



# Future Developments in the Energy Sector

Tim Gould

International Energy Agency

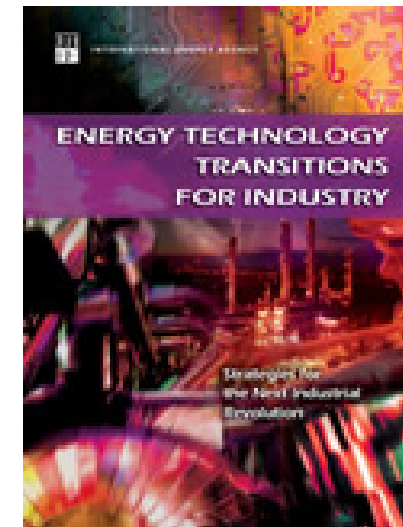
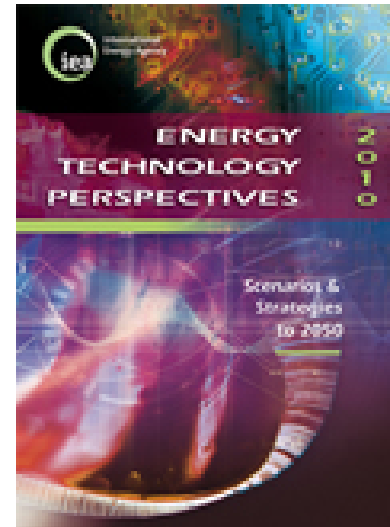
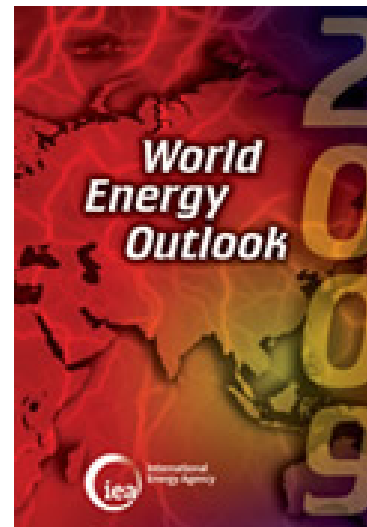
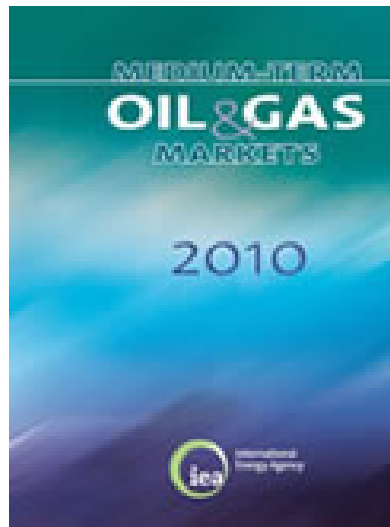
International Foundry Forum, September 2010, Barcelona

# The International Energy Agency - in brief



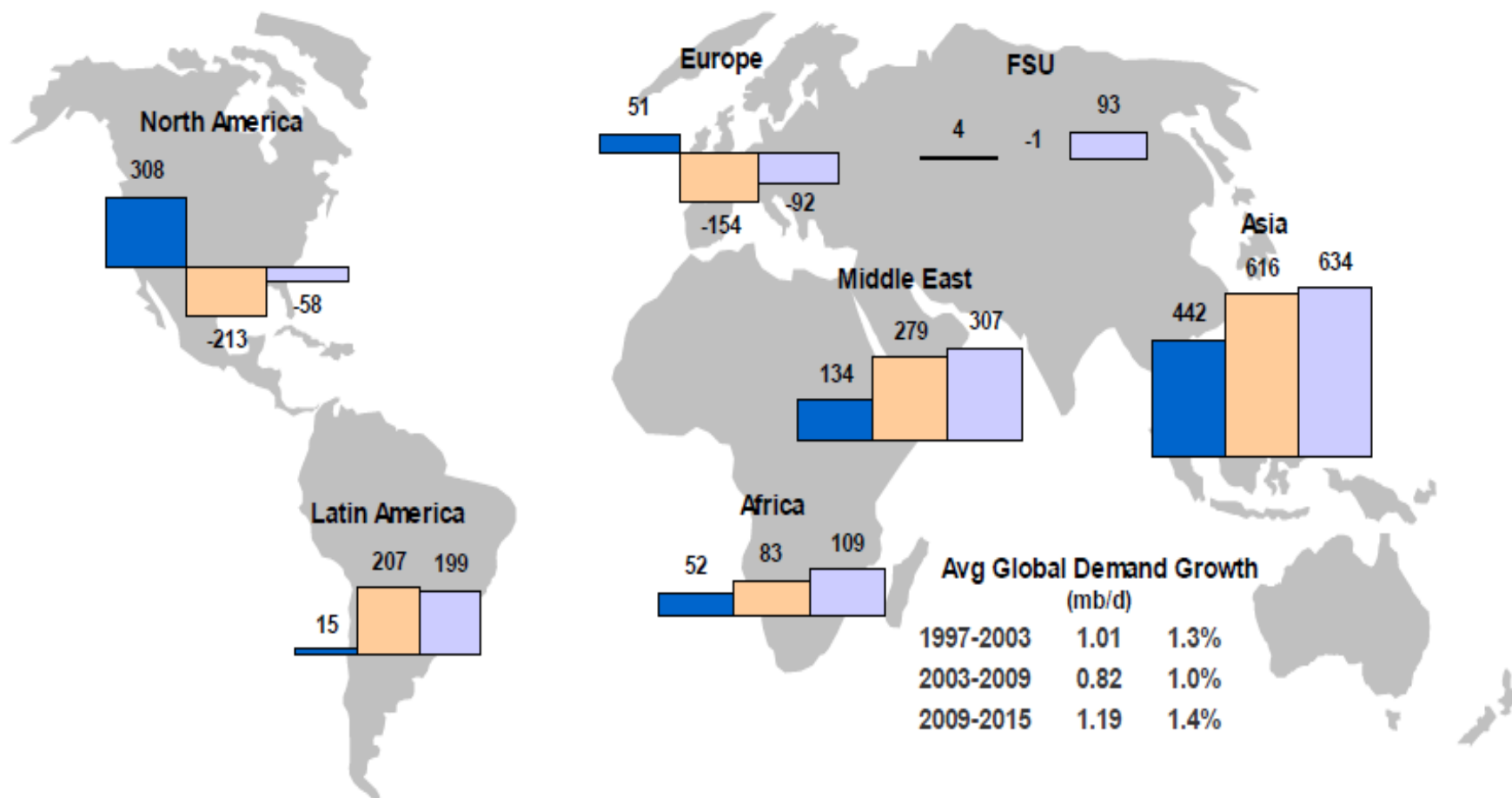
- **Energy Policy advisor to (28 OECD) member governments**
  - > *Founded in 1973-74 oil crisis*
  - > *Analysis and Publications (World Energy Outlook, Energy Technology Perspectives, Oil and Gas Market reports, variety of national and thematic policy issues on all aspects of energy security and sustainability)*
  
