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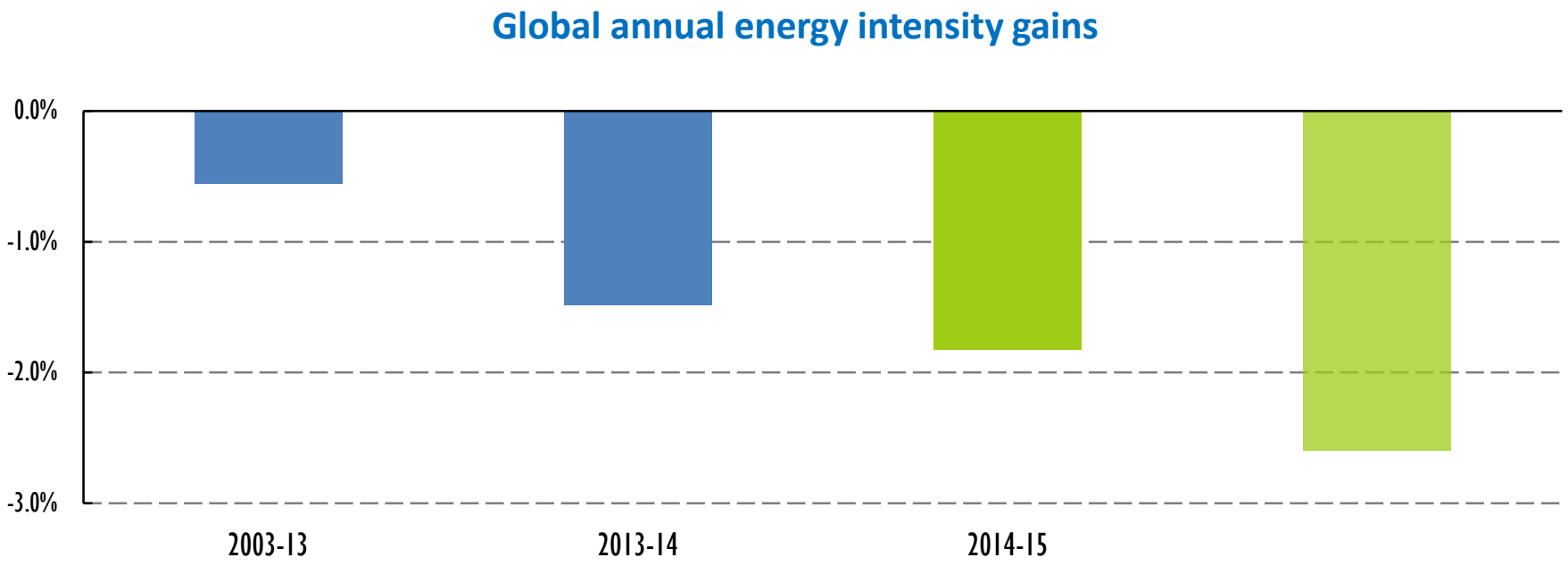
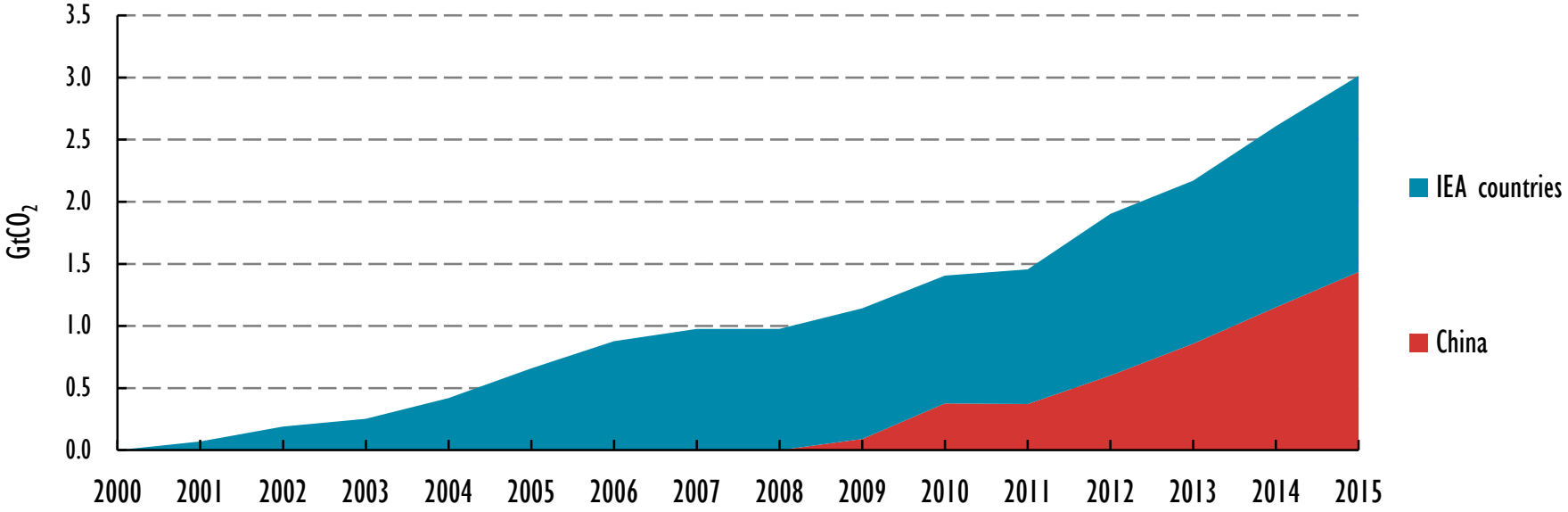
Energy intensity is improving but not fast enough



