



Energy Market
DISRUPTION

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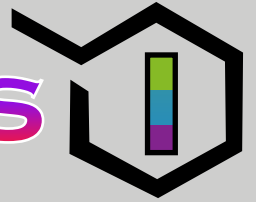
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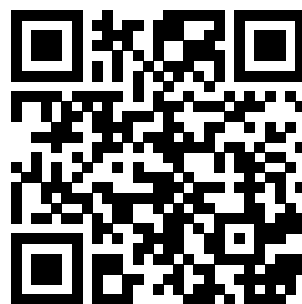
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ENERGY MARKET DISRUPTION

ENERGY LANDSCAPE SHIFT

The landscape about oil production and consumption has altered significantly due to the adoption of disruptive forces such as Electric Vehicles (EVs), sharing, and autonomy. Rather than having the concern that there will be a global run out of oil, producers now concern that the energy demand will change before the oil supply declines.

The key point of changing oil demand will be the adoption of transport as a Service, as well as the shift towards transport automation and electrification. Transport as a Service is underway. Autonomy is also a notion under development, with various companies manufacturing autonomous vehicles. An electric vehicle will be 10 times cheaper per mile than the traditional oil-powered cars. Related to forecasts for solar energy and batteries, the estimations for Electric Vehicle adoption continue to undervalue growth. The final cost of EVs is also much more cost-efficient. It is estimated that the budget of the final assembly area for EVs will be 50% less costly than the one of traditional cars- manufacturing costs will also be 50% less while labor hours will be reduced by 30%.

MOST OF THE LEADING PRODUCERS ESTIMATE AN INCREASE OF OIL DEMAND IN THE NEXT 15 YEARS, EVEN IF EVS

cover the 10% of total vehicles-

AND WOULD BE CONSIDERED AS HALF OF THE TOTAL MILES DRIVEN UNTIL 2025.

ENERGY



DISRUPTION IN THE ENERGY INDUSTRY

For years, clean energy was not threatened by competition. However, with the decreasing cost of solar, wind, and battery energy sources, alongside with the growth of EVs, autonomous vehicles, and electrification, things have changed significantly. With the dynamics of such cost curves impacting energy sector and transportation, digital disruption has made its appearance in the industry. Thus, the market is about to experience a wide transformation.

Nevertheless, the disruption in the energy industry does not arise only from the replacement of carbon fuels by renewable sources of energy. The digitalization trend eliminates traditional market functions that increase costs, hence, margins decrease as low-cost alternatives force both cost strategies and revenues.

RISKS FOR PRODUCERS

Although the demand for oil and gas will continue to exist for decades, producers will have to adapt to the rushing adoption of alternative sources of energy for transportation. Despite the fact that their business strategies are based on volatile economic cycles, firms should expect organizational challenges in their extraction, refinancing, and distribution operations, as well as their sustainability. Low prices could impact the ability to service debt and even lead many organizations to bankruptcy. Producers will have to retain their existing structure while also evaluate new opportunities to develop into more viable ventures. The coal industry, though, has experienced major disruption as market has turned to LNG, as well as solar and wind energy.

DIGITALIZATION OPPORTUNITIES

With the collection of all available information technologies, including sensors, storage, processing, visualization, analysis, and AI tools, the challenge lies into discovering the proper application to increase business value, rather than the availability of technological options. Using information technology instead of traditional industrial techniques creates the potential to support innovative business models, aiming at the offering of better customer service and the leveraging of existing management and expertise with the aid of technology.

There are also significant opportunities for producers, distributors and other stakeholders in order to expand asset utilization, decrease downtimes, lower risk, enhance business processes, and increase customer satisfaction. In the industrial sector, digitalization improves maintenance, by instrumenting assets, collecting data, and developing predictive algorithms. Thus, the cost of equipment is reduced, the expenses of repairs and maintenance are lowered, and, eventually, life of capital assets is extended. In the oil and gas industry, upstream digitalization opportunities include the optimization of extracting resources throughout the usage of advanced analytics and AI, more effective exploration techniques, drilling, recovery and monitoring for emissions, safety and possible spills.

