APETRA

ENERGY COMMUNITY
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Oil supply in Belgium
Belgian refineries are producing as much as twice the Belgian consumption.
Product import by barges
Pipeline supply (NATO or private)

NATO = mainly Jet
Oil stocks: an international obligation
Establishment of the International Energy Agency (IEA) in 1974, imposing to the Member States (MS) to

- store oil reserves
- share them in case of oil crisis
- prepare demand-reducing measures
- Collaborate in terms of energy-efficiency

The first President was Baron Etienne Davignon, Belgium as participant from the very beginning
EU: Directive 2009/119/EC

Each MS to keep 90 days of the net-import of year – 1

Based on MS oil statistics

- Excluding the commercial stocks, being 100% at disposal
- Part of stocks has to consist of main finished product
  - Part of products within overall stocks for EU28 was 53% (End 2014.
    Source: Trinomics study)
Amount of strategic oil stocks

Door IEA LS’en:

APETRA manages the entire strategic oil stocks for Belgium since 2012

4.2 billion barrels (587 mio ton) at end June 2013, from which 1.6 billion (210 mio ton) public stocks = emergency stocks
2.6 billion (370 mio ton) industry stocks = comm. + emergency
IEA, EU

- Stockholding Member States
  - Industry (Greece, Malta, UK, Romania, Sweden)
  - Partly industry, partly Central Stockholding Entity (Bulgaria, Cyprus, Denmark, Finland, France, Italy, Lithuania, Luxembourg, Netherlands, Poland, Portugal)
  - Other: via CSE

- Eldest agency: Bulgaria (1950 – original war stocks)

- All ww agencies (28) take part of a yearly meeting: ACOMES (Annual Coordinating Meeting Entities Stockholding).
  - Technical working groups such as Best Practices & Benchmarking, crude (energy transition?), quality follow-up.
Belgium

- Current Belgian obligation: **3,7 mio ton** crude oil equivalent

- Based on oil statistics

- Applicable from 1/7/2020 – 30/06/2021

- EU obligation to keep 30 days ‘main products’ as finished products, ca **1,164 miljoen ton** diesel/heating oil

- MS being free to choose oil other products
APETRA: operational
Stockbuilding and management

- Criteria

- Yearly obligation

- Storage represents the highest cost

- Long-term storage requires stable product (bio-free)

- Owned product is the safest stock

- “Tickets” (quarterly right to purchase & sale) provide the greatest flexibility (internal restriction to max 10% in tickets)
Current implementation of the obligation

Belgian obligation at end 2017:
3.492.000 ton rae;
From which 1.164.000 ton gasoil/diesel

**MANAGED STOCKS**

- Crude oil; 2.069.065; 51%
- Diesel + Gasolie; 1.727.166; 43%
- Jet fuel; 126.367; 3%
- Gasoline; 3%
- Heavy fuel; 10.000; 0%

1.727.166 ton gasoil/diesel
= 2.043.983.432 L
= 818 Olympic swimming pools
= 58.400 trucks
= 1.051 km trucks from Brussels to Barcelona or to Gdansk

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APETRA depots
- Supply depots
- Marketing depots
- Crude oil depot

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Operational management

- Purchase/sales via public tenders
  - As per evolution of the obligation
  - Covered by owned stocks by tickets/rights (intern rule limited at max 10%).
  - At storage contract deadlines.
  - For product refreshment (eg. Once product starts to meet aging process during regular quality controls)

- Productmix:
  - Obligation: ratio Crude/product, max 60% crude, en 30 days main products.
  - Besides main products: Jetfuel, Gasoline and heavy fuel.
Operational management

- APETRA is risico-avers
  - Financial: bank guarantee or prepayment for sales
  - Operational:
    - Incoterms EXW for sales and DDP for purchases
    - As per APETRA general terms and conditions
  - Storekeeper: in charge of Q&Q, insurances
  - Inspections prior, during and after each product movement
- APETRA looking at the ideal competition
  - For purchase/Storage/Tickets/PRA referring to Frame Agreements destined for companies joining a shortlist after having responded to financial criteria.
Storage

- Tanks above ground or underground (caverne, so far only for Crude)
  - Segregated or Comingled
  - Pipe/truck/train/barge/seagoing

- Geographical distribution of depots:
  - Max 3 sailing days’ distance, preferably in Belgium or close to the border
  - Max volumes per depot in function of the draft and speed of redelivery
  - Hinterland/coast, inland barges/seagoing vessels
Storage building
Crude Storage in salt caverns

Dimensions of the caverns
- Height: +/- 600 meter
- Diameter: +/- 50 à 70 m.
- Capacity: 500,000 m³
- Product: Crude oil

Crude oil is Apetra’s cheapest oil stock in terms of product as well of storage

Limited to max 60% of the overall stock
Diesel & Heating oil

- Main products (min 30% of obligation)
- Summer/Winter specification
- Dyed/undyed
- Biofree
Jet Fuel

- Smaller storage offers
- strictest storage standards
- importance of pipeline connection to airports
Gasoline

- Stored as “unfinished” product (eBOB) to be blended with ethanol prior putting into consumption
- Summer/Winter specification
Supply Crisis
Crisis management

- Legal definition of a crisis
  - Reduction in oil supply whenever – 7% supply

- or recognized as such by
  - Internationaal Energy Agency or
  - By the European Commission

- or a situation which entails a decrease in the supply of crude oil and/or petroleum products to such an extent that the supply can no longer meet normal needs and which is recognized by a decision adopted after consultation in the Council of Ministers as a supply crisis”

- International (by tenders) or National/Local crisis (by stock release)
Crisis management

International oil markets

Oil industry

Oil supply chain

Final consumer

Crude oil

Refined oil products

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Major supply disruptions

Figure 1.6 Major oil supply disruptions

- Libyan Civil War: 1.5 mb/d
- Hurricanes Gustav/Ike: 1.3 mb/d
- Hurricanes Katrina/Rita: 1.5 mb/d
- War in Iraq: 2.3 mb/d
- Venezuelan strike: 2.6 mb/d
- Iraqi oil export suspension: 2.1 mb/d
- Iraqi invasion of Kuwait: 4.3 mb/d
- Outbreak of Iran-Iraq war: 4.1 mb/d
- Iranian Revolution: 5.6 mb/d
- Arab-Israeli War and Arab oil embargo: 4.3 mb/d
- Six-Day War: 2.0 mb/d
- Suez Crisis: 2.0 mb/d

Major supply disruptions

- **International stock draw**: IEA: Gulf War 1991, Hurricane Katrina (2005) and Libyan war (2011)
  - Strategic stockdraw in Belgium in 2011

- **National crises abroad**
  - Closing of the Druzhba pipeline by Russia (2007) and as well due to recent crude contamination
  - ... 
  - Regular strikes and blockages in France (2016, 2018)
  - Inland refinery issues and low water levels on the Rhine

- **Belgian almost local crises** July 2021 after heavy floods on the river Maas
Thanks for your attention

For any additional question

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