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Side-event

Chinese Energy Sector's Role in Low Carbon Transition

Paul SIMONS

*Deputy Executive Director
International Energy Agency*

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The IEA works around the world to support an accelerated clean energy transition that is

enabled by real-world SOLUTIONS

supported by ANALYSIS

and built on DATA

China as an IEA Association country & beyond



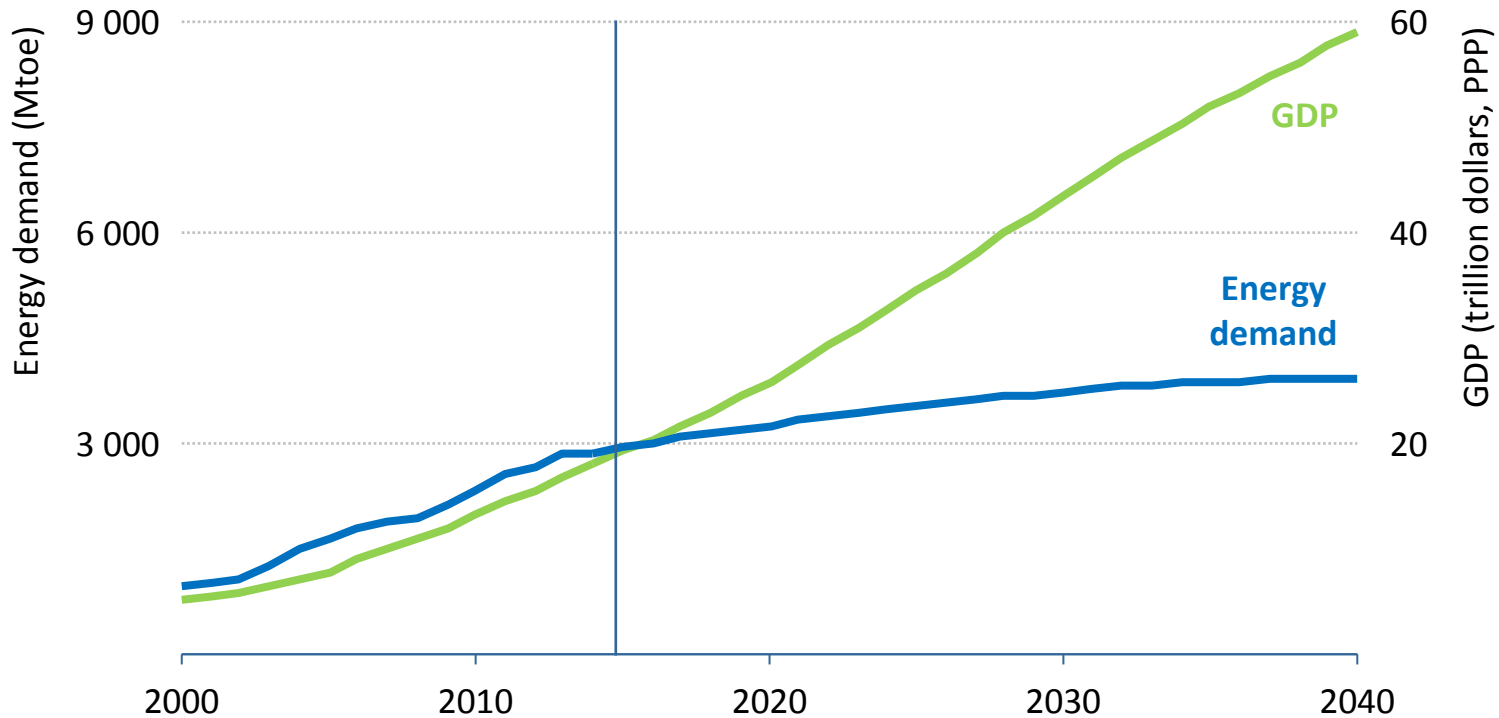
- **Sept 2015: “opening doors” to emerging economies**
- **Nov 2015: China became IEA’s Association country**
 - *Chinese Energy Minister attended the IEA Ministerial for the first time*
 - *IEA Ministers endorsed steps to modernise the IEA*
 - *Association countries: China, Indonesia and Thailand*
- **March 2016: 20th anniversary of IEA-China relations**
- **More engagements and analysis related to China**
 - *Three-year work programme*
 - *More personnel exchanges (NEA high-official and secondees), workshops (energy data), visits and meetings*
 - *Publications: WEO Air quality report (2016), A report on Chinese companies in the sub-Saharan power sector (2016), WEO special report on China (2017)*

