

### **Energy Efficiency Market Report 2016** *Melanie Slade*

## Good policy delivers the benefits of energy efficiency

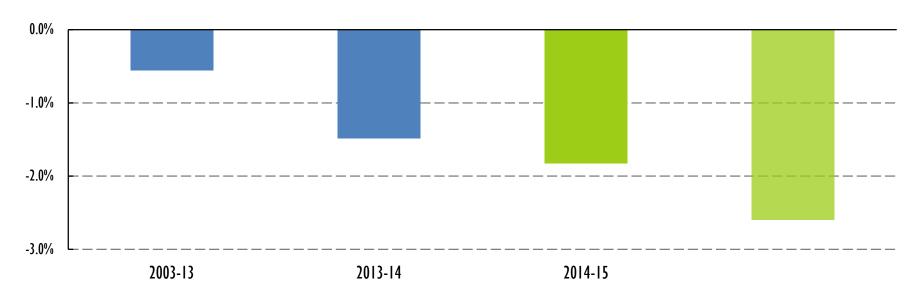


- Energy efficiency is the one energy resource all countries possess in abundance, and is an essential part of delivering all energy goals.
- Global energy efficiency gains are accelerating, even in the current low price environment.
- 2015 saw global investment in energy efficiency grow 6% to \$220 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.

## Energy intensity is improving but not fast enough



**Global annual energy intensity gains** 

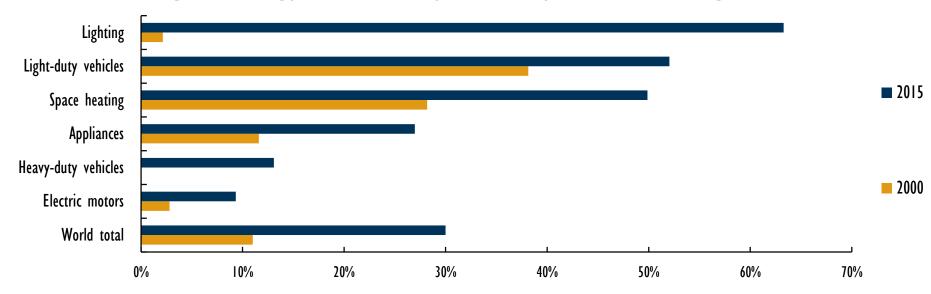


In 2015, global intensity improved by three times the average of the last decade, despite a low price environment. Intensity gains need to increase to 2.6% to achieve our climate goals.

## Efficiency gains have been driven by the expansion of policy



Share of global energy use covered by mandatory standards and regulations

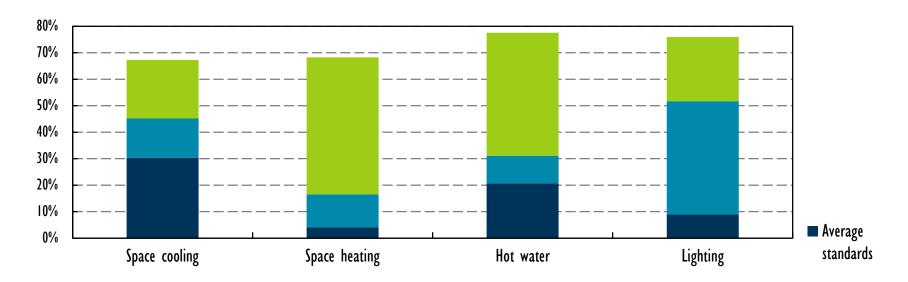


30% of the world's energy consumption is now covered by mandatory standards and regulations, up from 11% in 2000.

