International Energy Agency

# The role of oil security in the global energy transition: strategic reserves, resilience, and policy outlook

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# The 1973-4 oil crisis demonstrated the profound importance of oil to the global economy



**The Arab-Israeli war prompted an oil embargo by Opec that led to major fuel shortages, resulting in a global recession**

# Oil security obligations of IEA Member countries

1. To hold **emergency oil stocks** at a level equivalent to 90 days of net imports (Art 2.1, 2.2 IEP).

2. To maintain a set of **demand restraint measures** capable of reducing oil demand by up to 10% (Art 5.1 IEP).

3. To undergo **regular assessments** of their emergency stock levels, demand restraint measures and ability to contribute to a collective emergency response (Art 4.1,5.2 IEP).

# Energy security work of IEA expands beyond oil

## Electricity

- System integration of variable renewable energy
- Guided transition or free market approach to ageing coal/nuclear
- Adequacy: short term winter-summer peaks and long-term adequacy changes with EE/RES

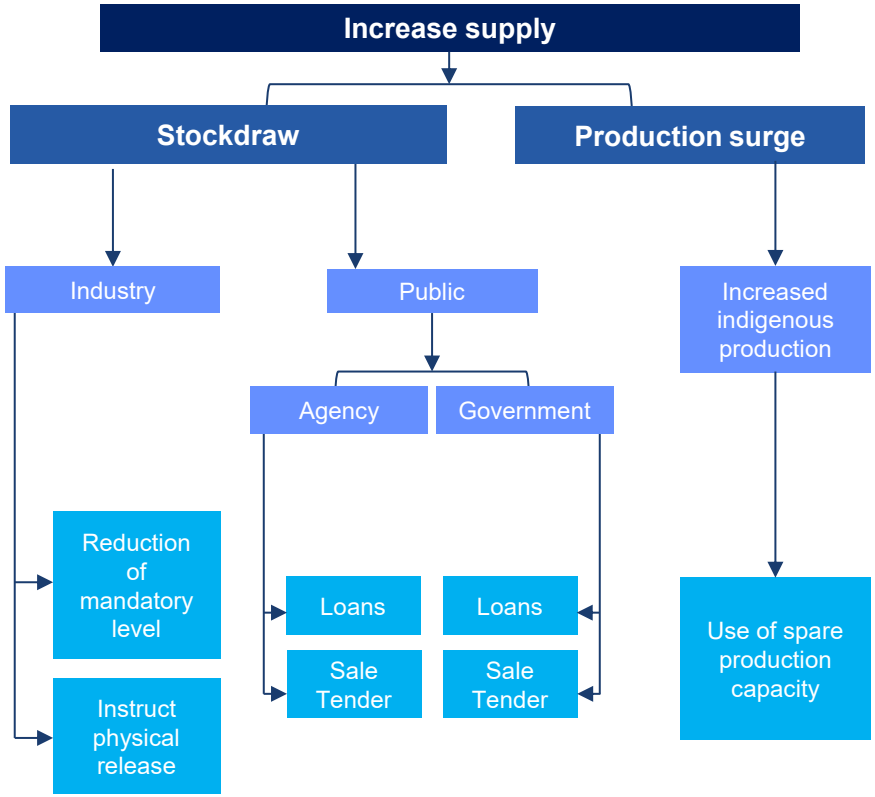
## Natural Gas

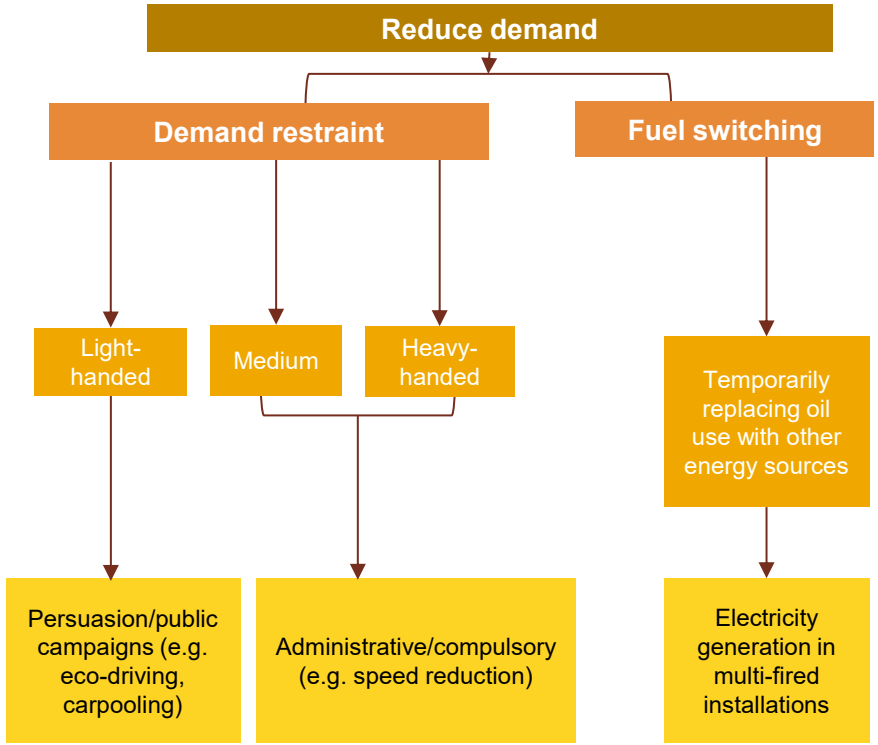
- Adequacy of infrastructure (N-1)
- Global LNG trade provides flexibility in terms of price, supply and destination
- Role of natural gas in the transition

