

What to look out for in the storage sector in 2023

Macro impacts

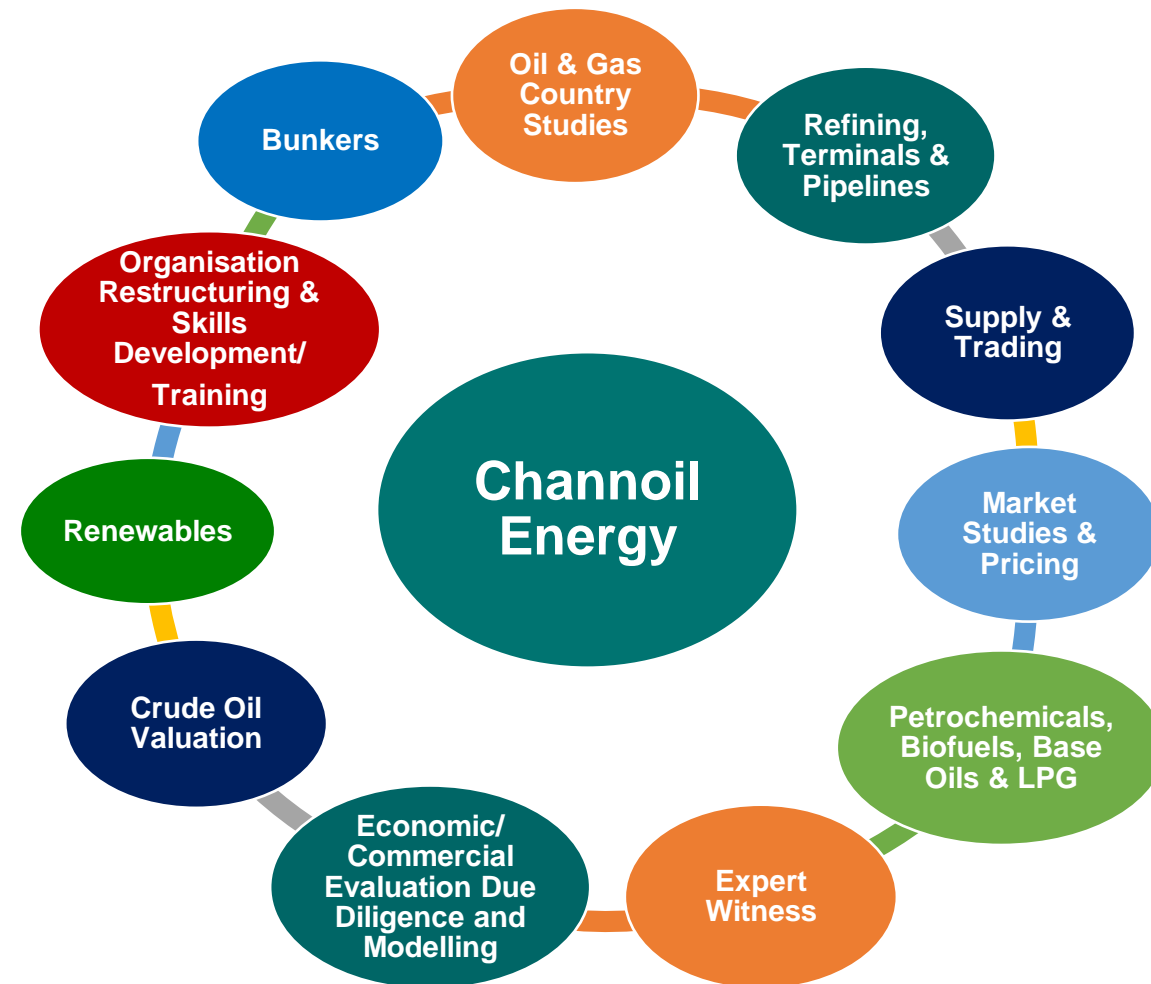
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About Channoil Energy

At the forefront of the global oil and gas advisory industry for over 20 years.
Extensive coverage of Europe, Middle East and Africa.

