

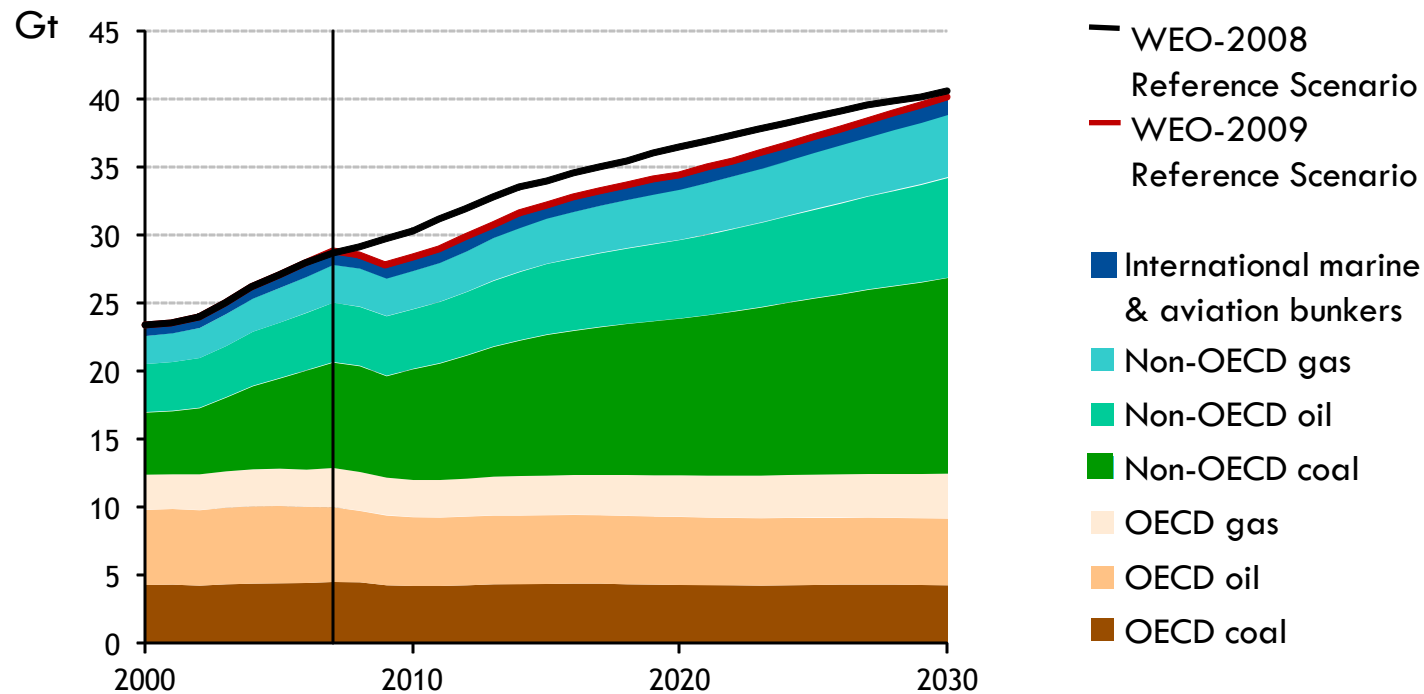


# **3<sup>rd</sup> International Symposium: Capture and Geological Storage of CO<sub>2</sub>**

**5 November 2009**

**Remarks by Nobuo Tanaka, Executive Director  
International Energy Agency**

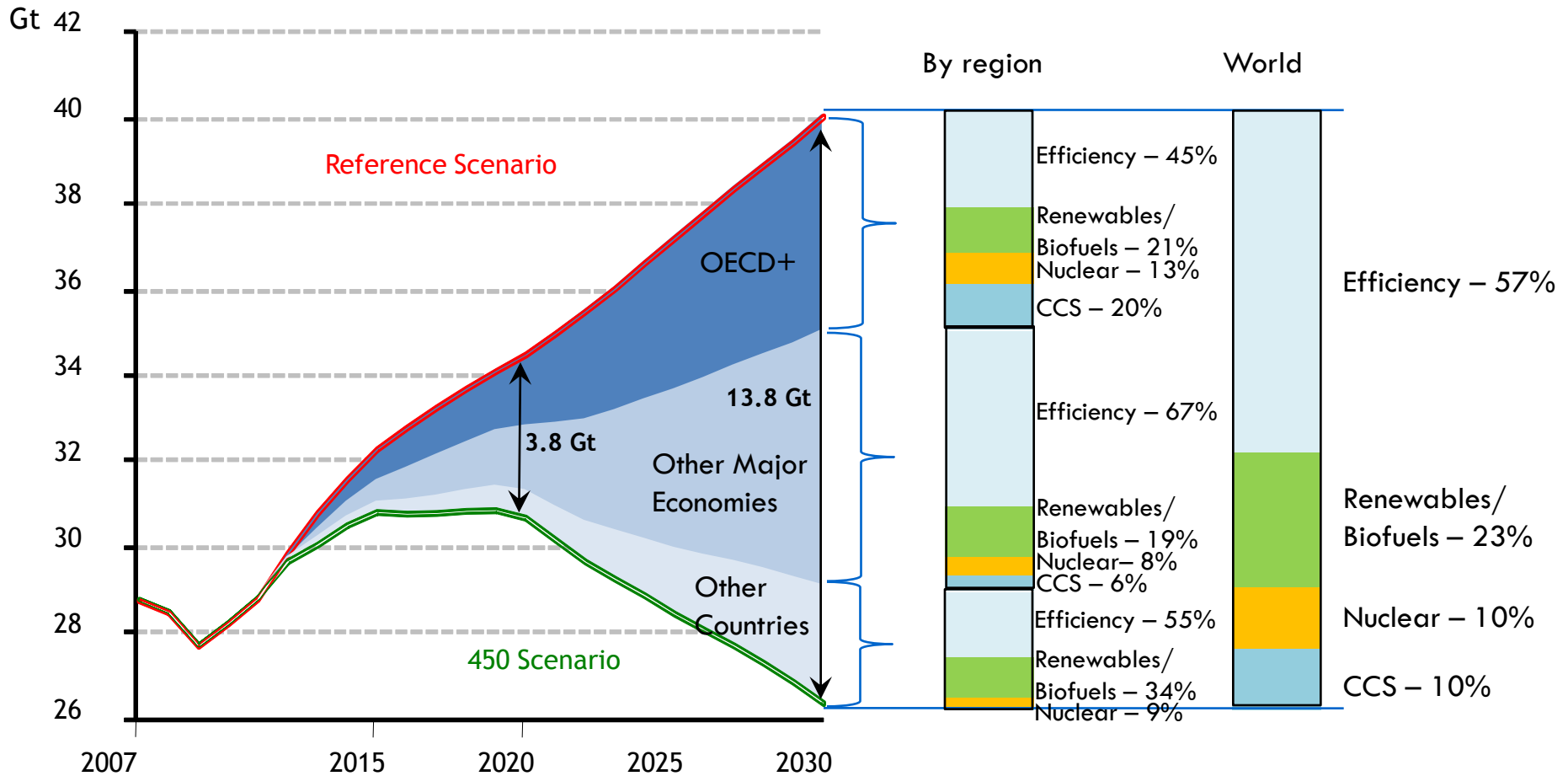
# World energy-related CO<sub>2</sub> emissions in the Reference Scenario in *WEO-2009* and *WEO-2008*



***In cumulative terms between today and 2030, emissions are 35 Gt lower than in WEO-2008. 75% of this reduction is due to the impact of the financial crisis and 25% to new policies***

