



INTERNATIONAL ENERGY AGENCY



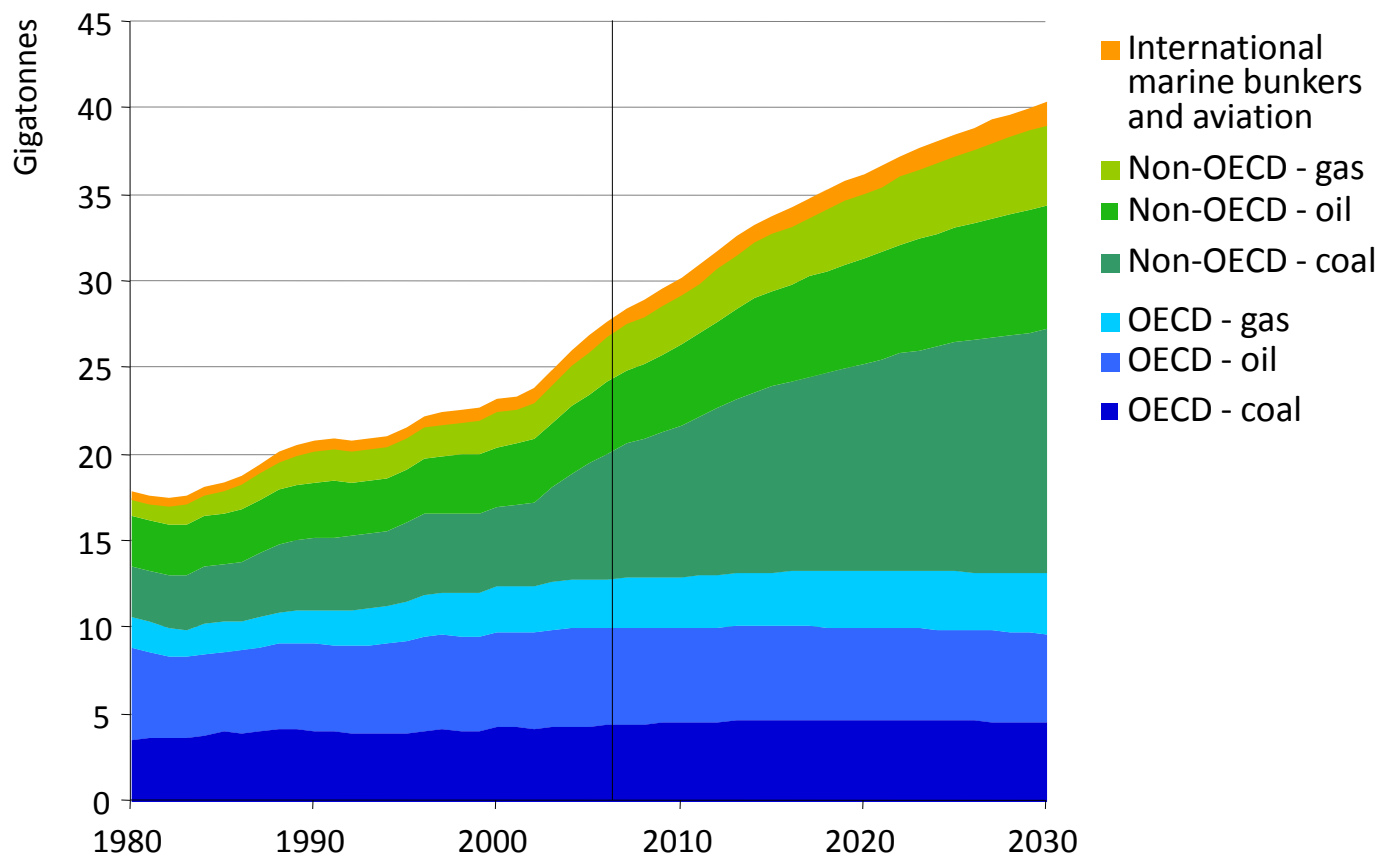
Renewable Energy Finance Forum New York

23-24 June 2009

The Global Energy Outlook – The Key Role of Renewables