- **Energy Security**
  - > *Diversity, efficiency and flexibility of all sectors. Emergency response*
- **Environmental Protection**
  - > *Energy usage and climate change*
- **Economic Growth**
  - > *Stability of supply, open and transparent markets to foster growth*
- **Engagement Worldwide**
  - > *All energy issues transcend borders, centers of supply and demand shifting*

# Some key analytical publications

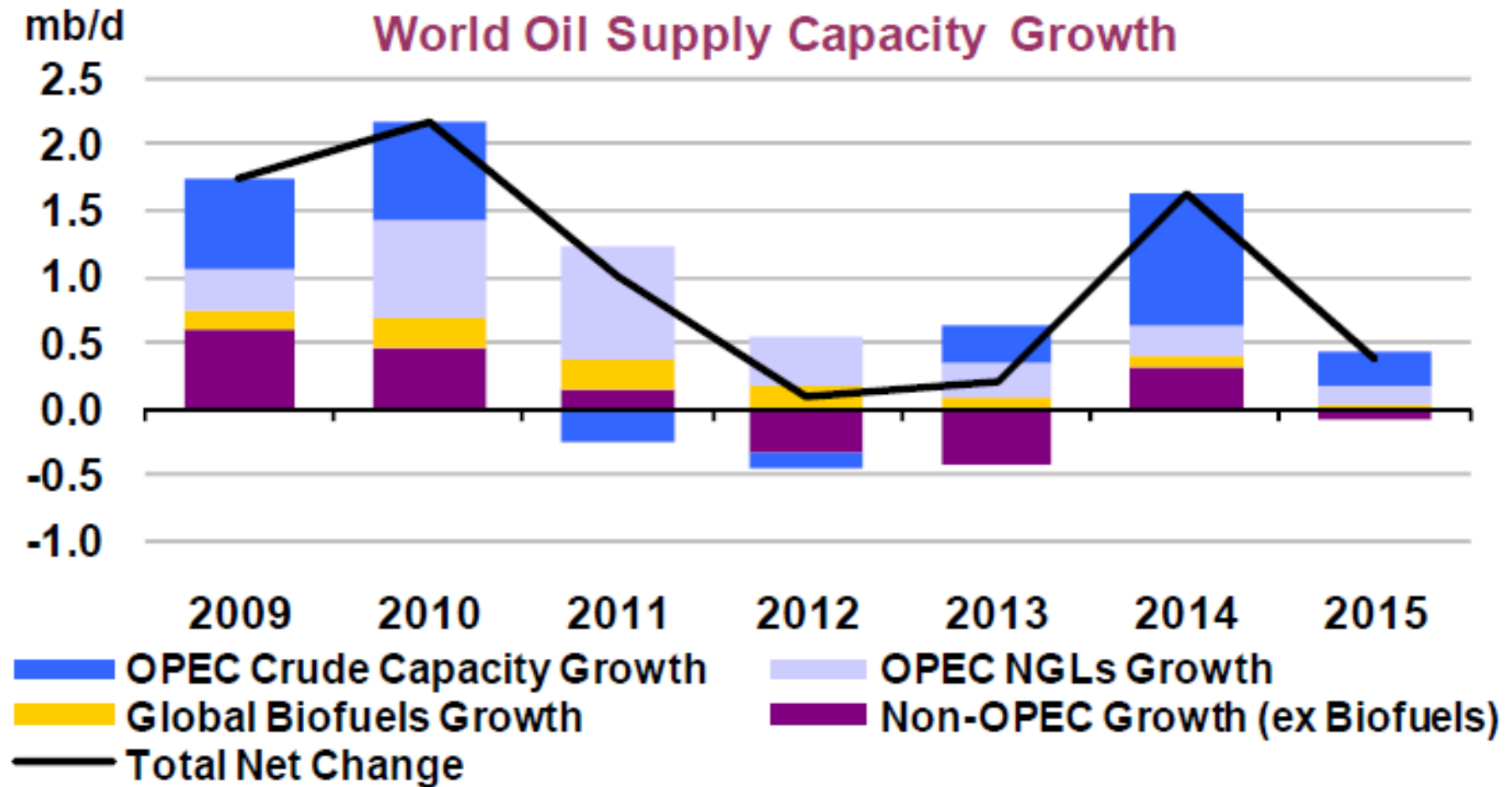


# Oil Demand

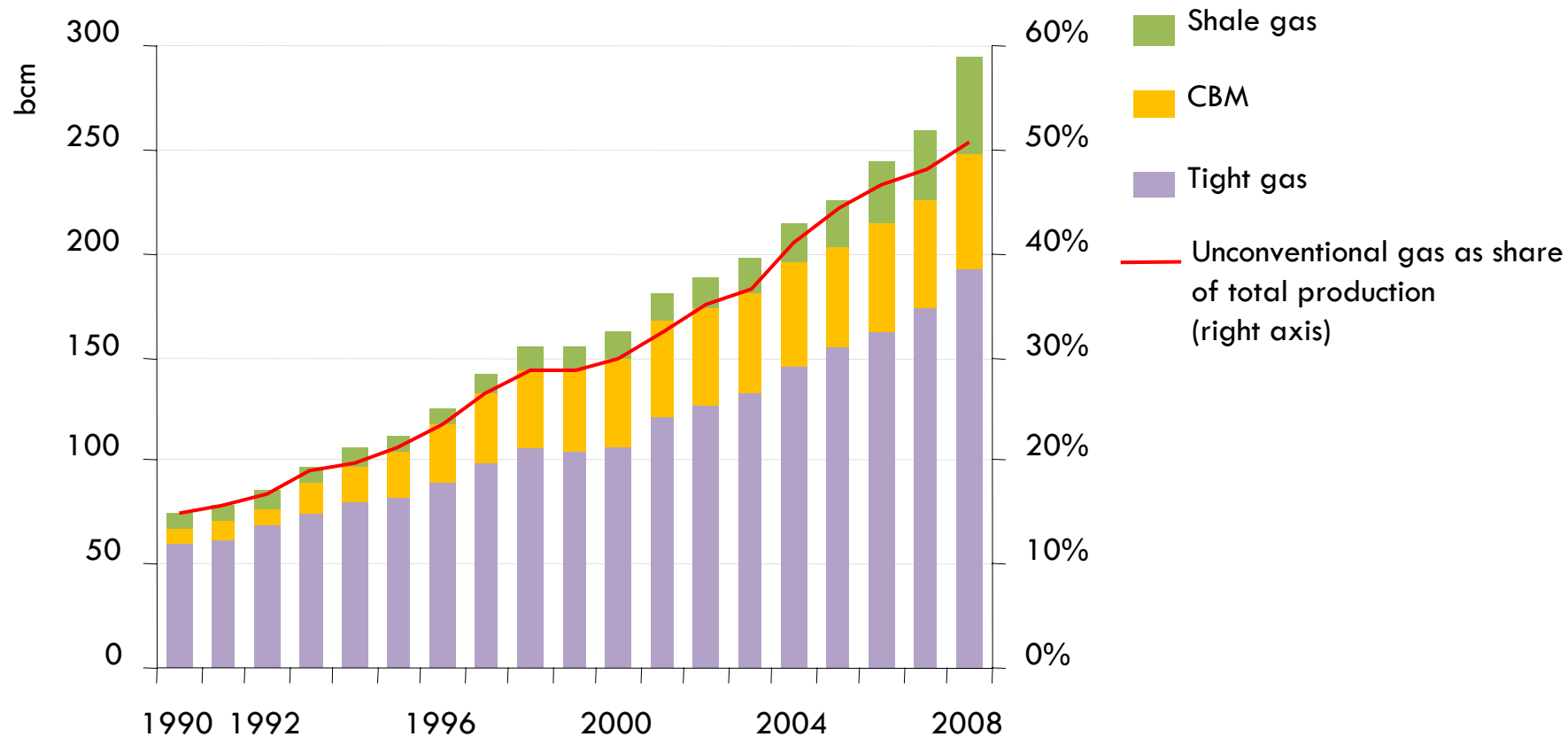
Average Global Oil Demand Growth 1997-2003/2003-2009/2009-2015  
thousand barrels per day