## Cyber

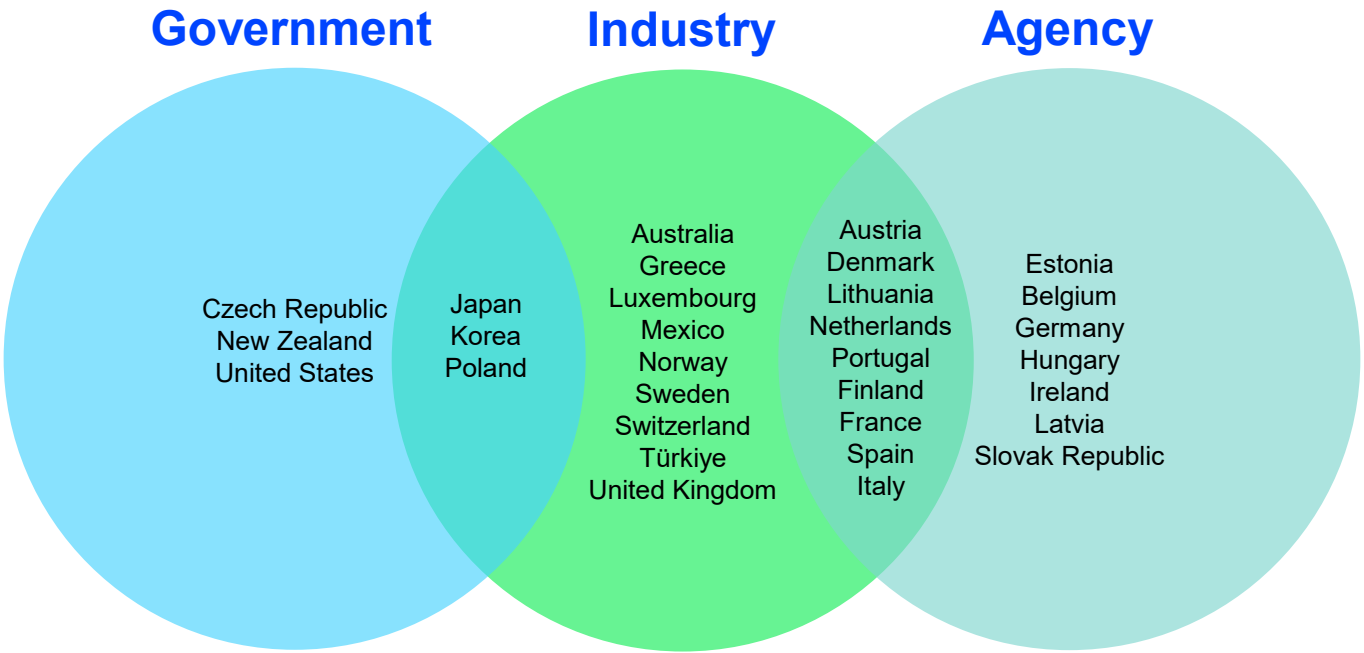
- Infrastructure security
- Cyber threats assessment in the energy sector

