

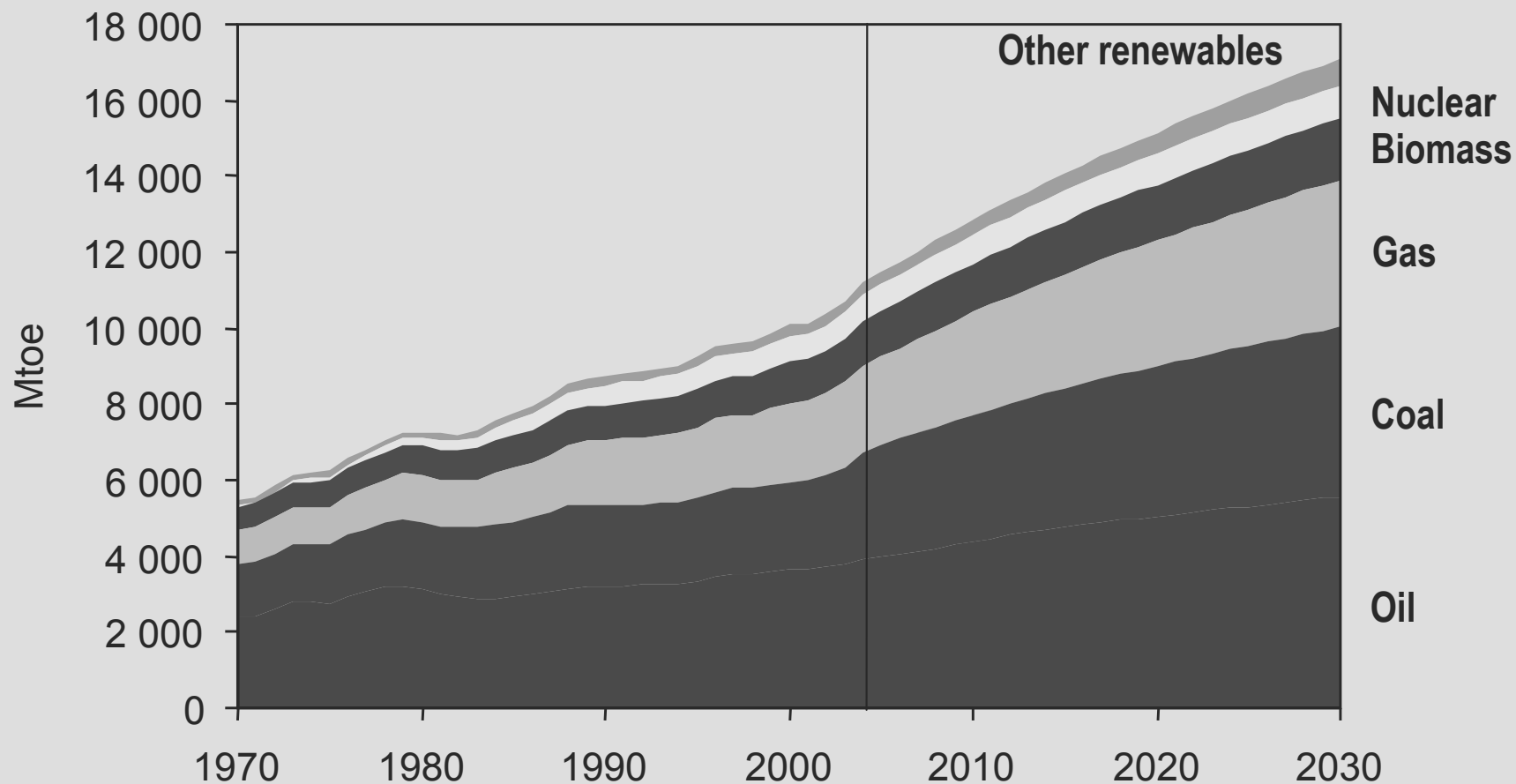


# **World Energy Outlook 2006**

**Noé van Hulst**  
**Director, Long-Term Co-operation and Policy Analysis**  
**International