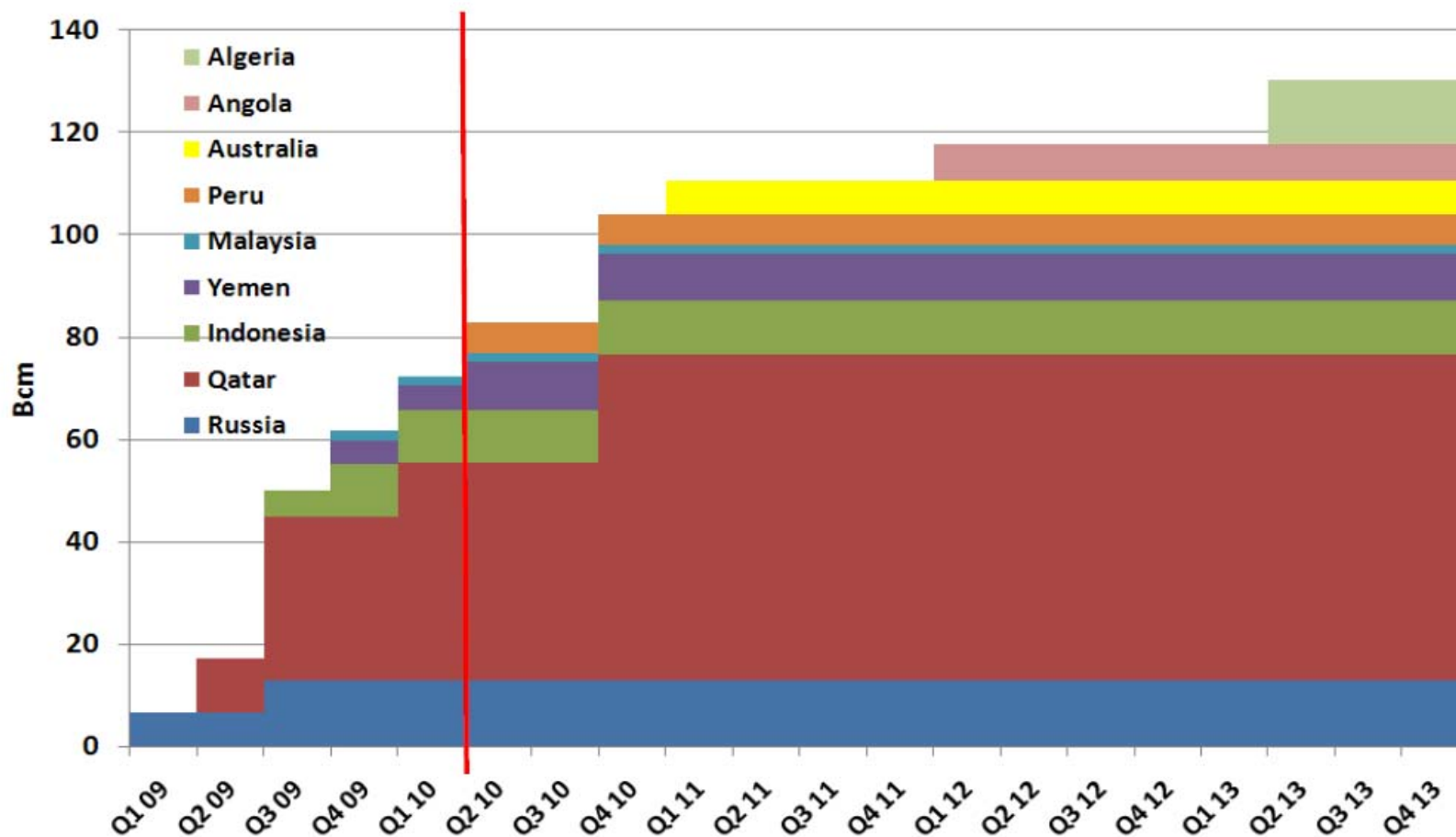
# Oil Supply



# North America production of unconventional gas (1990-2008)

