

China stepping up smart grid construction

A smart grid has been piloted in Chinese big and medium cities since the State Grid Corporation kicked off the construction in May 2009.

Now, China is stepping up the smart grid construction across the country, as Premier Wen Jiabao put it in the work report to the top legislature, writes Xinhua.

"A unified strong and smart grid system is to be built nationwide by 2020 to incorporate thermal power, hydroelectric power, nuclear power and other renewable ones," said Cai Guoxiong, deputy chief engineer of the China Electric Power Research Institute.

China put the smart grid building on a strategic agenda to facilitate the use of renewable energy and reduce the country's excessive reliance on the high-polluting coal power generation, according to Cai, also a member of the Chinese People's Political Consultative Conference (CPPCC) National Committee.

Xiao Liye, a smart grid expert in the Institute of Electrical Engineering under the Chinese Academy of Sciences, said larger scale smart grid construction will be included into China's new five-year development blueprint starting 2011.

"China gives top priority to the smart grid development since the renewable energy cannot be utilized in large scale without smooth grid transmission," Xiao said.

According to a long-term outline for renewable energy development issued in 2007, China planned to increase the renewable energy proportion to 10 percent of the total energy use by 2010, and 15 percent by 2020.

China is now taking the lead in solar and hydropower generation and its wind power installed capacity ranks fourth in the world.

However, wind and solar energy is usually subject to weather changes and could not produce uninterrupted supplies, and so it is hard to smoothly transmit the power via the traditional grid that carries only stable thermal power supply.

Nearly one-third of the wind power generated in the country has been rendered redundant owing to the transmission bottleneck, according to experts.

The Standing Committee of the National People's Congress, China's top legislature, approved the amendment to Renewable Energy Law in December 2009, urging efforts to develop the advanced grid in a bid to transmit more renewable energy.