



AGAINST THE BACKDROP OF THE TOKYO OLYMPICS, WE CONSIDER THE COMPLEXITY OF ENERGY IN JAPAN

It's been an occasional tradition of this report to try to link major sporting events to fuel markets! So it was that we looked at London in 2012 (Olympics), Russia both in 2014 (Winter Olympics) and 2018 (World Cup), Brazil, also twice, in 2014 and 2016 (World Cup and Olympics) and South Korea in 2018 (Winter Olympics). With no spectators and an understandable lack of fanfare, most of us seem to have forgotten that Tokyo is hosting this year's (delayed) Olympics – but we won't let that stop us writing another wholly useless report on the world of oil and energy and how it plays out in Japan!

Just like the weirdest Olympic event ever (the cycling Keirin – originally from Japan and the one with the guy on an electric bike at the front), energy across the Japanese archipelago is a complex and tactical affair. Much of this stems from the fact that the country has virtually zero mineral raw materials. It has next to no coal reserves, produces no oil and has a tiny number of operating gas fields. For the 3rd biggest economy on earth, that is an unusual position to be in and has inevitably required careful energy planning, along with the strategic development of strong international relationships to mitigate such a large reliance on imported energy.

"ENERGY ACROSS THE JAPANESE ARCHIPELAGO IS A COMPLEX AND TACTICAL AFFAIR."

Japan imports 3m barrels of oil per day (bpd), which is around 3% of world consumption and makes it the 4th largest oil importer on the planet (after USA, China and India). It's reliance on Middle Eastern oil is absolute (90% of imports), with the first trading relationship agreed and formulated with Saudi Arabia as far back as 1955. This complete reliance on oil imports is replicated with gas - the other "blue riband" energy event. Again, Japan has no material indigenous production, so 85m tonnes of Liquified Natural Gas has to be imported each year. 20% of this volume



comes from the Middle East, but this time it is Australia in the gold medal position, with a 40% share of the Japanese market. As an island state with no inter-connecting pipelines, all Japanese gas has to be imported by ship, making the country the largest global importer of natural gas in the world. It is also a key factor behind Japan's Olympic-standard mercantile fleet, with over 1,000 Japanese flagged oil, gas and chemical tankers plying the world's seas...

The strategic thinking behind having such a strong shipping fleet is no doubt along the lines of "if you can't control the product, you better control the transportation" and a similar line of thought has been applied to Japan's energy manufacturing sector. The country may be short of oil, but it certainly makes up for it when it comes to the processing of the stuff, with 21 refineries and a total daily throughput capacity of 3.5m bpd (circa 550m litres per day). As a comparison the UK, with roughly half the population of Japan (65m Brits to Japan's 125m), has only 6 refineries and a combined capacity of circa 1m bpd. A further difference in infrastructure scale can be observed in the number of petrol stations in both countries; whilst both markets have experienced a significant contraction in numbers, Japan still has 29,000 petrol forecourts compared to the UK's 8.500.

So far, so (old school) fuel, but it should also be noted that Japan now has far more automotive electric charge points (just shy of 50,000) than it does petrol stations. This aggressive electrification of the transport fleet is largely the result of strategic shifts made by the country's leading car manufacturers (Toyota, Nissan, Honda), rather than any green legislation emanating from the Japanese government. In fact in most environmental disciplines, Japan lags well behind European

and American states. The country still relies on (imported) coal for a quarter of its electricity and a further 40% comes from a combination of Natural Gas and Oil. Renewables only account for 10% of the energy mix, whilst Nuclear is now a shadow of the pre-Fukishima period, when it contributed over a third of the nation's electric power (via 50 nuclear generators). That figure is now down to 3% from the country's four remaining generators.

"NO PLACE FOR JAPAN ON THE GREEN PODIUM JUST YET."

No place for Japan on the green podium just yet then, although along with many other developed nations, Japan has committed to "Net Zero" by 2050. Their Green Growth strategy has identified 12 sectors that can contribute to this decarbonisation agenda and these include renewable energies, hydrogen production and carbon capture / recycling. Even more fundamental however is the inclusion and significant focus on the recovery of the nuclear industry, to help meet low carbon targets. The logic of including this zero emission energy source is clear and Portland feels it will be a blueprint for other developed nations, as they grapple with the practical problems of decarbonising fossil fuel dependent economies. Just like Seb Coe prior to the 1984 Los Angeles Olympics, nuclear has become the forgotten man of the energy sector – written off, criticised and unloved. Coe bounced back at the LA Coliseum in the 1500m final and comfortably took gold – could the nuclear industry do the same and defy the doubters? We'll see, but in the meantime enjoy the Olympics and remember that the guy on the electric bike with the rucksack (why?!) For more pricing cannot win a medal information,

Portland

at the Keirin...!

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