



International
Energy Agency
Secure
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Together

World Energy Outlook 2015

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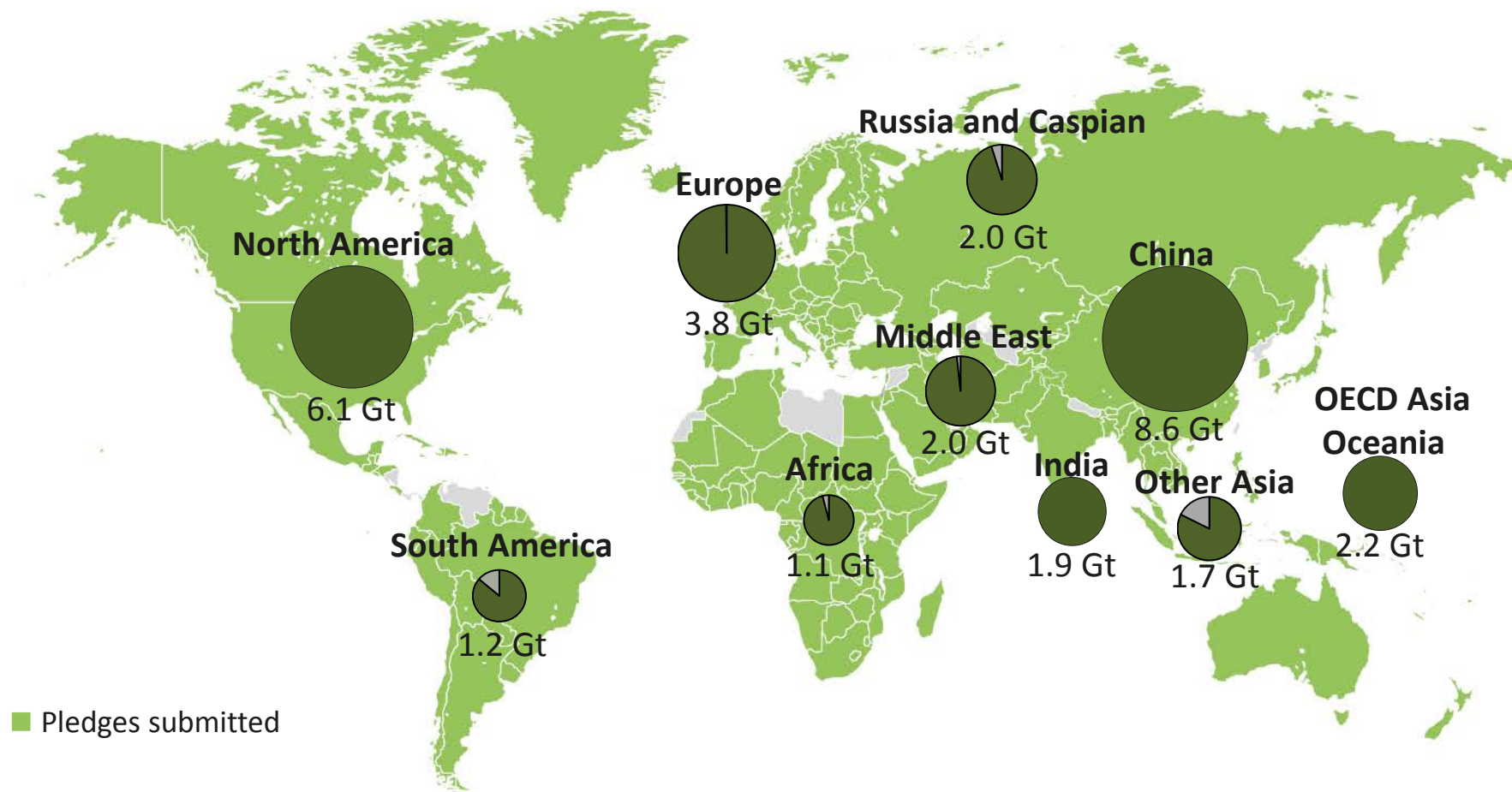
**Climate Parliament Roundtable on Green Growth
7 December 2015**

Climate pledges for COP21 – the energy context

- **Energy production and use accounts for at least two-thirds of global greenhouse gas emissions**
- **But what do the INDCs say about energy?**
 - *All cover energy-related emissions, but the role of the energy sector vis-à-vis non-energy emissions is not always clear*
 - *Around half include explicit energy-focused targets, but the nature of these targets can vary significantly*
 - *Around 40% refer to greater renewables deployment and 30% to improved energy efficiency*
- **Perhaps the most important thing...**