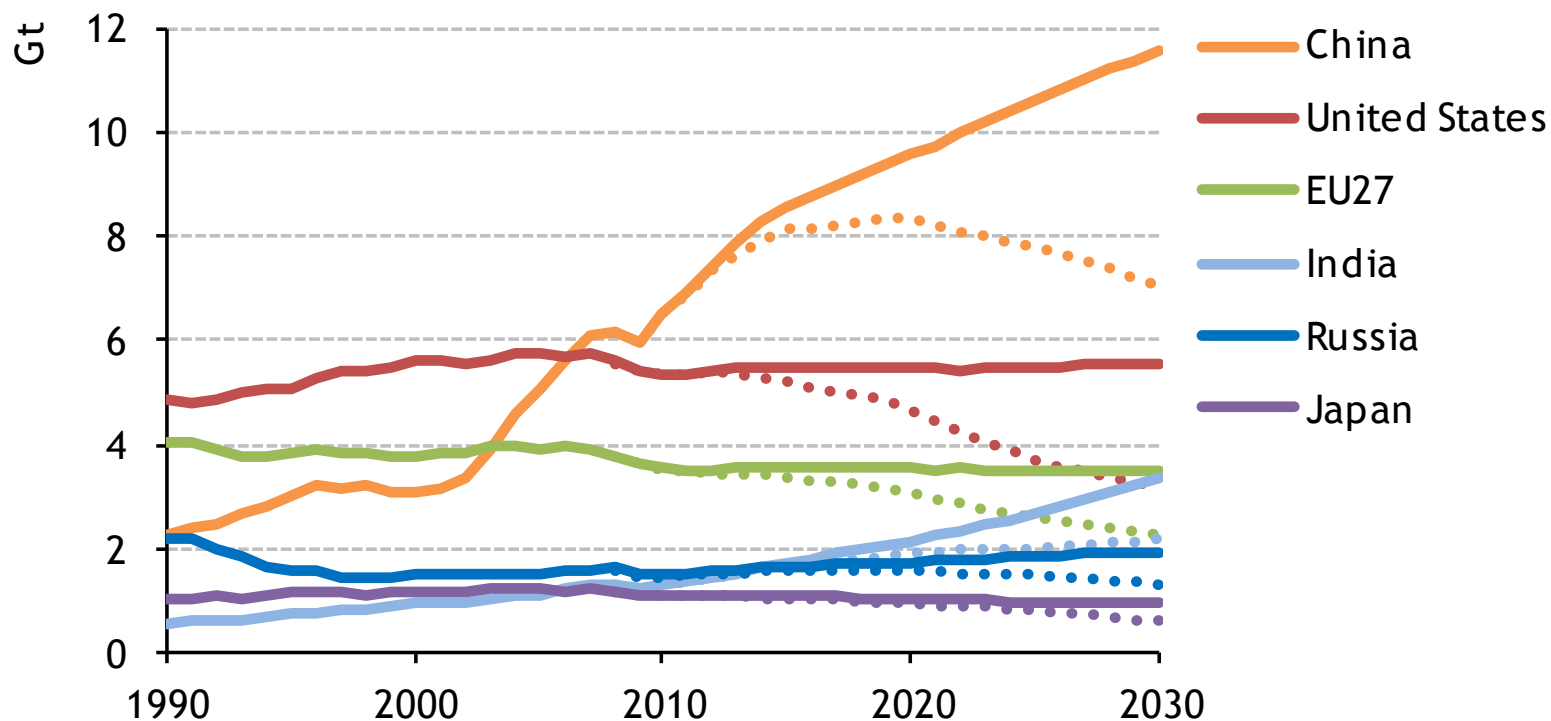
# World abatement of energy-related CO<sub>2</sub> emissions in the 450 Scenario