China's Energy Transition

- Coal has fueled China's massive economic growth especially since the beginning of this century
- But more attention has been shifted to clean energy within the context of climate change and air pollution
- China is now moving to a less energy-intensive model for growth
- Renewables and energy efficiency are now playing a key role in China

A new chapter in China's growth story

Energy demand in China

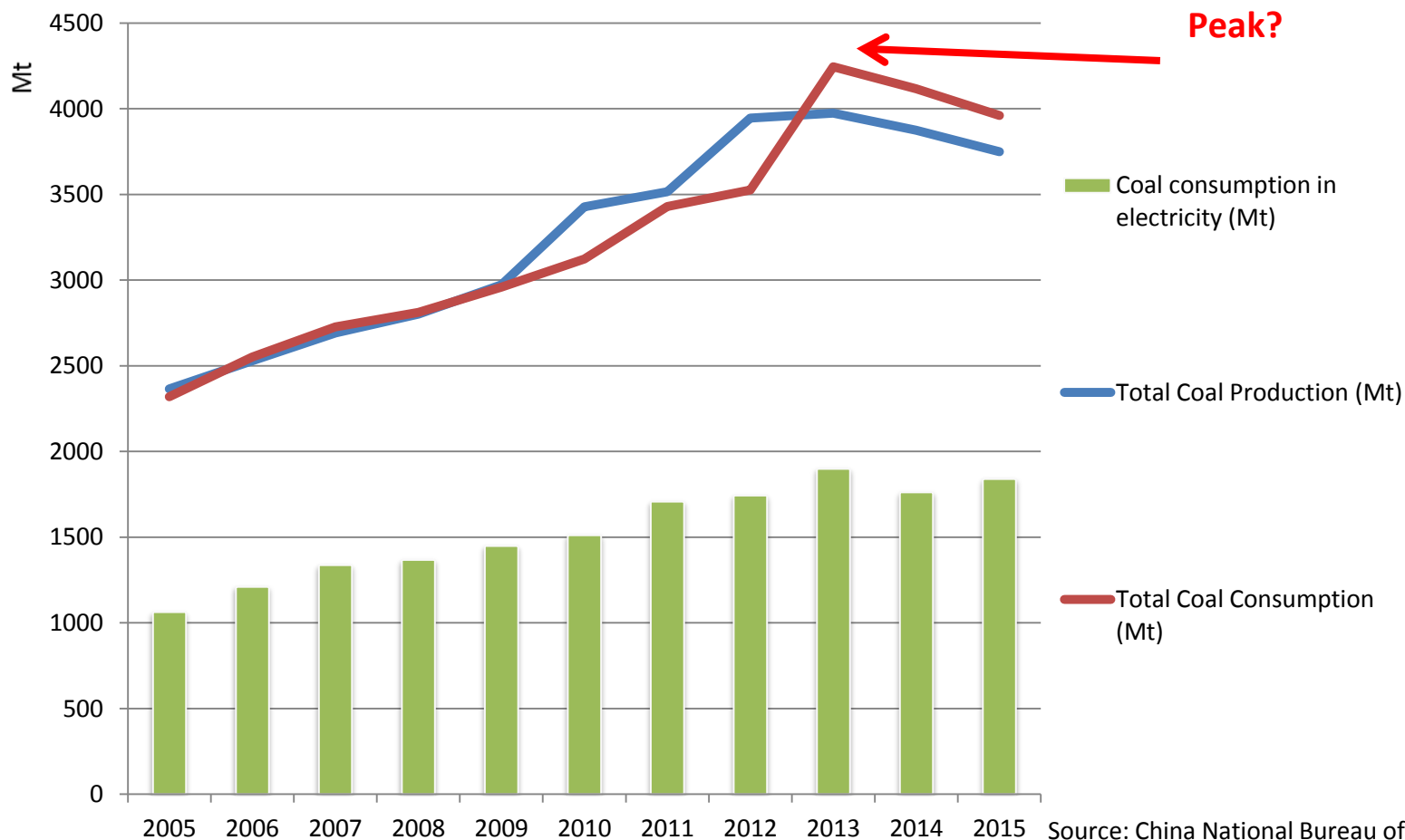


IEA World Energy Outlook (2015)