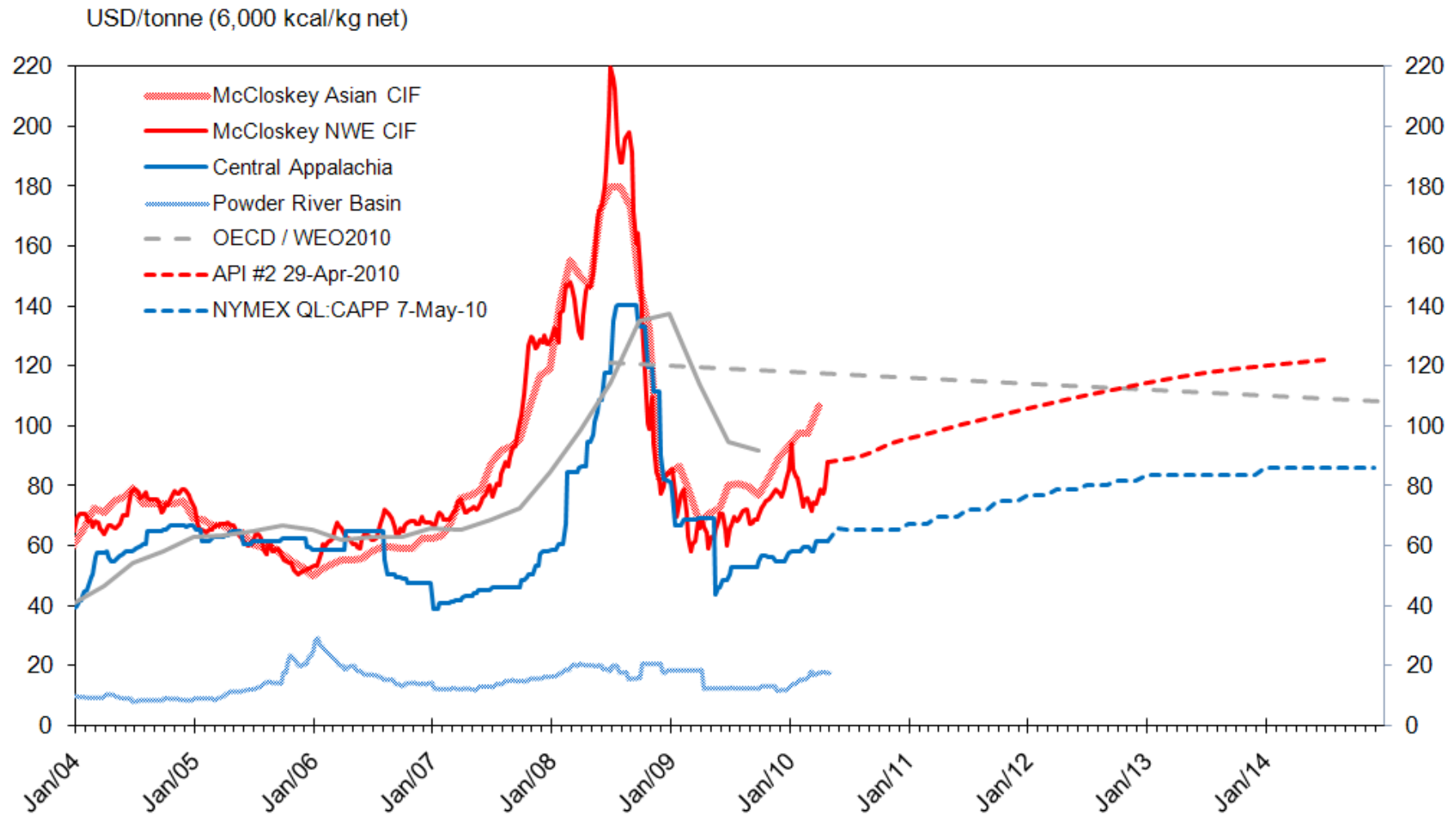


# Expansion of LNG capacity

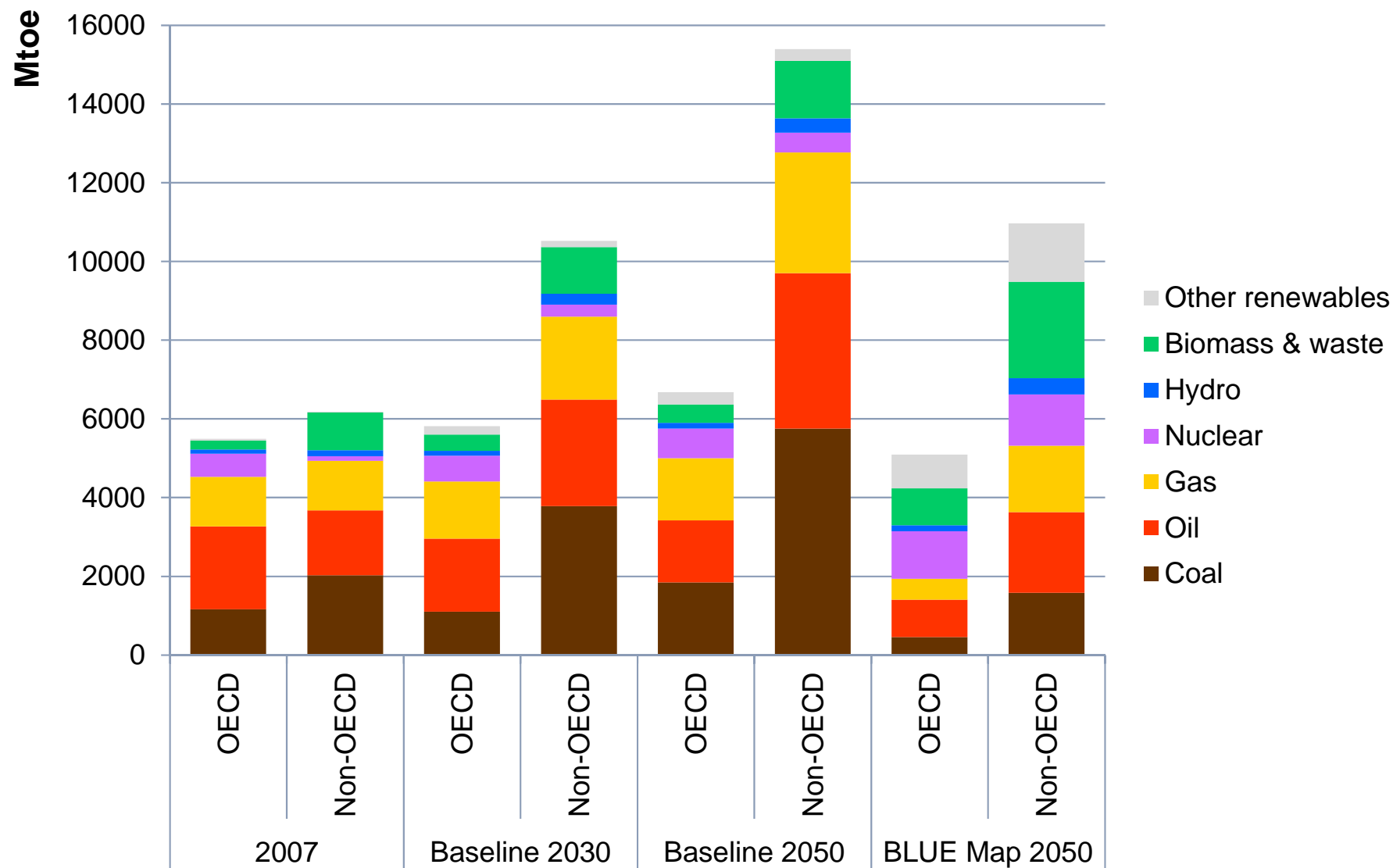


Source: IEA, NGMR 09