Source: Early excerpt of WEO 2009 for Bangkok UNFCCC meeting



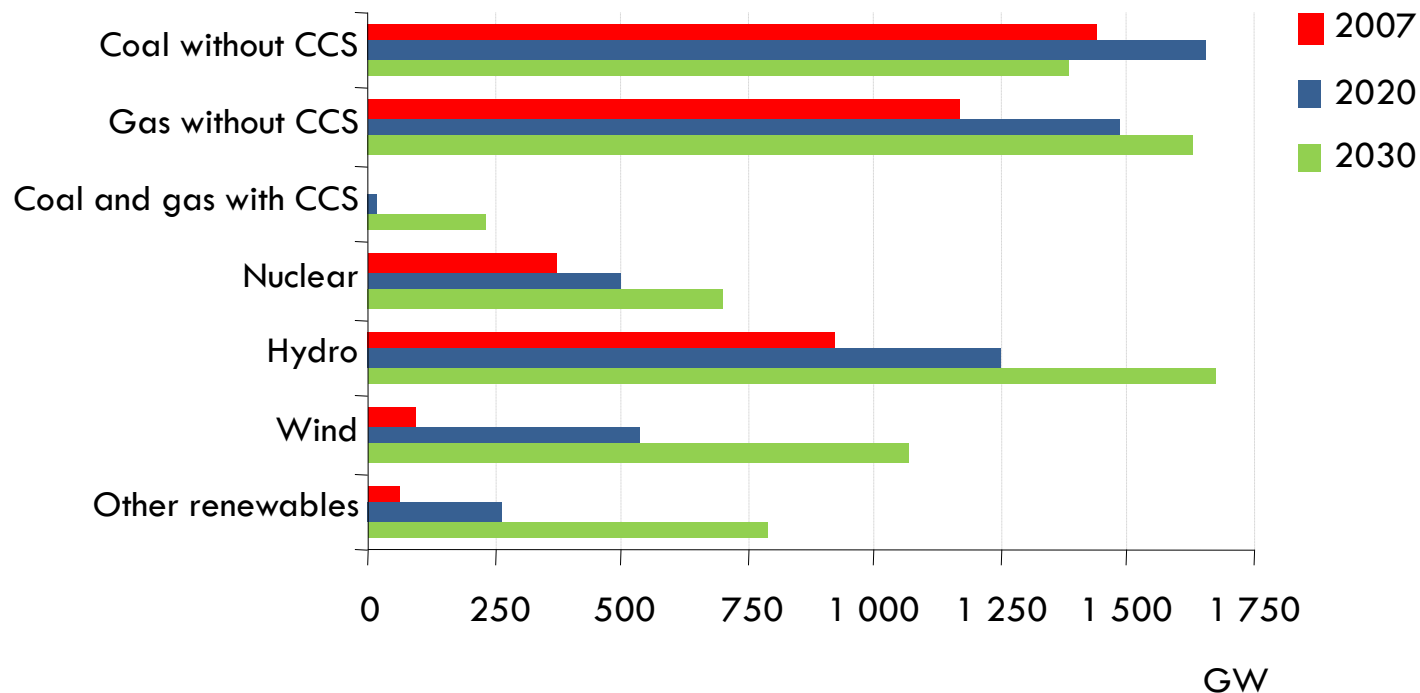
**Efficiency measures account for 2/3 of the 3.8Gt abatement in 2020, with renewables contributing to 1/5. With substantial abatement potential outside the OECD+ region, financing will hold a key to the energy sector meeting a 450ppm trajectory**

# Emissions trends for major regions in the Reference Scenario and 450 Scenario



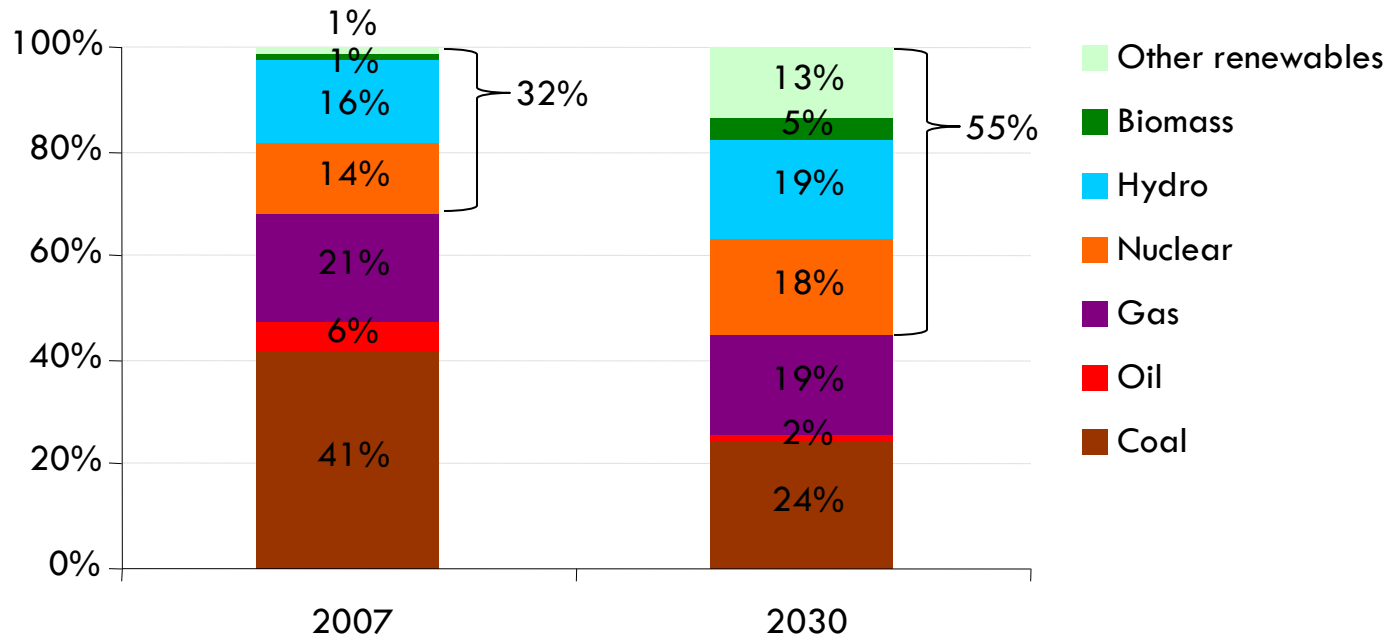
***The OECD sees a decline in emissions in the Reference Scenario; in the 450 Scenario, China's emissions peak by 2020, although India's continue to rise beyond 2030***

