

World Energy Outlook 2015

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Energy access in Asia: Implications for China's Climate Policy

Joint IEA-China High Level Side Event – 4 December 2015

The start of a new energy era?

■ 2015 has seen lower prices for all fossil fuels

- *Oil & gas could face second year of falling upstream investment in 2016*
- *Coal prices remain at rock-bottom as demand slows in China*

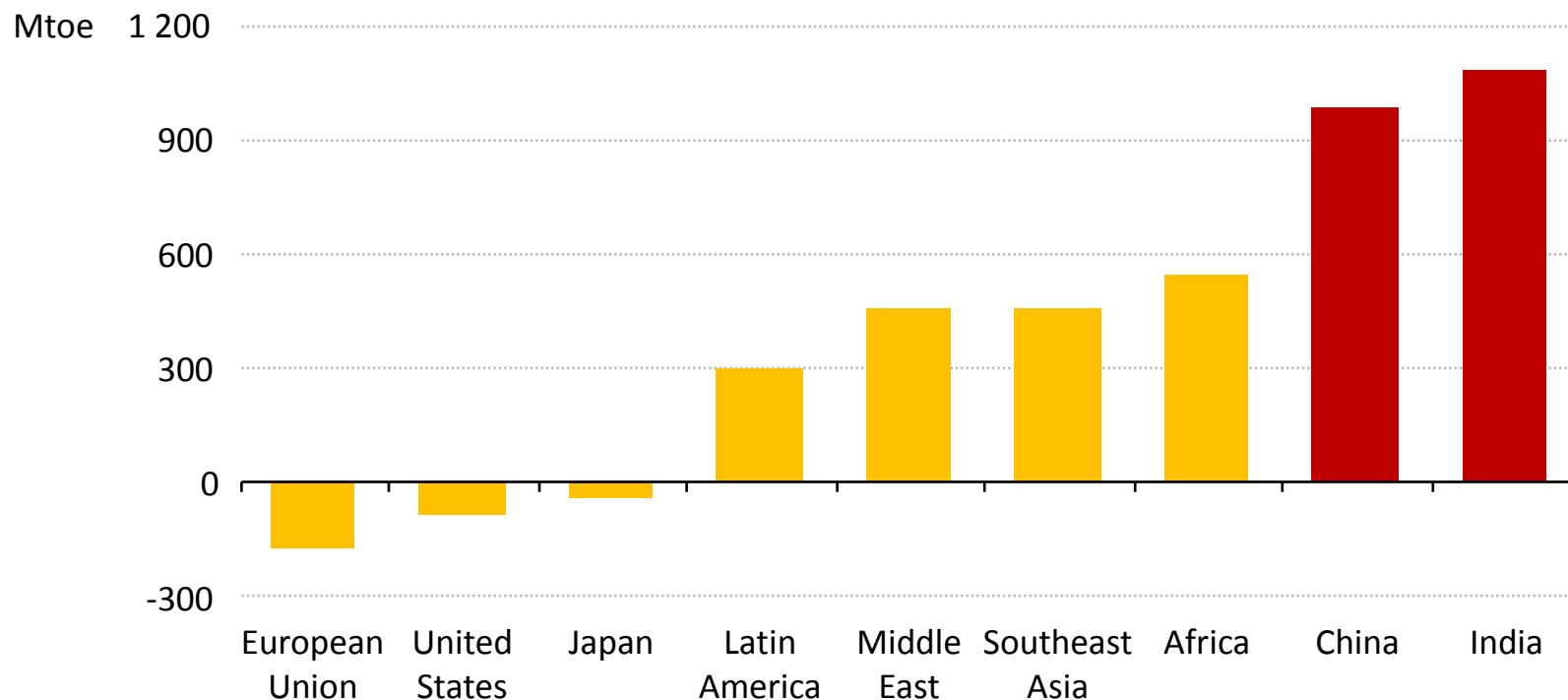
■ Signals turn green in time for Paris COP21

- *Pledges of 180+ countries account for 95% of energy-related emissions*
- *Renewables capacity additions at a record-high of 130 GW in 2014*
- *Fossil-fuel subsidy reform, led by India and Indonesia, reduces the global subsidy bill below \$500 billion in 2014*

■ Multiple signs of change, but are they moving the energy system in the right direction?

