

WORLD ENERGY OUTLOOK

World Energy Outlook 2012

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■ Foundations of global energy system shifting

- *Resurgence in oil & gas production in some countries*
- *Retreat from nuclear in some others*
- *Signs of increasing policy focus on energy efficiency*

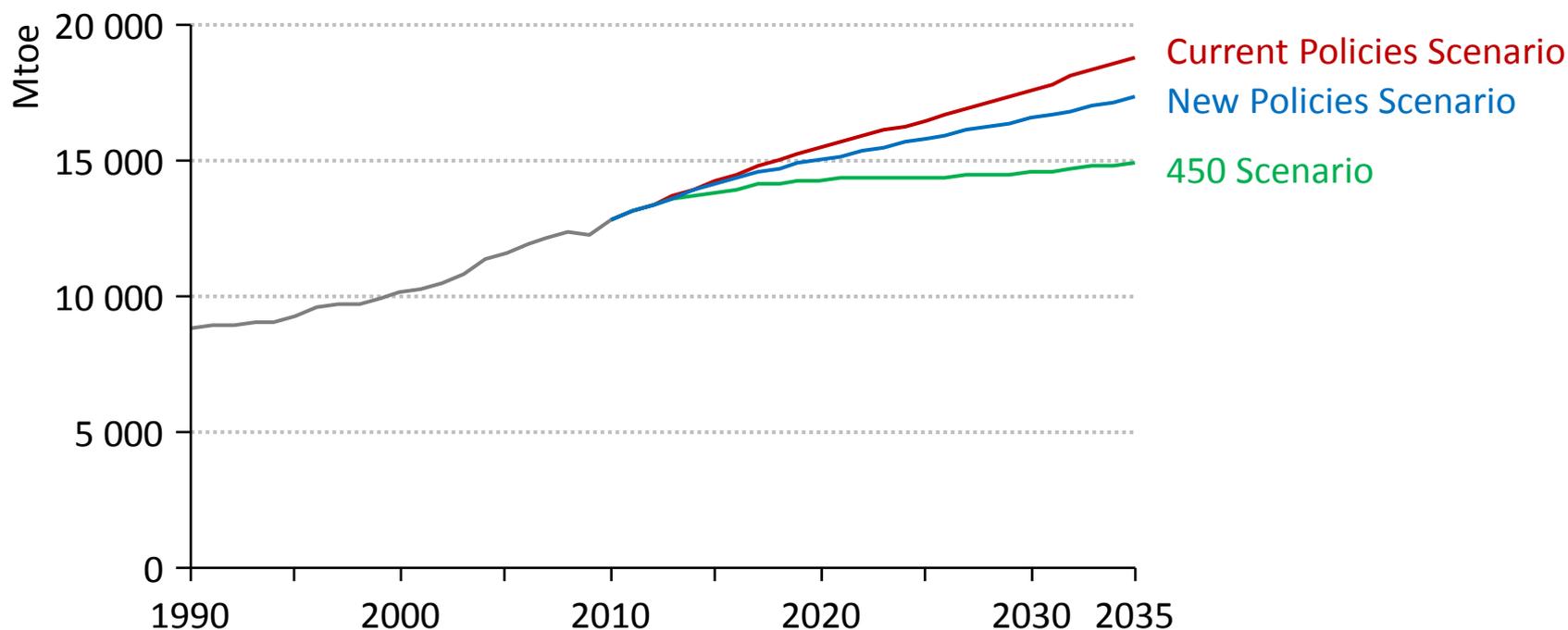
■ All-time high oil prices acting as brake on global economy

- *Divergence in natural gas prices between North America, Europe & Asia*

■ Symptoms of an unsustainable energy system persist

- *Fossil fuel subsidies remain commonplace in many countries*
- *CO₂ emissions at record high, while renewables industry under strain*
- *Despite new international efforts, 1.3 billion people still lack electricity*

