Wind: Policy Incentives, Technology Deployment

From Roadmaps to Implementation

Experts' Group on R&D Priority Setting

2 & 3 November 2009

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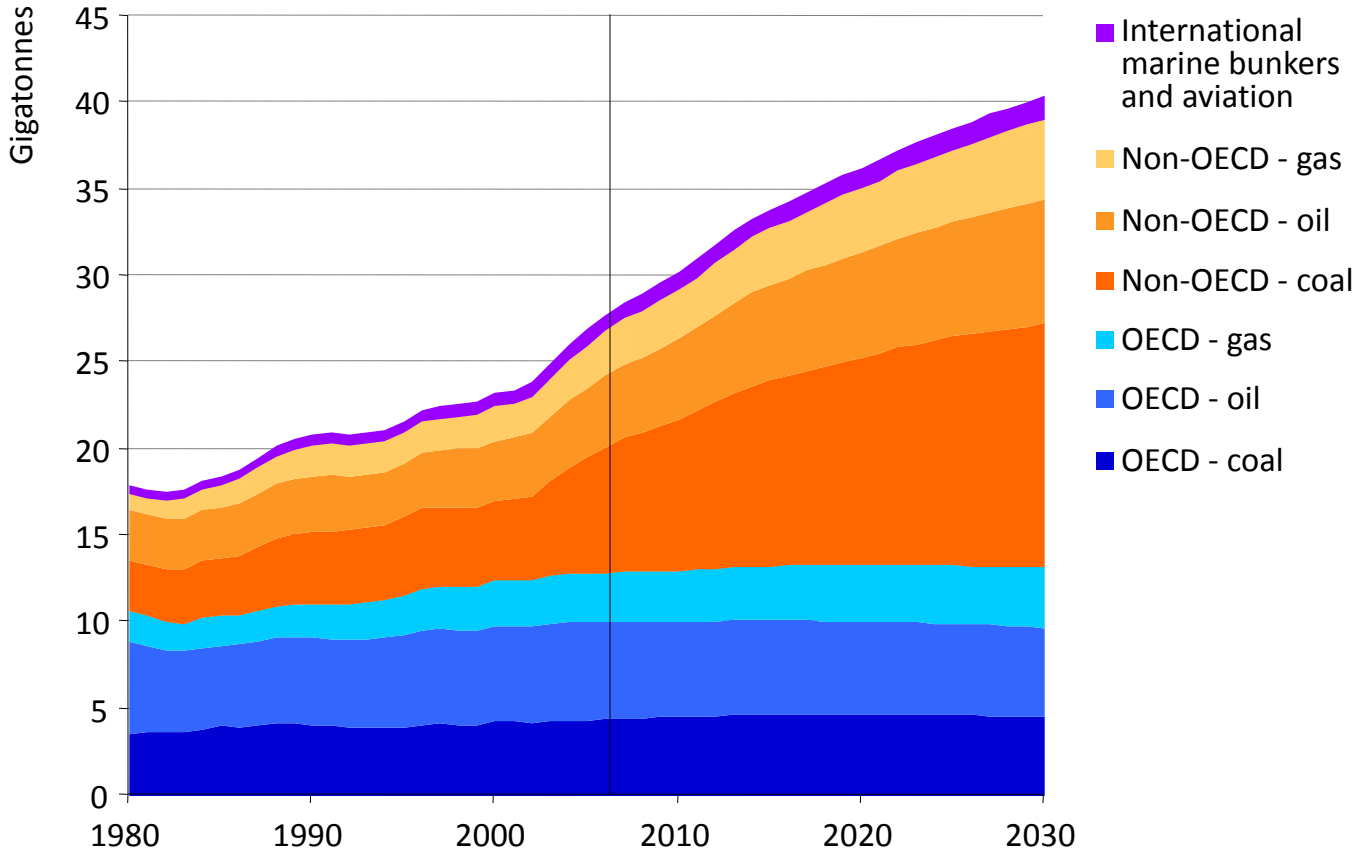