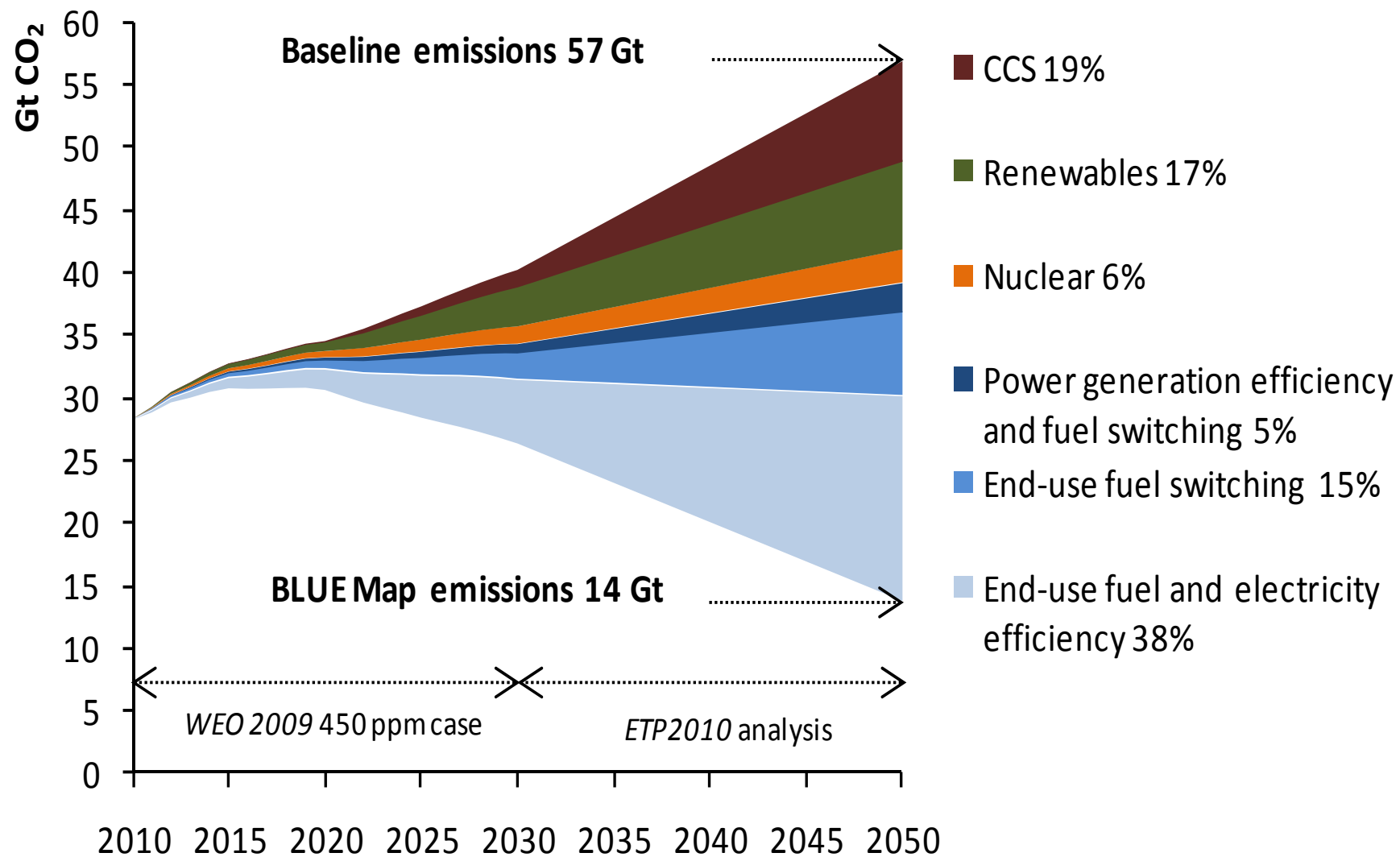
# North-West European / Asian coal import spot prices and US domestic spot prices



