

China Ascending in Global Energy

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Three of the top 10 companies in the latest Platts Global Energy Company rankings are in China, reflecting how the mainland has become a major participant in the global energy sector. Oil industry data and publishing firm Platts, a unit of McGraw Hill Financial Inc., recently announced its annual list of the top 250 global energy companies and CNOOC Ltd. (China National Offshore Oil Corporation), PetroChina and China Shenhua Energy Co. Ltd. made the top 10, ranked fourth, fifth and ninth, respectively. China Petrochemical Corporation was ranked 11th. The top rankings signify that in addition to being a large consumer of energy, China is now a large producer as well. It is known to all that China has long been one of the world's top domestic producers of oil (Fig.1).

China's economic slowdown will definitely affect the global energy industry, both by depressing global demand for energy and slowing expected investment in the global energy sector, according to analysts. Exxon Mobil Corp. of the United States held on to the top spot in the Platts rankings for the 11th consecutive year. Chevron Corp. of the US was second while Royal Dutch Shell PLC of the Netherlands was third. Chinese companies secured the first four of the top-five energy companies ranked in Asia. Reliance Industries Ltd. of India was fifth.

China is the world's most populous country and has a rapidly growing economy, which has driven the country's high overall energy demand and the quest for securing energy resources. Currently, China's growing role as a competent global player in all phases of energy production (exploration, production, transportation, and refining) is attracting more and more attention from the international petroleum community. This means there's a powerful new competitor in the market, but it's also one that industry insiders claim doesn't always play on a level field. China has long been a significant producer of raw

materials. For example, it produces about half the world's coal supply and is one of the top five producers of crude oil. "But in recent years China has become an increasing net importer of energy, which is why the spotlight has been on its growing appetite for imported oil and natural gas," said Yen Ling Song, Platts China oil analytics senior analyst, adding that China's major energy companies are state-owned enterprises (SOEs) so they have mandates to secure energy supplies for the country.

"This means sectors such as petroleum exploration and development are dominated by SOEs, which gives them significant control and potentially huge profits when commodity prices are high. That, coupled with government-to-government deals struck by Beijing, can give them significant advantages in expanding abroad as well," she said. A focal point of the government in the next five years will be to institute SOE reform to make the energy SOEs more market-oriented, competitive and efficient. As China has grown into the second-largest economy in the world behind the United States, the country's energy demand has expanded. Chinese companies are seeking opportunities overseas, and there's basically no region where they aren't a player, including North America. The most significant region, in terms of geopolitics, is the Middle East, according to Song.

Based on the official statistical figures, China's crude oil output totaled 160 million tons in the first three quarters of 2015, a year on year increase of 2.5 percent. China refined 355 million tons of crude during the period, up 3.2 percent year on year, while refined oil production rose 4.7 percent to 224 million tons, the National Development and Reform Commission (NDRC) said in a recent statement. Apparent consumption of refined oil, calculated as production plus imports minus exports, increased by 2.7 percent from a year earlier to 207 million

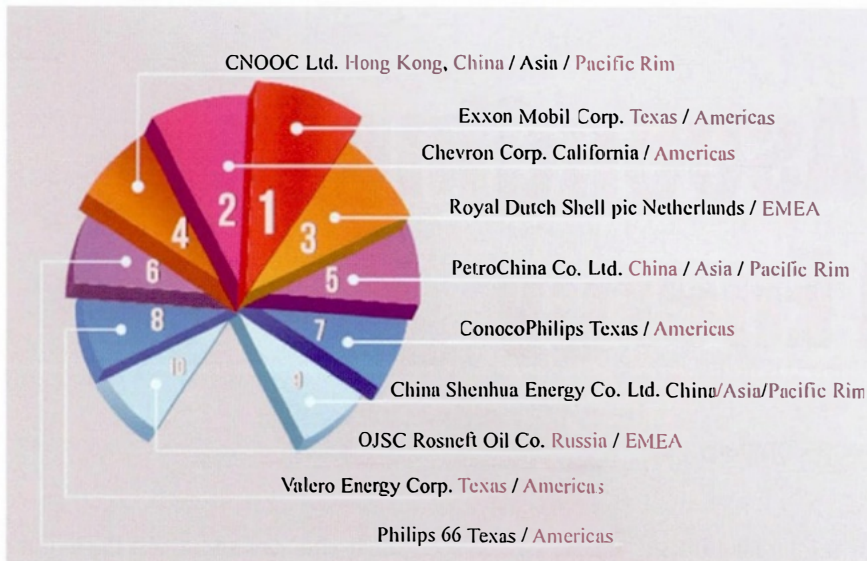


Fig.1 Platts' top 10 energy companies

Source:S&P Capital IQ/Platts
Platts Ranking 2015.

tons. In a separate statement, the planner said natural gas output totaled 96.6 billion cubic meters from the January-September period, up 3.7 percent year on year.