Energy Agency**

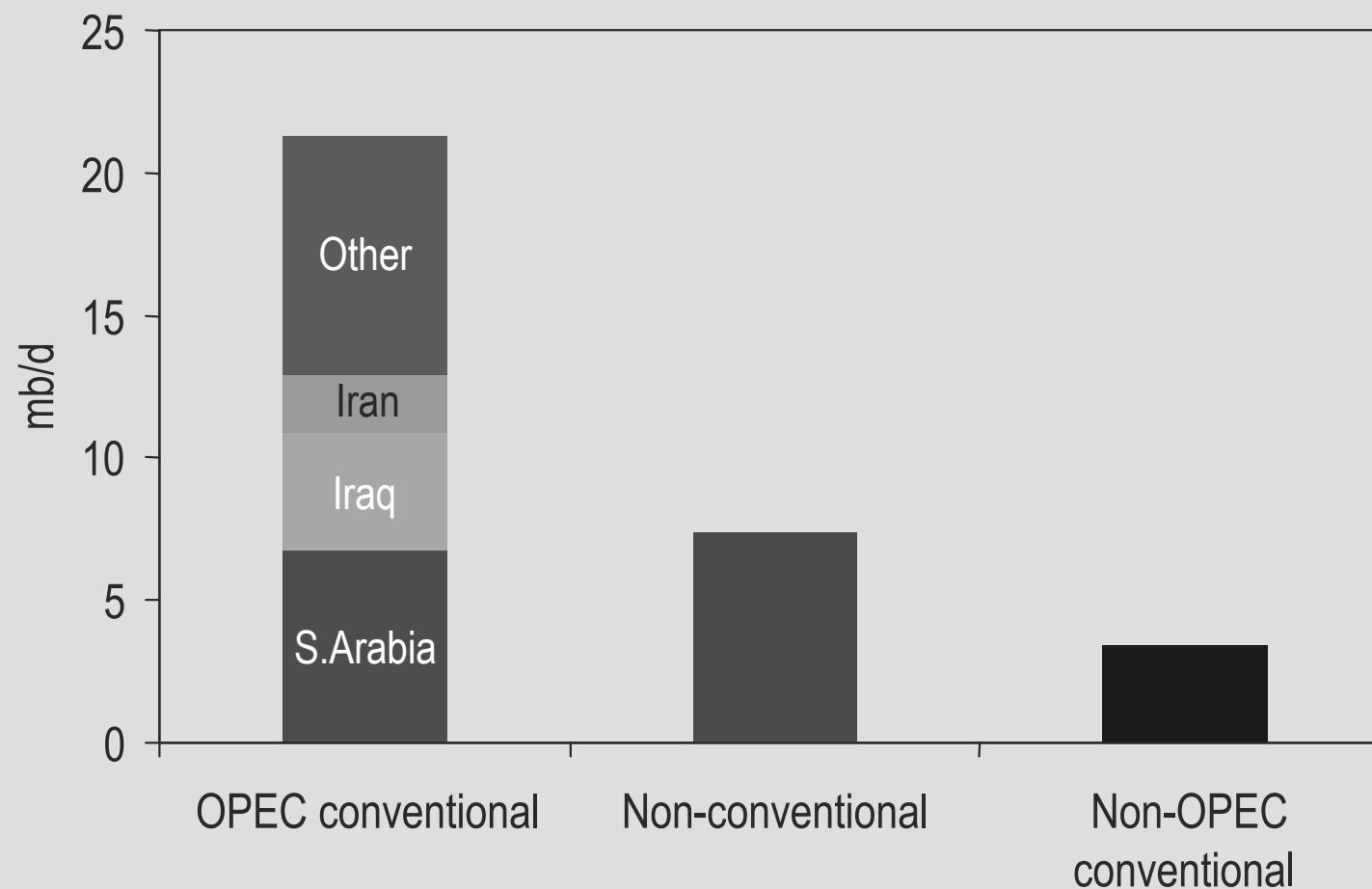
**Public Hearing**  
**Towards a Common European Foreign Policy on Energy?**  
**Brussels, Wednesday 28 February 2007**