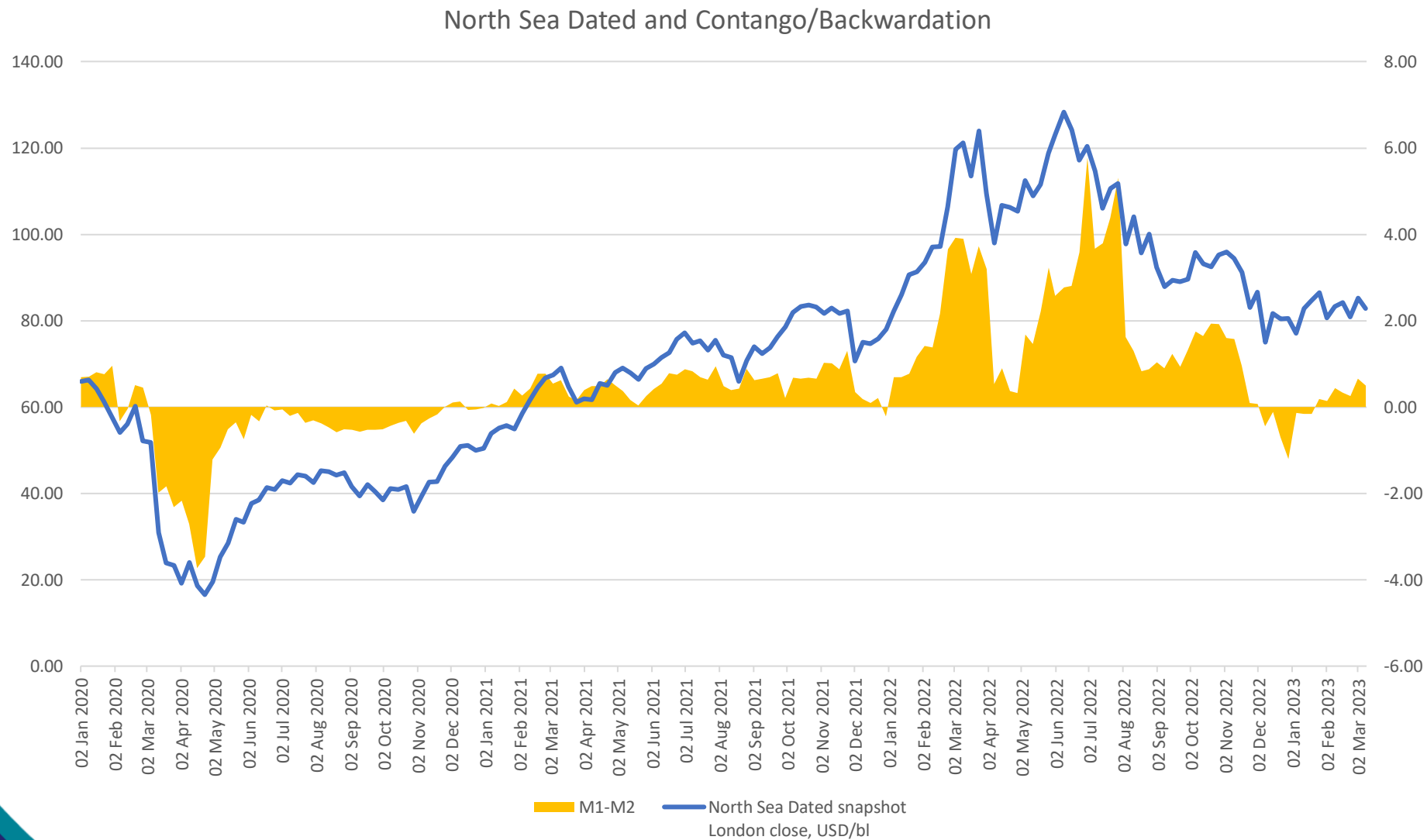
About us:

- We consult for countries, governments, institutions and companies.
- All aspects of mid and downstream oil and gas.
- Emerging renewables practice.
- Established industry relationships and strong market contacts.
- Up-to-date knowledge of international and domestic oil and gas markets.
- Senior team members have more than 30 years experience in the downstream oil business.
- Supported by a highly-skilled team of associate consultants.



What's driving demand this year?