**Nobuo Tanaka
Executive Director
International Energy Agency**

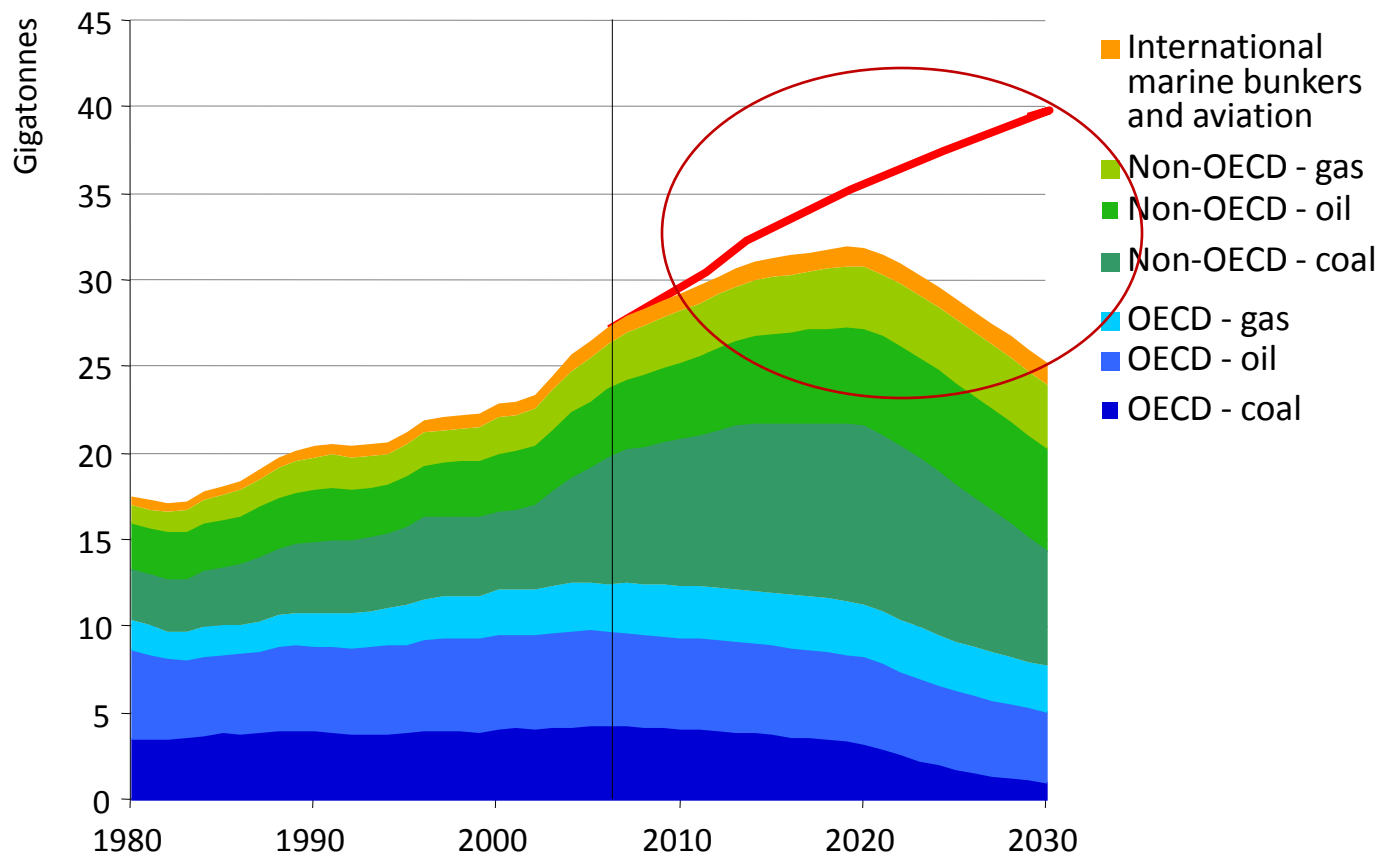
World annual energy-related CO₂ emissions in Business as Usual Scenario