In 2015, global intensity improved by three times the average of the last decade, despite a low price environment. Intensity gains need to increase to 2.6% to achieve our climate goals.

Energy efficiency is saving CO_2 emissions

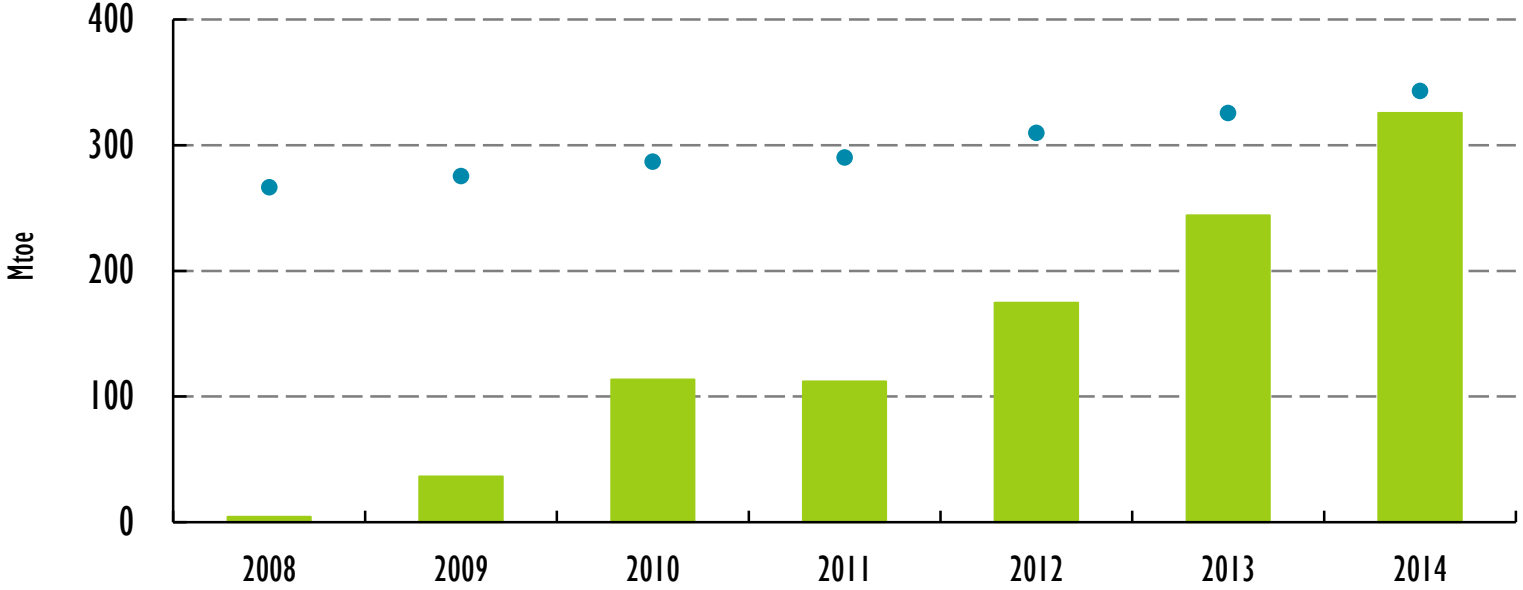
CO_2 emissions savings from efficiency improvements since 2000 in IEA countries and China