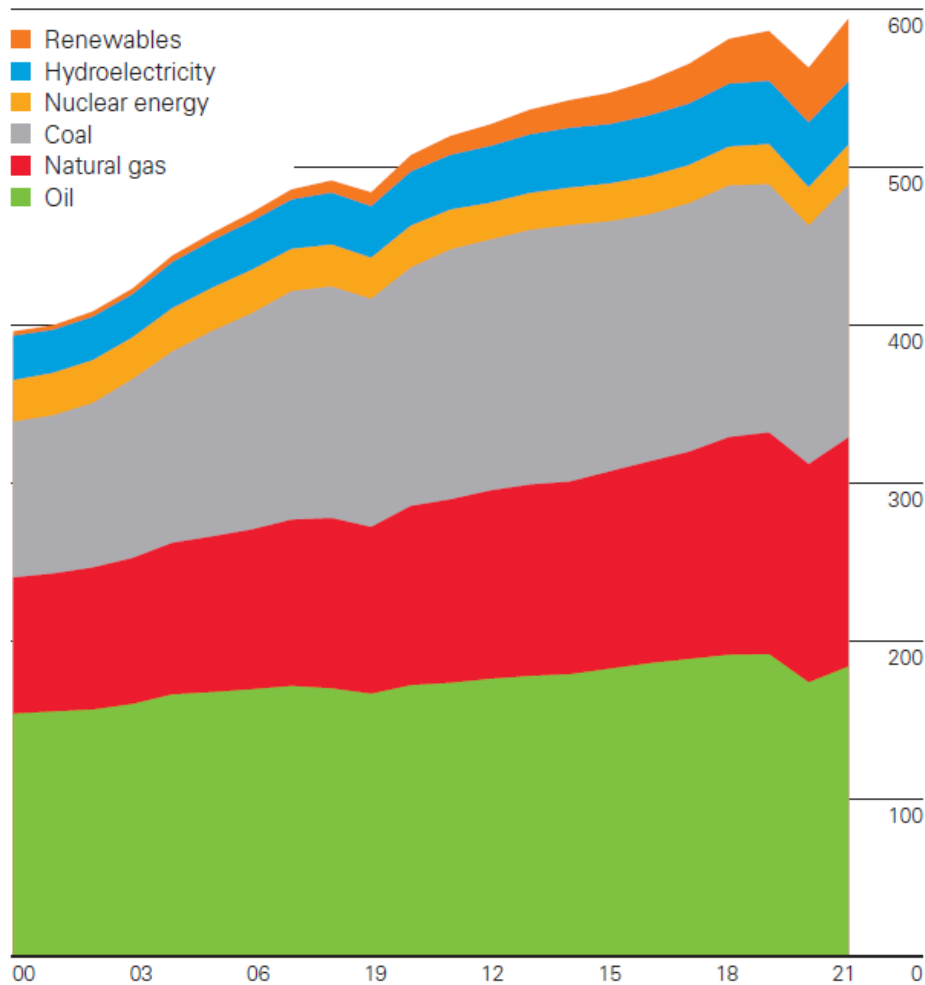
The calm after the storm ...



Plus ça change ...