Along with energy efficiency, structural shifts in China's economy favouring expansion of services, mean less energy is required to generate economic growth

Has China reached a coal peak?

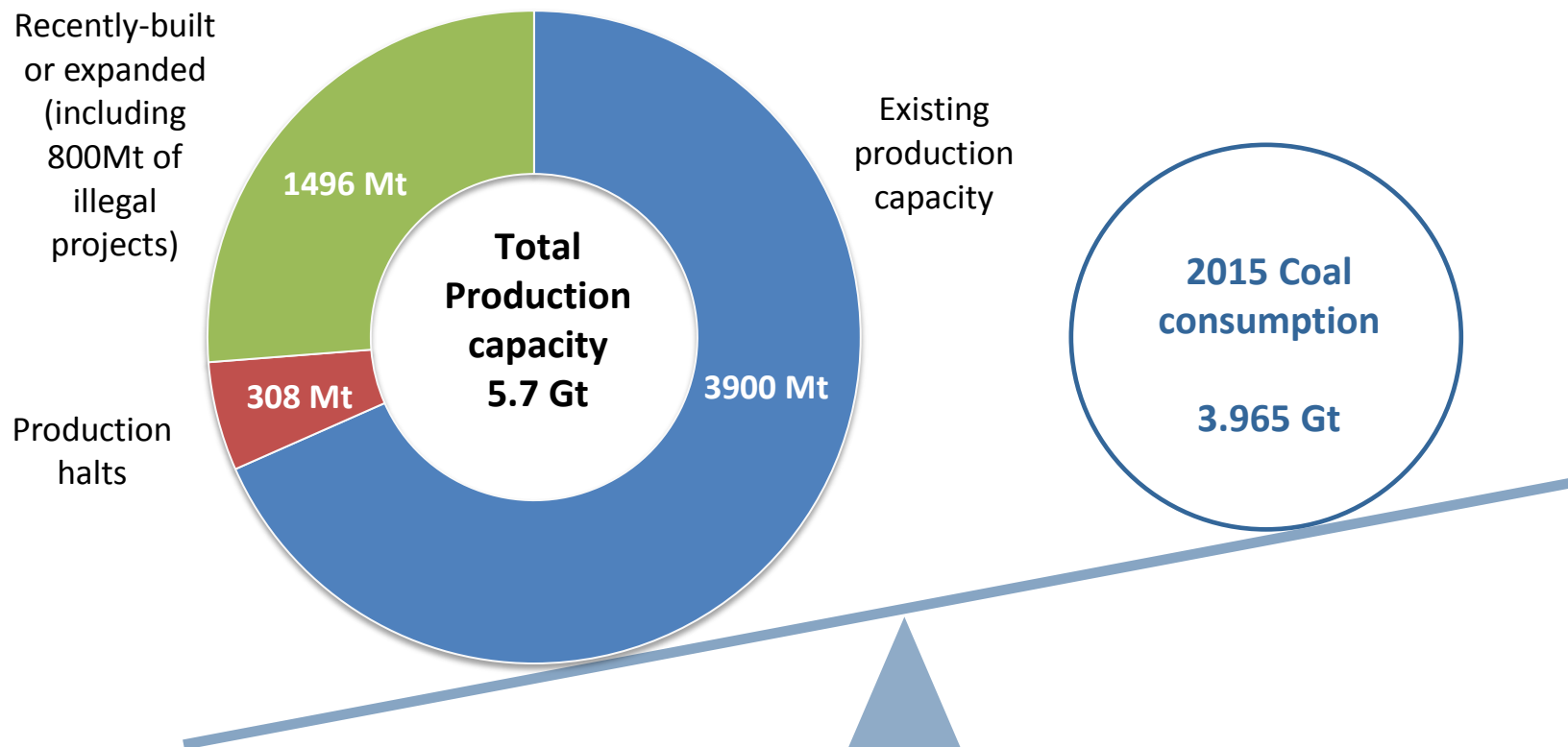
Coal Production and Consumption in China



