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Energy Community 14th OIL FORUM 27/28 September 2022





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IEA, EU

- EU Member States, way of covering obligation
 - Industry (Greece, Malta, Romenia, Sweden)
 - Partly by Industry , partly Central Stockholding Entity (Bulgaria, Cyprus, Denmark, Finland, France, Italy, Lithuania, Luxemburg, Netherlands, Poland, Portugal)
 - Others: via CSE
- Eldest Agency: Bulgaria (1950 original war stocks)
 - EBV (Germany): 1978; COVA (Netherlands): 1980; APETRA: 2006; most recent: Italy: 2014; Luxemburg: 2015.
- All agencies (globally 28) are participating in the yearly meeting: ACOMES (Annual Coordinating Meeting

Entities Stockholding).

 Technical working groups also on Best Practices & Benchmarking, storage of crude oil, quality monitoring.

IEA (& EU)

Establishment of International Energy Agency (IEA) in 1974 imposes Member States (MS) to

- maintain petroleum reserves
- share these reserves in the event of an oil crisis
- have demand-limiting measures ready
- working together on energy efficiency
- Very first President was the belgian Baron Etienne Davignon.
- Belgium was therefore one of the founding members

(IEA &) EU

- <u>EU</u>: Directive 2009/119/EC
- Commitment to strategic stocks: each MS must hold 90 days of net imports from the previous year, being ¼
- Based on MS petroleum statistics
- No commercial stocks:
- always 100% available and accessible;

Importance of petroleum stocks

- International stock draw IEA:
 - Gulf War 1991,
 - Katrina Hurricane (2005)
 - Libian War (2011)
- Nationally deployed abroad
 - Druzhba pipeline through Russia (2007)
 - French strikes/blockages (most recently in june 2016)
 - Switzerland, Summer 2015: Carbura: unexpected refinery in combination with low Rhine water level
 - US/SPR, Summer 2017: Harvey hurricane
- **Belgium:** Ready at
 - extension of French blockades to Belgium
 - Ukrainian supply

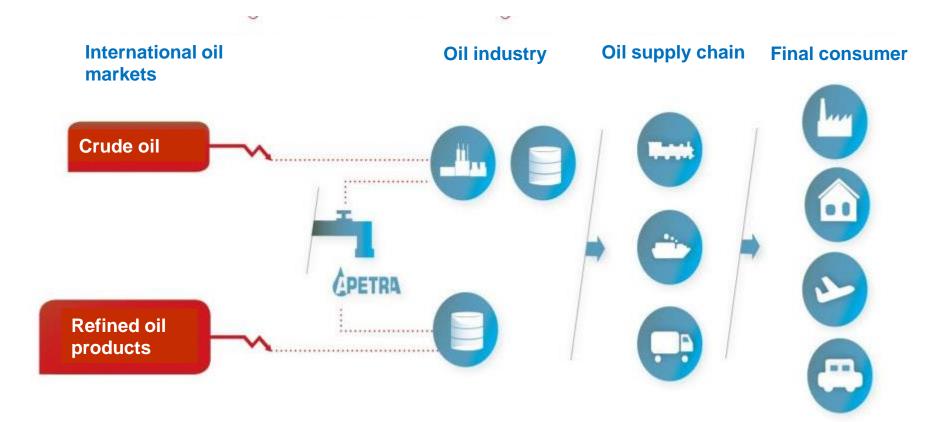
PolyTonic Consult

Crisismanagement

Through which technique can stocks be put on the market?

- TENDERS
 - Way of selling in normal market conditions (end of storage contract, decreasing stock obligation, product change) Call for tenders
 - Highest bid wins
 - Used in international crisis exercises and stock draw IEA stock release Libya (2011)
- RELEASE stocks to companies based on their share of the market based on petroleum statistics

Crisismanagement





Norms/Specifications (1)

Concerns products to be put into consumption (Inter-)national organisms: EN, ASTM, DIN, NBN...

- LPG (Propane, butane)
 - Summer/winter %
- Gasoline (avgas)
 - Bio ratio (as per distributor's yearly obligation)
 - Timing winter/summer/intermediate grades by countries: vapour pressure/recovery
- Jet (kero)
 - Private/Military specifications
 - Burning Kero (type C)

Norms/Specifications (2)

- Gasoil/Diesel (Bunker)
 - Bio ratio (as per distributor's yearly obligation)
 - winter/summer/intermediate grades by various countries: cold properties
- Heavy Fuel (Bunker)
 - Heated storage
 - Geographical sulfer restrictions

Storage (1)

- Underground (Caverns)
 - Etzel
 - Manosque
- Tanks & lines

• Spheres (pressurized/refrigerated)



STATISTICS STATISTICS

<u>Cavern size</u>

- Height : +/- 600 meter
- Diameter : +/- 50 à 70 m.
- Capacity: 500.000 m³
- Product : crude oil





Logistics & Transport (1)