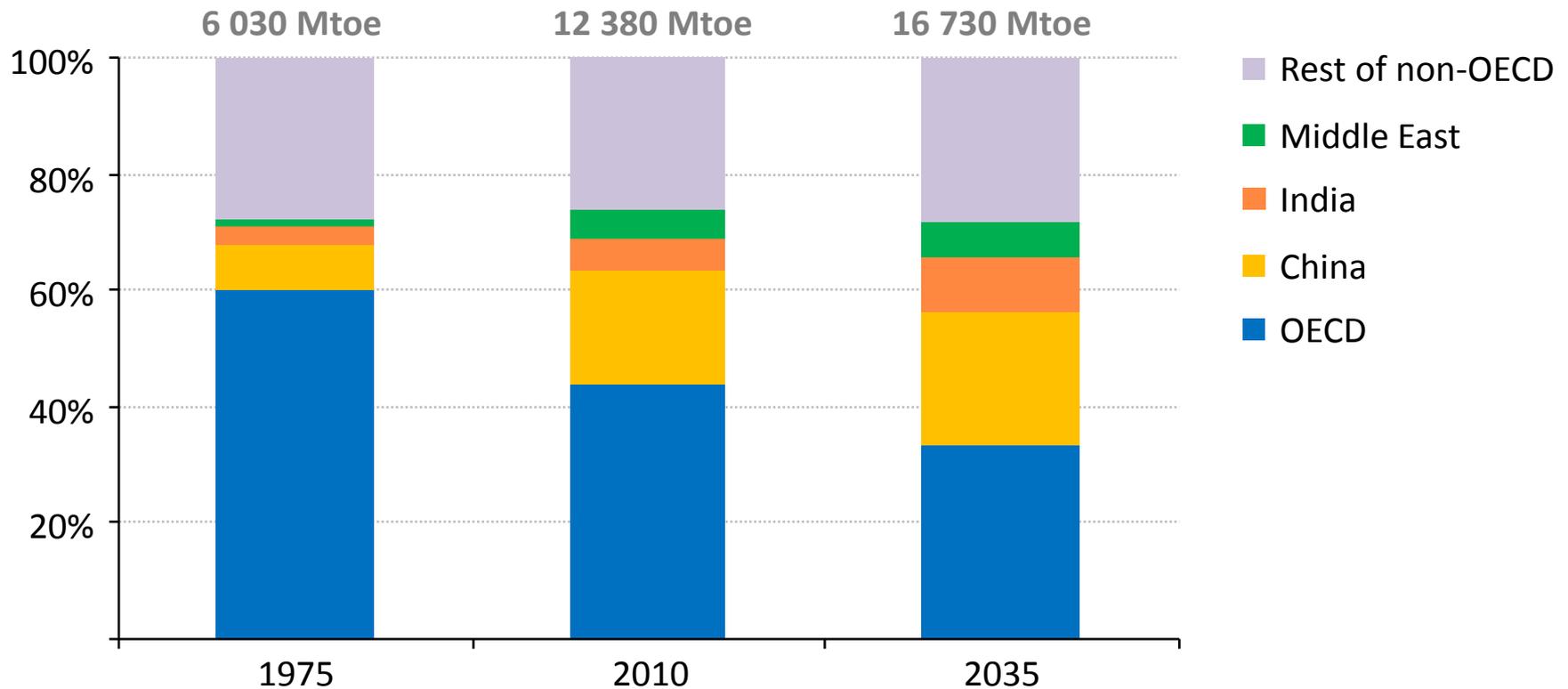
World primary energy demand by scenario



Across the scenarios several fundamental trends persist: rising incomes & population push energy needs higher; energy-market dynamics are increasingly determined by emerging economies; fossil fuels meet most of the world's energy needs

