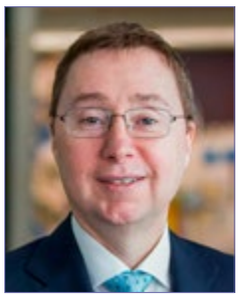
Energy transformation: A catalyst for change?



By Andy Brogan
Global Oil and Gas Sector Leader, EY

The oil and gas industry is at a turning point. The current dynamic is a shift from resource scarcity to resource abundance, combined with a relentless pressure to decarbonise. Hydrocarbon alternatives are becoming increasingly competitive and governments increasingly focused on environmental impact. As a result, structural adjustment seems inevitable. The nature of energy supply and the energy mix are changing, and the only prediction that can be made with certainty is that change is inevitable, driven by a combination of technology, policy, consumer preference and the appetite of the capital markets.

Where technology is concerned, it will determine key drivers like the increase in energy efficiency and the decrease in cost of renewable energy generation and electric vehicles. Meanwhile, consumers' preferences will play a key role in the adoption of electric vehicles and the increased use of renewable energy. Policies formulated and implemented by governments to cut carbon emissions pursuant to the 2017 Paris Agreement will play a critical role in the overall energy mix. Finally, the capital markets' role is critical for sustainable development: to limit the global temperature rise below 2 degrees – renewables and energy efficiency by end users would require an investment of US$14 trillion and US$20 trillion respectively by 2040.

In response to these external and environmental drivers, key oil and gas players' strategies will evolve and we will witness considerable change in the competitive landscape. As this evolution unfolds, understanding the specific changes to the competitive landscape can offer a competitive edge in the times to come.

Global oil companies are building portfolio optionality

Historically, the oil majors have followed their integrated model, which paid off during the oil price collapse. While upstream earnings plunged, earnings from downstream increased significantly, providing a buffer to overall profitability. This has helped the majors to focus on streamlining their businesses by:

- Digitalisation to reduce capex and operating costs
- Upgrading their upstream portfolios through acquisition, while divesting some of their profitable non-core downstream assets
- Portfolio optimisation by selling high-cost assets while replacing reserves with lower-cost ones, thereby reducing the overall break-even price of the portfolio.

By continuing to focus on their core competencies, the majors have managed to increase their profitability and efficiency. With natural gas expected to play a critical role in the energy transition as a bridge fuel, several international oil companies have announced plans to increase the share of natural gas in their portfolio. In addition to focusing on their core business, the majors are investing in renewables. Most have announced initiatives to reduce their carbon footprint and are increasing their investments in renewable energy. But these investments need to be put in context. In comparison to overall capex investments, the investments in renewables represent a cautious approach. During the last three years, the majors have spent over US$350 billion capex in oil and gas investments, while total investment in renewables during the same period has been less than 5 per cent of their capex.

These investments are akin to purchasing options into an expanded energy value chain while continuing to focus on the core oil and gas business. We define this as optionality – that is, maintaining a core focus on oil and gas while investing a threshold amount in renewables based on anticipated changes in energy mix. This approach will allow companies to build up experience with renewable energy and increase investments if they have the desired outcome or write off the amounts should the energy mix not change within the anticipated timeframe. In this way, the company can remain agile, focussed and efficient all at once.