# IEA Member countries employ a range of emergency response measures



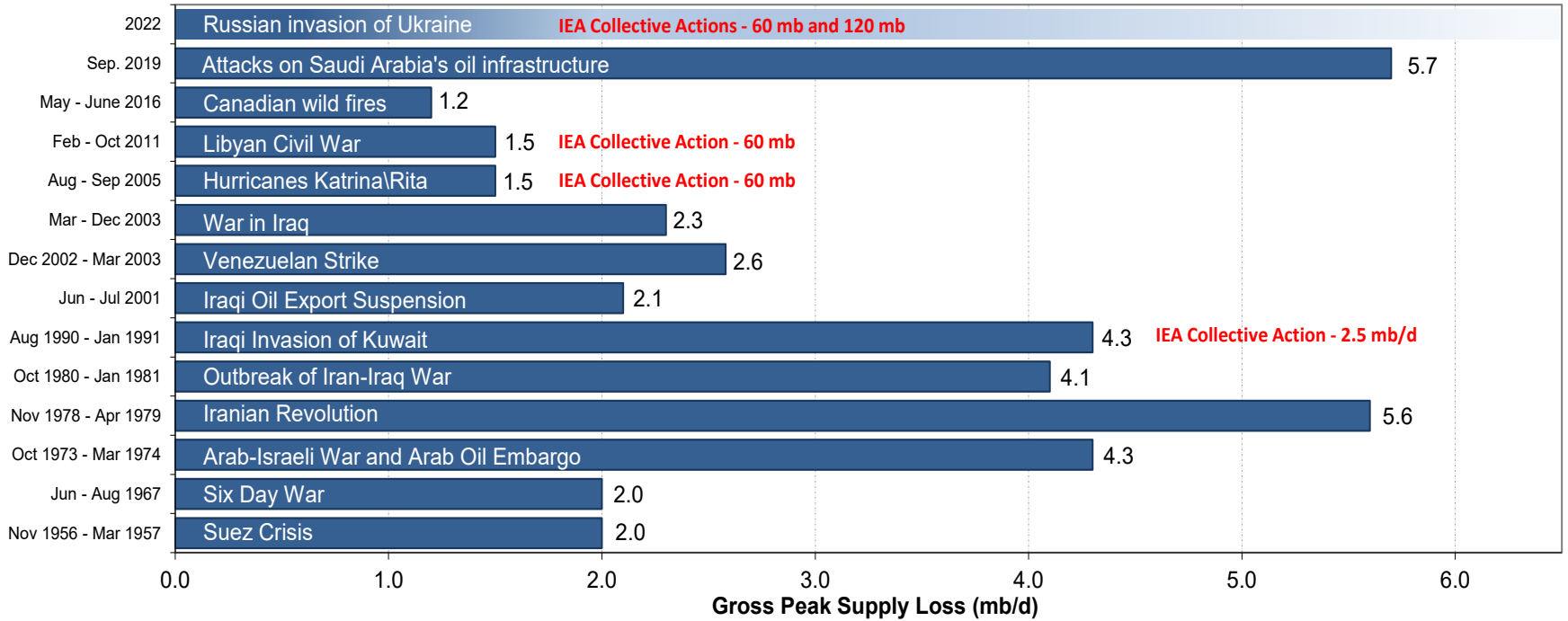
# Approaches to oil stockholding vary across IEA Member countries




Public stocks = Government + Agency

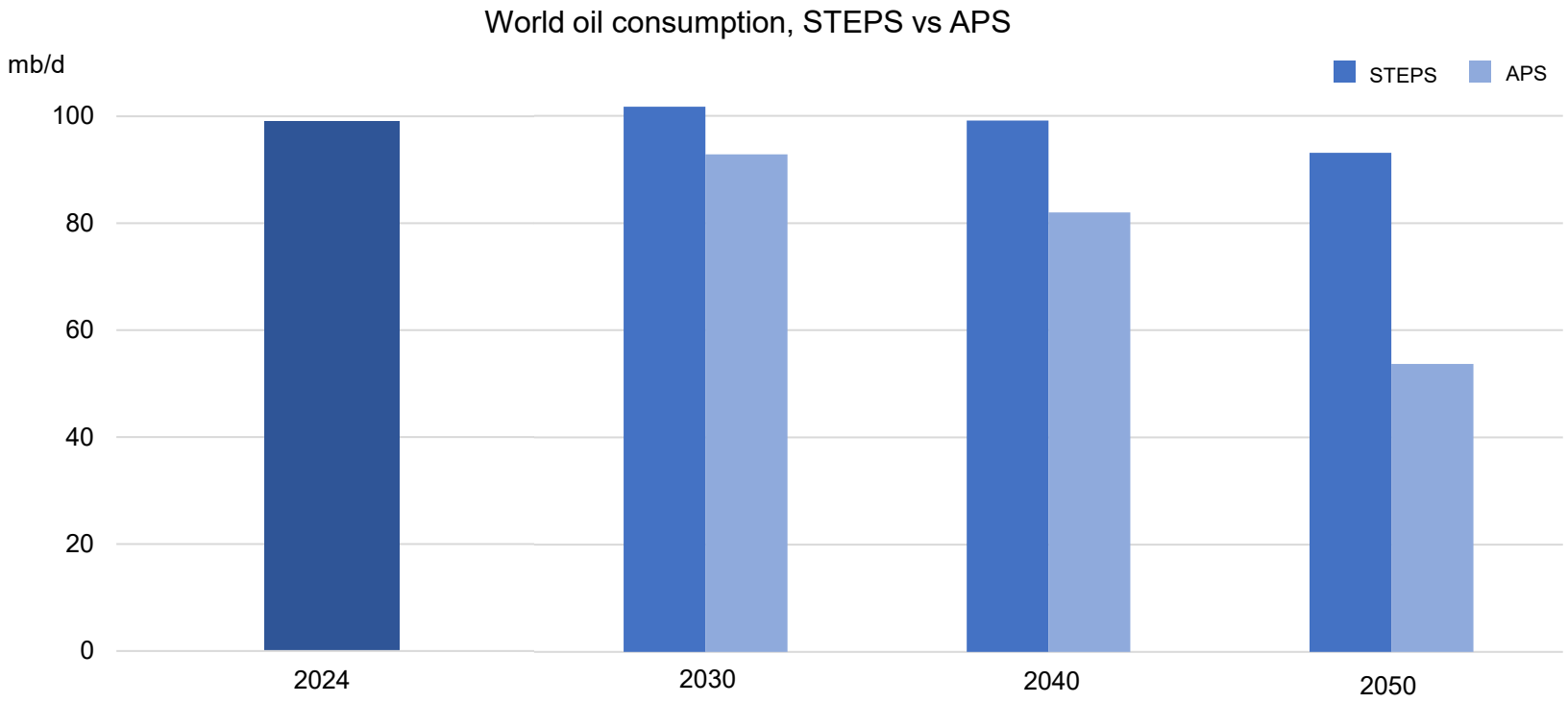
**Grassroots: Strategic oil stock systems designed for domestic supply security – available for coordinated activation in global disruption**