Reportedly, China's commercial crude oil stocks increased 2.38 percent in September over August 2015, while stocks of refined oil products went down 7.46 percent, according to data monitored by Xinhua News Agency. In October, China imported 27.9 million tons of crude oil, while producing 17.74 million tons. Gasoline stocks increased 2.47 percent as the economic headwinds and higher fuel prices combined to constrain consumption. Diesel stocks dropped 15.68 percent due to strong rural demand as harvest season nears, according to the report. The stocks of kerosene gained 6.3 percent as air traffic retreated following the summer holiday travelling peak. China's appetite for energy has grown substantially amid rapid industrialization and urbanization. China's plan to construct crude oil storage through both state-owned strategic petroleum reserves and commercial crude oil reserves is part of its need to secure energy in light of its growing reliance on oil imports. The government intends to build strategic crude oil storage capacity of at least 500 million barrels by 2020.

Domestic crude oil output is expected to grow by 0.4 percent to reach 217 million tons in 2015, while refined oil and natural gas output will reach 294 million tons and 134.4 billion cubic meters respectively, according to a report released by a research center and a publishing house with the Chinese Academy of Social Sciences. Meanwhile, refined oil net exports are estimated to reach 20.8 million tons, up 41.9 percent year on year, with export of diesel taking the lead, according to the report.

Chinese companies are also attempting to take advantage of new technologies. "The state-owned oil companies have increasingly been investing in natural gas projects as well as unconventional assets such as shale gas and coal-bed methane," said Song. As China's economy transitions to a more consumption-based model, the energy industry will also rebalance. Consumption of natural gas, gasoline and jet fuel are likely to continue strong growth, although demand for other commodities such as iron ore, cement and coking

coal might be on the decline as the government attempts to shift future growth away from investment toward consumption. In the near future, China's economic slowdown will definitely affect the global energy industry, both by depressing global demand for energy and slowing expected investment in the global energy sector.

Although China's energy consumption is growing rapidly at the present time, its per-capita energy consumption level is still fairly low – only about three fourths of the world's average. China's per-capita oil consumption and imports account for only one half and one quarter of the world's average, respectively, far below the level of the developed countries. The country will not pose any threat to the world's energy security while continuing to maintain its sustainable energy development.

China slows oil demand growth

China is the world's second largest oil consumer behind the United States, and the largest global energy consumer, according to the International Energy Agency (IEA). The country was a net oil exporter until the early 1990s and became the world's second largest net importer of oil in 2009. China's oil consumption growth accounted for half of the world's oil consumption growth in 2011.

After years of driving world energy markets, the growth of China's oil demand is slowing to a crawl. A recent study by the Paris-based International Energy Agency (IEA) estimates that the country's oil demand will rise at an average annual pace of 2.6 percent through 2020, only about half the rate during China's explosive expansion of the previous decade. China's oil demand is slated to grow 2.5 percent this year to 10.63 million barrels per day the

IEA said in its Medium-Term Oil Market Report. That compares with consumption growth of 16.8% in the boom year of 2004 when China used 6.74 million barrels per day, according to BP Statistical Review of World Energy.

While China's oil demand will increase twice as fast as that of the world as a whole, it will add less than 300,000 barrels per day annually through 2020, or about one-third less than it did in 2009-2014, the IEA said. The new estimates represent a substantial drop from the IEA's forecast for China 2014, shaving as much as 500,000 barrels per day from demand totals for 2017-2019. The adjustment reflects a perception of significant changes in China's growth patterns, economic policies and energy efficiency, the report indicates.

"President Xi Jinping's 'new normal' encompasses curbed oil demand growth as the closure of excess capacity in many industries, most notably coal and steel, filters through to lessened oil demand growth," the IEA said. "These heady efficiency gains, coupled with deliberate government efforts to curb energy demand in order to satisfy tightening clean-air regulations, and the recent easing in macroeconomic conditions, explain the definite shifting in gears that has been seen in China," it said. Taken by itself, China's "new normal" of lower economic growth rates would be a likely cause of slower growth in demand. Last year's 7.4 percent rise in gross domestic product (GDP) was the smallest since 1990, decelerating from 7.7 percent in each of the two prior years. In its recently updated forecast, the International Monetary Fund projected further ebbing of growth to 6.8 percent and 6.3 percent for this year and 2016.

'New normal' trends

But the IEA report highlights several "new normal" trends taking place in China at the same time, all of which lead to eased oil demand. Since a surge in construction-related energy waste in 2003-2005, China has gradually improved its efficiency efforts, despite setbacks from its 4-trillion yuan (US\$640-billion) economic stimulus plan in 2008. In 2014, China cut its energy intensity, which measures energy use per unit of GDP, by 4.8 percent, according to the State Council, or the cabinet, exceeding the annual target of 3.9 percent for the first time in years.

