

# A summary and look forward to the future of the Energy & Natural Resources Sector in 2019

**Ross Jones, Director, Energy & Natural Resources at Sheffield Haworth presents his insight and observations of the last 12 months and explores what these changes might mean to human resource planning within the sector.**

## Fossil Fuels

The human race is consuming more energy than ever. The world is becoming ever more populated, we have a growing, consumption-focused middle class in the East and emerging economies are developing the infrastructure to bring power to a wider populous in harder to reach geographies.



At source, low cost hydrocarbon reserves are diminishing, at a time when there is increasing demand for natural gas and the more environmentally controversial fracking. This is redirecting production revenues to different geographies, destabilising long recognised geopolitical form and this dynamic will continue to add volatility to hydrocarbon prices.

We consumers of energy are also changing, increasing our demand for locally sourced produce, battery powered vehicles and renewable energy in our homes. This increasing global awareness of climate change will not abate and will in time lead to a greater demand for natural gas, LNG, renewable and nuclear energy over traditional high carbon fuels.

With ever increasing transparency throughout the energy trading world, the market for human resources demands individuals trade a product suite more diverse than ever before. As the margins in conventional energy trading get tighter, this necessitates the need for more complex transactions to capture revenue. Traders are now required to apply their knowledge and experience more broadly and the alliance with automation, technology and digitalisation is fast becoming the focal point of many of the worlds' leading merchants.

## Natural Gas & LNG

Owing to the continued evolution of liquefaction and global LNG infrastructure, global gas reserves are being distributed more evenly and efficiently.

With almost half as much greenhouse gas per unit of energy than coal and oil, the shift from oil and coal to natural gas is underway.

We witnessed a significant disconnect between gas and oil prices throughout 2018 and with increased volatility and widening geographical differentials, many firms were drawn to new tradeable benchmarks (JKM / JCC) and thus creating a global traded market for natural gas.

We witnessed the banking community work on building their relevance to the LNG sector beyond vanilla lending and hedging business. Conversely, the merchant traders have looked to either hire external talent or re-purpose individuals to tap into smaller, regional, less liquid markets. This has been particularly pertinent within project and asset development.



## Coal

Despite an increased demand for natural gas and global LNG, coal will remain a product of economic importance. Under the current administration, the US has been resurgent as has Poland, who despite signing the EU renewable energy initiative have maintained their reliance on coal for both economic and political reasons.

However, over the last few years it has principally been the growth in Asian demand that has offset the rapid decline in demand for coal from the developed economies of the world.

With China pledging to invest >\$350bn by 2020 to produce energy in a more environmentally conscious way, almost three times that of the US, we are likely to see a steady decline in Asian demand also.

Coupled with that, the IMO's regulation to cap sulphur content on fuel by 2020, making seaborne trade increasingly expensive, the challenges that face the industry and its traders, will not likely let up anytime soon.

## Renewables



As demonstrated by China's investment and even that of the world's leading technology companies, there is no denying the increasing prominence of renewable energy and its associated technologies.

On one hand we have the consumer seeking reliable, economic and environmentally responsible energy and on the other, developments in solar and wind technologies are enabling both performance and price parity on the grid.

Emerging market economies are leading the placement of renewables on their development paths and we have the worlds' leading corporations, from Shell and BP to Alphabet and Facebook expanding the scope of their renewable energy procurement.

Overall the renewable sector is driven by the need to create increasing amounts of clean power from sustainable sources. However, at present, there is not enough 'green power' generated to support base load supply on the grid. However, as the technologies improve there will undoubtedly be less reliance on fossil fuels. Consequently, it is possible to suggest that the sector has a clear priority to promote: decarbonisation via carbon sinks, de-centralised power generation and the development of biofuels beyond Ethanol.

Given much of this developing new energy world is in its infancy, it's seldom possible to source for senior, 'experienced' talent. Rather, companies have been quick to recognise a skill set and have added or re-purposed individuals to accommodate both project and wider business sanctions.

## Technology

Much like the rest of the financial world, the energy and natural resource industry is also embracing technology. It's application to resource production, refining, shipping, supply and trading is changing rapidly.

In production, the adoption of robotics and real-time access to exploration analytics is allowing corporations to increase the limits and decrease the costs of exploration and production.

## Technology

The science of big data is making both the refining and shipping process more efficient and consequently allowing supply and trading businesses to maximise margins. With blockchain having been sampled in the energy supply chain throughout 2018, it won't be long before it's more widely adopted.

The use of complex data analytics is fast becoming critical to finding margin in the energy trading business. As such, the demographic of human talent is changing.

The digitalisation of process, research and analytics has been impactful as there is a definite skills gap in the mid-career professional. The energy business is privy to some wildly raw and unstructured data and the more varied it is, the more interesting it becomes to data scientists and broader technology talent.

The challenge lies in both the attracting and retaining of such personnel as the brightest and best continue to seek more of a 'Google' culture and as such, are naturally drawn to Silicon Valley vs Corporate Energy.

## Summary

With the increasing probability of rising interest rates, there is a view that we may be reaching peak asset value in the energy supply chain. With asset acquisition in mind, it's likely that the highly levered balance sheets of the world's leading merchant traders will be challenged by the opposing cash rich 'majors', independents and perhaps more profoundly, the NOC's.

All the while, financiers of the world are making huge investments in LNG, solar, wind and hydro projects and the developing world is not just embracing but pioneering such projects. In addition to such financiers, 'Big Oil' is also increasing its' capital expenditure in the development of alternative fuels and decarbonisation initiatives.

This changing dynamic, the shift in energy supply and demand and the continued effect of geopolitics and wider macroeconomics will provide ample opportunity throughout 2019 and beyond, which poses the following questions:

- While remaining compliant, how will the remaining banks diversify their offering to attract client revenues away from competition?
- Will asset divestment and the formation of joint ventures reignite revenues out of old from the established merchants?
- Will the cash rich NOC's trust in their trading ventures and build benches to rival those of the old guard?
- How are the business leaders going to ensure they're not under gunned, both in their current environment and for future succession planning?

Only a few weeks into 2019, these questions unsurprisingly remain unanswered. It will be fascinating to watch how the above will play out and how it will affect the ever changing and evolving landscape within the sector. We have already witnessed a ground-breaking tie up with ADNOC, ENI and OMV and how that venture is staffed going into 2020 will be particularly interesting to observe.

Only time will tell what the true implications of these changes are, but until then we watch with avid interest as they begin to unfold. One thing we can be certain of is that the sector and its' constituents will look very different in 12months' time.

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