Demand growth in Asia – the sequel

Change in energy demand in selected regions, 2014-2040

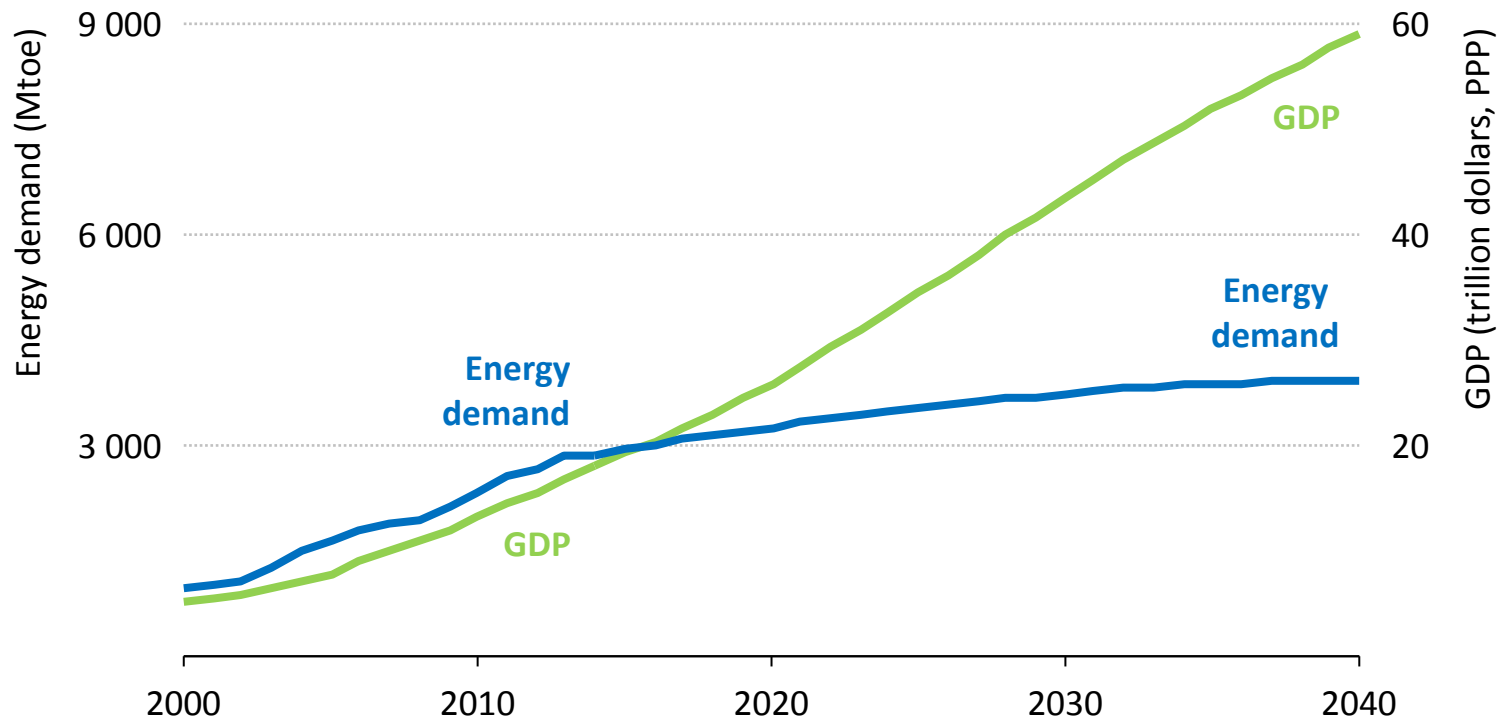


Asia leads energy demand growth and accounts for over 45% of global use by 2040; India's energy use closes on the United States but per capita levels remain very low