# Reference Scenario: World Primary Energy Demand



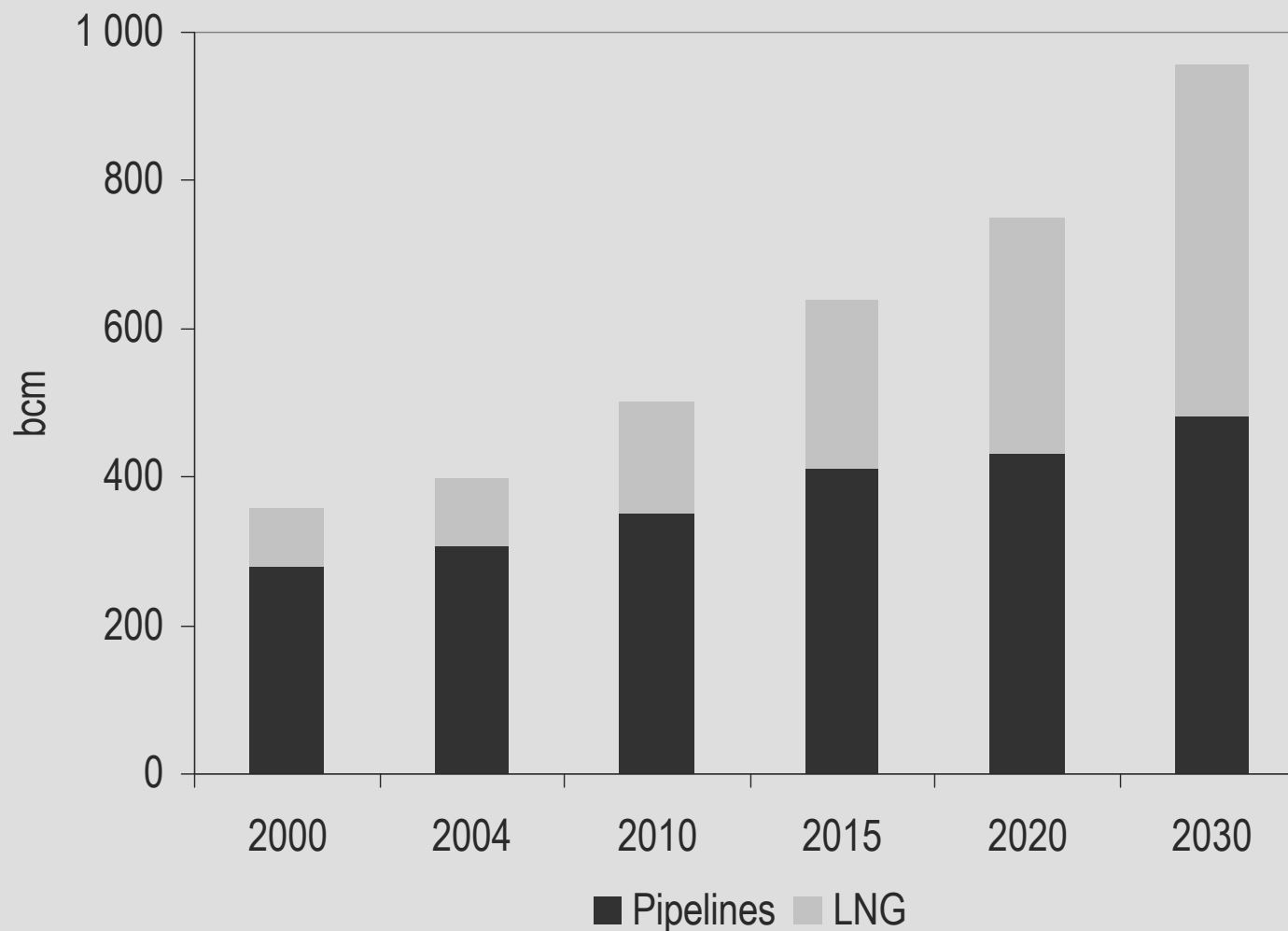
***Global demand grows by more than half over the next quarter of a century, with coal use rising most in absolute terms***

# Reference Scenario: Increase in World Oil Supply, 2004-2030



***The share of OPEC in world oil supply increases sharply as conventional non-OPEC production peaks towards the middle of next decade***

# Reference Scenario: World Inter-regional Natural Gas Trade



***Global gas trade expands by 1.5 times, with two-thirds of the increase coming from Russia, the Middle East & North Africa – mostly as LNG***

