

December 12, 2019

PERSPECTIVE

Oil & Gas: Present Questions, Future Directions

Team North

The future of oil and gas depends on the unfolding relationship between the industry, evolving consumer preferences and emerging trends.

New directions in transportation

While the industry's future is unchanged from a macro perspective, Martin Roemheld, Head of E-Mobility Services at VW, argues that the industry must move in the same direction as the consumer.

István Kapitány, Shell's Executive Vice President of Global Retail, is more pointed: "All that matters is customers and taxpayers."

Arguably, that's nothing new — except that consumers and taxpayers are tilting in new directions.

"The keys to the future are decarbonization and digitalization, which drive smart sustainability," Roemheld says. "Companies who tackle both megatrends will remain competitive."

BLG's Peter Bryan agrees: "People have been in a state of malaise for a very long time, and they're looking for change instead of waiting for cycles to come back."

VW has put its money where its mouth is. The company expects deliveries of the ID.3, what it calls "the first cost-effective mass market electric vehicle (EV)" to commence in 2020. For its part, Mercedes is no longer developing the internal combustion engine, which, from all appearances, is moving toward obsolescence.

"By 2030, I expect the light vehicle market to be almost fully electric," Roemheld predicts.

So much so that VW's foremost concern is that it will be unable to keep up with demand.

"People are underestimating the rapidity of change," says Graeme Edge, co-founder of Energy Disruptors. "And with 50 per cent of current demand for oil coming from light vehicles, you have to ask yourself what will happen to hydrocarbons if people move to EVs in droves."

Edge predicts that it won't be long before cities in Europe and Asia ban internal combustion engines entirely. His assertion is backed up by two developments: Amazon recently announcing that it ordered 100,000 electric delivery vans from Michigan-based start-up Rivian, expecting to have 10,000 on the road by 2022, and all by 2030; and Ford's commitment to investing US \$11.5 billion in an "all-in" electrified strategy, including delivery of the electric version of its F-150 by 2021.

The growing trend of vehicle sharing may be equally significant to the industry's future.

"That's not surprising, when you consider that light vehicles sit idle 95 per cent of the time," Edge notes.

Robin Chase, co-founder and former CEO of Zipcar, points to e-hailing and transit apps as evidence that technology has simplified ride-sharing.

"A large number of trips will be on micro-vehicles like bikes and e-scooters, because 50 per cent of them are less than three miles long," she states. "In 2018, there were some 84 million shared micromobility trips in the U.S., more than twice as many as in 2017."

Continued investment in oil & gas

Still, reliance on oil and gas as sources of energy isn't going away soon. Statistics indicate that:

- oil and gas as sources of energy will remain a reality for the next 20 to 30 years
- OPEC expects global oil demand to rise to 112 million barrels per day (b/d) by 2040, largely driven by developing countries, high population growth and an expanding middle class
- the International Energy Agency (IEA) estimates that world oil consumption will be about 105 million b/d by 2025
- the Det Norske Veritas group (DNV) maintains that oil and gas will still meet as much as 46 per cent of world energy demand in 2050
- increasing demand for plastics and other hydrocarbon derivatives will to some extent offset a diminished reliance on oil in the transportation sector
- a natural decline in reserves, estimated at 2 to 3 per cent per year, will have to be replaced

Consequently, Mark Little, president and CEO of Suncor Energy Inc., sees the need for continued investment in oil production.

"If we don't invest in oil, we won't have enough energy resources, even considering the most aggressive forecasts about the availability of replacements," he says. "And Canada is one of only two democracies that can deliver the oil the world will continue to need, and do so in accordance with the rule of law and in a stable political atmosphere."

Increasing global demand for natural gas

Perhaps more significant is the anticipated rise in global demand for natural gas, which IEA predicts will rise by more than 1.6 per cent over the next five years, reaching 4.3 trillion cubic feet (Tcf) in 2024.

As Bryan sees it, the increasing demand for natural gas stems from the following:

- demand from China, representing nearly half of demand growth through 2035, which will be greater than that of the next 10 largest growth countries, including the U.S.
- the need to replace coal as a source of power generation
- the need to support renewables

McKinsey estimates that demand for natural gas, led by industrial demand, will continue to grow across all sectors until 2035, making demand 20 per cent higher than it is today. (Demand is expected to plateau after 2035.)

BLG's Miles Pittman, who has visited China for each of the last five years, sees empirical evidence for the demand. "People in Asia are definitely interested in buying our natural gas," he says.

BLG's Richard Eisenbraun notes: "There's still lots of room for oil and gas notwithstanding the pressing need to look at other energy sources."

So much so that research commissioned by *The Guardian* and conducted by Rystad Energy, the Norwegian consultancy whose data is regarded as the gold standard for the oil & gas industry, projects an eight per cent rise in the projected output of the top 50 oil and gas companies between 2018 and 2030 — which translates to some seven million additional b/d available to fulfil demand for oil.

Transition will be gradual

The upshot is that the transition for the oil and gas industry will be gradual, not cataclysmic.

"After all, 85 per cent of our energy needs today still come from fossil fuels," notes Peter Tertzakian, an economist, investment strategist, author and executive director of ARC Energy Research Institute.

Tertzakian suggests that understanding the dynamic interplay of transition and disruption is the key to long-term survival.

There's little doubt that the industry — at least the big players — are getting the message.

Citing the need to be more consumer-driven than ever, Shell intends to halve the net carbon footprint of the energy products it sells by 2050. Part of that strategy is evidenced in its seven strategic themes: conventional oil and gas, deep water, shales, integrated gas, oil products, chemicals and the recently created New Energies business that focuses on power and new fuels.

"Shell currently has 40,000 charge points for electricity-powered vehicles, and we expect that by 2025, 20 per cent of our profit will come from renewables," Kapitány says.

For its part, Suncor will be moving from eighth place to third among electricity producers in Alberta when its recently announced \$1.4 billion investment in 800 MW of power cogeneration at its Oil Sands Base Plant comes online. The project will reduce the company's greenhouse gas emissions (GHG) associated with steam production at the facility by approximately 25 per cent.

Clearly, electrical power presents a massive opportunity.

"The power industry does not have any world-scale players approaching the \$400 billion market cap of a company like Exxon," notes Ed Crooks, Vice-Chairman of Energy in the Americas for Wood MacKenzie and former energy editor at the *Financial Times*.

Many traditional oil & gas companies are using acquisitions, partnerships and rebranding to explore the potential for growth in power and renewables. Total, for example, acquired SunPower to create a new global giant in the solar industry, and Shell rebranded First Utility as Shell Energy Retail Ltd. in March 2019, even as the company confirmed that it had switched all of its British residential customers to 100 per cent renewable electricity.

"All the European majors have shown strategic intent towards new energies," Crooks notes. "Although the amounts invested are still small compared to oil and gas, there are definite plans to ramp up."

Consequently, BLG's Jason Wang anticipates a shift in transactional strategy.

"I think we're going to see more joint ventures as opposed to asset purchases, and more offerings instead of buybacks."

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Bryan further articulates that, "Going forward, I will be re-emphasizing to my clients that the traditional ways of doing things have shifted, and that to survive and prosper they will have to be and continue to be open to new ways of thinking in an old industry."