A new chapter in China's growth story

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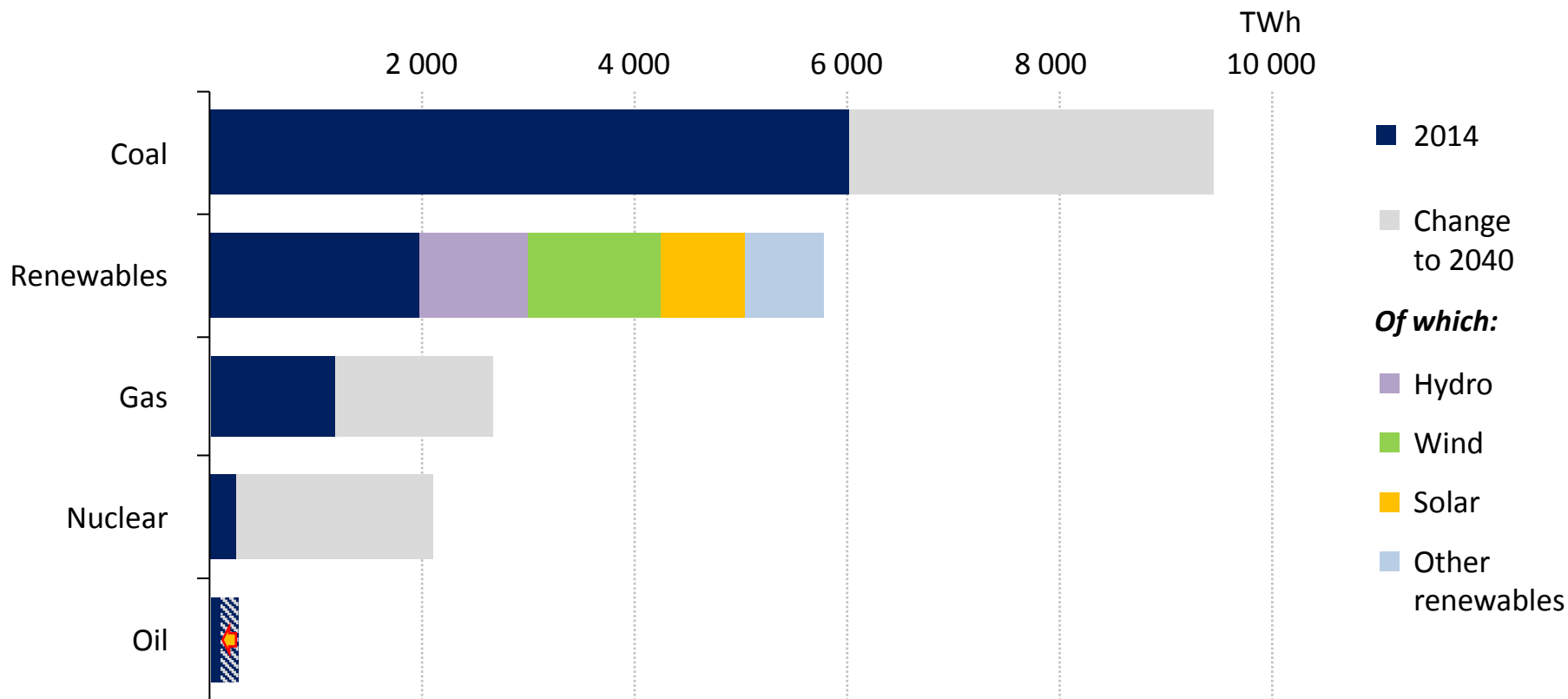
Total primary energy demand and GDP in China



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

Powering growth in Asia

Power generation in Asia by energy source



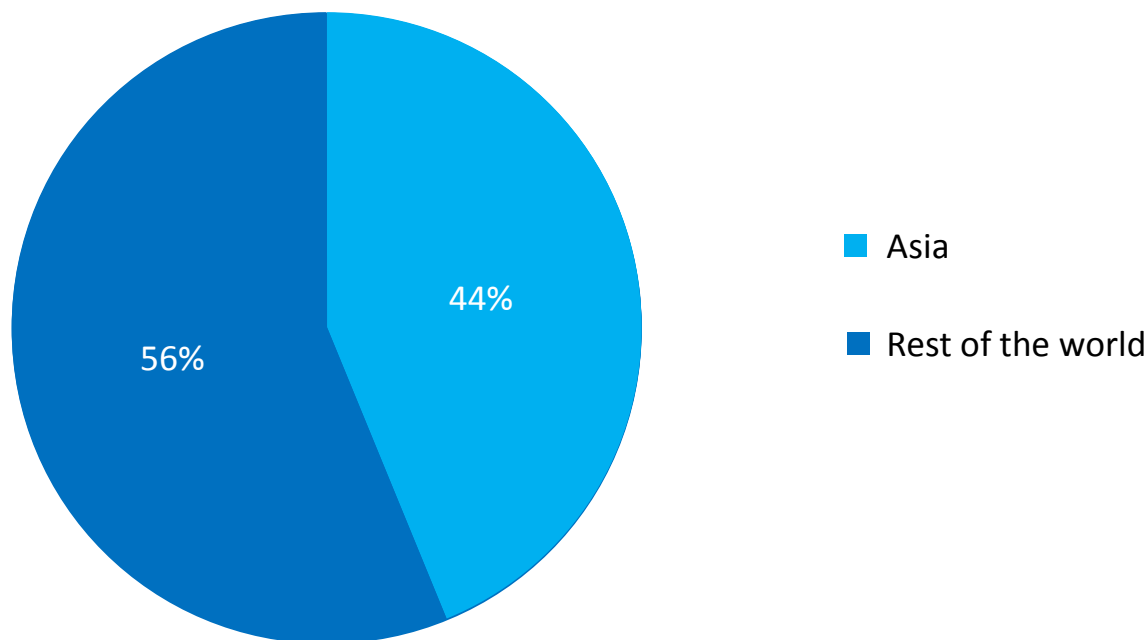
Asia's electricity generation more than doubles – renewables see the largest growth, but coal still accounts for around 45% of the power mix in 2040

