Contributions of EU Refining to EU Security of Supply

European Commission Seminar on Energy Security

Hervé Muslin
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EUROPIA members cover 80+% of the EU refining capacity

EU-27: 755 million tonnes/year refining capacity in 116 Refineries (19% of global capacity)

Source: Oil & Gas Journal
Oil industry comprises three separate businesses

1. **Exploration and Production:**
   1. finds and extracts crude oil.
   2. sells it to customers (Refiners, Traders).
   3. Crude oil market and prices global (e.g. Brent, Wti)

2. **Refining:**
   1. Buys crude on same global market.
   2. transforms crude oil into products, such as gasoline, aviation fuel, diesel etc.
   3. sells products at prices linked to the open wholesale product markets (e.g. Rotterdam)

3. **Distribution and Marketing:**
   1. Buy products at wholesale market prices.
   2. moves products and sells to the consumer.

- A few Oil Companies have all 3 businesses, many have only 1 or 2; many “non oils” operate Distribution and Marketing.
- Each business is judged on its own merits.
Challenges facing EU refining

- Changes in crude slate
  - End of North Sea oil field
  - New crudes are heavier and contain more sulphur

- Changes in product demand
  - More diesel and less gasoline
  - Less heavy fuel oil more light products

- Changes in product qualities
  - Less sulphur, benzene, aromatics, olefins

- Refining margins stuck between two global market: crudes and products

- Effect of EU climate change and renewable policies
European Crude supplies from three main “groupings”:
- European production in decline.
- Russia/CIS growing at expense of OPEC.
- OPEC sources include mainly Saudi Arabia, Iran, Africa.

Where do these crudes go to in Europe?
- N Sea: mainly to NWE (+export to N America)
- Russian/CIS: via Baltic to NWE, Black Sea/Med into Med and Druzhba to Central Europe.
- N African: to Med
- W African: to NWE
- ME: to all parts.
Additionally, ~60 million tonnes per year of diesel would be needed in the EU (300-350 million tonnes globally), if the marine sector switched to diesel fuel.
The EU supply/demand imbalance for both diesel and gasoline will continue to grow.

Source: Wood Mackenzie, 2006 (whole Europe)
Europe faces a major supply/demand imbalance

Refining is vital part of the supply chain to meet EU consumer needs.
Refiners are price takers, operating between two global commodity markets – for crude and products.

Over the cycle, simpler refineries have consistently low or even negative margins.
Refining industry supports the need to balance the three objectives...yet it is a challenge.
Refining sector is also uniquely affected by three EU proposals…exacerbating this challenge.
EUROPIA supports a European biofuels policy with realistic, achievable, and measurable targets

- Use biomass wisely, ensure targets are achievable:
  - Biofuels volumes available for road transport under pressure.

- Ensure emerging proliferation of new fuel grades does not threaten reliable and secure supply of road transport fuels.

- Introduce a pan-European biofuels sustainability / GHG certification scheme:
  - Methodology by CEN.

- Promote sustainable biofuels with best GHG performance.

- Ensure free trade in sustainable biofuels:
  - Need for a tradable biofuels credit system.

- Continue to set all European fuels standards in CEN.
EU refinery CO₂ emissions will grow due to specification and diesel demand changes…

.. which cannot be offset by future energy efficiency improvements

Source: CONCAWE
Refining is making continuous energy efficiency improvements

Energy Intensity Index and Specific Energy Consumption

Source: Solomon Associates
EU Refiners continuously make large investments, exceeding $6 billion pa during the past 12 years.

Refining is a long-cycle industry. To maintain investments in the EU, the industry needs a long-term predictable policy framework.

Source: EU Petroleum Market Study by Purvin & Gertz (2007)
Refining Industry makes and will continue to make large and long-term investments to comply with product demand evolution. Therefore predictable and competitive regional policy framework is vital to attract investments in the EU.

EUROPIA Refining Industry acknowledges and supports the objective of addressing climate change challenge. However, it also emphasises the importance of a balanced approach to the three pillars of energy policy: sustainability, competitiveness and security of supply.

Security of supply for Europe encompasses three main elements: Diverse Crude oil supply and ability to refine it in Europe, supply of refined products and pan-European homogenous fuel standards.
Europe needs continued refining investment to meet market demand and ensure security of supply.

- **EU-only CO2 costs, in the absence of similar constraints elsewhere, would:**
  - Make investments in EU less attractive;
  - Increase incentives for importers to EU;
  - Advantage non-EU competition in export markets.
Flexible Refining and Logistics

- Strong EU Refining system and good logistics have ensured reliable product supplies
  - Flexible logistics – pipelines, shipping and rail.
  - Less developed systems in eastern Europe?

- Indigenous Refining has enabled smooth passage through change:
  - specification changes
  - periods of low margins.

- Refining and Chemicals together at many large sites:
  - to ensure efficient and reliable “industrial” supply chains.
  - Will help optimise use of molecules as demand patterns change.

- Ownership of Refineries and Logistics shifting:
  - emergence of Refining independents, Russian major and petrochemical operators.
  - Logistics ownership diverse, oil co’s, Govts., and new independents.
The European oil industry will continue supporting economic growth and energy security in Europe …

- Low cost, efficient supplier of energy
- Ensuring security of supply
- Developing products which are clean and safe to use, and encouraging responsible and efficient use of these products
- Continuously working towards reducing the footprint of our operations
- A partner for society in addressing the sustainability challenges

... in an environmentally-responsible way
Thank you for your attention