Emerging economies steer energy markets

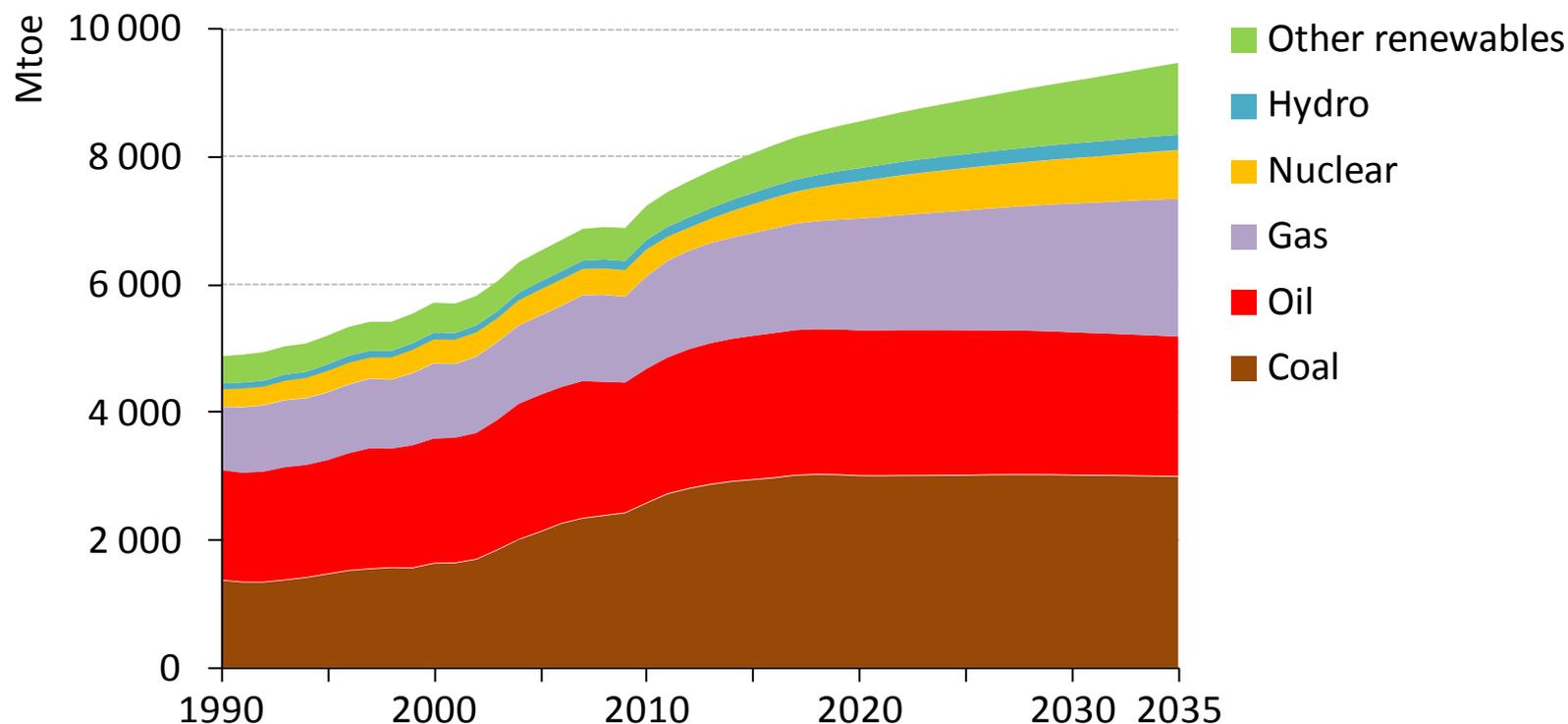
Share of global energy demand in the New Policies Scenario



Global energy demand grows by more than one-third over the period to 2035, with China, India & the Middle East accounting for 60% of the increase