WHAT TO DO IN 2019

Considering all the disruptive forces in the energy market, as well the necessary actions to be taken, it is pointed out that the energy industry is already changing and is about to become more fragmented than ever before. That will lead to implications on market roles, investing landscape, regulations and policies, consumers preferences, competition, etc. Energy companies, in order to follow this constantly changing environment, should:

- Decide their position in the industry, establish their role, and adopt their business strategies for the future;
- Reevaluate their operation models, as well as organize their future ones; and
- Align with a changing sector in order to find the suitable pace for altering their organizations.

In a period, uncertain from many perspectives, there is an unquestionable key point; inaction is not a pathway. Those organizations which can think out of the box and embrace innovation, will succeed and bloom in the changing world, managing to create value for their customers, shareholders, employees and the rest of their stakeholders. Knowledge, combined with strategic decisions and customer-growth efforts, as well as perception of biggest opportunities and risks, and developed thinking are the ingredients for a sustainable and successful future.

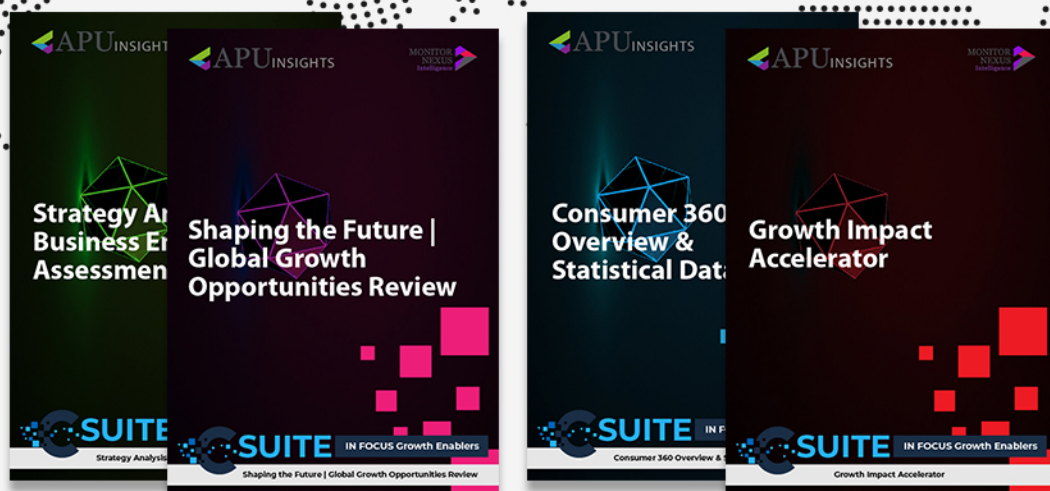
“ WE ARE POSITIVE ABOUT THE POSSIBILITY THAT DIGITAL TRANSFORMATION GRASPS IN ORDER TO DELIVER FUNDAMENTAL FUEL AND POWER TO THE GLOBAL ECONOMY. WE ARE AT THE TIP OF A GIGANTIC SHIFT, BUT CHANGE WILL CONTINUE TO BE MANAGED BY REGULATORY STRUCTURES, ORGANIZATIONAL INACTION, MANDATORY COMPETITIVE DYNAMICS AND THE HUGE INTERDEPENDENCIES AMONG TRANSPORTATION, INDUSTRY, GOVERNMENT AND ENERGY. IS THE ENERGY INDUSTRY UP TO THE TASKS AT HAND? YES, BUT VICTORY IN THE DIGITAL AGE DERIVES FROM COOPERATION AND SHARING BEST PRACTICES – NOT PERFORMING IN SILOS. WE SEARCH FOR WINNERS WITH VISION AND DEEP KNOWLEDGE OF THE TECHNOLOGY, BUT MOSTLY TO CARRY A NOVEL DIGITAL CULTURE TO THE FOREFRONT. ”

ED MAGUIRE,
PRINCIPAL RESEARCHER IN SMBC NIKKO SECURITIES AMERICA, INC.

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