Asia leads global progress on electricity access

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People without electricity access in Asia and the world

World total in 2013: 1.2 billion

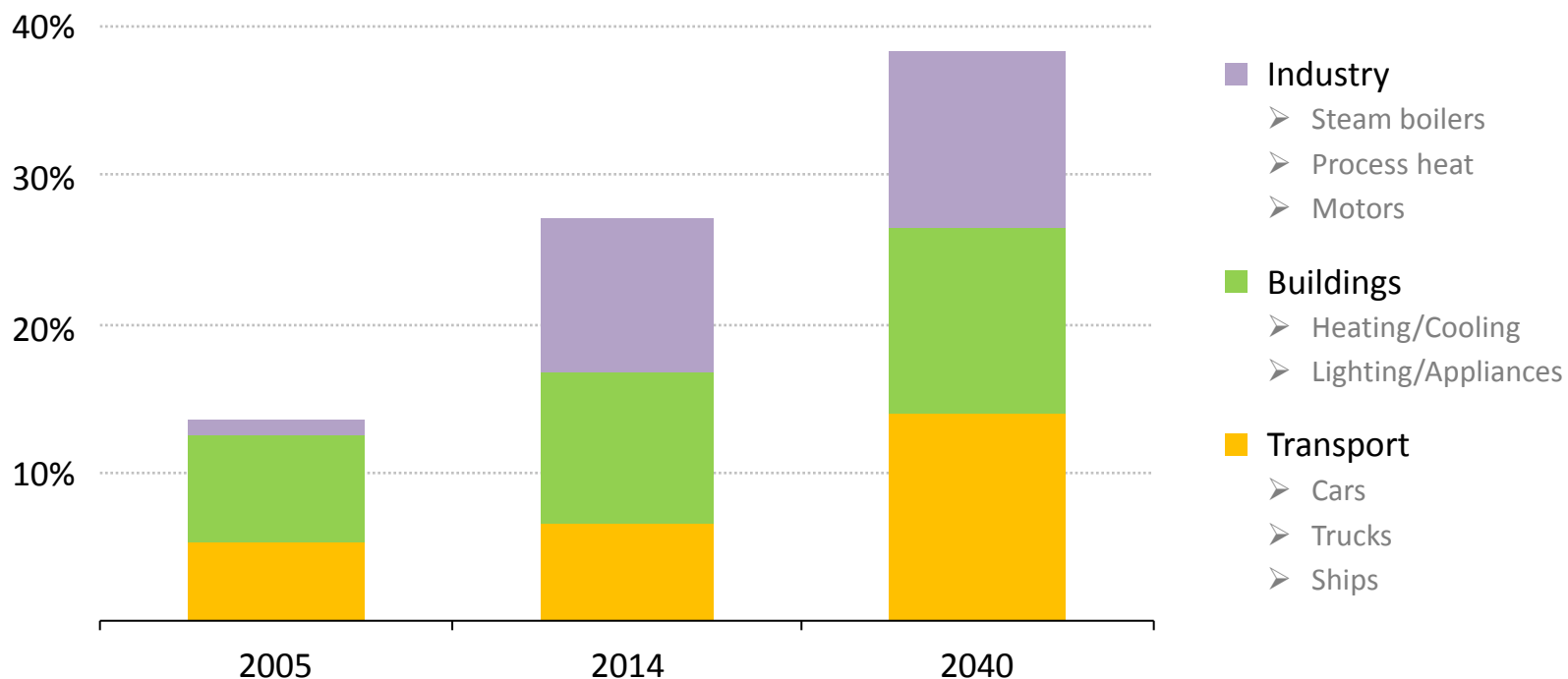


Strong progress across Asia sees it account for a shrinking share of the global population without electricity; Asia achieves universal access in urban areas by 2040