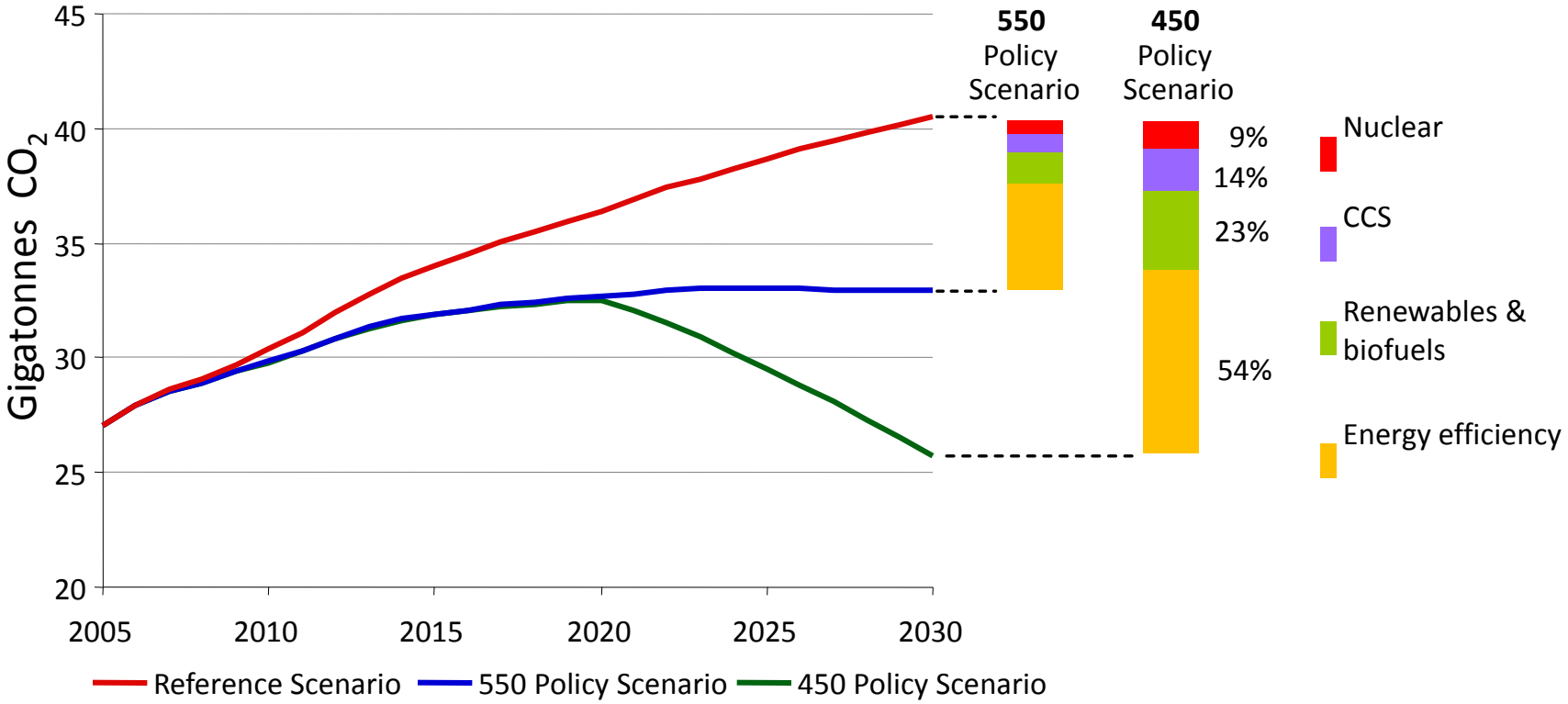
Energy-related C02: WEO Reference Scenario



97% of the projected increase in emissions between now & 2030 comes from non-OECD countries – three-quarters from China, India & the Middle East alone

Source: World Energy Outlook 2008.