# World power-generation capacity in the 450 Scenario



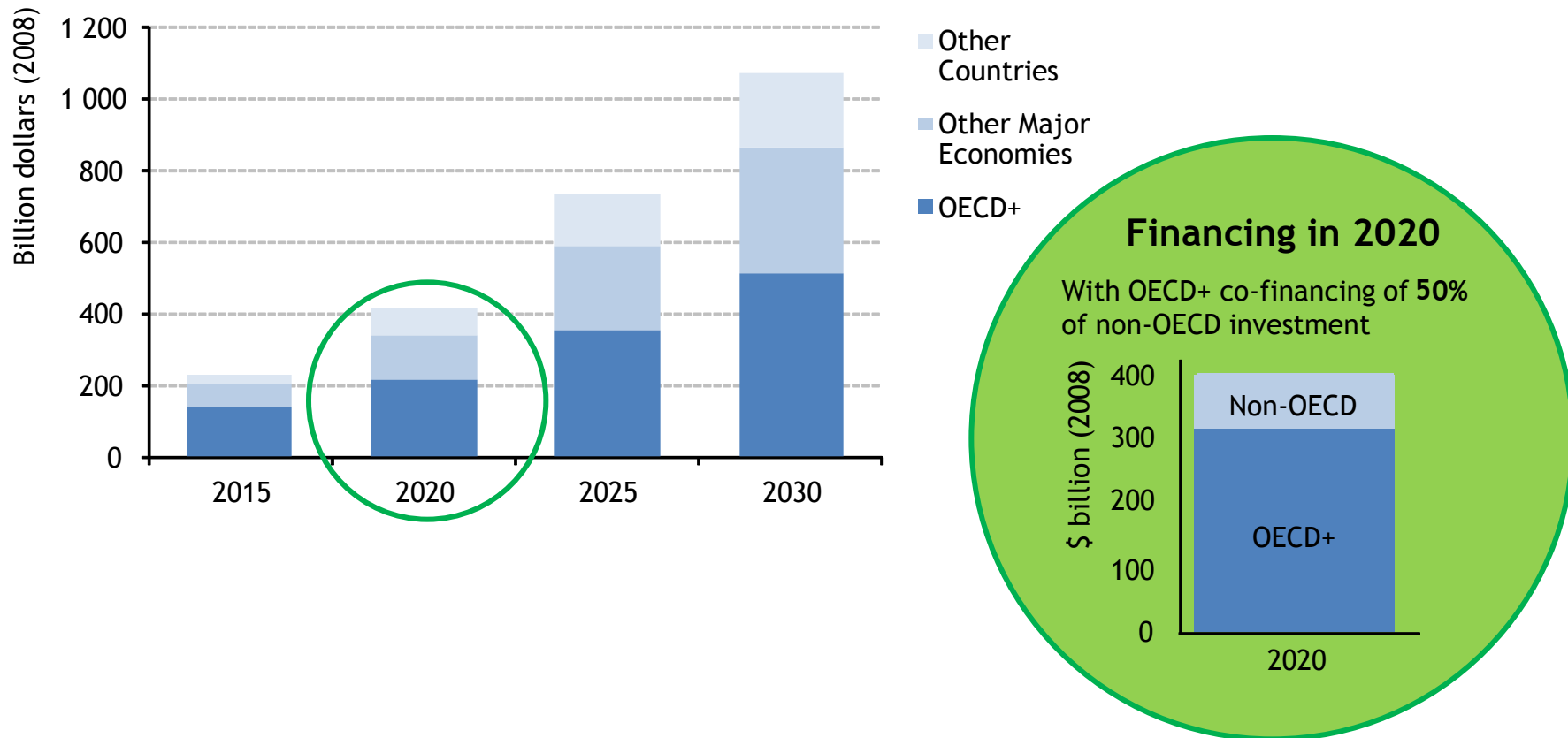
***Two-thirds of power generation in 2030 is fossil-fuel based in the Reference Scenario, compared with less than half in the 450 Scenario (with 60% coming from renewables)***