Efficiency measures on the rise, but significant potential still exists

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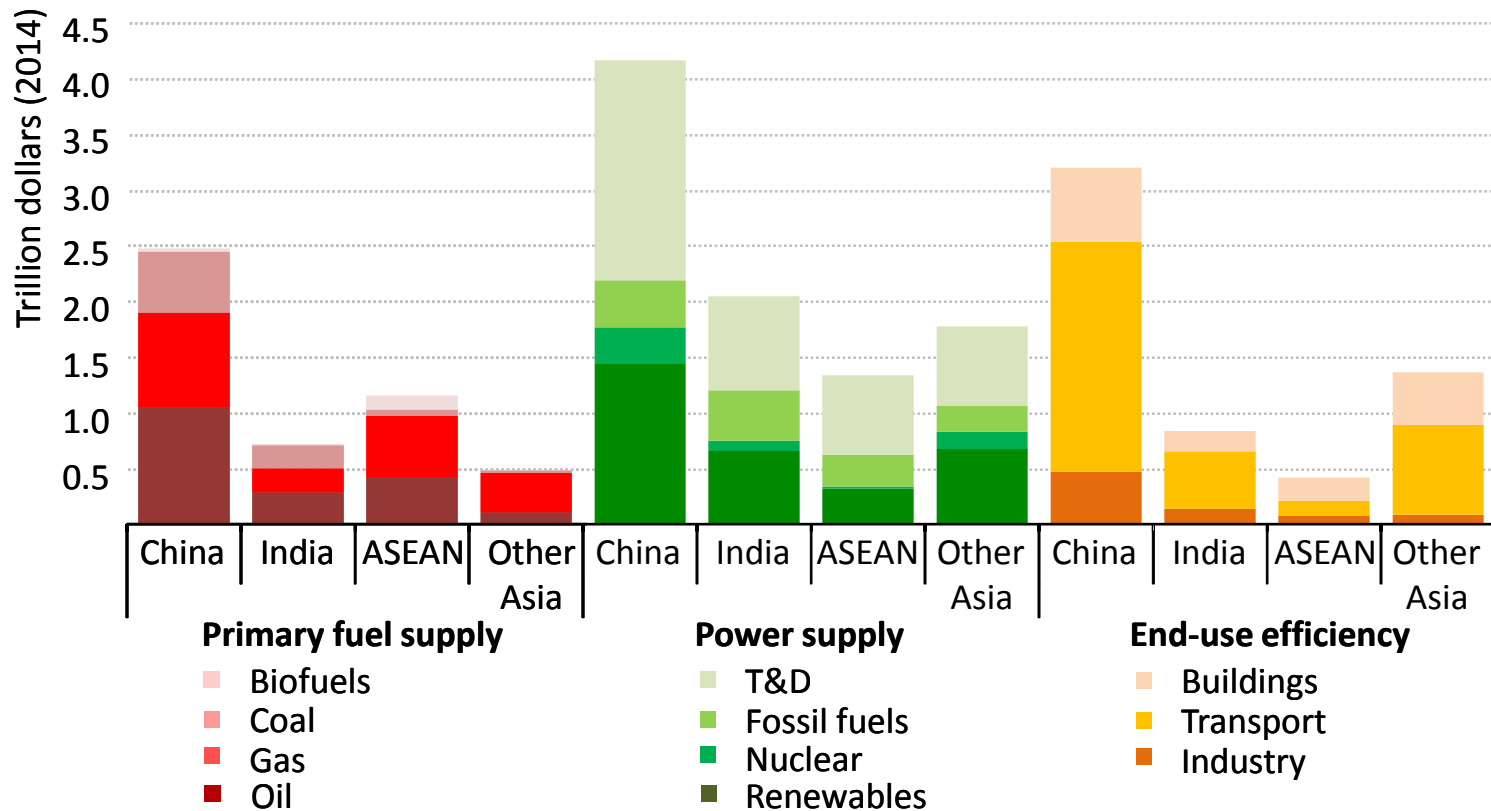
Share of global mandatory efficiency regulation of final energy consumption



***Energy efficiency policies are introduced in more countries and sectors;
but coverage in Asia remains mixed and more can be done***

Nearly 30% of global energy sector investment is in Asia

Cumulative energy sector investment in Asia by sector, 2015-2040



Asia invests \$20 trillion in the energy sector to 2040, led by China and India – the power sector accounts for nearly half of all energy investment in the region

- Asia's energy needs continue to grow strongly, both to power growth and a major increase in energy access
- China's transition to a more diversified, much less energy-intensive growth model re-shapes markets and emissions trends
- Renewables see the largest growth in Asia's power sector, but coal remains the largest source of electricity
- Energy efficiency coverage expands, but progress is mixed and major opportunities remain – policy actions continue to be critical
- China's policies and investments for renewables, efficiency and access can yield important benefits for the region
- In 2016, the IEA will publish a *World Energy Outlook* study focusing specifically on the issue of energy and local pollution in cities



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