In 2015, efficiency gains in IEA and China reduced their combined emissions by 15%. Efficiency policy in China has become one of the most important global actions to reduce emissions.

China is an energy efficiency heavyweight

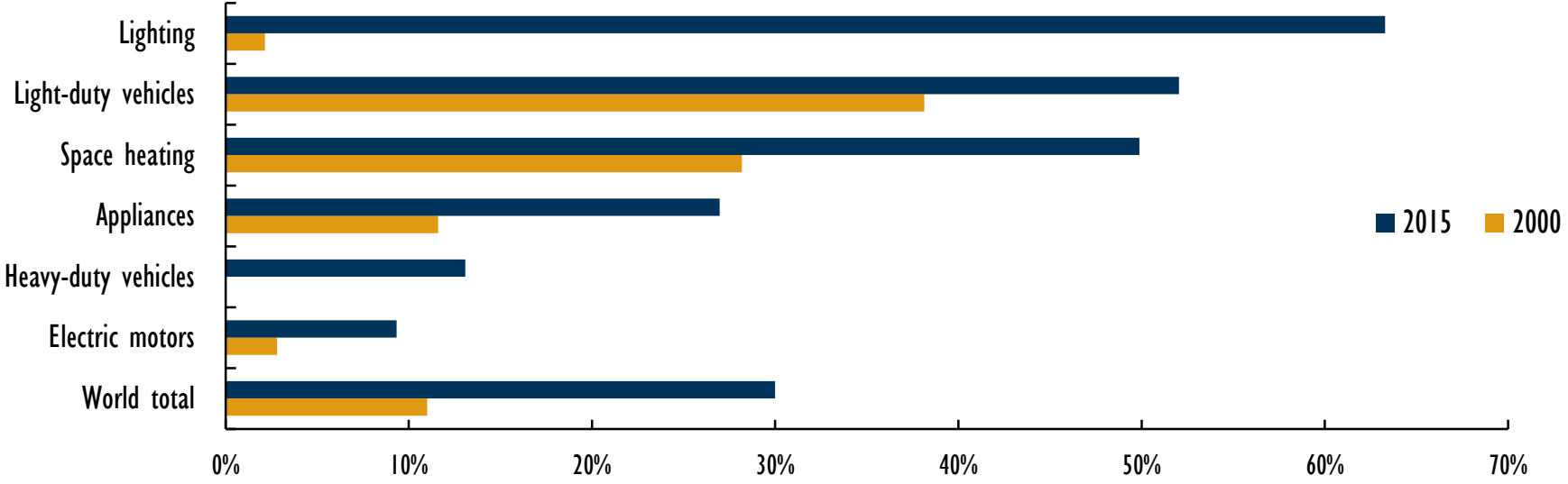
Primary energy savings from efficiency gains since 2000 and renewable energy supply in China



Dramatic progress on energy efficiency saved 350 million tonnes of coal in 2014. Energy savings are as large as China's renewable energy supply.

