

How does water help to achieve “double carbon” goals from the basic logic of carbon neutrality

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At the 75th session of the United Nations General Assembly in September 2020, Chinese president Xi Jinping solemnly committed: China aims to peak its carbon dioxide emissions by 2030 and strive to be carbon neutral by 2060 (“double carbon” goals). Reaching peak carbon emissions and achieving carbon neutrality is an inevitable choice, for implementing Xi Jinping’s thought on ecological civilization, solving problems of resources and environment, achieving the sustainability of the Chinese nation. Water is a basic natural resource, an important controlling factor in the ecological environment. Water conservancy is the essential foundation of national economic and social development. It has irreplaceable important responsibilities in the process of realizing “double carbon” goals. Analyze the basic logic of achieving carbon neutrality, research and propose ways and tasks for water help to achieve “double carbon” goals. It not only plays an important role in realizing “double carbon” goals early in China, but also is great significance to the new stage water conservancy high-quality development.

The paper adopts conceptual analysis, investigation, and qualitative analysis. First, it reviews the background of carbon neutrality initiative and clarifies the connotation of carbon neutrality. Second, it analyzes sources of carbon dioxide emissions in China. Third, it researches methods to achieve carbon neutrality from the discharge and fixed end. Fourth, it holds that we should follow the basic logic of carbon neutrality, grasp the mechanism of water's effect on carbon neutrality, adhere to ecological priority and green development, and provide important support for the realization of “double carbon” goals with high-quality development of water conservancy. Finally, it proposes four ways and tasks for water help to achieve the goal of “double carbon”: 1. Strengthen the intensive and economical use of water resources and reduce carbon emissions during the development and utilization of water resources. 2. Improve the water environment and enhance the capacity of water ecosystems to sequester carbon. 3. Actively yet prudently develop hydropower and promote the adjustment of the energy mix. 4. Promote the low-carbon construction and operation of water conservancy facilities.