...the global coverage of climate pledges is impressive

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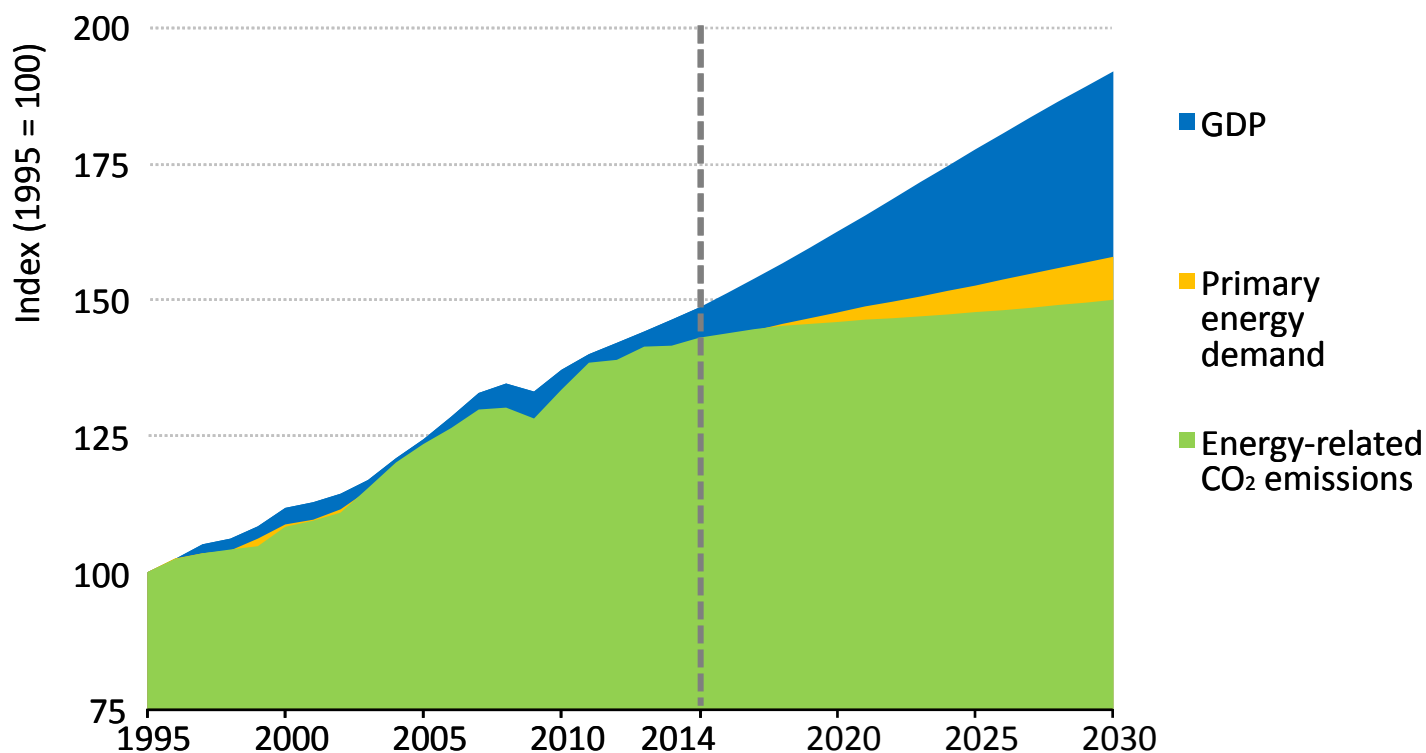


Pledges from countries that account for 95% of global energy-related GHG emissions; their full implementation would be consistent with a temperature rise of 2.7 °C

Energy sector starts to go its own way

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Growth in the global economy, primary energy demand and related CO₂ emissions