World Energy Outlook 2008, IEA

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

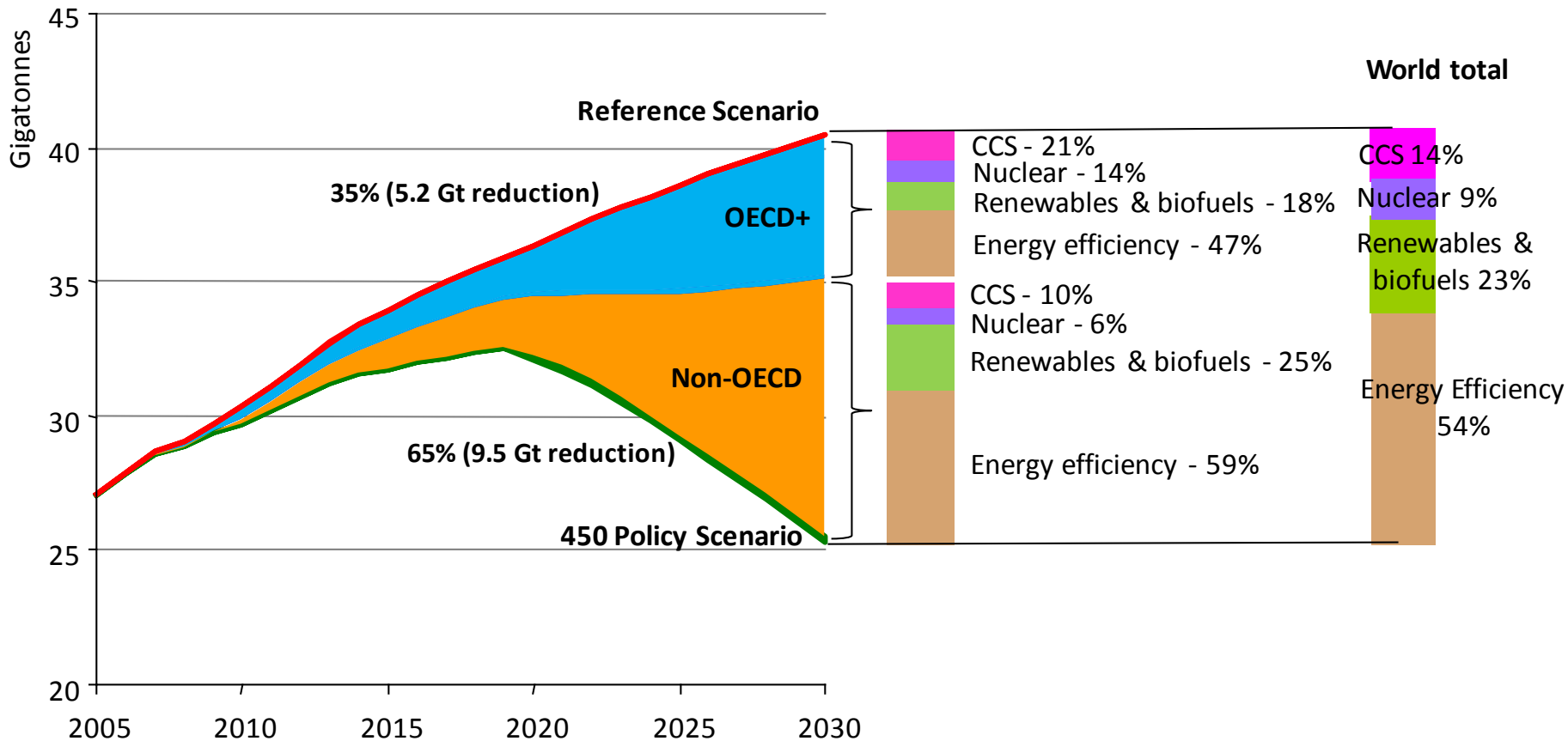
World annual energy-related CO₂ emissions in the 450 Policy Scenario