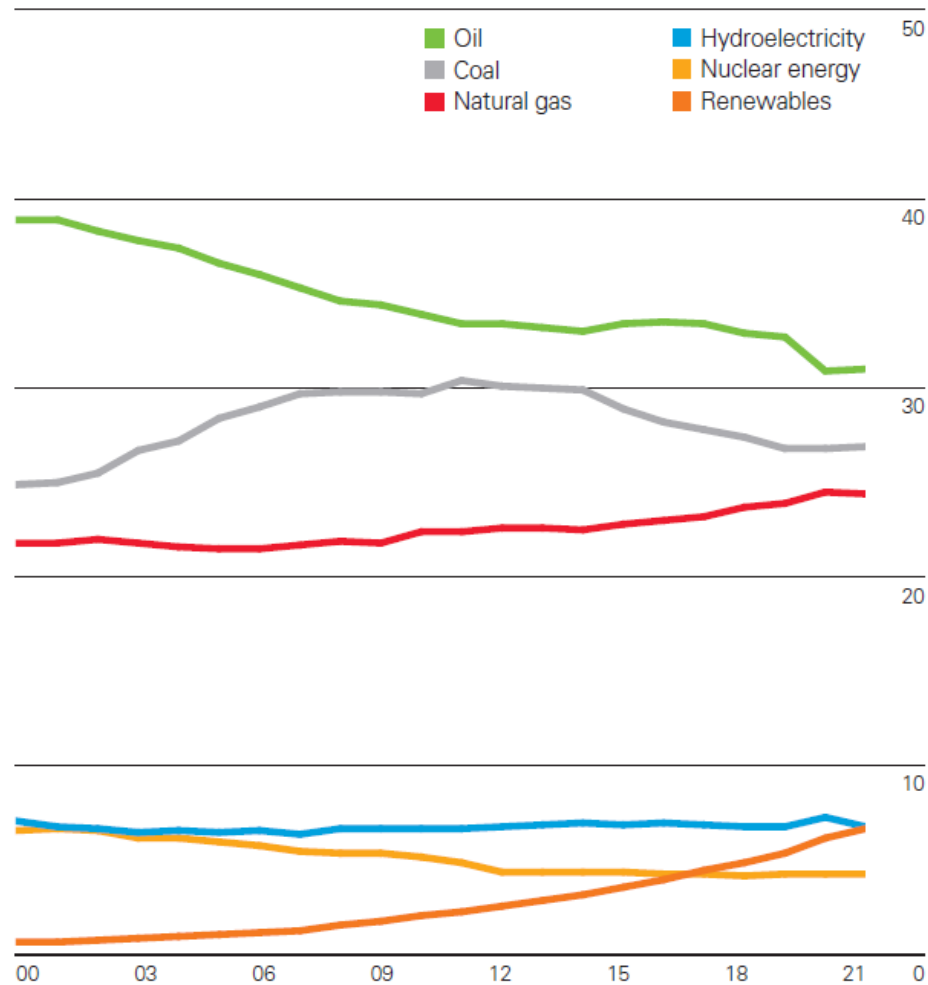
World consumption

Exajoules



Shares of global primary energy

Percentage



Impact of Ukraine war

- Major turbulence in energy markets
- Record profits for trading houses
- EU and USA sanctions
- Longer voyage times
- Cross-flows of oil
 - Crude oil from Russia to Asia
 - Jet/Diesel from Asia to EU
- Sanctions and regulatory avoidance – relocation of trading houses
- Increased likelihood of shortages and price spikes.



Economic recovery

- Winter weather in Europe has been kind to a stressed system.
 - Consumer nations stockpiled natural gas.
 - LNG imports were less expensive than feared due to lower economic activity in China.
- Oil prices declined ...
- ... easing inflationary pressure.
- What about the impact of China's economic recovery?
 - Increasing flights operating in China.
 - Refineries have started to buy crude oil again.
 - Steel and aluminum prices are rising.
- Consequently, banks are forecasting crude oil prices between \$90 and \$110/bbl for the second half of 2023.
- But – have the markets over-anticipated?

Biofuels – energy transition or supply security?

- 2022 – a scramble for security of supply.
- For the EU – what to do with RED II / Fit for 55?
- Relaxation of key targets, notably:
 - Higher percentages.
 - Moves away from crop-based biofuels.
- Sweden and Finland have either frozen or reduced their mandates for 2023.
- A year has arguably been lost.
- Renewable energy - part of Europe's way out of Russia dependency.
- **The energy transition agenda will recover, if not catch up with where it was.**

Ammonia / Hydrogen

- Biofuels – the fossil fuel industry’s sticking plaster?
- Neither crop nor waste-based fuels can replace the other 95% of fossil fuel demand that are not satisfied by biofuels.
- New energy systems and solutions will be required.
- Enter hydrogen, with ammonia as the support act.
- Ammonia is well understood as a chemical with established handling procedures.
- Blue hydrogen and ammonia will be stepping-stones to green.
- Early adopters will be major energy consumers such as steel works.
- Emerging uses to reduce fossil fuel emissions:
 - Diesel injection
 - Coal fired power
- **Where are the early adopters?**



Conclusions

- Fears of recession are over-stated (probably).
- Ripple effects of economic recovery in China.
- Diesel supply is highly stressed.
- Energy transition pathways have been delayed (again).
- Renewable capacity is coming ...
- ... but where are the off-takers?
- The technology that wins is not necessarily the greenest.



THANK YOU!

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