Efficiency gains have been driven by the expansion of policy

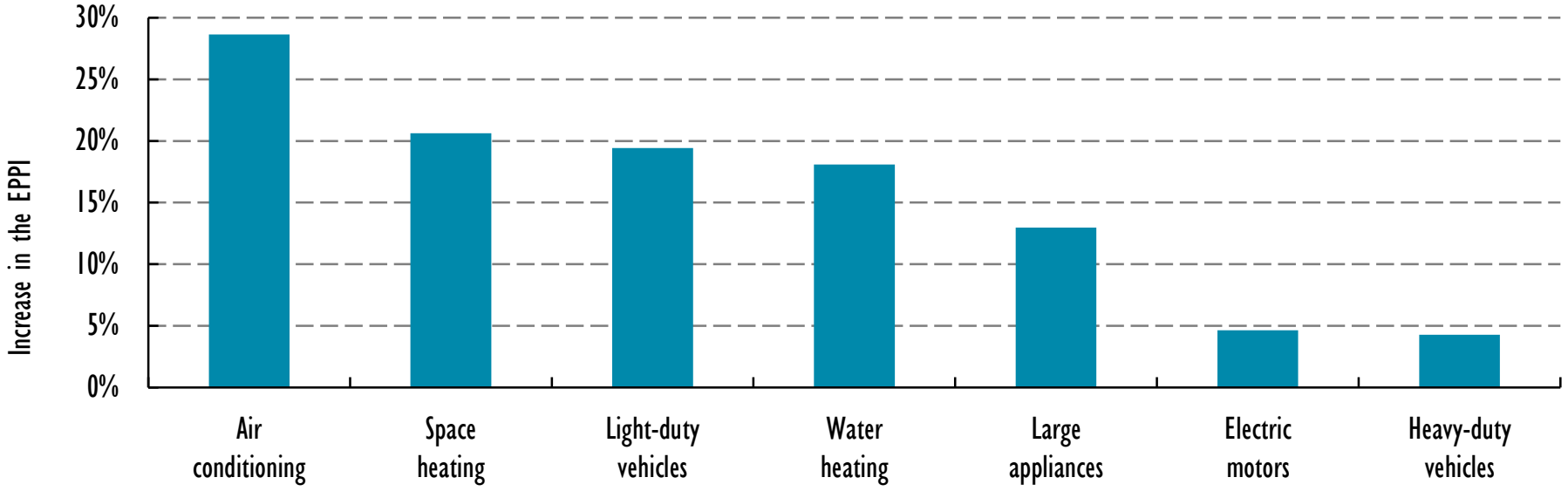
Share of global energy use covered by mandatory standards and regulations



30% of the world's energy consumption is now covered by mandatory standards and regulations, up from 11% in 2000.

The IEA's Efficiency Policy Progress Index measures growth in policy effectiveness