World Energy Outlook 2008, IEA

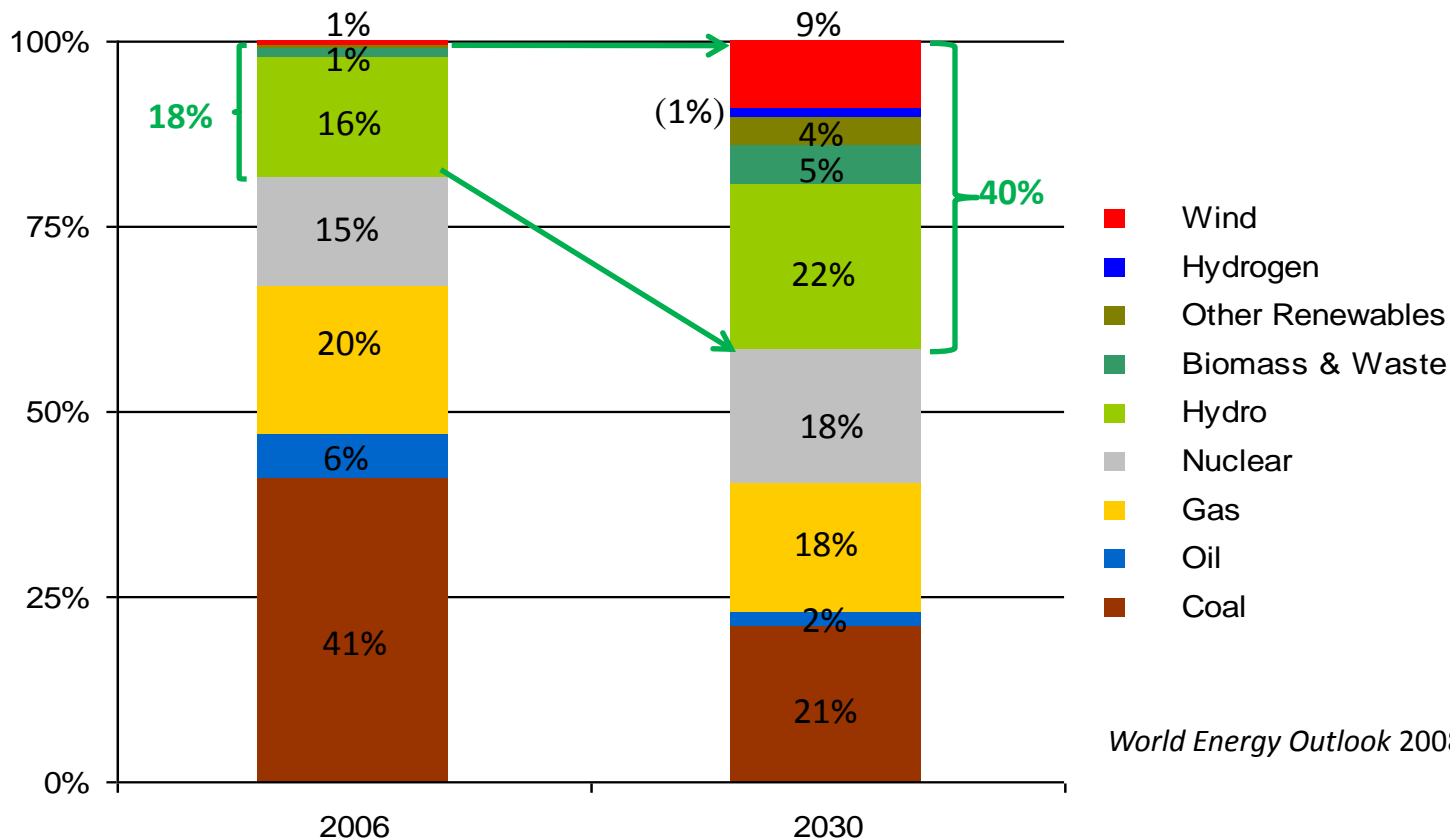
97% of the projected increase in emissions between now & 2030 comes from non-OECD countries – three-quarters from China, India & the Middle East alone