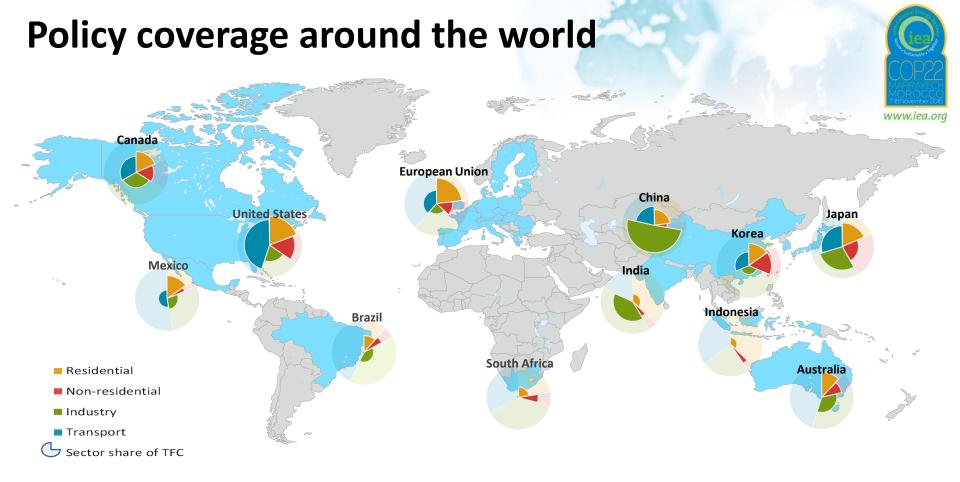
## Policies still have significant potential to save energy



Energy savings potential of standards as a share of global end-use energy, 2015



If the best in class standards had been implemented in all countries, global residential energy consumption would have been 14% lower in 2015.

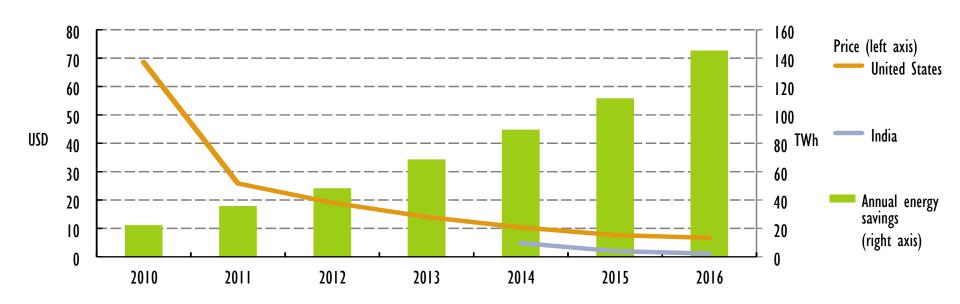


China has the world's largest coverage thanks to its industrial energy savings targets, EU increased its coverage from 6% in 2000 to 23% in 2015.

## Policies can also drive down the price of Technology opening up new markets



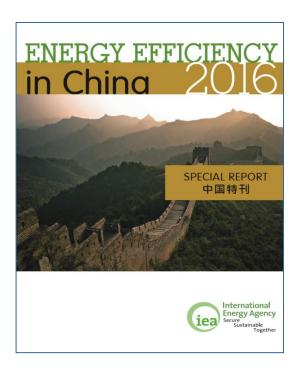
Global annual energy savings from efficient lighting and LED bulb prices



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

#### **China Special Report**

#### 中国特刊主要内容



- Analysis of energy demand in Chinawiea.org
  中国能源需求的分解分析
- Multiple benefits of energy efficiency 能效的多方面收益
- Energy efficiency policy progress 能效政策进展
- Energy efficiency investment and market trends

能效投资和市场趋势

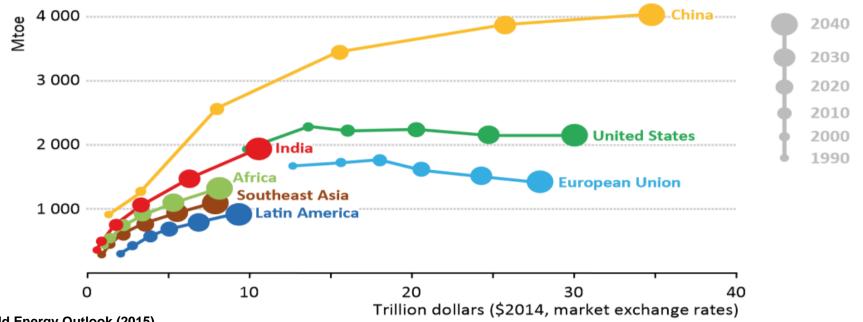
Energy Efficiency Outlook 能效前景

# China's place in the global energy system is expanding significantly



中国在世界能源体系的地位

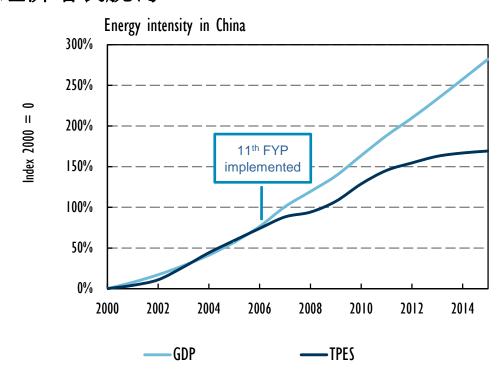
Primary energy demand and GDP by selected region in IEA New Policies Scenario, 1990-2040