National oil companies moving from volume to value

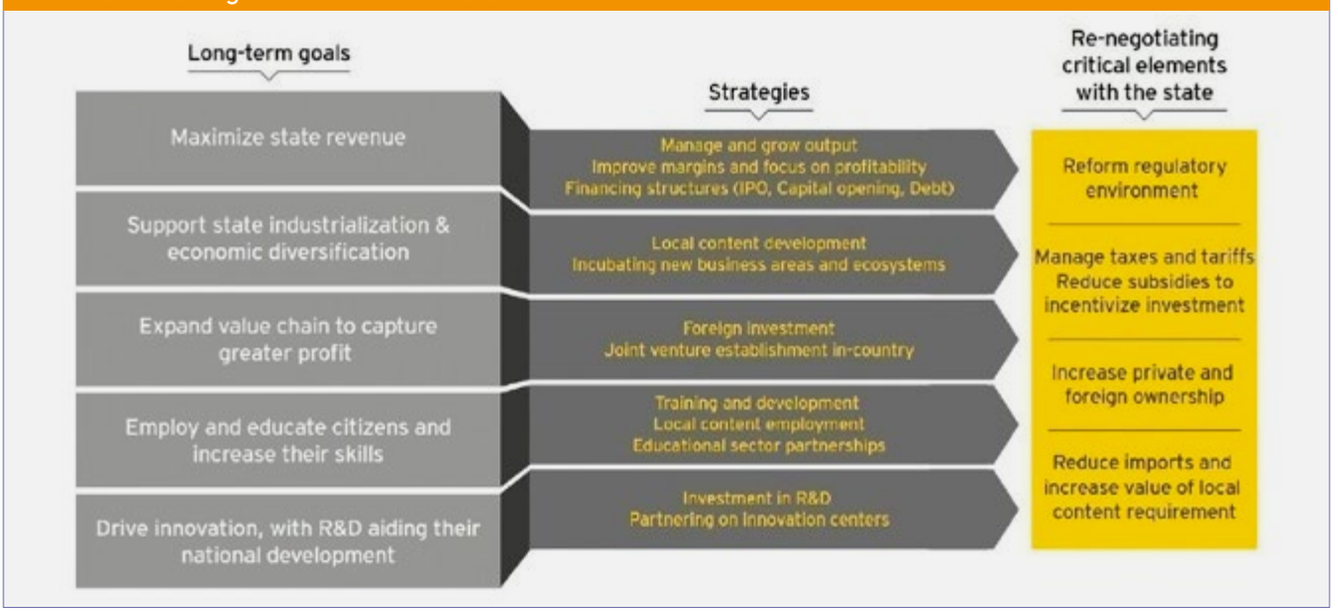
National oil companies are major players in the global oil and gas industry, accounting for 58 per cent of global reserves and 56 per cent of production. However, their role rarely stops there and, depending on the NOC's home country, it may also be a policy maker, regulator, trader in commercial entities or any combination of these. In many hydrocarbon-driven emerging markets, NOCs also act as engines of economic and social development and have explicit or implicit duties, including national infrastructure development and social welfare.

Low oil prices have triggered fiscal tightening measures in many emerging markets, and countries have/are taking difficult — yet fiscally responsible — measures such as:

- Reducing (sometimes eliminating) subsidies on fuel and energy prices
- Implementing cost reduction programs to increase profitability

Changing market conditions are also forcing more NOCs to internationalise their operations, to grow and to be more efficient in the lower oil price environment. Different NOCs are at different stages in their internationalisation journey, with resource-seeking NOCs active in acquiring reserves, and

NOCs are moving from volume to value



producing NOCs active in securing demand. The common thread is capital - either by attracting investment in home countries' resources through partnering with international companies, or by making investments in overseas resources that have better returns or serve long-term strategic objectives. At the same time, in their role as drivers of domestic economies, NOCs face heightened pressure to increase investments in both oil and gas and non-core businesses in their domestic markets. These twin obligations require NOCs to pursue clear-cut and selective investment strategies that allow them both to meet the roles expected of them, and to rework their business models to accommodate longer-term goals, i.e. to renegotiate the critical elements of their contract with their respective states, as set out in the framework shown above.

The NOCs that succeed in moving to a new business model to maximise their potential enterprise value, and thus maximise their contribution to the nation, will be those who also succeed at building capital and operational excellence into their culture. These NOCs are taking steps to fundamentally change how they operate to keep providing the much-needed financial support to their home countries. The changes are two-fold:

- Transformation into efficient commercial organisations; and
- Reform of local oil and gas regulations.

The coming years will be defining for the NOCs as they embark on their capital transformation journey to become "commercial." The changing NOC business model will also have a definitive impact on the overall competitive landscape of the oil and gas industry as well as the broader policy environment.

Oil and gas in an era of transition

The changes in strategies and business models of the IOCs and NOCs will lead to a different landscape for the entire sector. As a result, all players in the sector will have to adapt to a new business and workforce model. Recognising the impact of these changes early on and setting in place business and workforce initiatives will provide a competitive advantage.

To be successful in this changing landscape, companies will have to clearly define their inspirational purpose and business values to transform their business and workforce model. Aligning business and people's individual goals to the corporate strategy and competencies will enable change to their corporate culture that will maximise both the customer and workforce experience. At the same time, business and operating changes such as the increased use of technology go hand in hand with workforce model changes that foster increased technological engagement to enhance productivity and employee motivation. In turn, as the model enables employees to become early adopters and innovators, using digital technology, this will also enable the development of leaders for the new digital organisation.