Achieving the 450 ppm scenario



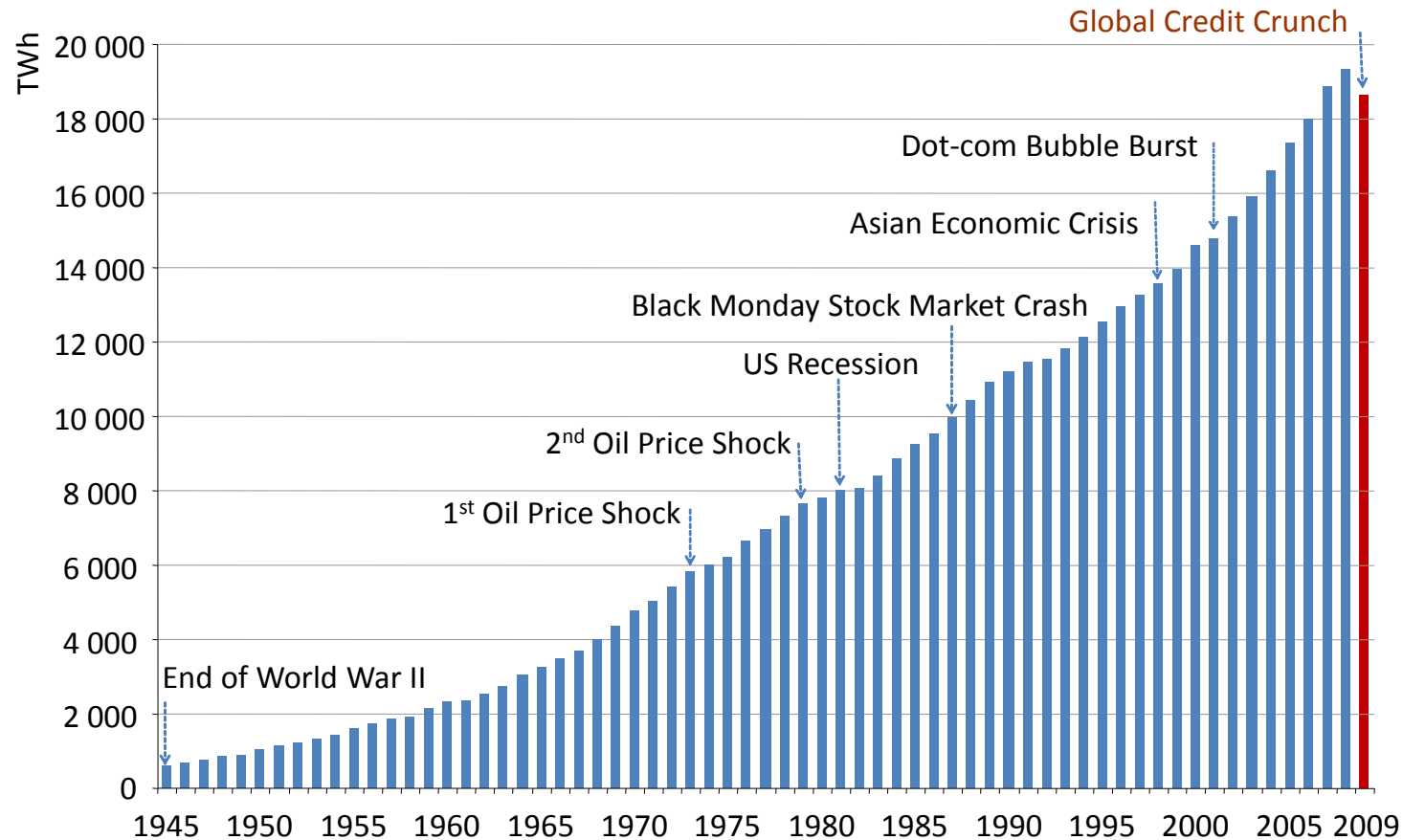
In both 550 and 450 policy scenarios energy efficiency and renewables account for more than 75% of total yearly CO₂ emission reductions