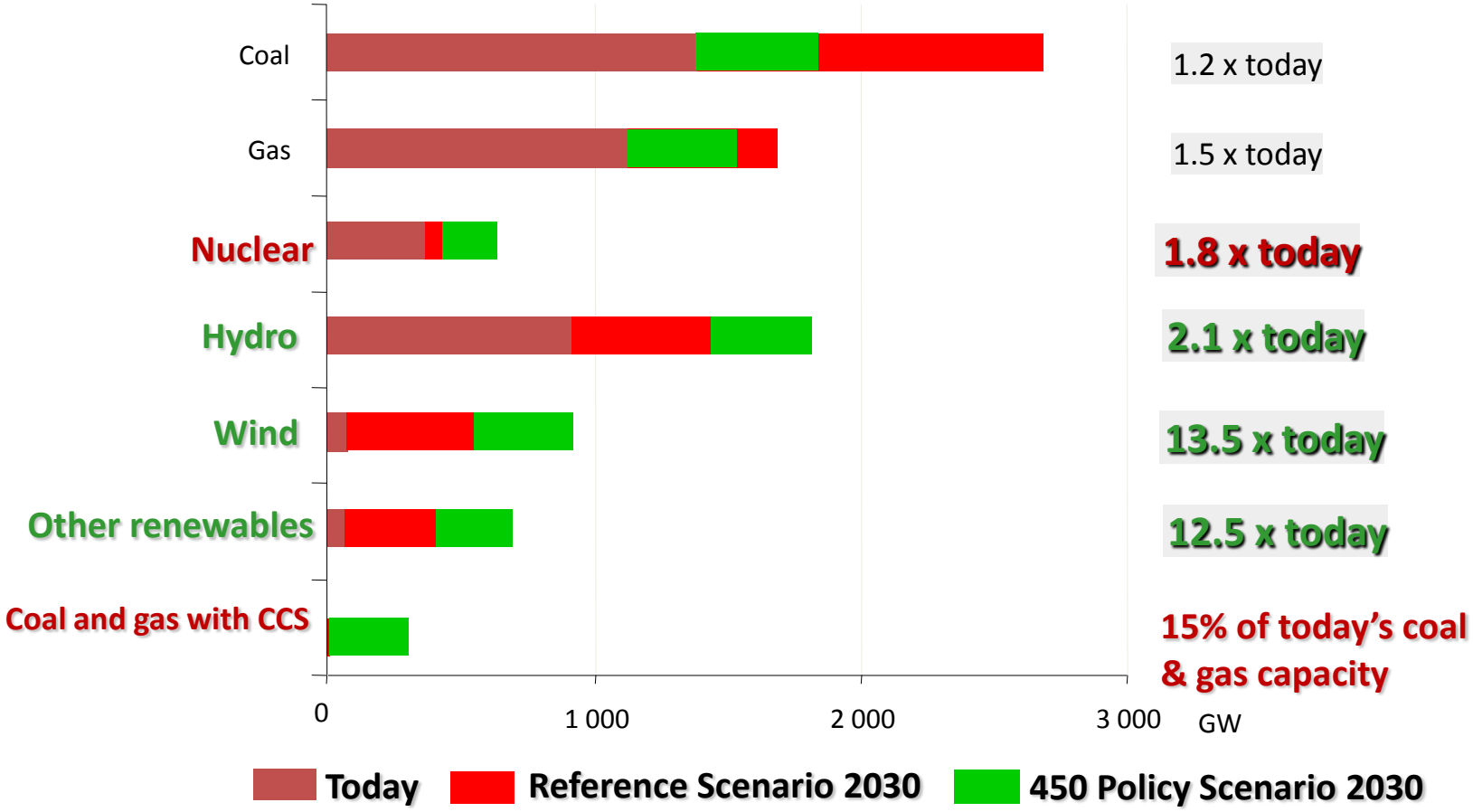
Reductions in energy-related CO2 emissions in IEA scenarios



Technological progress is important… but **efficiency gains** and deployment of **existing** low-carbon technologies account for most of the savings.