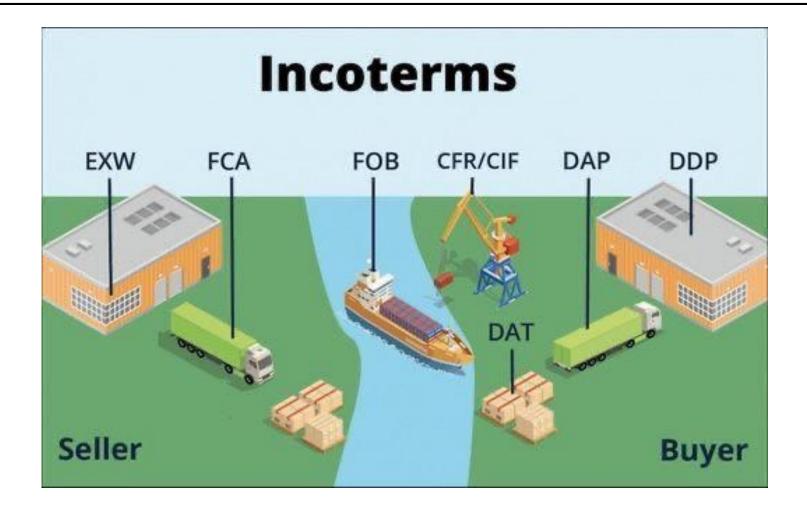
- Truck (Top/Bottom)
- Rail (bulk/container)

Max tonnage (NL/BE/FR/DE/CH...) per means of transport

- Barge
- Seagoing Vessel
- **Pipe** (CEPS, others)

Min pumping speed / Max Delta t per (un)loading tanks

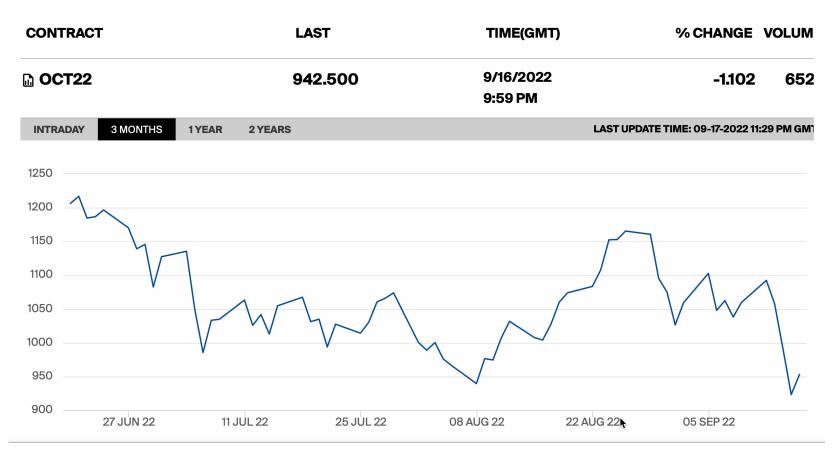
IncoTerms



Market structures (1)

Energy | Crude Oil and Refined Products

Low Sulphur Gasoil Futures



Market structures (2)

Energy | Crude Oil and Refined Products

Low Sulphur Gasoil Futures

CONTRACT	LAST	TIME(GMT)	% CHANGE	VOLUME
DCT22	942.500	9/16/2022 9:59 PM	-1.102	65211
B NOV22	916.000	9/16/2022 8:59 PM	-1.160	61059
DEC22	898.500	9/16/2022 8:59 PM	-1.046	58142
Land Jan	885.500	9/16/2022 8:59 PM	-1.392	24208
La FEB23	875.250	9/16/2022 8:44 PM	-1.325	13608
MAR23	863.250	9/16/2022 8:44 PM	-1.286	13564
APR23	849.750	9/16/2022	-1.421	5028

Merc's & Pricing organisms

- Backwardation vs Contango
- ICE London (NYMEX, Singapore)
 - Gasoil: ICE-spec, wash out, or delivery strictly during second half of respective month
- Platt's, ARGUS (Oil Market Report,...)
 - b/l-date(s) as pricing reference :
 - b/l +/- 1 or 2 days,
 - b/l's monthly average(s)
- « Paper markets »

Contract terms

- Parties
- Contract reference
- GTC'S (Continental or AngloSaxen)
- Product
- Quality (spec/norm)
- Quantity/Volume (m3/MT)
- Inspection
- IncoTerm
- Transport & (dis)charging Risk
- (Re)delivery date range
- Laytime & Demurrage
- Price Formula
- Pricing (period)
- Payment
- Credit term
- Nominations
- Contacts
- Documentation

Varia

- Doc's: AGD's, Q&Q reports, timesheets (Demurrages)
- Fiscal impact
 - Export (inland bunker)
 - Bio ratio
 - Losses

• **Insurances** (Product, Terrorism, Pollution/Environmental, Cyber)

Ukrainian War Impact (1)

• Ukranian (oil)supply (IEA/EU)

- Diesel, Gasoline (Jet & Lubricants)
- Specific Logistic challenges besides Rhine-water level issue
 - Rail to truck Fuel containers

Russian Embargo & IEA impact Study

- EU shareholders % in Russian Refineries to be reduced
- > Feb 2023 no more Russian (gas)oil
- Russian Crude (high % middle dist) substituted by lower Gasoil yield Crude

Ukrainian War Impact (2)

- Oil/Energy supply, shortage?
- Oil/Energy & logistic Price impact: sky-rocketting
- Oil Price structure impact: steep backwardation
- Consumer's behaviour

Belgian « gifts » towards Ukraine: APETRA to free oil, Belgian Army to take care of transport. 1st parcel:

Truck? Train?

2nd parcel:

Pipe? Barge? Seagoing?

Ukrainian War Impact (4)

- Reshuffling oil flows (in & out)
- Reorganization means of transport (rail, Fuel constainers, pipe...)
- Review Energy mix (Nuclear, LNG, Coal, Solar...)
- Reduce overall consumption
- **Price impact** (Industry, Public, Private)