# Share of zero-carbon fuels in world electricity generation in 450 Scenario



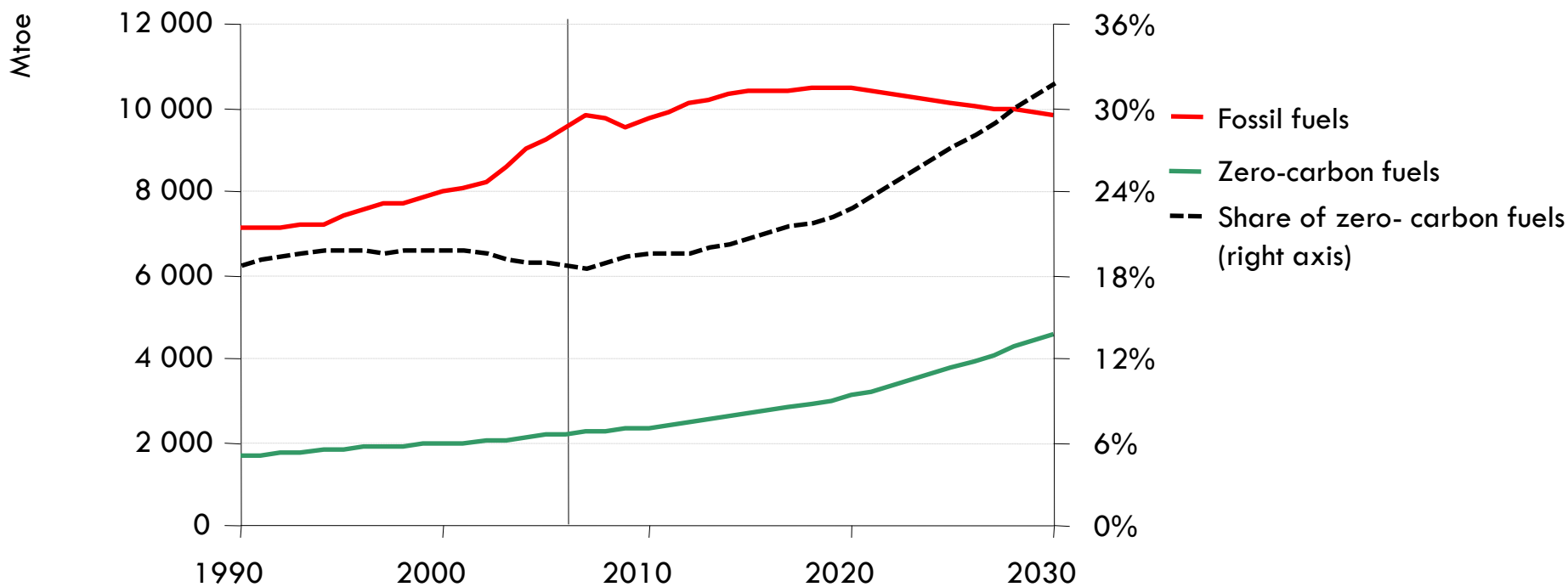
***In the 450 Scenario, zero-carbon fuels account for 55% of world electricity generation in 2030, up from 32% today***

