



China: accelerating the building of hydroelectric dams

A new decision by Chinese authorities will change the conditions for hydropower development, until now in unfair competition with electricity from fossil fuels.



A Chinese family visiting the 3 Gorges dam while it is being built

China is the largest dam-building country, today and in the foreseeable future. About half of the 50 000 large dams of the planet are Chinese and so are a major part of those being built in the 21st century. China is also the largest hydroelectricity producer, generating 721 terrawatt-hours (TWh) in 2010, which represented 17% of its electricity consumed. According to the National Energy Administration, China added 29 gigawatts of hydropower generation capacity last year, to a total of 278 GW

The market for hydropower in China is expected to increase rapidly in the coming years. There are many ongoing construction projects of new hydropower plants and the enlargement of existing facilities. Most major players have set high targets to increase capacity to at least two to three times their current levels. The government prioritizes the development of hydroelectricity and will focus its efforts on increasing hydropower's share of total power generation, thereby constraining the share of thermal power generation.

The government's strategy for developing renewable energy in China has already had a positive impact on the development of the industry. Though, many problems still exist in hydropower development such as environmental protection, mainly because enterprises fail to deal with the relationship between hydropower development and local residents' interests as well as ecological protection. With 2020 clean-energy targets to meet, China is set to accelerate the building of hydroelectric dams, reversing a long halt caused by environmental concerns and the social upheaval of relocating people living in the shadow of dam sites.

The first sign of this new turn for hydropower development came when the country's National Development and Reform Commission (NDRC) announced, on January 22nd, a reform that will probably increase the price grid operators pay to hydroelectric power plants in an effort to stimulate industry investments.

According to China Daily, "announcement of the new policy, which has not been clearly defined yet, implies the government might raise the generator's prices of hydropower."

In the past, hydropower prices were controlled by local governments. Hydropower prices were usually lower than on-grid electricity generated by other traditional forms, including coal, and this was an obstacle to hydropower development. The commission explained that prices for hydropower will now be based both on the average wholesale prices for purchasing electricity in the country, and on the costs for installing hydropower plants.

The commission said the policy change is due in large part to the country's effort to meet its national renewable portfolio standard, which says non-fossil energy should make up 11.4% of China's overall mix by 2015. China aims to source 15% of its power mix from renewables by 2020. It has also set a goal to cut carbon dioxide (CO₂) emissions by 40%-45% by 2020 as compared to 2005 levels.