Source: World Energy Outlook 2008

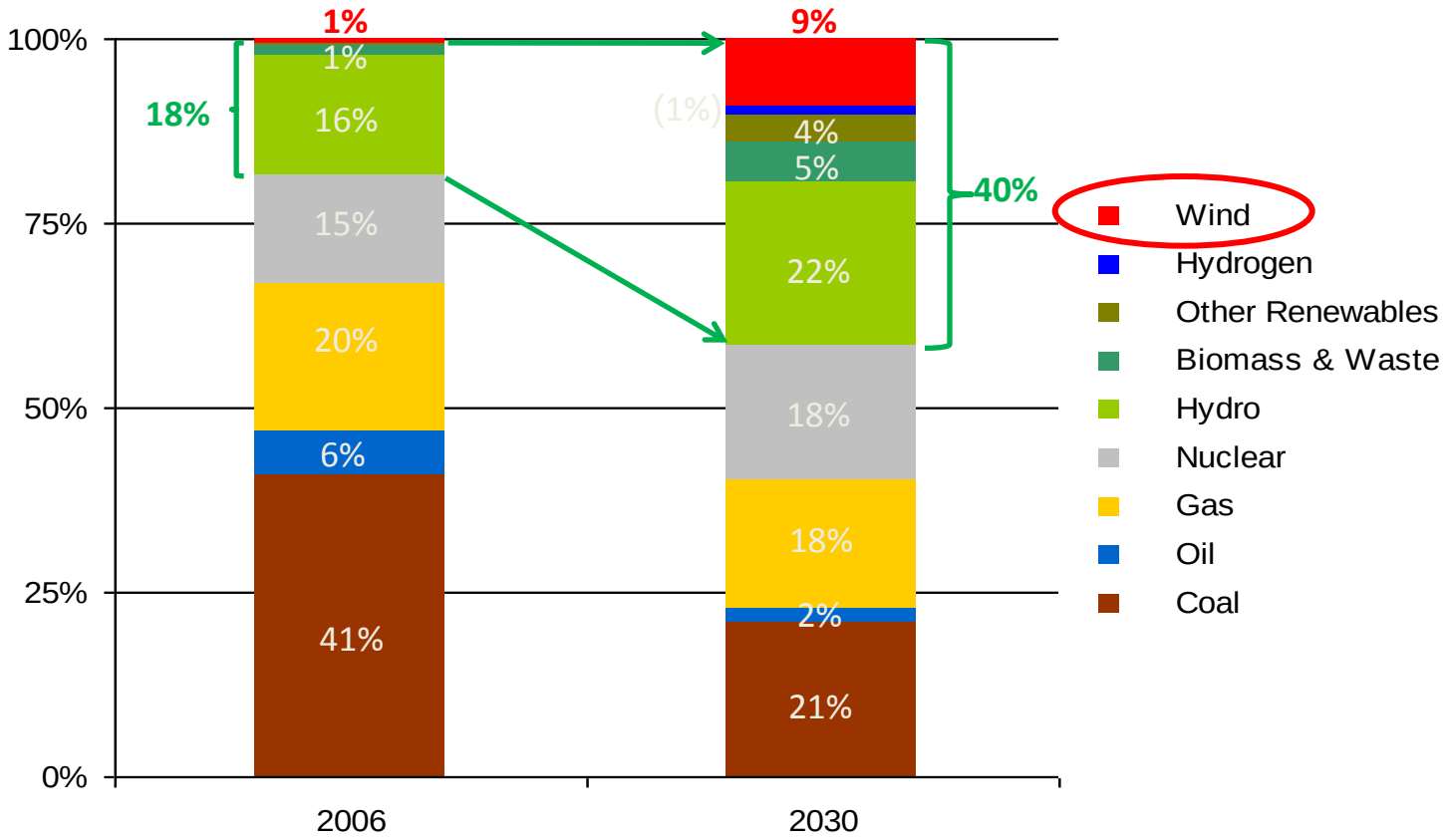
Power generation capacity: today and 2030