# China's energy demand decoupling from economic growth



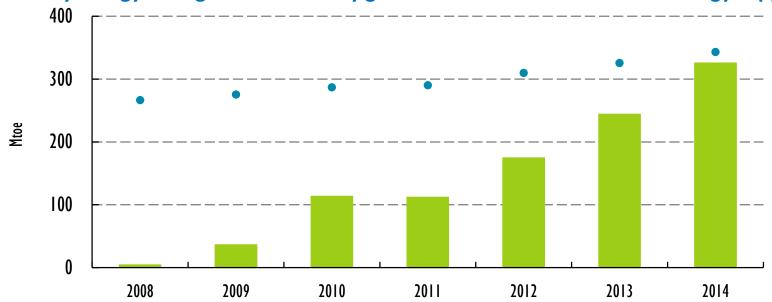
能源需求与经济增长脱钩



## In China, efficiency and renewables are decarbonising its energy system



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

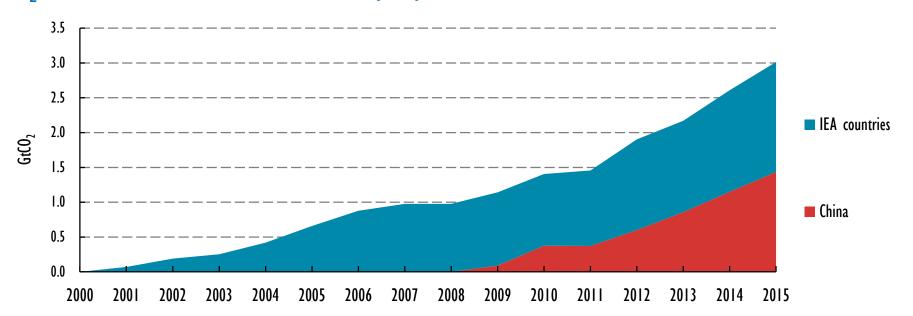


Dramatic progress on energy efficiency saved 350 million tonnes of coal in 2014. Energy savings are as large as China's renewable energy supply.

### Energy efficiency is reducing CO<sub>2</sub> emissions



CO<sub>2</sub> emissions reductions from efficiency improvements since 2000 in IEA countries and Chimaviea.org



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

# China's Success is driven by strong government policies including



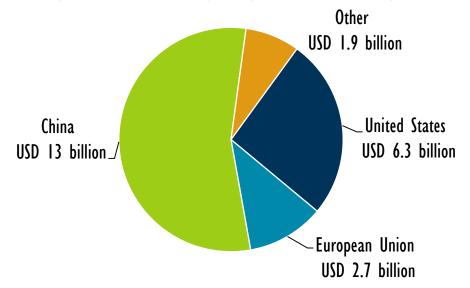
- Standards and labelling for major energy using appliances and equipment
- The Top 10,000 Programme for improving industrial energy efficiency
- The development of an energy efficiency services market

## The market for energy efficiency services is growing



能源服务市场

Global energy efficiency service company revenues by country/region, 2015



The global energy services market was USD 24 billion in 2015 China's market is growing at 7% per year, US market doubled in 10 years

### China's Energy Efficiency Outlook

#### 能效前景

Although efficiency progress has been impressive, China's energy intensity is still 50% higher than the average intensity of IEA countries in 2014

尽管进步速度惊人,但中国2014年的能源强度仍然高于IEA国家平均水平的50%

- To achieve climate goals, energy intensity would need to improve at a rate of 4.7% per year to 2030
  - 2015-2030年间,中国能源强度需要每年平均降低4.7%
- Structural change is expected to play a major role in the future, accounting 65% of energy savings 2020
  - 结构变化预计会起到重要作用
- Achieving this would firmly position China as the global leader in energy efficiency

中国将成为全球能效引领者。

### Thank you



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Microsite: http://www.iea.org/eemr16/

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