The performance could put the country on track to meet its current five-year goal of reducing energy intensity by 16 percent this year compared with 2010. The IEA estimates that China reduced its oil intensity index by 18 percent from 2008 to 2014 and will see a similar improvement by 2020. The study projected that new cars

sold in China this year would be nearly 15 percent more fuel efficient than in 2000 and will be over 20 percent more efficient in 2020. The gains take some of the impact out of the rise in auto ownership with 154 million cars now on the road, according to the country's Ministry of Public Security. Car sales rose 6.9 percent to 23.5 million last year, the China Association of Automobile Manufacturers reported. But the growth was far less than the 13.9 percent increase in 2013.

The IEA also sees China's push to cut overcapacity in construction-related industries like steel and cement as paying dividends. Significant drops in diesel fuel consumption, for example, cannot be explained by the relatively small decline in official GDP growth numbers alone, it said. The study reasons that pressures to reduce air pollution are leading to cutbacks at the least efficient production facilities, reducing the huge volumes of coal previously transported to the outdated plants. "These additional efforts have accordingly curbed the amount of diesel that was then required, tapering truck/rail needs, an important sub-sector of diesel demand that we cannot emphasize enough," the agency said.

Meanwhile, China's coal production fell 2.5 percent in 2014, marking the first decline since 2000, Xinhua reported, citing partial figures from the China National Coal Association (CNCA). It is unclear how much anti-pollution measures have contributed to the drop. The coal industry itself has been plagued by overcapacity and low prices, forcing cutbacks due to losses. It is reported that the central government also will not approve any new coal projects in eastern China.

China's energy policies

The Chinese government's energy policies are dominated by the country's growing demand for oil and its reliance on oil imports. The National Development and Reform Commission (NDRC) is the primary policymaking and regulatory authority in the energy sector, while four other ministries oversee various components of the country's oil policy. The government launched the National Energy Administration (NEA) in July 2008 in order to act as the key energy regulator. The NEA, linked with the NDRC, is charged with approving new energy projects in China, setting domestic wholesale energy prices, and implementing the central government's energy policies, among other duties. The NDRC is a department of China's State Council, the highest organ of executive power in the country. In January 2010, the government formed a National Energy Commission with

the purpose of consolidating energy policy among the various agencies under the State Council.

China's big-three oil companies – China National Petroleum Corporation (CNPC), China Petrochemical Corporation (Sinopec) and China National Offshore Oil Corporation (CNOOC) – wield a significant amount of influence in China's oil sector. CNPC and Sinopec operate a range of local subsidiaries, and together dominate China's upstream and downstream oil markets. CNPC is the leading upstream player in China and, along with its publicly-listed arm PetroChina, accounts for roughly 60 percent and 80 percent of China's total oil and gas output respectively. CNPC's current strategy is to integrate its sectors and capture more downstream market share. Sinopec, on the other hand, has traditionally focused on downstream activities, such as refining and distribution, with these sectors making up nearly 80 percent of the company's revenues in recent years. The company seeks to acquire more upstream assets gradually.


CNOOC is responsible for offshore oil exploration and production and has seen its role expand as a result of growing attention to offshore zones. Also, the company has proven to be a growing competitor to CNPC and Sinopec by not only increasing its exploration and production expenditures in the South China Sea, but also extending its reach into the downstream sector, particularly in the southern Guangdong Province. Sinochem Corporation and CITIC Group have also expanded their presence in China's oil sector, although they are still relatively small.

Whereas onshore oil production in China is mostly limited to CNPC and CNOOC, international oil companies (IOCs) have been granted greater access to offshore oil prospects and unconventional gas fields, mainly through production sharing agreements and joint ventures. IOCs involved in offshore exploration and production work in China include: Conoco Phillips, Shell, Chevron, BP, Husky, Anadarko, and ENI, among others. China's NOCs must hold the majority participating interest in a production sharing contract (PSC) and can become the operator once development costs have recovered. IOCs

offer their technical expertise in order to partner with a Chinese NOC and make a foray into the Chinese markets.

Accelerate market-oriented reform of natural gas in Sichuan-Chongqing region

Currently, China's economy is going through the state of new normal and reform has entered a critical state and a deep-water zone. Energy industry marks a crucial field for deepening reform, out of which the significant and difficult part for deepening reform and facilitating energy revolution is the energy system revolution. And it is of practical and far-reaching significance, through natural gas systematic reform, to launch trial practice in the pilot area of Sichuan-Chongqing region to push forward the market-oriented reform for natural gas so as to explore a path for promoting energy revolution and accelerate market-oriented reform for natural gas industry.

The Sichuan-Chongqing region in Sichuan Basin boasts large reserves of natural gas resources, extensive distribution of sources, numerous layer series for production and appropriate transport and supply facilities. Meanwhile, the social and economic development in Sichuan-Chongqing region has a heavy dependency on natural gas. In view of the strategic position, Sichuan-Chongqing region is a critical growth pole for the western development as well as well as the core area in the upper reach of the Yangtze River Economic Belt. Therefore, accelerating trial practice of market-oriented reform for natural gas in pilot area of Sichuan-Chongqing region is of major significance to economic and social development in Sichuan and Chongqing as well as to deepening China's natural gas market-oriented reform and accelerating energy revolution. 



PetroChina's oil storage base in Tibet