In the 450 Policy Scenario, the power sector undergoes a dramatic change – with renewables, CCS, and nuclear each playing a crucial role

Source: World Energy Outlook 2008

Wind and RES in global electricity (450 ppm Scenario)



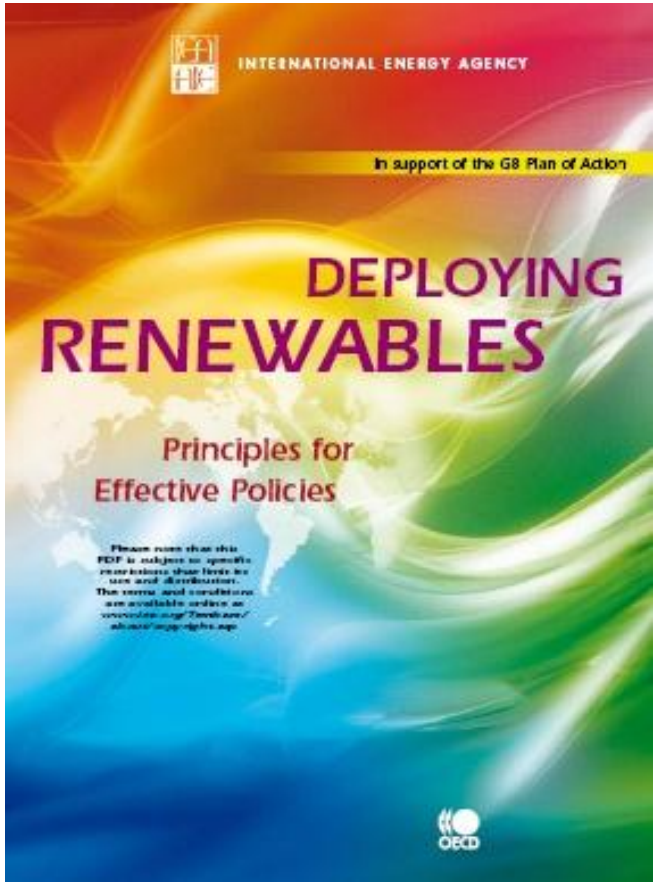
Renewables would account for 40% of global electricity in 2030

Wind alone would provide 9%

Source: World Energy Outlook 2008

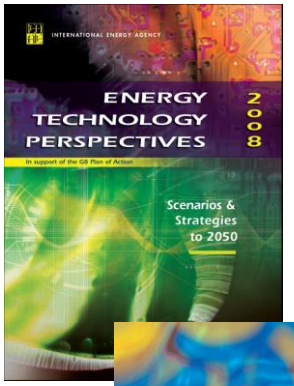
Principles of Good Policy Design

- Address non-economic barriers
- Predictable and transparent
- Transitional
- Tailored to suit technology maturity
- System friendly

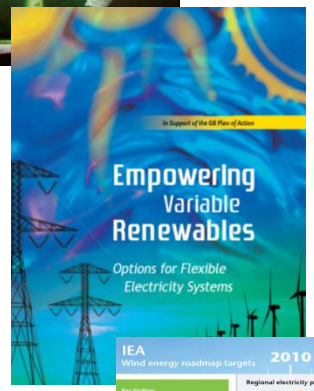


Technology and market development and deployment

Energy Technology Perspectives 2008 included initial work on identifying technology milestones to 2050 for portfolio of 17 technologies



Empowering Variable Renewables - Options for Flexible Electricity Systems: new work on measures to meet the variability challenge



Wind roadmap

Some key priorities for wind technology:

- Wind resource and forecasting
- System integration
- Deep offshore

International Energy Agency

Thank You

www.iea.org