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Editorial

Remarks on the world's current energy supply and demand



Life depends on the availability of comfortable, reliable, and affordable energy. Most of the energy we use today comes from oil and coal, and increasingly from natural gas.

During recent decades, conventional and unconventional oil and gas have been providing the world with relatively cheap and clean sources for energy generation and raw materials for the petrochemical industries. The demand for this source of energy has been continuously increasing, necessitating the pumping of appreciable investments to explore and develop new oil and gas fields. As the world has begun to realize the importance of renewable energy, most investments have shifted to the renewable energy industry and research rather than the conventional and unconventional oil and gas industries. In light of this background, it would be useful to recall the beginning of the COVID-19 pandemic, when restrictions disrupted many activities in various sectors of the economy. This led to a collapse in energy consumption, forcing energy companies to make significant reductions in their investments. This investment attitude is really harmful and may lead to high market prices in critical situations; where the supply is partially terminated; like the one the world is facing today due to the Russian-Ukrainian war, where oil and gas prices have climbed to unprecedented levels in the past few weeks, driven by widespread energy shortages, at a time when clean new energy sources have not compensated for the world's significant shortage of energy sources, which in turn has affected various economic, productive, and service activities. Therefore, it should be realized that it is necessary to invest adequately in the diversity of energy

sources (particularly hydrocarbons) by planning appropriate infrastructure to counter increased demand and consumption.

As demand for oil and its derivatives is increasing, education, research, and technology are also required to be rapidly developed to drive the oil and gas sector forward by developing new technical solutions, standards, and industry best practices such as:

1. Intelligent wells and oilfields
2. MRC (maximum reservoir contact completion).
3. Nano fluids (drilling, completion, fracturing, increasing oil recovery, and so on).
4. Geosteered drilling, real-time drilling monitoring, and real-time data services are all available.
5. Data digitization and software use
6. Capture, storage, and utilization of carbon.

Therefore, all the world's decision makers must come together to support education, research, and development in the field of conventional and non-conventional energy sources to provide the energy supplies necessary to maintain the current levels of technical development and prosperity for all humanity.

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