2019 Industry Review

The global oil and gas industry was faced with growing risks and uncertainties against the backdrop of international political and economic complexities. The industry was navigating through opportunities and challenges on stormy waters.

Global Oil & Gas Industry

World energy consumption grew slowly and energy transition kept moving forward. As major economies slowed down in economic growth and trade tensions escalated, global primary energy consumption grew slowly to 13.82 billion tons of oil equivalent, which was 0.6 percentage points down from a year earlier. Despite the process of reducing greenhouse gas emissions being challenged across the globe, the shift to clean energy was still underway. China and the EU led the way in boosting the use of renewable energy and natural gas, which were the fastest-growing energy sources in 2019.

Global oil market was struggling to balance with oil prices lower than the previous year. Oil prices were down from a year earlier as a whole. Brent crude futures averaged at USD 64.2 per barrel in 2019, down 10.5% year-on-year. With global economic growth at its lowest since the financial crisis in 2008, the demand increase in oil fell below 1 million barrels per day for the first time since 2011. As many oil producing countries have to cut production, the world's oil supply and demand staggered to reach balance.

LNG trade expanded rapidly amid the natural gas demand slowdown. As a result of the sluggish growth in natural gas consumption in North America and Asia Pacific, global natural gas consumption and production grew at 3.5% and 3.4% respectively, which were 1.8 percentage points down from a year earlier. Natural gas prices in major markets fell in varying degrees and the Asian premium further narrowed. The LNG trade growth rose to 12.2%, which was nearly twice the growth rate of pipeline gas, driving the global natural gas trade grew steadily.

There was a significant increase in oil and gas reserves discovered globally with E&P investments on the rise. The newly discovered recoverable reserves of oil and gas amounted to 1.28 billion tons of oil equivalent globally, marking a significant increase of 60% year-on-year. 25 major discoveries were above 100 million barrels of oil equivalent, mainly from South America and Africa. Global E&P investments rose 8% from the year of 2018, indicating onshore E&P investment growth across the globe except for a slight decline in North America. 110 offshore oil projects were launched in 2019 around the globe as international oil giants showed more interest in offshore oil resources.

Global refining/ethylene capacity grew remarkably but underperformed as a whole compared with the previous year. Global refining capacity saw a net increase of 117 million tons per year largely from emerging economies and developing countries such as China, Saudi Arabia, Malaysia and Turkey, marking the greatest addition for a single year since 1970. However, global processing volume for crude oil failed to grow in tandem with the refining capacity and remained basically the same as a year earlier. Refinery utilization rate declined across the major refining markets in Europe, America and Asia Pacific.

Global ethylene capacity rose to 11.8 million tons per year in 2019, up 6.7% year-on-year, and reported weaker performance compared with a year earlier.

Trading volume of oil and gas assets increased but the number of deals slumped and U.S. shale assets transaction started to cool down. The upstream M&A market remained lackluster, seeing only 220 deals closed in 2019, down 30% from a year earlier. However, the transaction amount totaled USD 190 billion, up 30% year-on-year, thanks to mega-deals. The transaction of US shale assets started to decline in terms of both the number and value of deals, i.e. down by 49% and 67% respectively year-on-year.

China's Oil & Gas Industry

China's energy mix continued to improve amid a slowdown in energy consumption. The Chinese economy was under downward pressure in 2019. The total energy consumption reached 4.79 billion tons of standard coal, up 3.2% year-on-year, indicating a slight retreat. The shift to low-carbon energy made headway, with non-fossil fuels power generation increasing by 6% year-on-year. Renewable energy power generation was refocusing on quality improvement over capacity expansion. As the government work report proposed for the first time to promote hydrogen energy, some local governments and companies has started working on and implementing their hydrogen energy initiatives.

China's dependencies on foreign crude oil and petroleum both stood above 70% and refined products consumption saw anemic growth. China's demand for crude oil surged as a result of large private refineries coming on stream, pushing its dependencies on foreign crude oil and petroleum up to 72.5% and 70.8% respectively. Economic stress, weak car demand and more alternative energy sources, among others, hampered gasoline, diesel, and kerosene consumption into mediocre growth. Meanwhile, exports expanded to exceed 50 million tons for the first time. The rise of large private-sector refinery companies contributed to a more diversified landscape in the domestic market.

The increase in gas production hit a new high and the building of natural gas production, supply, storage and sales system made steady headway. The full-year natural gas consumption stood above 300 billion cubic meters, up 9.6% year-on-year and accounting for 8.3% of China's primary energy consumption. The full-year natural gas supply was 310.6 billion cubic meters, up 9.5% year-on-year and domestically produced natural gas grew by 9.6%, marking a new record high. Natural gas import growth slowed sharply compared with the previous year, with a foreign dependence rate of 45.2%, which was barely changed from the previous year. Steady progress was made in the building of natural gas production, supply, storage and sales system. In particular, the construction of key connectivity projects, LNG terminals and gas storages picked up pace to ease effectively gas supply crunch in winter.

The E&P action plan started to pay off with a boom in oil and gas investment. 2019 was the beginning year of China's Seven-Year E&P Action Plan in order to vigorously promote domestic oil and gas E&P. Upstream investment increased remarkably, and crude oil production rebounded after three years of downward movement. The full-year crude oil production was approx. 191 million tons with an increase of about 1.1% from a year earlier; natural gas production was approx. 173.8 billion cubic meters, up about 9.8% year-on-year. Unconventional gas accounted for more than one-third of total natural gas production as both tight gas and shale gas outputs hit record highs.

Capacity growth for refining and ethylene picked up momentum resulting in further excessive refining capacity with private companies accounting for an even greater share. In 2019, China's refining capacity expanded to 860 million tons per year, marking another refining boom after 2014. The total ethylene capacity stood above 30 million tons per year for the first time, up 21.1% year-on-year. New additions to refining capacity were mainly from the private-sector refineries. The domestic refining overcapacity issue became graver.

Reforms in the oil and gas system were unprecedented to push ahead with energy transition in a pragmatic manner. Government departments stepped up efforts to reform the oil and gas system in 2019. The oil and gas industry opened up to private and foreign investors in full measure. Major breakthroughs were made in improving the mechanism for the operation of oil and gas pipeline networks. A national oil and gas pipeline network company was established to facilitate a market-driven oil and gas industry.

Source: *2019 Report on Oil and Gas Industry Development* by CNPC ETRI