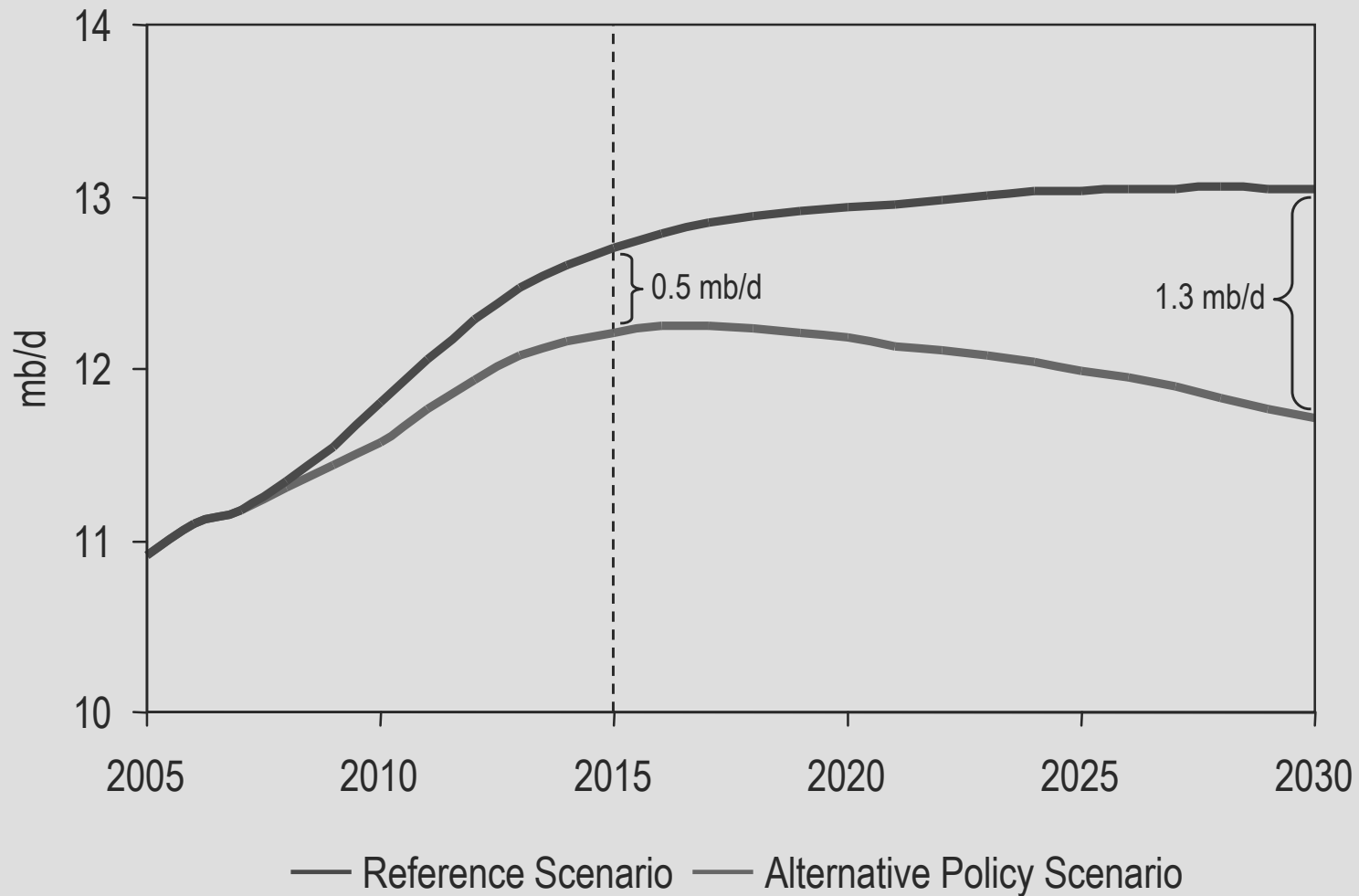
# The Energy Future Absent New Policies

- Security of oil supply is threatened
  - *Oil production in non-OPEC countries is set to peak*
  - *Production will be increasingly concentrated in a small number of countries*
- Gas security is also a growing concern
  - *Europe's production has already peaked - US to follow*
  - *Import dependence in both regions & other key regions will grow absent new policies*
- Investment over the next decade will lock in technology that will remain in use for up to 60 years