Primary energy demand in APEC economies in the New Policies Scenario

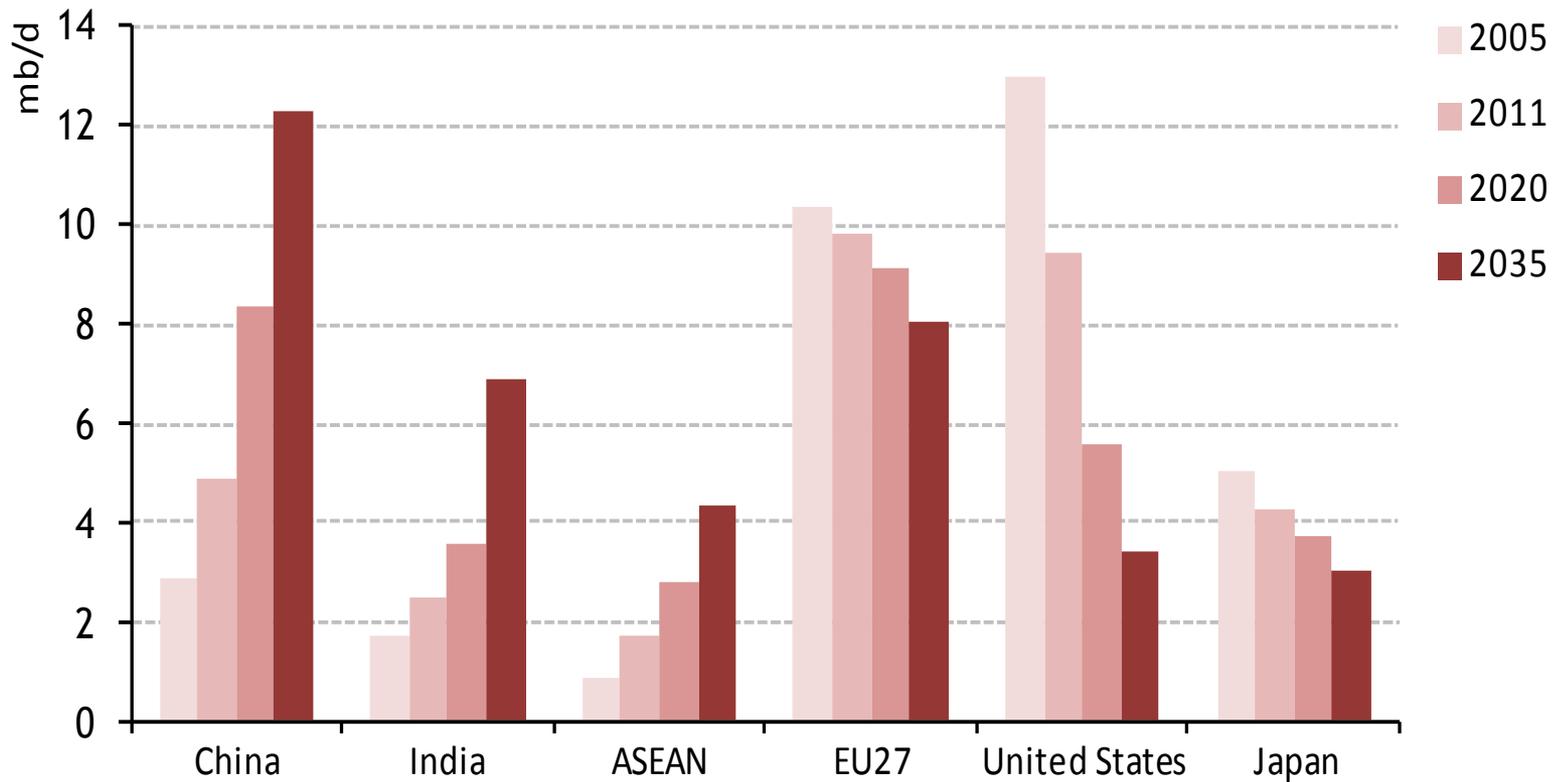
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APEC energy demand expands by 31% between 2010 and 2035 – an average rate of increase of 1.1% per year – with fossil fuels remaining dominant in the energy mix