# Market context and IEA Collective Actions



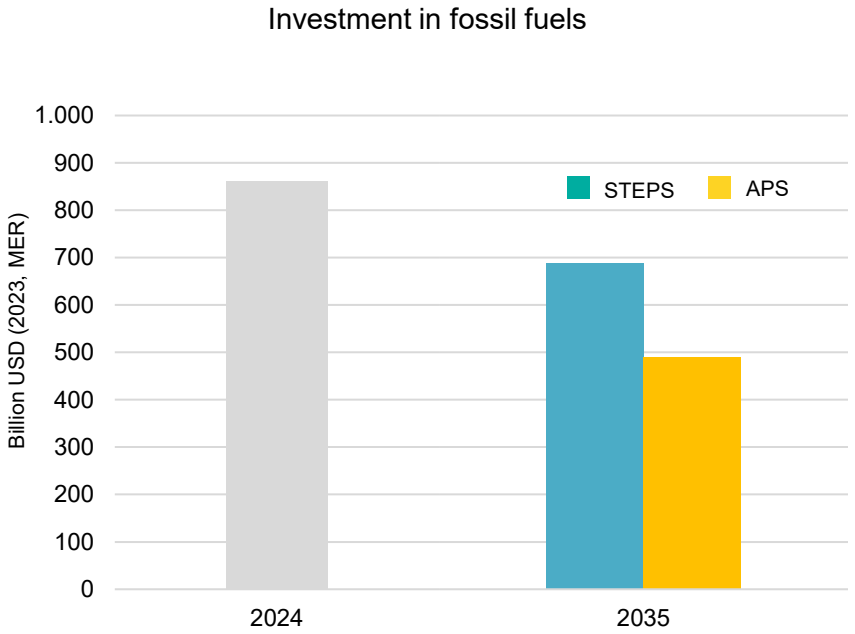

**Procedures in place for evaluating disruption and rapidly activating Collective Action when needed. Existence of strategic stocks, even when not released, have impact.**

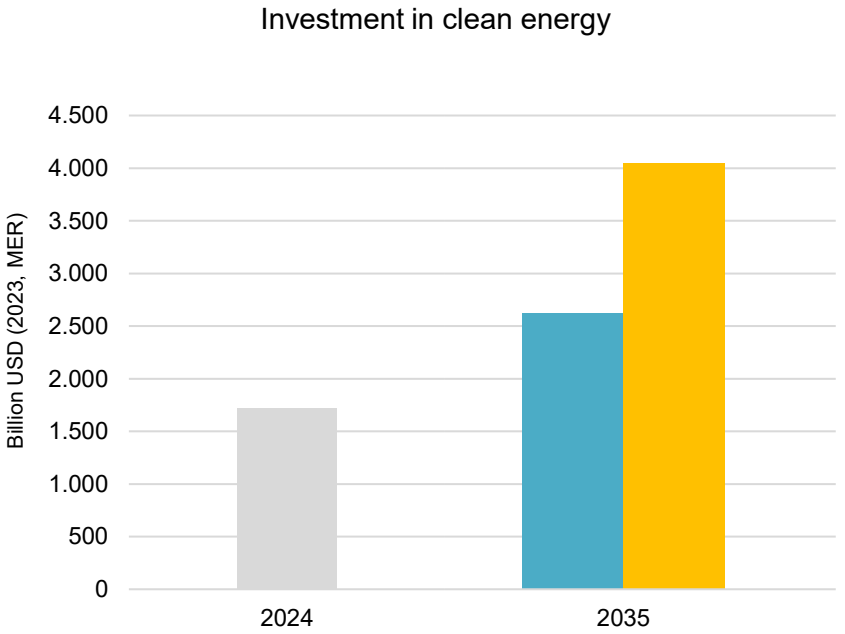
# In the long-term, there is uncertainty around the outlook for oil demand