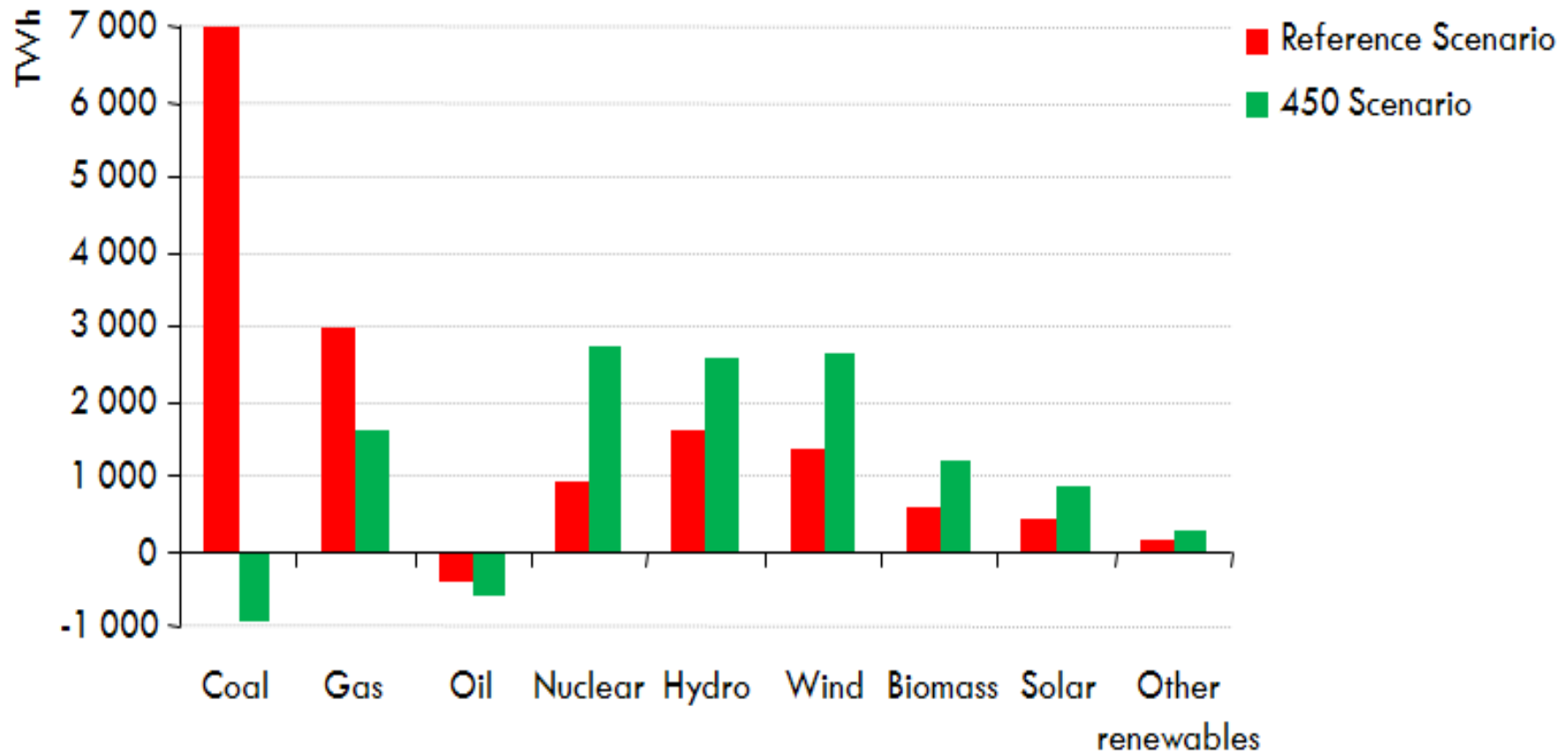
# World primary energy demand to 2030



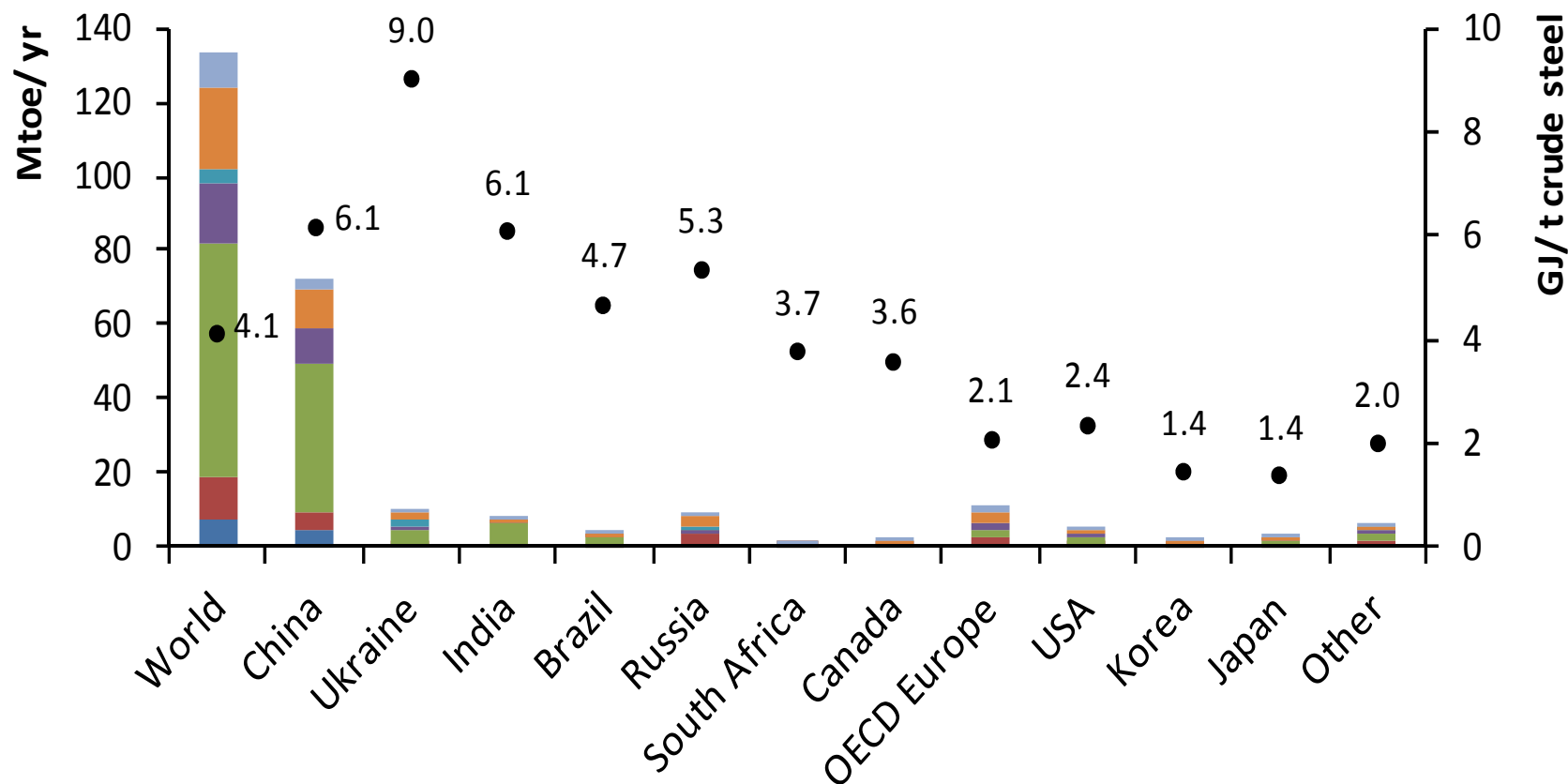
# Key technology options for 2050