Changing Oil Trade Patterns

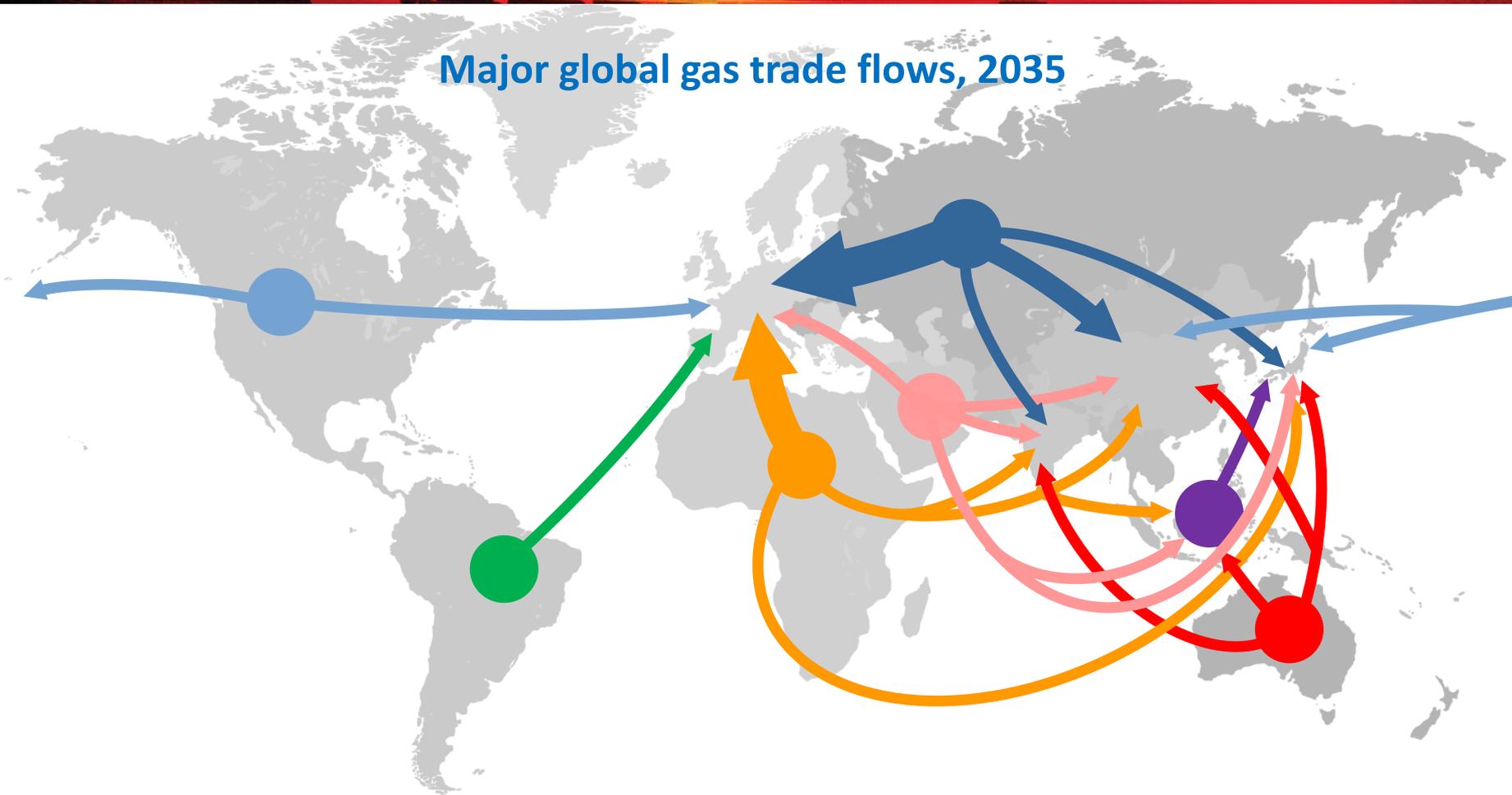
Net oil imports in New Policies Scenario



By 2035, almost 90% of Middle Eastern oil exports go to Asia; North America's emergence as a net exporter accelerates the eastward shift in trade