**If existing national-level climate targets are implemented in full and on time, global oil demand could decline substantially, but an incomplete implementation would leave oil demand significantly higher.**

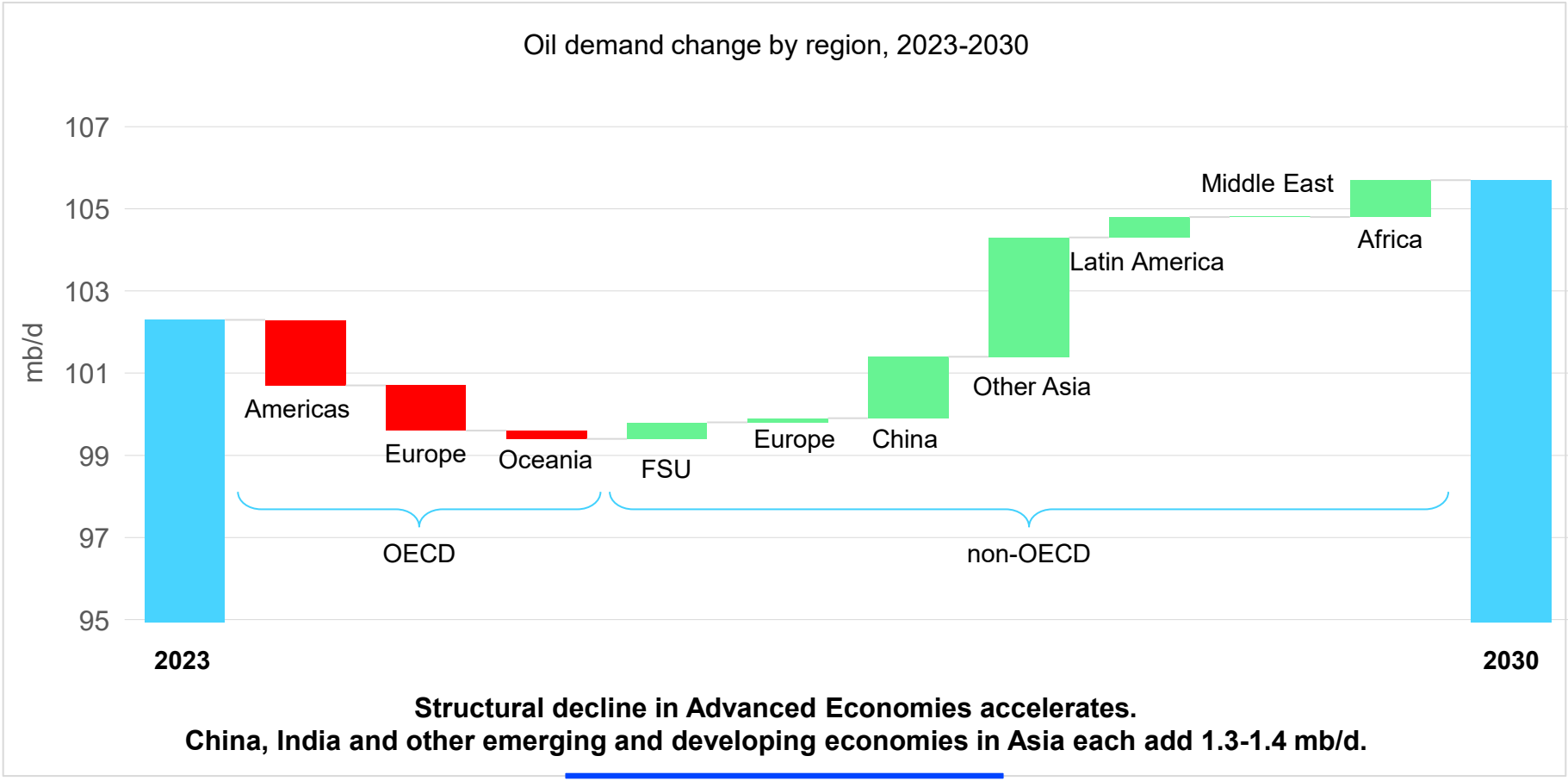
# Balancing investment in fossil fuels and clean energy is essential