Global electricity generation 450 ppm Scenario



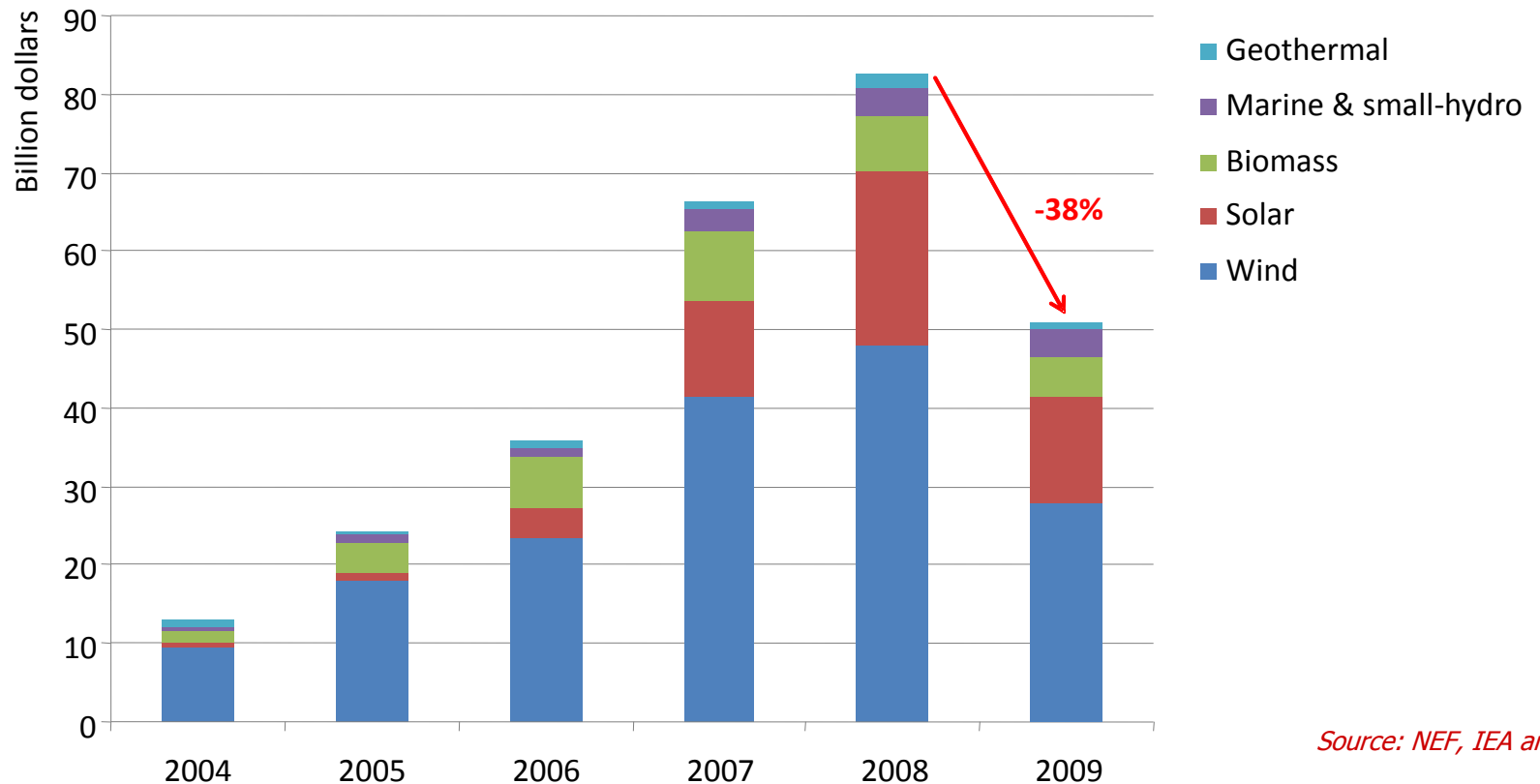
Renewables account for a 40% share of power generation in the 450 ppm scenario.