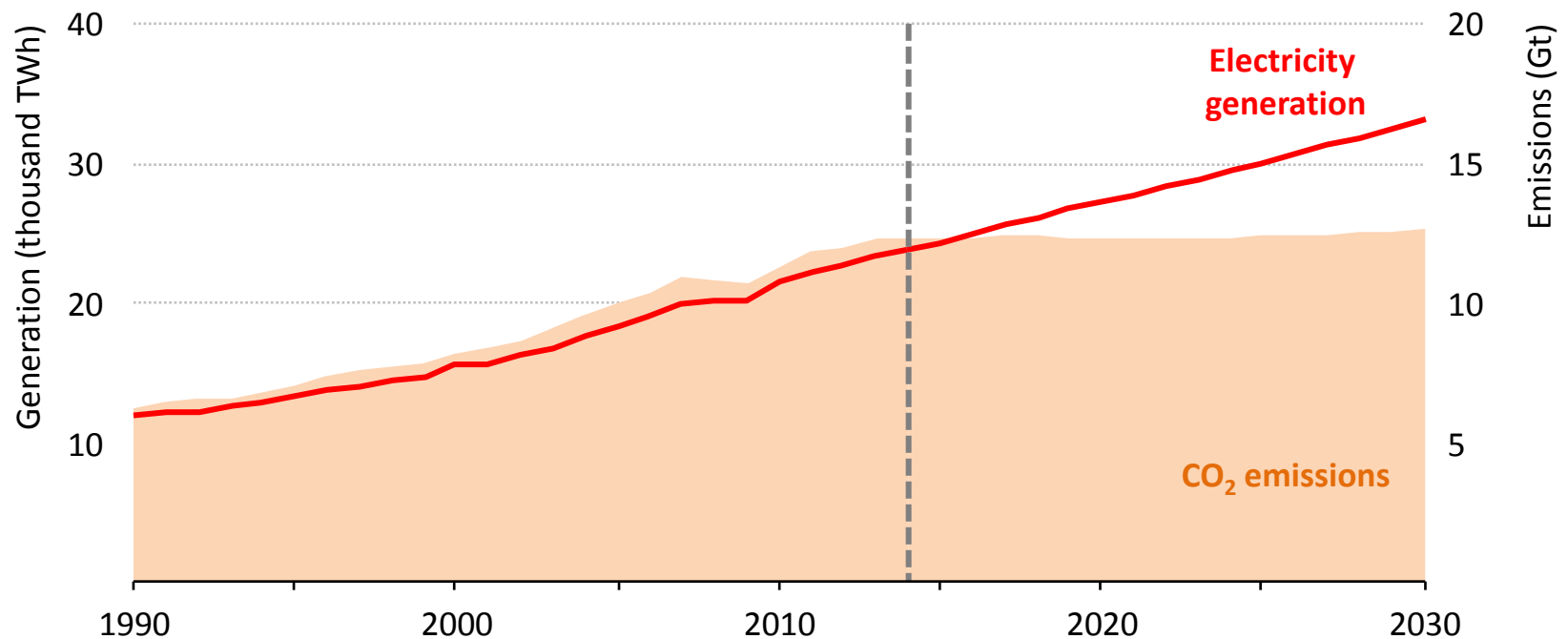


Growth in energy demand and emissions has tracked economic growth closely but decouples over time, with emissions growth slowing to a crawl by 2030

Largest source of emissions makes the cleanest break with the past

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World electricity generation and related CO₂ emissions