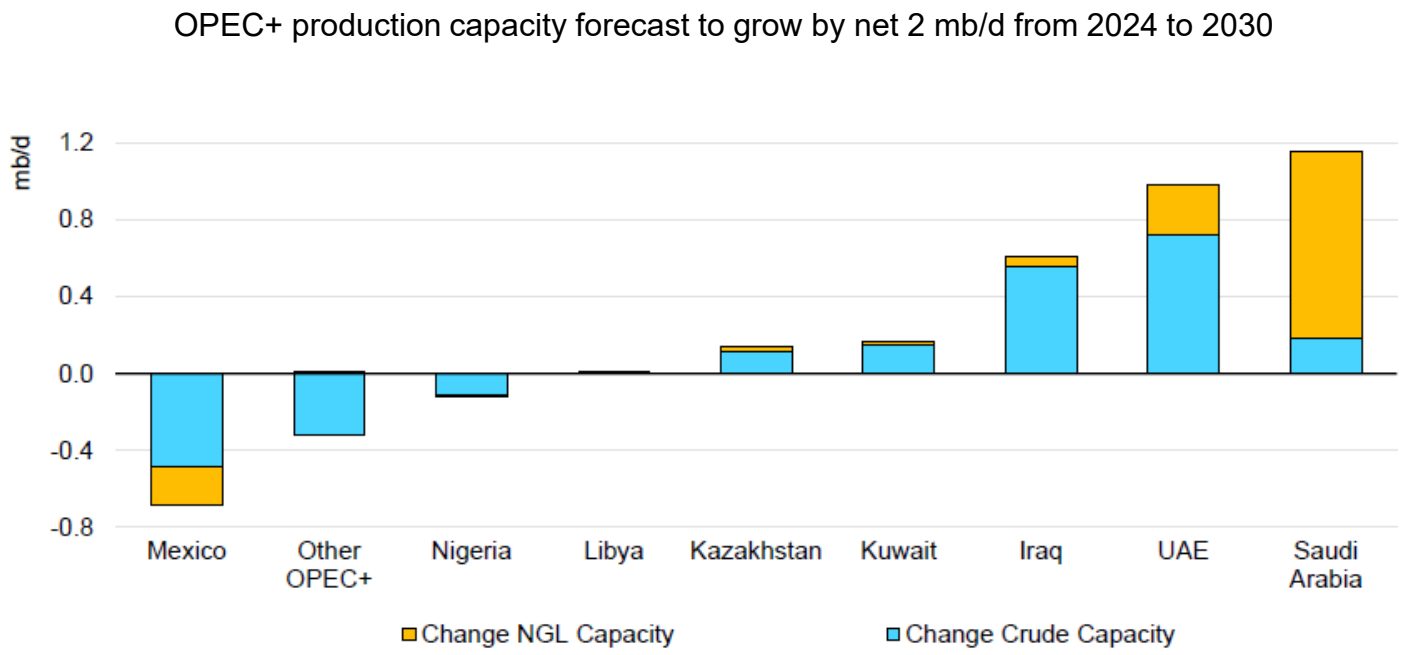

**Cutting investment in fossil fuels prematurely, ahead of an adequate scaling up of investment in clean energy, would have a negative impact on energy security. Investment in both new and existing oil fields is needed in STEPS.**

# Shorter term trend - OECD oil demand will decline, but oil demand will continue to grow elsewhere




**Structural decline in Advanced Economies accelerates.**
**China, India and other emerging and developing economies in Asia each add 1.3-1.4 mb/d.**

