China Nuclear Power Sector Opportunity Analysis

Description: China's impeccable progress in last three decades has mesmerized the rest of the world by the way it promoted itself from a largely agrarian based economy to the leading industrial economy in just three decades. This economic growth came by the result of well-thought planning and its perfect implementation. Now in order to promote clean energy and to ensure energy security, the People's Republic of China (PRC) is putting major thrust on nuclear power which it started only as an additional energy source in early 1990's. Coal has always been the major energy source in the country due to its abundant coal resources. China's electricity generation is on an average three-fourth dominated by coal based electricity generation. The situation, however, is changing of late due to increasing concern of environmental degradation because of carbon emissions by indiscriminate burning of coal. China is already world's largest polluter with maximum coal consumption in electricity generation for its 1.3 billion plus population and over a hundred thousand industries. China has committed before international fraternity to cut down its carbon emissions substantially in different phases. The urge to reduce carbon emissions by increased use of clean energy has brought nuclear power at the forefront of China's energy policy.

China has installed capacity for nuclear power of 28.9 GW out of the total installed capacity of 1508 GW from all sources. As in the beginning of April 2016, China has 32 nuclear power reactors in operation, 22 under construction, and few more about to start construction. At present, China is placed at fourth position in terms of installed generating capacity by nuclear power plants, only after United States, France and Japan and fifth in number of reactors in operation - after United States, France, Japan and Russia. Though China's first nuclear power plant was commissioned in 1991 with a unit of capacity 288 MWe in Qinshan in Zhejiang province, only in 1994, nuclear energy started getting the importance what it is receiving now. With the beginning of commercial operation of two nuclear power generation facilities - Daya Bay 944 MWe unit Guangdong and another unit of 288 MWe in Zhejiang, it marked a great milestone for the nuclear energy sector in China.

China is fastest growing nation in adding nuclear power in terms of installed capacity as well as in number of reactors. By 2020, it is likely to beat Japan and will come in the third place. At present there are 64 reactors being built around the world including 22 in China which is 15 more than in second-placed Russia. Number of nuclear reactors in China in 2025 is likely to be more than all but the US and by 2030, it is likely to exceed the USA in terms of number of nuclear reactors as well as total nuclear power installed capacity.

China's nuclear power policy was initially intended to eliminate the disproportion of energy resources between fossil fuel rich northern China and the industrious regions of south and southeast China. But the success of nuclear power and nuclear power boom across the world led the Chinese policymakers to project nuclear as the potentially major energy source in the years to come. Renewable energy sources were considered to take lead in the promotion of clean energy to reduce overdependence on fossil fuels. Though renewable energy sources still have greater installed capacity and getting more investment than nuclear, by 2020 this trend will change and then nuclear will lead clean energy future in China. If the nuclear power expansion targets achieved, by 2040 nuclear power alone will provide 20% electricity to China with the percentage of coal will come down below 50% in order to fulfill the commitment of making China's air cleaner.

"China Nuclear Power Sector Opportunity Analysis" Report Highlight:
- China Power Sector Overview
- China Nuclear Power Sector Overview
- China Nuclear Power Sector Installed & Projected Capacity
- Nuclear Fuel Procurement Overview
- Insight on Existing & Upcoming Nuclear Plants
- China Nuclear Power Sector Regulatory Landscape
- China Nuclear Power Plant Infrastructure & Technology
- China Emerging Exporter of Nuclear Reactor Technology

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