As China faces overcapacity across heavy industry, coal consumption in China declined for two consecutive years in 2014 and 2015, featuring structural changes

Coal production overcapacity

China's coal production capacity vs. coal consumption in 2015

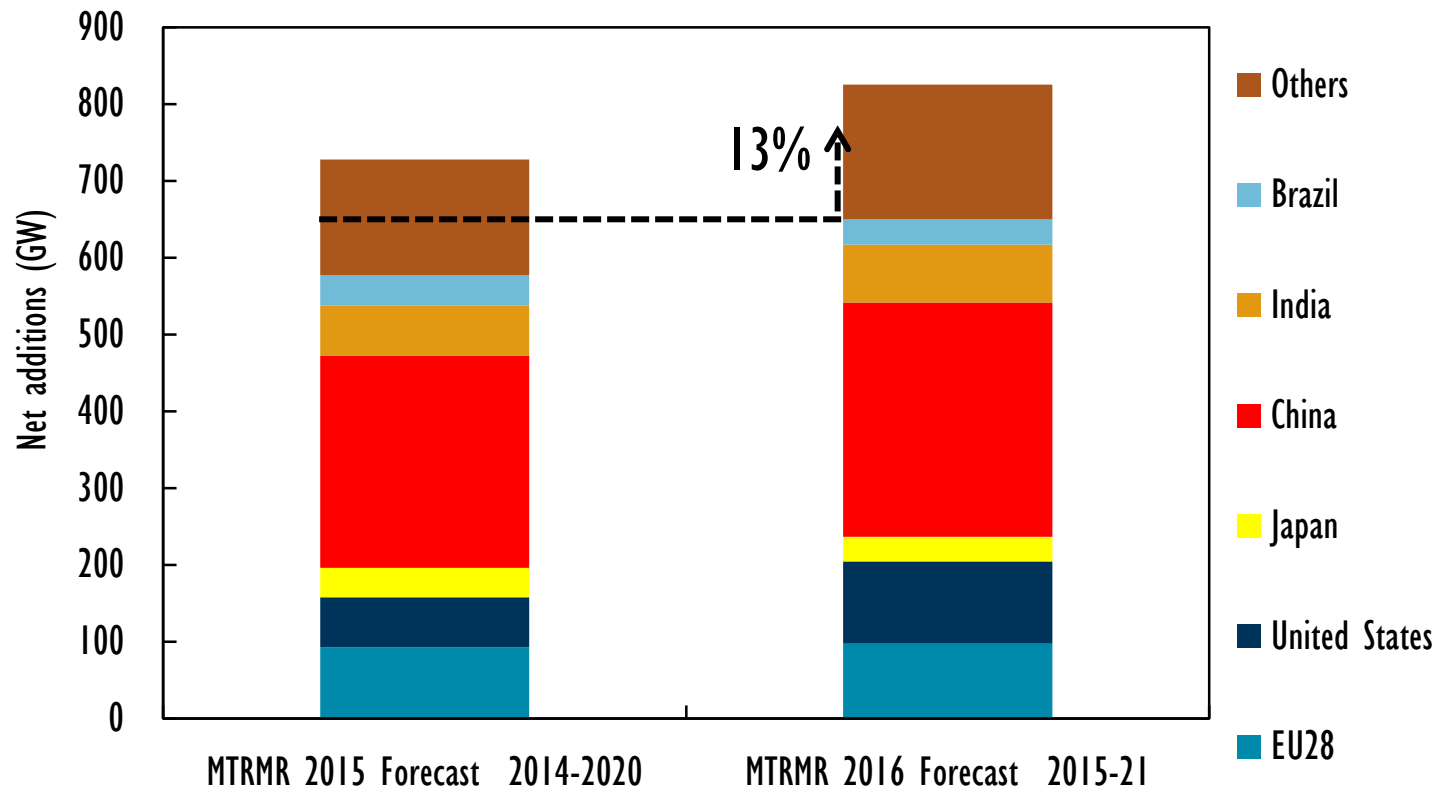


Source: People's network

Coal is one of the main industries facing severe overcapacity, followed by steel, cement and flat glass