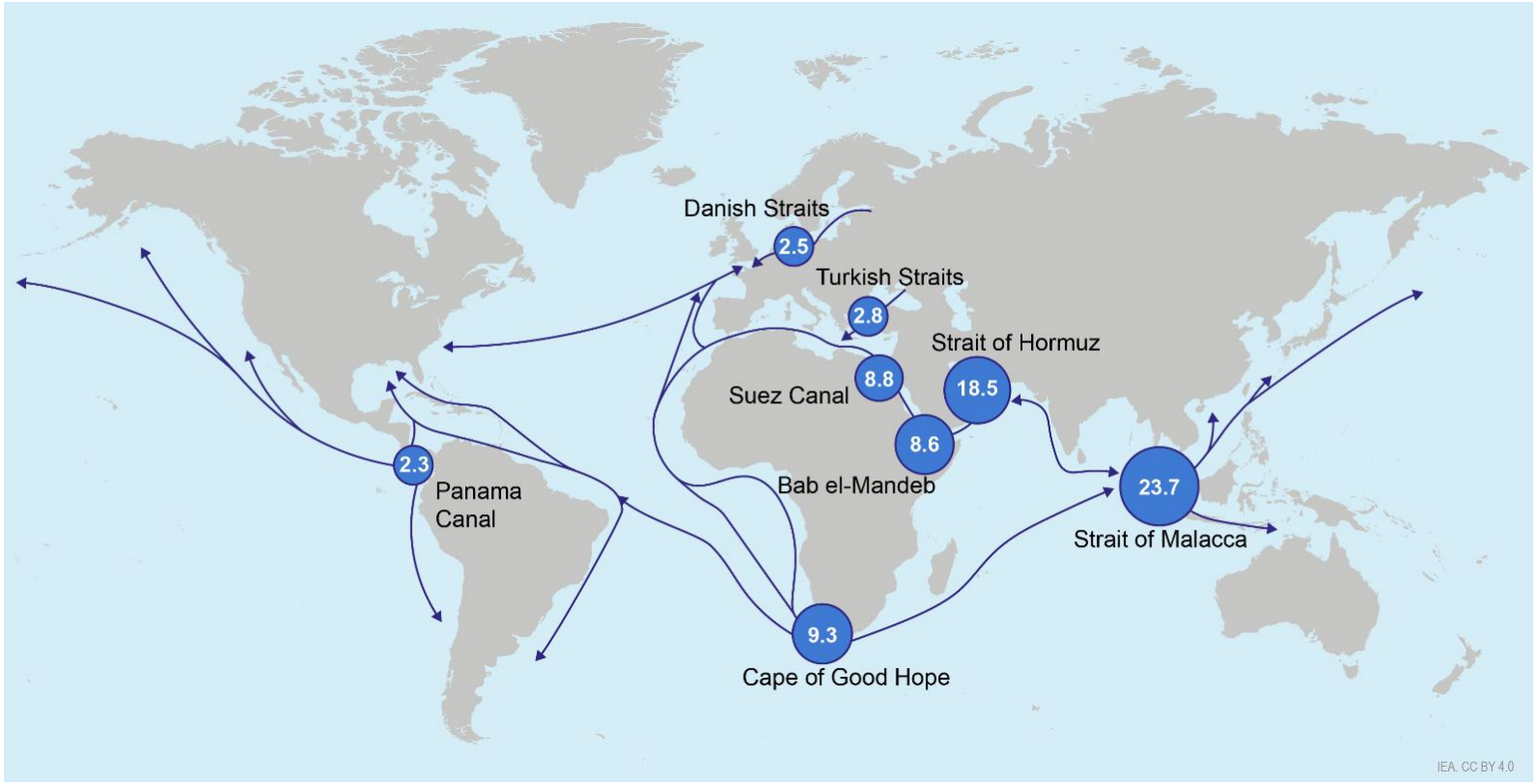
# Growing supply buffer…



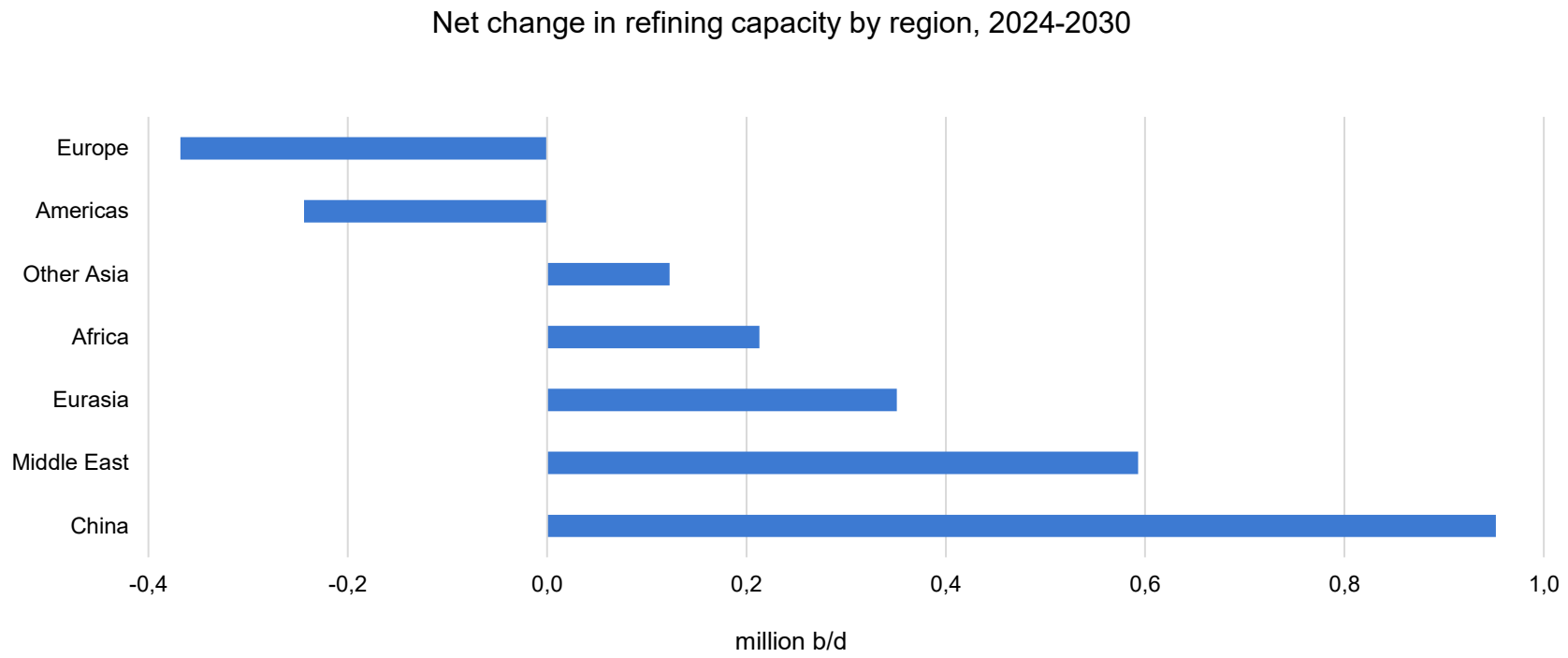

**But vast majority of this production must pass through key chokepoints**

# The share of global oil trade traversing supply chokepoints will continue to grow

Volumes of crude oil, feedstocks and refined products transiting selected chokepoints (mb/d)