Historical global electricity consumption



Global electricity consumption could drop by as much as 3.5% in 2009 – the first annual contraction since the end of the Second World War

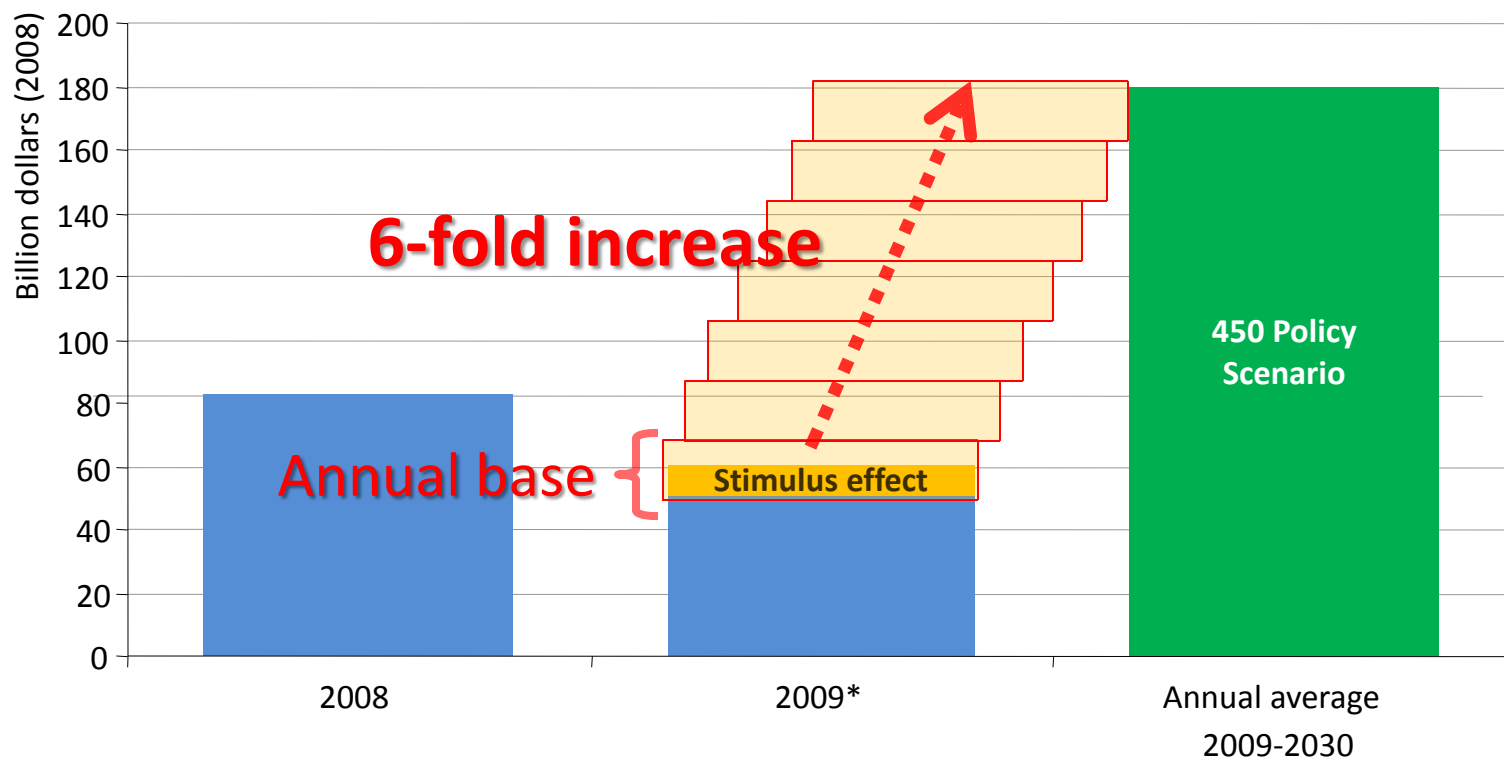
Asset financing for new build renewable assets