New policies underpin a more bullish forecast for renewables

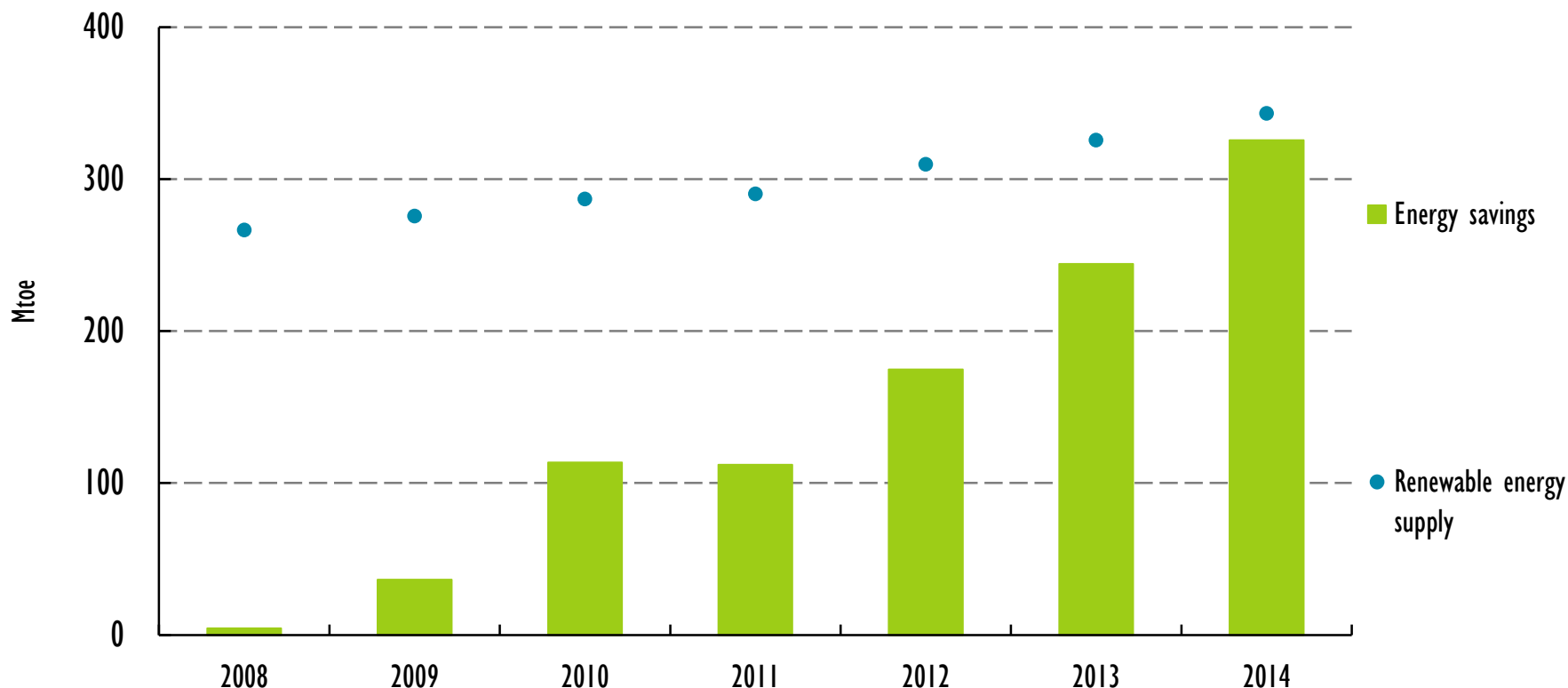
Renewable electricity capacity growth (GW) in MTRMR's main case