## Alternative Policy Scenario: Mapping a Better Energy Future

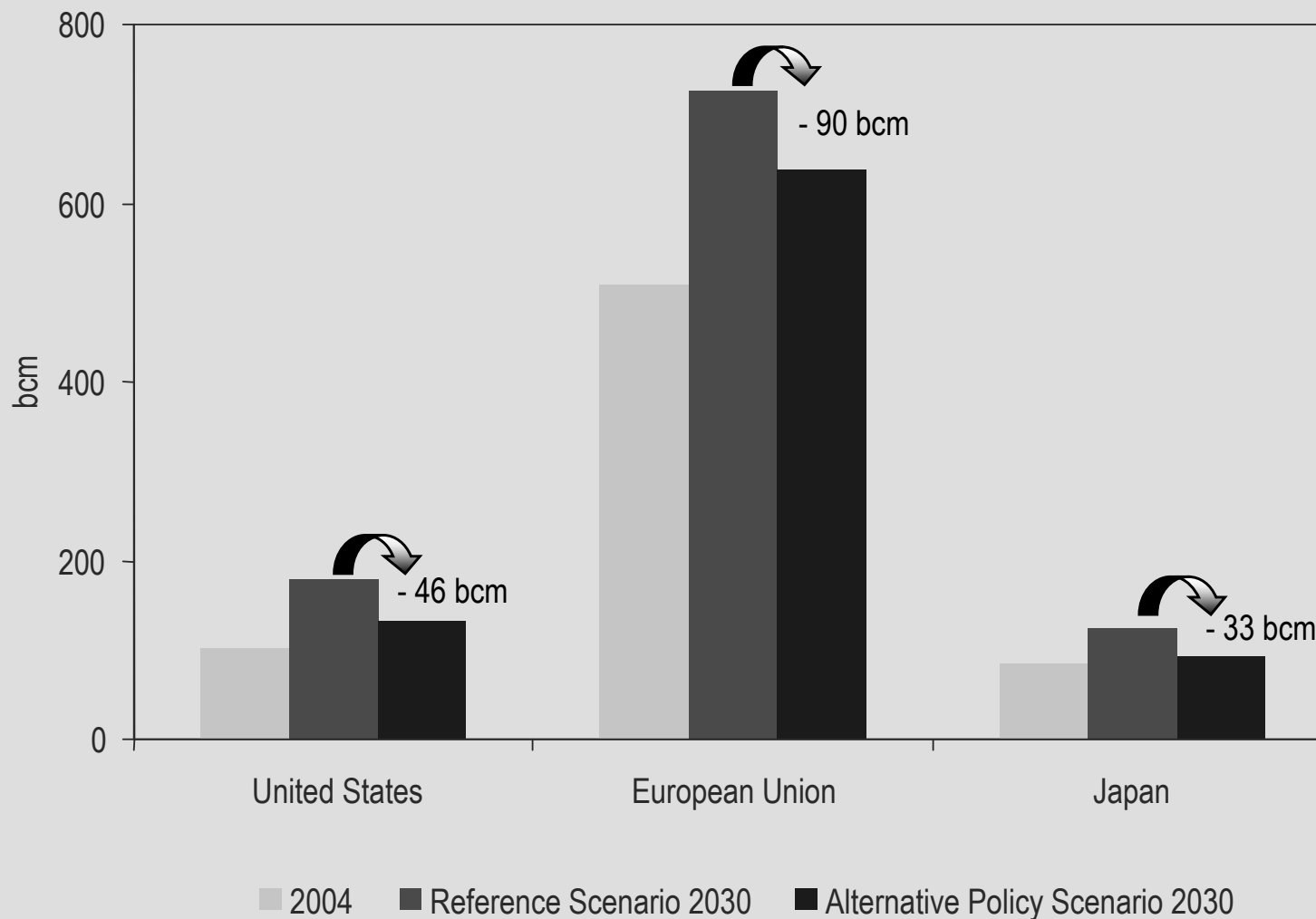
- Analyses impact of government policies under consideration to enhance security & curb emissions
- Demonstrates that we can significantly reduce growth in energy demand & emissions and stimulate alternative energy production
  - *Oil demand is reduced by 13 mb/d in 2030 - equivalent to current output of Saudi Arabia & Iran*
  - *Oil savings in 2015 savings reach 5 mb/d*
  - *CO<sub>2</sub> emissions are 6.3 Gt (16%) lower in 2030 – equivalent to the current emissions of US and Canada*
- Delaying action by 10 years would reduce the impact on emissions in 2030 by three-quarters

# The Alternative Policy Scenario: Oil Imports in European Union



***In the APS, EU oil imports plateau by 2015 and start to decline around 2020***

# The Alternative Policy Scenario: Gas Imports, 2004-2030



***Gas imports are significantly lower in the Alternative Policy Scenario compared with the Reference Scenario***

# Summing Up

- On current trends, we are on course for an unstable, dirty & expensive energy future
- In response, urgent government policy action is required in two key areas:
  - Promoting energy investment
  - Promoting energy efficiency
- In addition to improving energy security and the environment, these policies also make economic sense
- The *WEO* sets out the essential first steps on a path towards a clean, clever and competitive energy future
- For a truly sustainable energy system, technological breakthroughs will also be needed