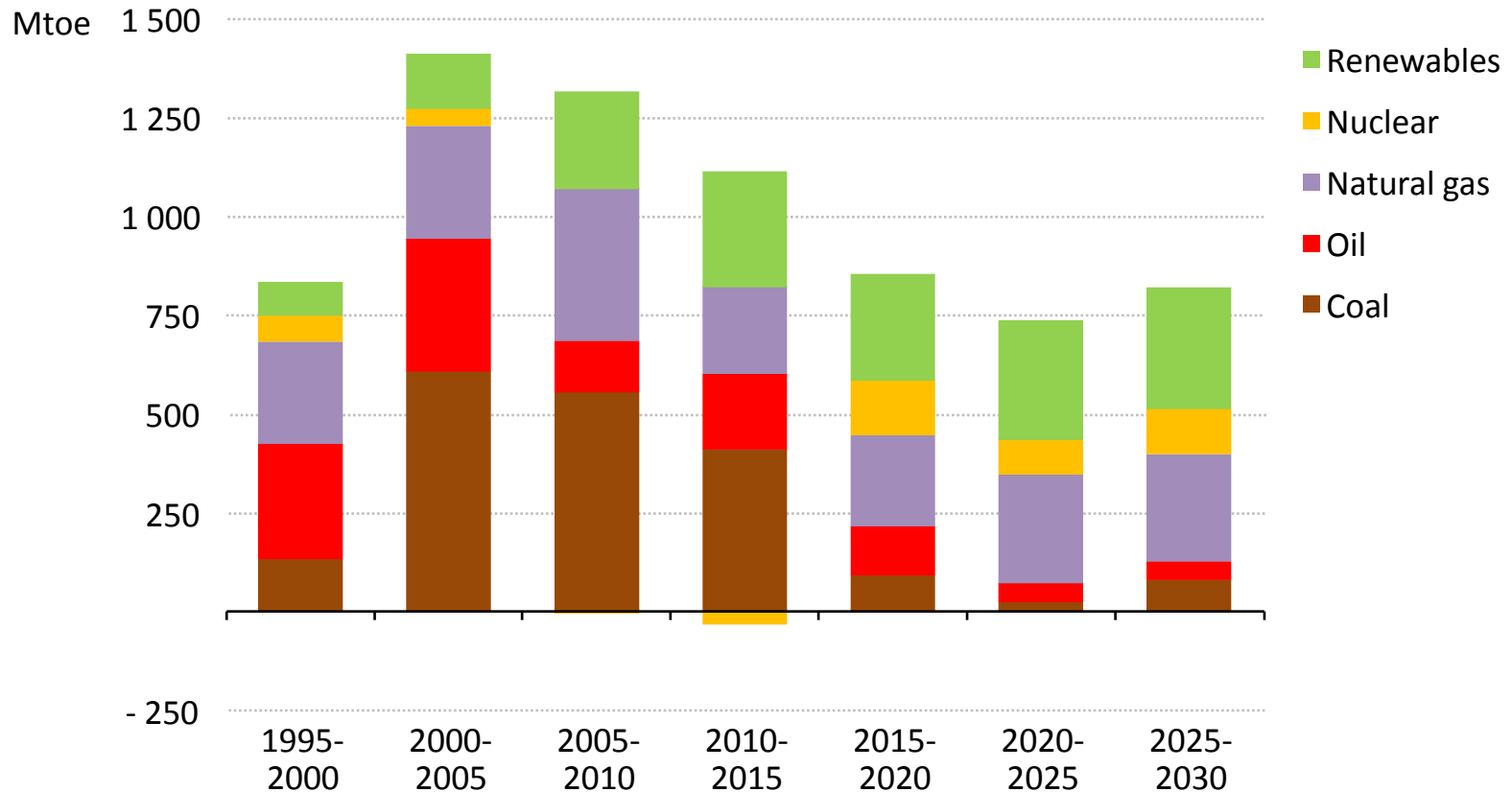


Electricity demand grows by about 40% to 2030, but increasing share of low-carbon generation means that power sector emissions remain flat

The shift to lower carbon energy is clear

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Growth in primary energy demand by fuel