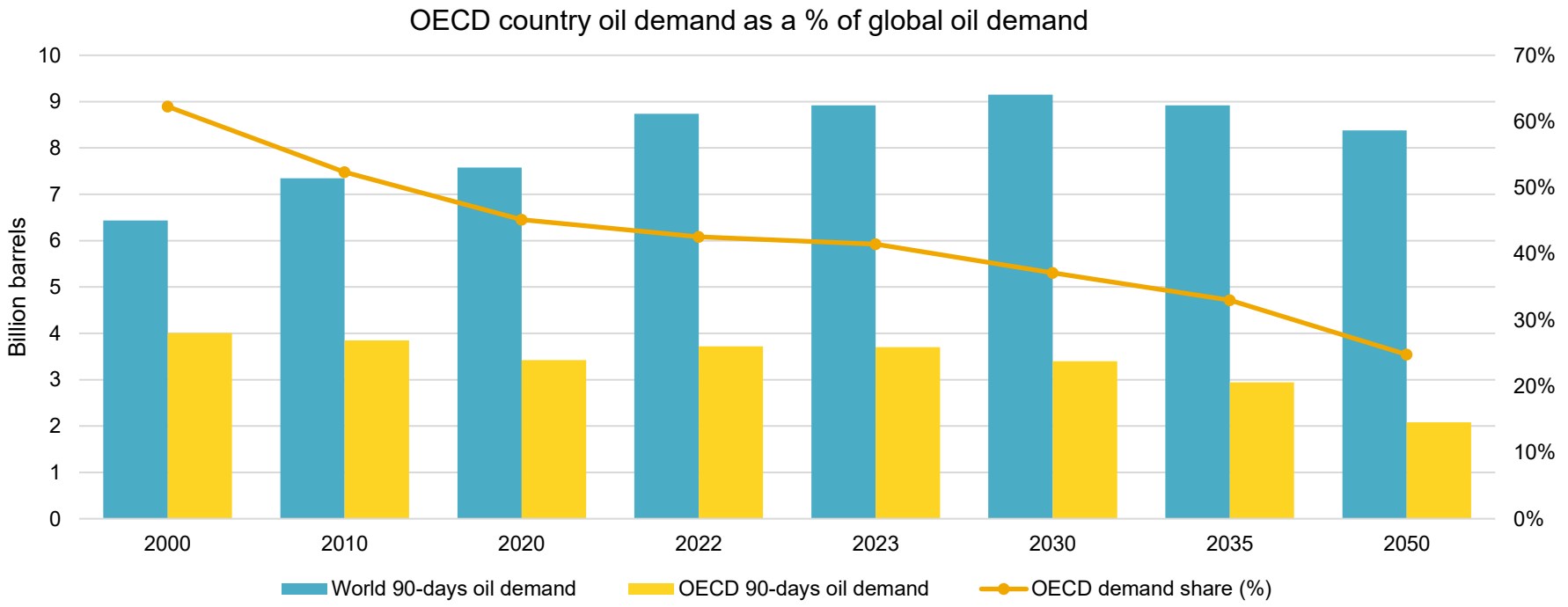


# Refining capacity is shifting to regions with stronger demand outlooks




**If refining capacity closes at a faster pace than demand declines in OECD countries, those countries could become more exposed to supply disruptions and may need to invest in additional storage capacity.**

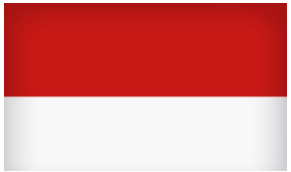
# The stockholding system's long-term effectiveness would be boosted by the inclusion of countries driving oil demand growth




**The share of total oil demand accounted for by OECD countries will continue to decline, which will result in a lower stockholding obligation for IEA countries**

# Non-OECD countries are establishing and expanding emergency oil reserves

**India** is planning to significantly expand its SPR, from an existing capacity of about 39 mb to to 87 mb of crude oil.



**Indonesia** is planning to build emergency oil reserves by 2030, including storage capacity for around 10 mb of gasoline and 10 mb of crude oil.

**Thailand** is currently undertaking analysis to investigate the viability of establishing a Thai SPR.

# The IEA hosts regular emergency response training exercises for countries across the IEA Family


*Emergency Response Exercise (ERE), November 2024, IEA HQ*

**ERE in 2026 – remote exercise in first half of year; in person event will take place in Paris17-18 November 2026**