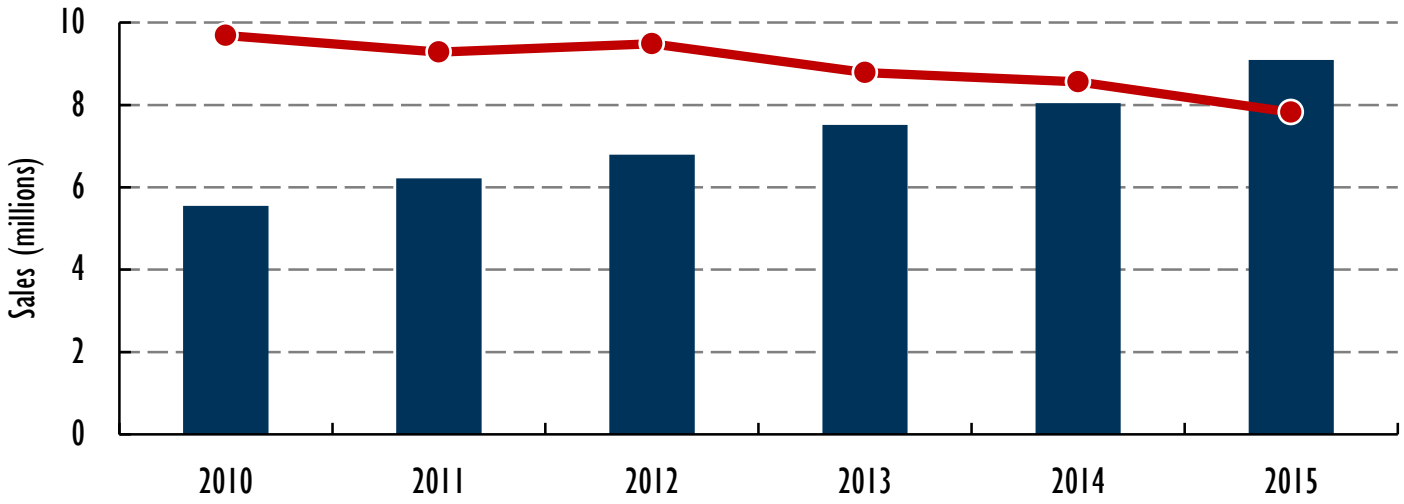
IEA Efficiency Policy Progress Index (EPPI) increase by end use, 2005-15



The EPPI tracks combined progress of policy coverage and strength. The most progress was in the buildings sector and the largest potential for improvement is in the freight and industrial sectors.

Vehicle fuel economy standards have helped to moderate price falls

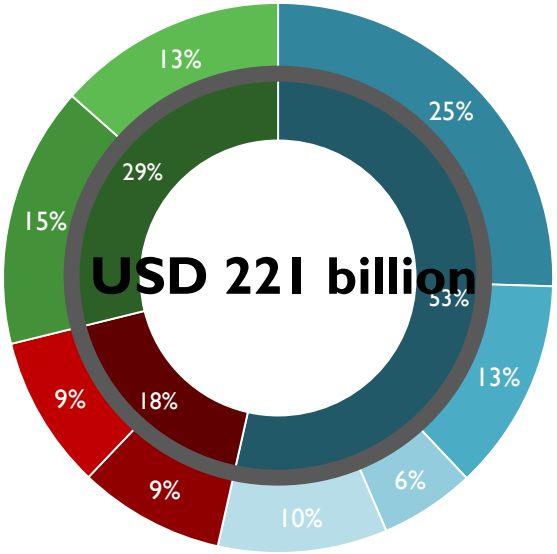
Sales and average annual fuel economy of light-duty trucks, United States



Light-duty truck sales hit record levels in the United States in 2015, but standards ensured overall new vehicle fleet efficiency still improved.