Source: NEF, IEA analysis

Renewable energy investment has collapsed due to lower fossil-fuel prices and the financial crisis – which has dried up sources of project finance

Global investment in renewable power generation



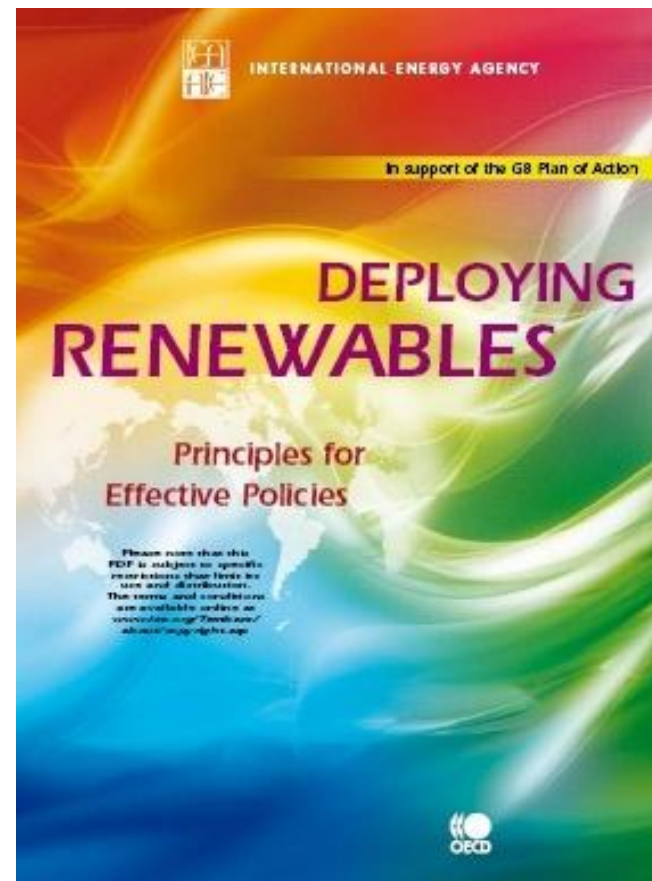
To achieve the 450 Policy Scenario, governments would need 6-fold increase in level of total renewables investment triggered by their policy frameworks and incentives.

Principles of good policy design



- ◆ Predictable and transparent
- ◆ Transitional
- ◆ Tailored to suit technology maturity
- ◆ System friendly

+ *International policy framework for negotiation in Copenhagen*



Conclusions



- ❑ Measures to mitigate **climate change** often enhance **energy security**
- ❑ Emission reductions need to take place in **OECD and non-OECD countries**
- ❑ The current crisis is an **opportunity** to place a **Clean Energy New Deal** at the heart of stimulus packages everywhere
- ❑ Short-term recovery measures need to be accompanied by **long-term predictable and consistent policy frameworks**
- ❑ The US can serve as a **policy model** for others to follow