Natural gas: towards a globalised market

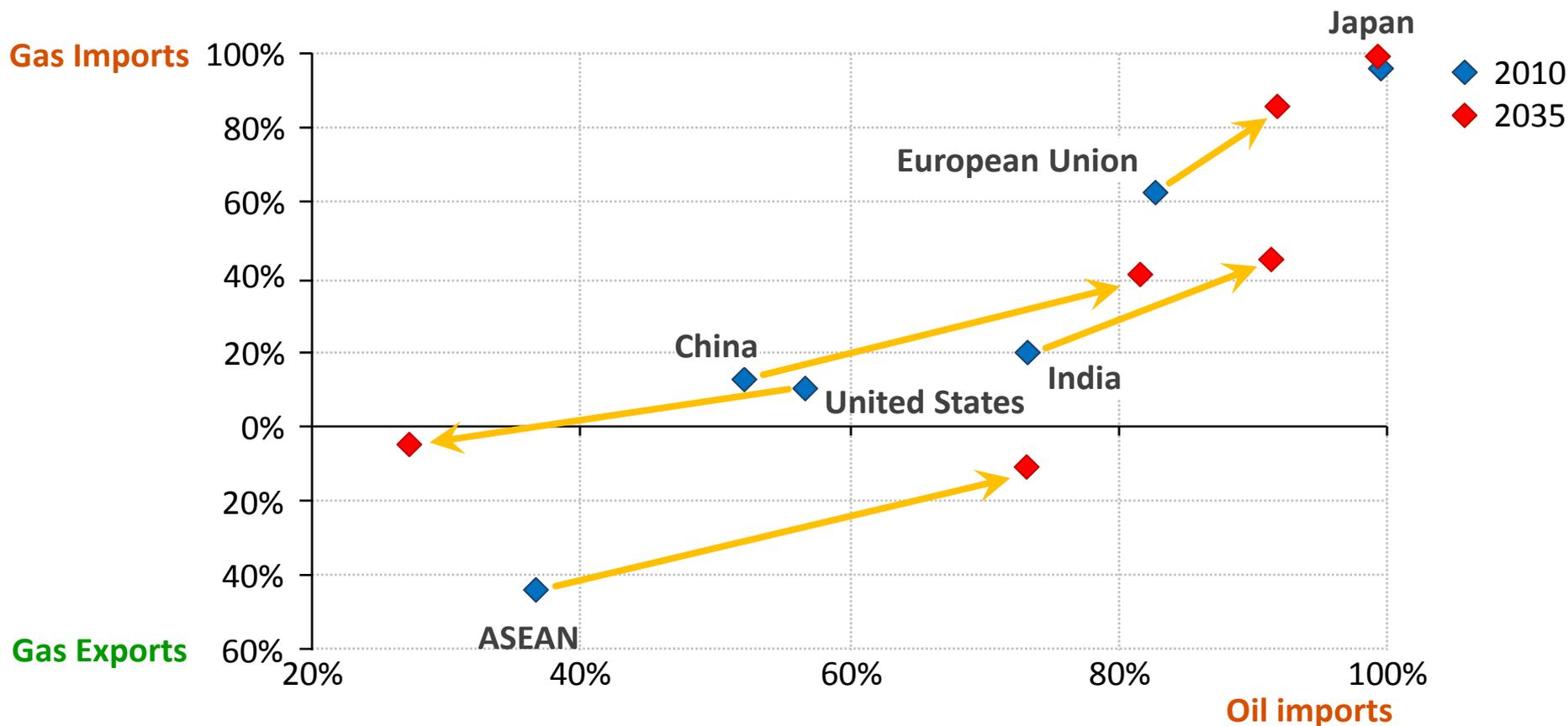
Major global gas trade flows, 2035



Rising supplies of unconventional gas & LNG help to diversify trade flows, putting pressure on conventional gas suppliers & oil-linked pricing mechanisms