Energy efficiency investment is growing in response to policy

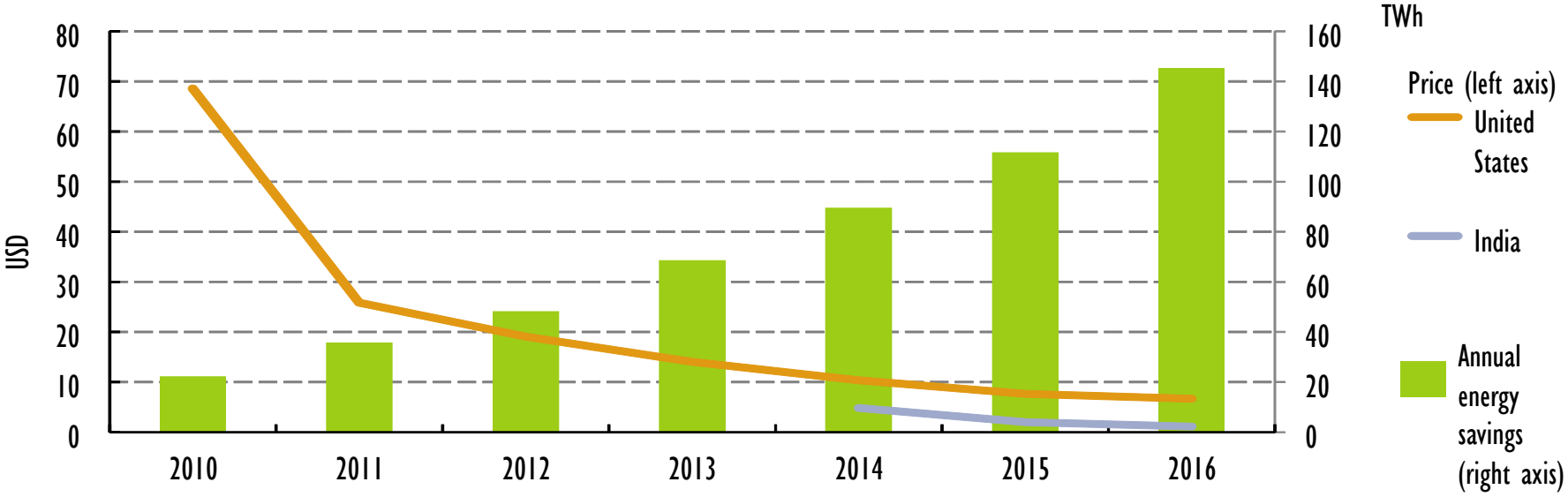
Global investment in energy efficiency by sector, 2015



Investment in energy efficiency increased by 6% in 2015, led by growth in the buildings sector.

Technology prices drops are opening up new markets

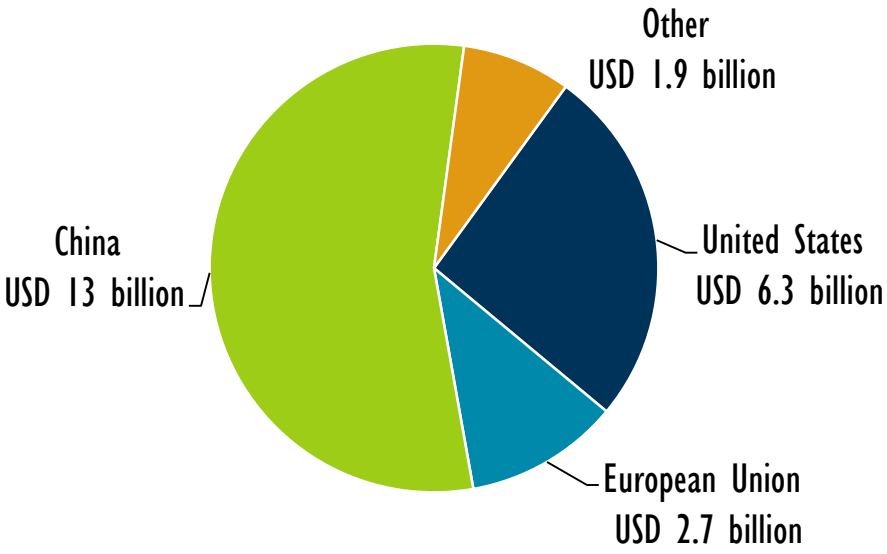
Global annual energy savings from efficient lighting and LED bulb prices



Falling LED prices boosted global investment to $6 billion and generated incremental annual savings of 140 TWh.

The market for energy efficiency services appears poised for growth

Global energy service company revenues by country/region, 2015



The global energy services market was USD 24 billion in 2015 and indicators point to future growth.

Concluding messages

- Global energy intensity improvement is accelerating, despite declining energy prices, but more is required.
- Because of the sheer size of its energy use, energy efficiency gains in China will continue to impact global energy markets.
- Policy delivers, but stronger policy is required: Still 70% of global energy use is outside of any mandatory efficiency requirements.
- Countries can learn from each other on energy efficiency. The IEA will continue to lead global analysis and knowledge exchange.

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