China completes construction of 1st Hualong One nuclear project

China successfully installed the containment dome for its first demonstration nuclear power project using Hualong One technology, a domestically developed third-generation reactor design, in east China's Fujian Province on Thursday.

The hemispherical dome, weighing 340 tonnes and measuring 46.8 meters in diameter, was installed by crane on the No.5 unit of China National Nuclear Corporation (CNNC) in Fuqing City at 5:58 p.m.

The installation marks the completion of construction work on the pilot project and the beginning of the assembly stage, said Yu Peigen, deputy general manager of CNNC at the site of installation.

The dome will be used for protection against nuclear accidents under extreme conditions, and both its design and installation are very demanding processes.

"The installation is much more difficult than that of traditional nuclear reactors because the whole weight of the dome and the ropes is more than 500 tonnes," said Yang Jianguo, the lifting commander at the site.

Construction of the pilot project began in May 2015 and was scheduled to take about 62 months to finish.

The successful installation of the dome will contribute to the development of China's domestic third-generation reactor design and enhance the confidence in Hualong One among Belt and Road countries to boost cooperation, said Wang Shoujun, chairman of CNNC.

The country has actively promoted Hualong One at home and abroad. There are now four projects using Hualong One design under construction, including two reactors in Karachi, Pakistan.

During the Belt and Road Forum for International Cooperation earlier this month, CNNC also signed a cooperation framework agreement with Argentina, a key emerging market for Chinese companies, which included using the Hualong One design for the country's fifth nuclear unit.