# Additional investment in the 450 Scenario relative to the Reference Scenario, by region



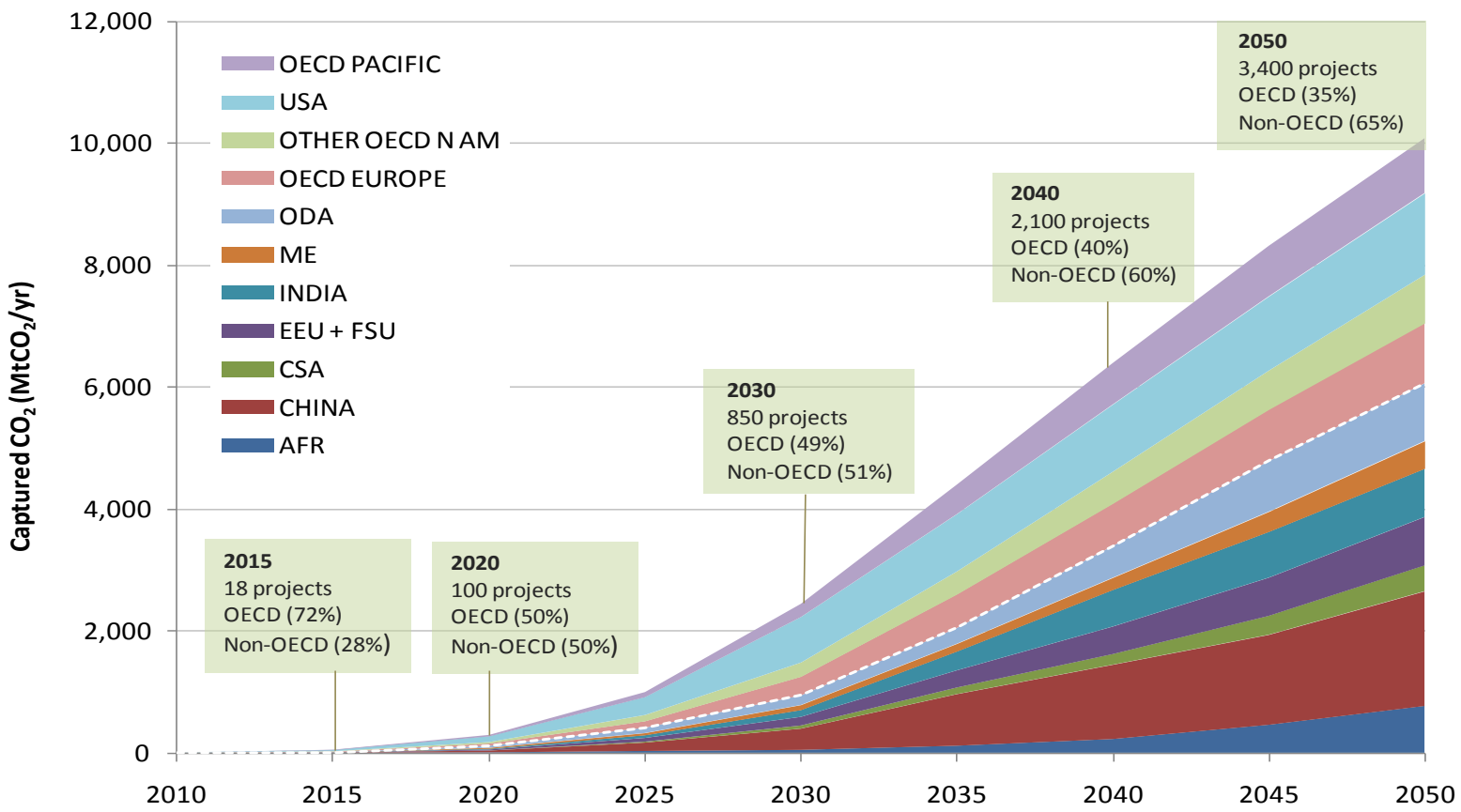
**The 450 Scenario sees \$10 trillion of additional investment to the Reference Scenario, costing 0.5% of GDP in 2020 and 1.1% of GDP in 2030**