China remains key growth market for renewable capacity, while the United States surpasses the EU for the first time

China is an energy efficiency heavyweight

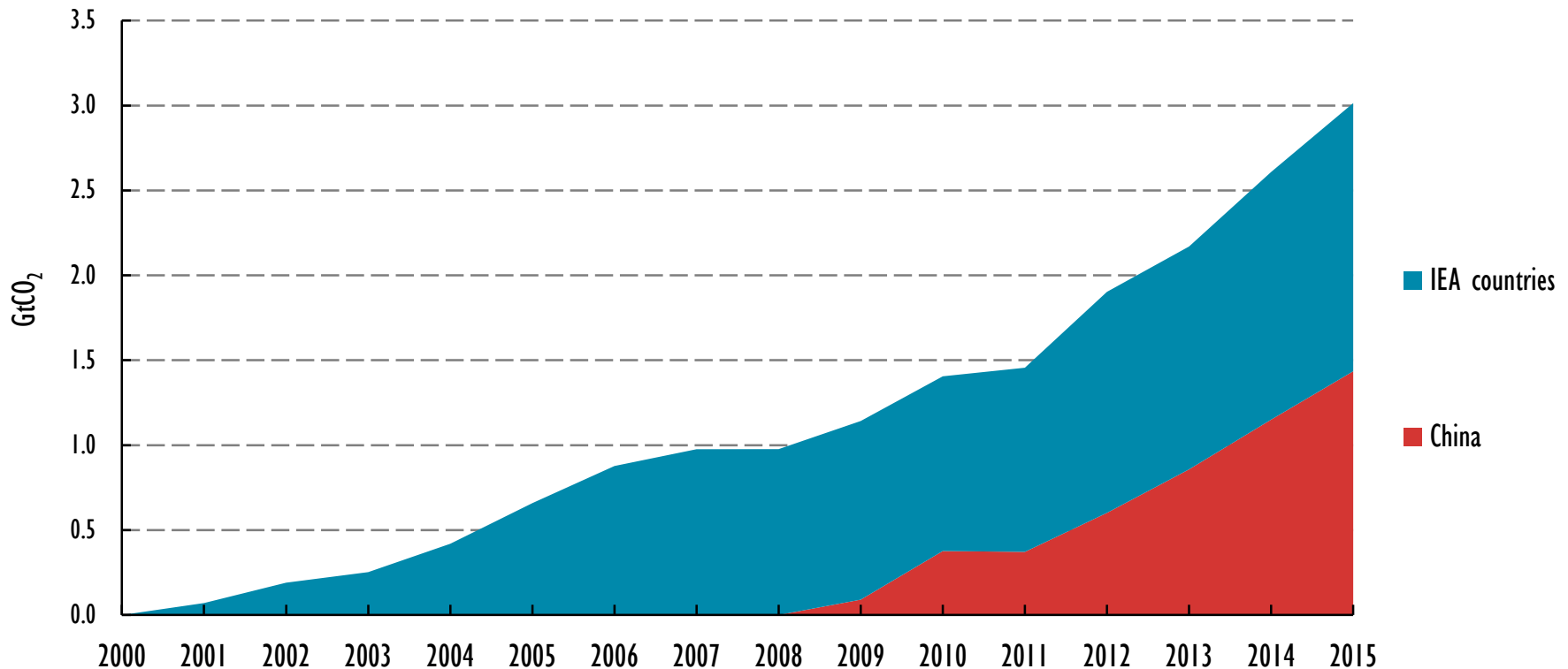
Primary energy savings from efficiency gains since 2000 and renewable energy supply in China



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

Energy efficiency is saving CO₂ emissions

CO₂ 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%.

Concluding remarks

- Investment flows signal move towards cleaner energy
- An integrated policy approach is needed, covering market design, CO₂ pricing & system integration, including storage & demand response
- Policy makers need to heighten their commitments, providing clarity and certainty to investors
- IEA contributes to the energy transition by its work on renewables, system integration & global clean-energy technology collaboration