What is the IEA?

- The IEA was established in 1974 and is the energy forum for 29 advanced economies.
- IEA member countries are committed to taking joint measures to meet oil supply emergencies.
- They also have agreed to share energy information, to coordinate energy policy and to co-operate in the development of rational energy programmes that:
  - Enhance energy Security
  - Encourage economic Growth
  - Protect the environment
  - Engage worldwide
HIGHLIGHTS

- Oil prices moved higher in tandem with escalating supply-side risks. Geopolitical tensions and unexpected outages in non-OPEC countries dented oil supply, while potential additional issues relating to Iran and more uncertainty for the crude market. Futures prices were last trading around $115/bbl (Brent) and $106/bbl (WTI).

- Global demand is expected to grow by 1.8 mb/d (+0.9%) in 2012 to 89.9 mb/d, unchanged from last month's projection. The relatively subdued economic backdrop – with a global GDP expansion of 3.3% forecast for 2012 (3.8% in 2011) – and high oil prices both restrain any upside momentum for consumption.

- Non-OPEC supply grew by only 0.3 mb/d annually for 2012, as geopolitical and technical outages dented growth. Unplanned outages in the North Sea and Canada as well as geopolitical disputes in Africa and the Middle East reduced output. The Americas and the former Soviet Union support overall growth for 2012 at 0.7 mb/d.

- OPEC crude supply rose by 1.4 mb/d in February, led by a three-decade peak in Saudi output and a sharp recovery in Libya production. Output of 3.42 mb/d was the highest level since mid-1999. The fall on OPEC crude and stock change for 2012 is raised by 0.2 mb/d for 2012 and 0.25 for 2012 and 2012, to average of 0.1 mb/d, due to lower forecasts for OPEC.

- Global refinery crude throughputs are largely unchanged for 2012, as weaker-than-expected non-OPEC readings were offset by a counter-seasonal increase in US runs in February. GDP runs, however, were a notable 300 kbd lower, falling 110 kbd year-on-year. Japan should rise 180 kbd in 2012 and 200 kbd in 2012, to 4.9 mb/d and 7.4 mb/d, respectively.

- OECD industry oil stocks increased by a noted 10.4 mb to 2.434 mb in January, remaining below the five-year average for a seventh consecutive month. Forward demand cover rose to 57.8 days. February preliminary data indicate a seasonal 12.8 mb drop in OECD industry stocks.
Overview

- Global bunker demand overview
- ECAs: what happened in 2015?
- Towards a global sulphur cap in 2020
- What are the implications on the global product supply chain?
- Current / future IEA work
Key assumptions

- Global sulphur cap will be introduced in 2020
- Little uptake of scrubbers pre-2020
  - Influenced by narrow fuel oil MGO spreads
  - Could result in a last minute logjam
- Many owners happy to pass on increased costs to customers
- Crude prices to increase moderately by 2021
- Uncertainty over enforcement
- Limited uptake of LNG
Global oil balances to gradually tighten

Balance supports a moderately increasing crude oil price over the forecast
Efficiency gains and the encroachment of LNG to curb future bunker demand

Oil-based marine fuel consumption in international navigation

- LNG to account for an additional 0.3 mb/d of bunker demand by 2021
Marine use to remain a relatively minor component of total demand

Global oil demand

mb/d


Other
Road
Transport
Marine Use
2015: Refiners and shippers adapt to tighter ECA bunker specifications

OECD total residual fuel oil and gasoil demand

OECD fuel oil demand sank by 0.1 mb/d in 2015 as bunker fuel specs were tightened in ECAs
Bunker demand set to undergo rapid transformation in 2020

Oil-based marine fuel consumption in international navigation by type

- Gasoil
- Residual Fuel Oil
LNG faces formidable challenges

- Expansion of infrastructure
- Lack of clear international legislation
- Price uncertainty
Economics of LNG eroded by low oil prices

Differential between natural gas delivered at UK National Balancing Point and Rotterdam gasoil and fuel oil barge prices
Marine use set to account for 10% of global diesel demand in 2021

From 3% in 2015
Global diesel crunch looming
Asia to become a net middle distillate importer

Regional middle distillate supply balances in 2015 and 2021
Fuel oil running out of uses

Global residual fuel oil balance

- Refinery Output
- Demand

mb/d

2012
2021
Marine use to account for 25% of global fuel oil demand in 2021

From 45% in 2015
Impending global fuel oil surplus despite Russia cutting output

Regional fuel oil supply balances in 2015 and 2021

This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.
How can changing marine fuel requirements be met?

- Higher uptake of scrubbers
- Investment from refiners
  - Secondary upgrading capacity (visbreakers, crackers, cokers)
  - Would see fuel oil move to become more of a feedstock than a product
Conclusion

- Uncertainty is preventing businesses from taking efficient decisions
- Biggest question is where sulphur will be stripped out?
  - Point of production
  - Point of end-use
The role of energy in air quality today – a global assessment by sector, region and pollutant

Pollutants & their impacts – an Outlook to 2040 on the basis of existing and planned energy and environmental policies

The relevance and impact of a global cap on maritime sulphur
  - Short- and long-term solutions by region
  - The costs of solving air pollution
  - A quantification of the benefits

A deep dive into cities – governance, technologies and policies

From analysis to recommendations – an IEA view on how best to address energy-related air pollution

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