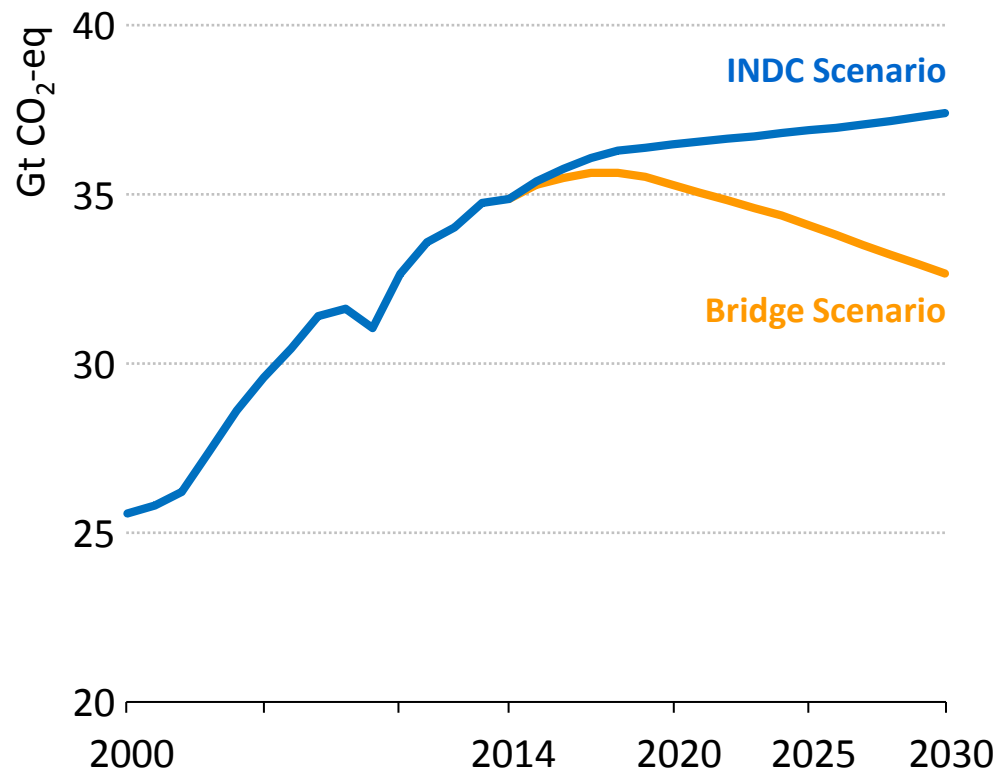


***One quarter of the world's total energy supply is low-carbon in 2030;
natural gas is the only fossil-fuel that increases its share of the global energy mix***

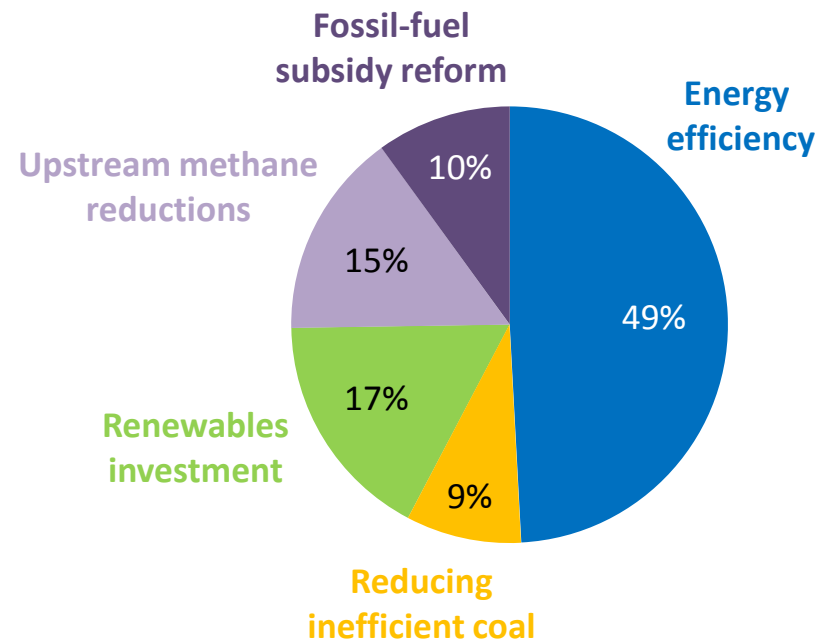
Peak in emissions: IEA strategy to raise climate ambition

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Global energy-related GHG emissions



Savings by measure, 2030



Five measures – shown in a “Bridge Scenario” – achieve a peak in emissions around 2020, using only proven technologies & without harming economic growth

- **New climate pledges are the right basis upon which to raise ambition**
- **If pledges are implemented, the energy sector, and the power sector in particular, will decarbonize faster than ever before**
- **A near term peak in emission is achievable in the energy sector with current technologies and at no net cost**
- **The energy sector needs a clear signal from COP, or risk stranding wrong investment for decades ahead**



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To see more of the IEA's data and analysis go to
www.iea.org

IEA Ministers issue statement on energy and climate change

■ IEA's 29 member countries issue a collective statement stating that they:

- *Welcome INDCs and endorse IEA view that INDCs should be a first step upon which to build ever-increasing ambition.*
- *Welcome the IEA's five key opportunities to reduce energy sector emissions:*
 - 1.** *Increasing energy efficiency in industry, buildings and transport*
 - 2.** *Phasing out the use of least efficient coal fired power plants*
 - 3.** *Increasing investment in renewables, including hydro*
 - 4.** *Gradual phasing out of inefficient fossil fuel subsidies*
 - 5.** *Reducing methane emissions from oil and gas production*
- *Call on the IEA to: advise how to enhance the environmental sustainability of the energy sector (including the reduction of local pollution), expand tracking of the energy sector transformation and increase international collaboration.*