# Incremental world electricity production by Scenario (2007-2030)



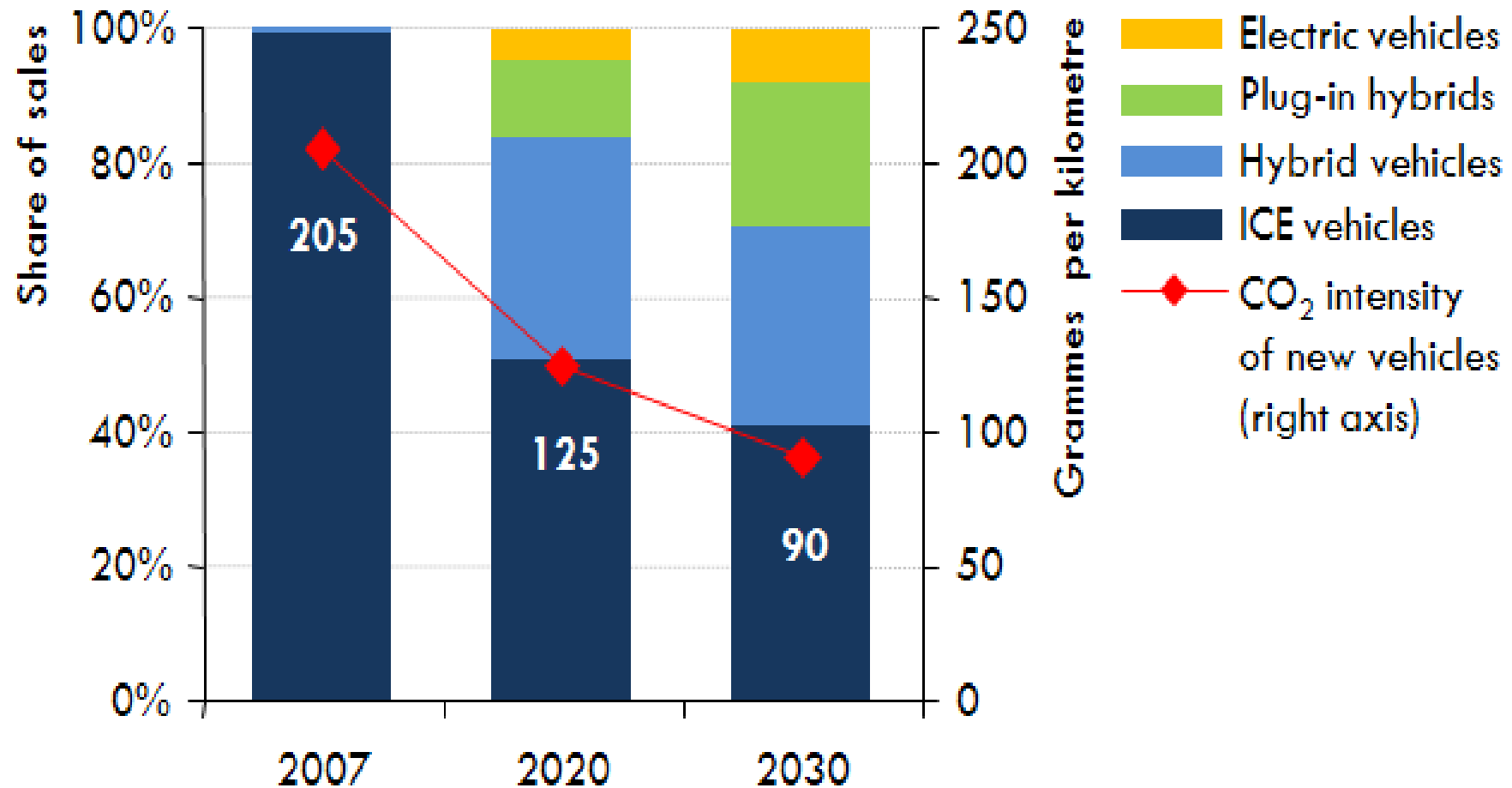
# Energy savings potential for iron and steel (2007)