# World primary energy demand by fuel in the 450 Scenario



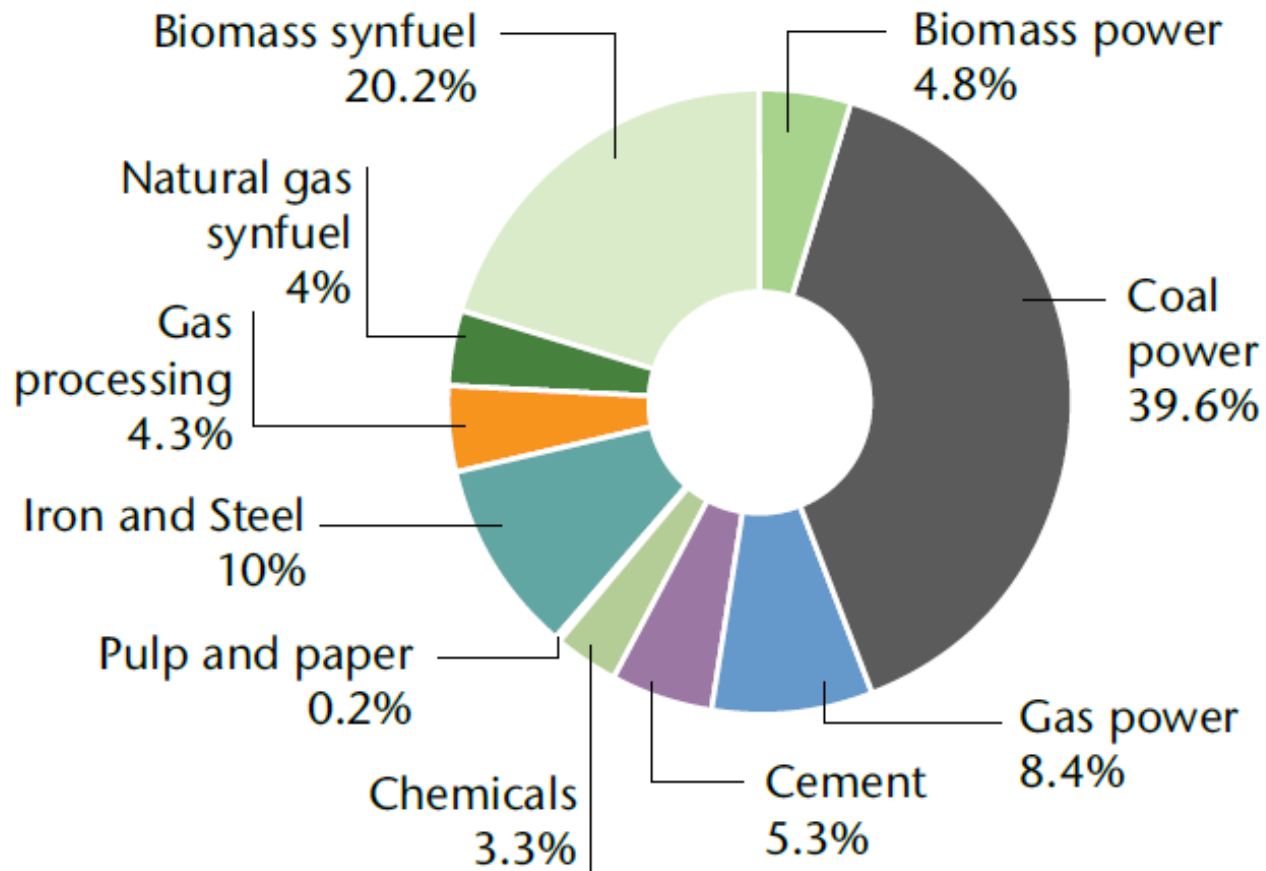
***In the 450 Scenario, demand for fossil fuels peaks by 2020, and by 2030 zero-carbon fuels make up a third of the world's primary sources of energy demand***

# CCS: A roadmap to 2050



# CCS is not just about “clean coal”

Sector contributions in 2050 (MtCO<sub>2</sub>)



# 2010-2020: a “make or break” period for CCS

## ▪ **Demonstration milestones**

- Working with GCCSI to achieve 20 project announcements by 2010
- Achieve commercialisation with 100 projects by 2020

## ▪ **Financial milestones**

- Finance and plan CO<sub>2</sub> transport infrastructure
- Incentivise CCS via bonus allowances in cap-and-trade schemes, emissions performance standards or carbon taxes

## ▪ **Legal/regulatory milestones**

- Amend existing frameworks to regulate demonstration projects
- By 2015, all countries with CCS potential should have comprehensive frameworks in place

## ▪ **Public engagement milestones**

- Provide greater government funding /leadership on outreach

**The IEA will work with CSLF, GCCSI to track implementation of the roadmap**