Different trends in oil & gas import dependency

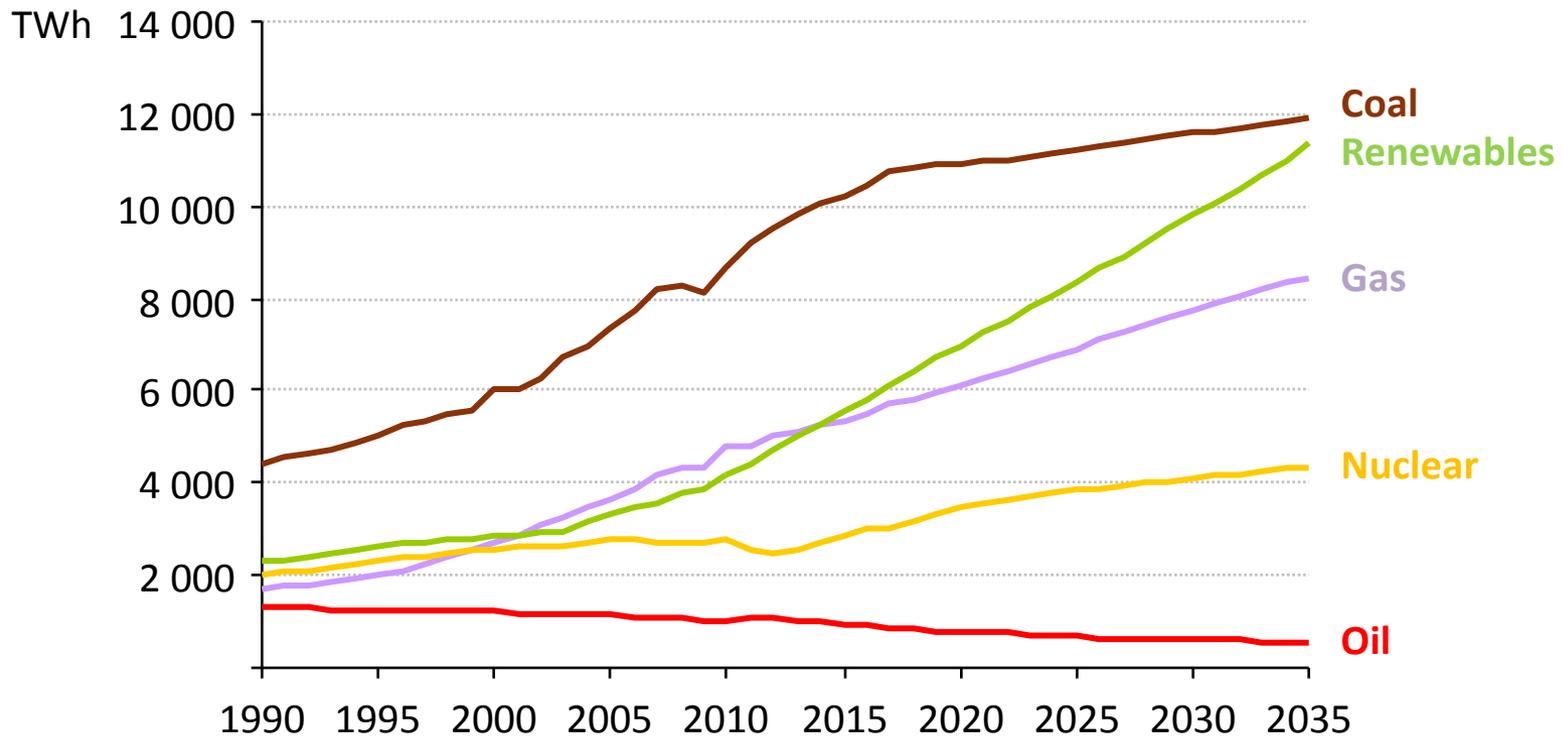
Net oil & gas import dependency in selected countries



While dependence on imported oil & gas rises in many countries, the United States swims against the tide