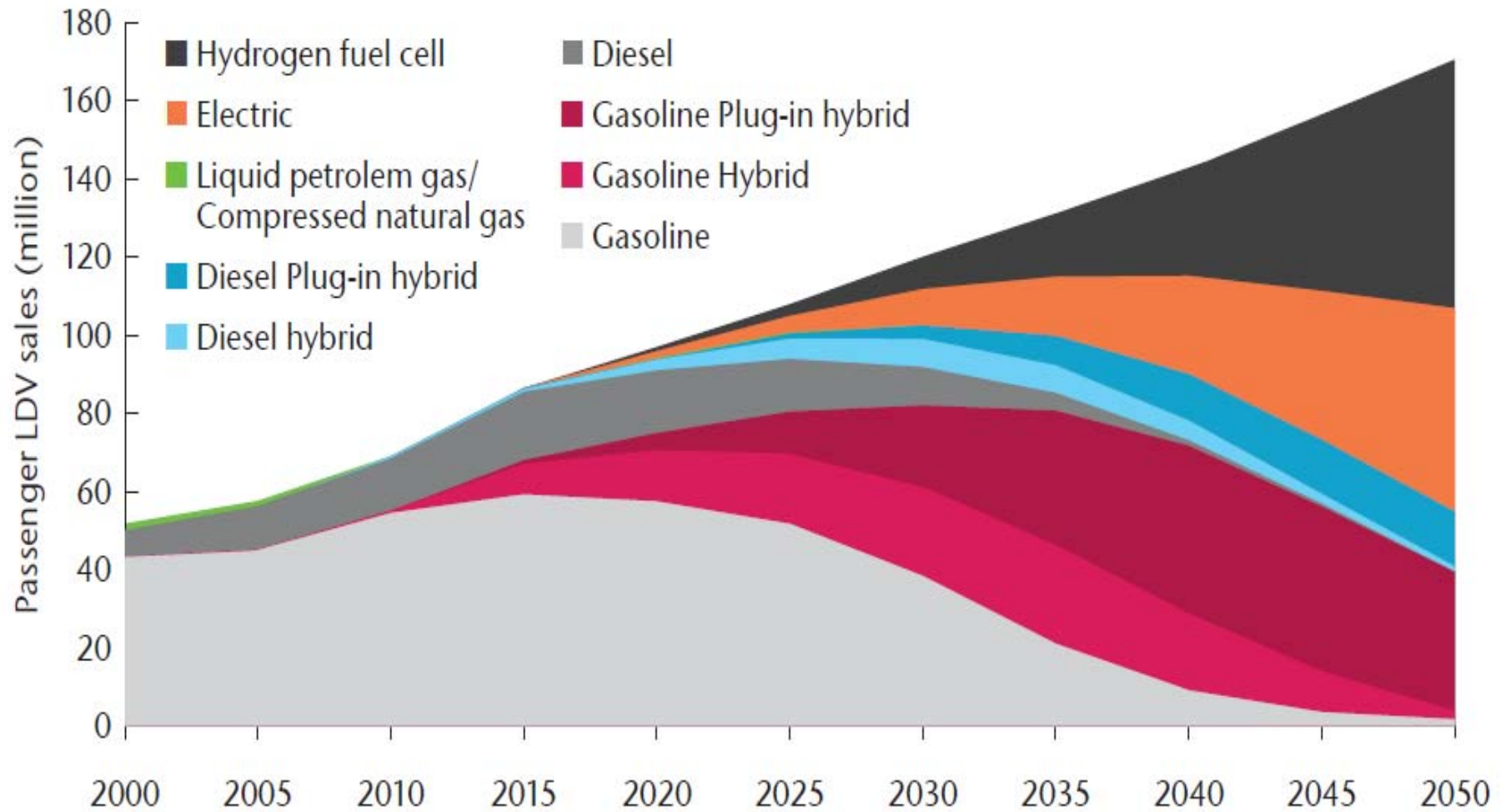
- CDQ (or advanced wet quenching)
- Blast furnace improvements
- Switch from OHF to BOF
- Steel finishing improvements

- COG recovery
- Increased BOF gas recovery
- Efficiency power generation from BF gas
- Specific savings potential (GJ/t steel)

# World passenger vehicle sales & average new vehicle CO<sub>2</sub> intensity (450 Scenario)



# Vehicle Roadmap



## Thank you !



A world map with a light blue and white color scheme, showing the continents. The map is centered on the Atlantic Ocean, with Europe and Africa to the left and Asia and Australia to the right.

Australia  
Austria  
Belgium  
Canada  
Czech Republic  
Denmark  
Finland  
France  
Germany  
Greece  
Hungary  
Ireland  
Italy  
Japan  
Korea (Republic of)  
Luxembourg  
Netherlands  
New Zealand  
Norway  
Poland  
Portugal  
Slovak Republic  
Spain  
Sweden  
Switzerland  
Turkey  
United Kingdom  
United States

The European  
Commission  
also participates  
in the work  
of the IEA.