

## James Spencer / Portland Fuel

#### "making complicated things simple..."

#### James Spencer – 25 years in oil industry

- BP, Independents, then set-up own business in 2009
- Roles in Refining, Supply & Trading

#### **Portland Fuel**

- Operations in UK, NW Europe and N America
- Fuel Price Protection against rising fuel prices
- Fixed price fuel supply
- Fixed price fuel card
- Subscription Fuel Pricing Service (Portland Price Index)
- Importers of Automotive Grade Urea
- Traders of Oil Stocking Tickets, Greenhouse Gas and Biofuels (RTFO) Certificates
- Advisors to blue-chip organisations around the world





## Mystic Mog – the Portland Cat

A cat

Likes pilchards

Can predict the future





### Prior predictions from Mog...

Prices are due a massive (downward) correction because of the continued success of US shale fracking (Jun 2014)

#### What happened?

- Crude Oil Price in Jun 14 = \$111 / bbl
- Crude Oil Price 18 months later (Dec 15) = \$38 / bbl

Prices will not stay this low for long because demand for oil still increasing (Mar 16)

#### What happened?

- Crude Oil Price in Mar 16 = \$40 / bbl
- Crude Oil Price 18 months later = \$75+ / bbl















































# NELL DONE MOGUS







## But Mog does occasionally get things wrong.....

Decrepit EU refineries are at the end of their working lives and oil majors will accelerate their refinery closure programmes in Europe (Oct 2015)

#### What happened?

- European Refining is in august health
- Margins haven't been this good for 20 years
- Oil Majors are (cautiously) re-investing










































































































































































## **1. Electric Cars**

VW and "Dieselgate" killed off diesel cars better than any legislation ever could! So expect petrol cars to experience a short-term revival, but it <u>will</u> be short-lived... Ask anyone under 30 if they could buy an electric or a petrol car (and they were the same price) - how many would say electric?

Half? Most? All?

The next generation of car owners (if they are owners at all) don't care about "range anxiety", "power baseload" or even infrastructure *They mainly want electric cars because they are "cool"* The car manufacturers know this and the race is on... There will always be "Petrol Heads", but the old guys no longer represent the mass market *Fossil fuel cars to become collector's items...within 20 years? Diesel cars much sooner...* 






















































































































































## **2. Oil**

The end of oil then? Urm...not quite; **2017** Total Global Oil Consumption = 95m barrels per day That's more oil than the world has ever consumed in its history **2018** Estimated Total Global Oil Consumption = 97m barrels per day Another historical world record And so on until oil consumption peaks at 115m bpd by 2030 Certain transport modes consume vast amounts of oil **Total Global Marine Fuel Consumption = 3.4m bpd** How many solar panels does it take to transport a 200kte / 18,000 TEU container ship from Rotterdam to Singapore...? Total Global Jet Fuel Consumption = 6.1m bpd (rising 3% YoY) Planes aren't going electric anytime soon

## 2. Oil cont...

What about road transport? There are 300,000 HGV's in the UK alone When does a "just in time" 24/7 truck charge their electric batteries? Plus a 5 tonne battery does nothing for the vehicle payload... But environmental pressure on road transport will be relentless Fleets will have to show tangible CO2 and air quality improvements So expect significant increases in the use of; HVO (Renewable Diesel)

GTL (Gas to Liquids = diesel made from gas)

ie, 100% drop-in fuels requiring zero or little engine modification Much higher Biofuel blends (25% - 75%). Possibly even 100%?
Some engine mods required, but still cheaper than alternatives Diesel Emission Reducers (eg, AdBlue)











































































































OI







OI


































































































































































## 3. Hydrogen

Another alternative energy – much loved by the media It is scientifically interesting. And yes, the science does work... ...in a laboratory!

But what about the infrastructure needed to meet current road fuel requirements? In the UK, 50bn litres annually are supplied via 6 refineries, 8 import terminals, 4 rail-loading facilities, 6,350 miles of pipelines, 20 inland depots, 30,000 petrol tankers, 8,500 forecourts and 140,000 dispensing nozzles... All needs to be converted to a Hydrogen supply chain – good luck with that... As a comparator - Heathrow Runway 3 is a single site, large but simple project **Expected Project cost and duration = £14bn and 8 years** How long and how much for complete Hydrogen infrastructure Mog says at least x8 for both... Not to mention how all this H2 will be produced...






















































































































## 4. Natural Gas

...because it is cheap!

CNG (Compressed Natural Gas) and LNG (Liquified Natural Gas) might be an alternative to commercial diesel when it comes to commercial transportation *Lower emissions than petrol and diesel...* 

...no giant technology shifts required (relatively speaking) ...most importantly, the infrastructure is already in place It is getting traction – interestingly in North America...

Transit; British Columbia 106 CNG Buses, Houston Metro 70 CNG Buses Trucking; UPS consuming 60m litres (equivalent) of CNG across 6 nationwide depots Railroad; Florida East Coast Railway now 100% LNG

Although European Gas is nothing like as cheap as in North America, Mog still says keep an eye on developments on this one...









## Gas





## **MOG'S CONCLUSIONS**

Electric is coming and will replace fossil fuels in passenger cars In our lifetime and probably much, much sooner

But oil is going to take a long time to die However good alternative energies seem on a small scale – they offer no silver bullet Natural Gas may provide some of the answers, but even so... ...the sheer scale and size of the oil industry is always underestimated

95m barrels of oil per day is a lot of oil – a daily consumption of 15bn litres (equivalent to 280bn saucers of milk or 125m cans of pilchards) Too much to simply switch off overnight – we all remain addicted to oil!






























































































































