The power generation mix is set to change

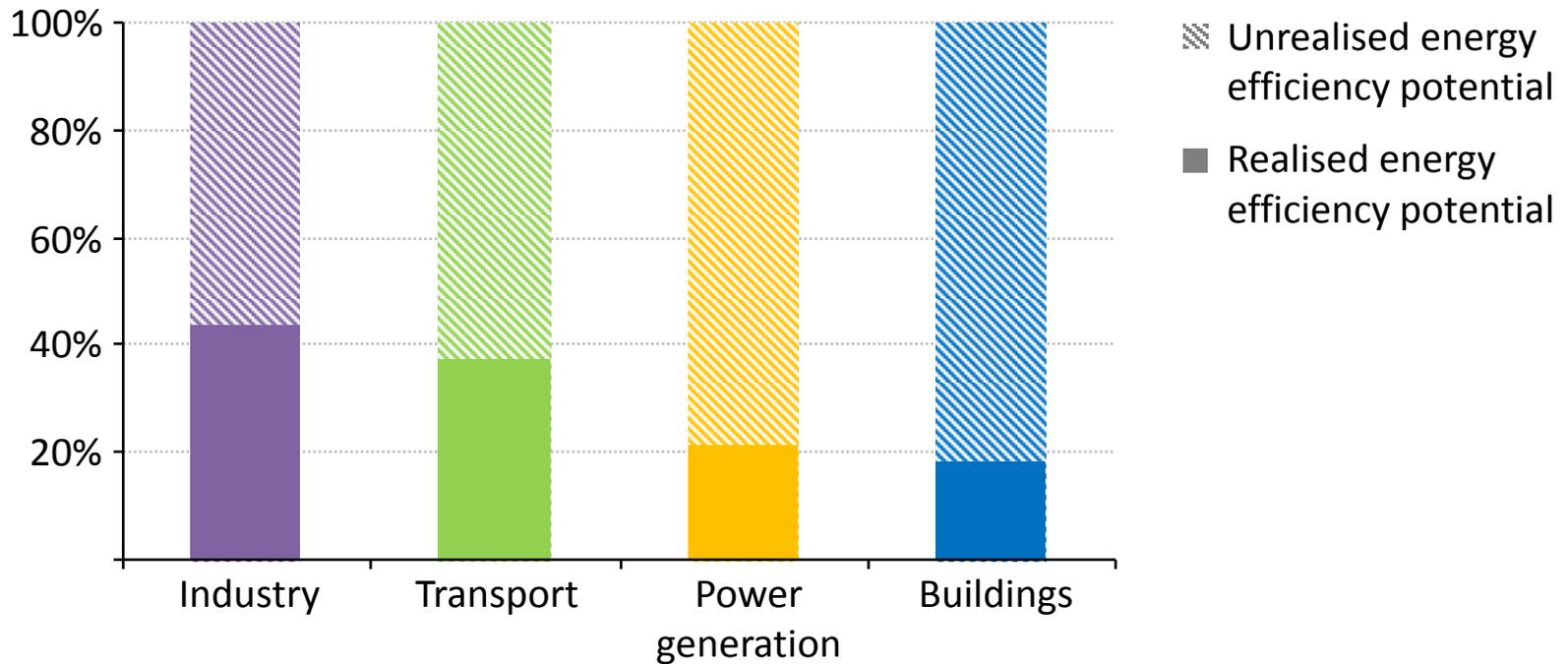
Global electricity generation by source, 2010-2035



Renewables electricity generation overtakes natural gas by 2015 & almost coal by 2035; growth in coal generation in emerging economies outweighs a fall in the OECD

Energy efficiency: a huge opportunity going unrealised

Energy efficiency potential used by sector in the New Policies Scenario



Two-thirds of the economic potential to improve energy efficiency remains untapped in the period to 2035

Key Points

- **The global energy map is changing, with potentially far-reaching consequences for energy markets & trade**
- **Despite the growth in low-carbon sources of energy, fossil fuels remain dominant in the global energy mix, supported by subsidies that amounted to \$523 billion in 2011, six times more than subsidies to renewables**
- **The gains promised by energy efficiency are within reach & are essential to underpin a more secure & sustainable energy system**
- **Weo-2012 trends consistent with key findings of APEC Energy Demand & Supply Outlook (5th edition)**