

# Research on Key Technologies of Integrated Energy System Under Dual

## Carbon Target

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With the high-quality development of China's economy and the acceleration of energy transition, especially under the carbon peak goal by 2030 and the carbon neutral vision by 2060 proposed by General Secretary Xi Jinping in 2020, the development of China's Integrated Energy System is facing new opportunities and challenges. In the future, the Integrated Energy System will develop towards clean, smart, decentralized and comprehensive. In addition, the form of energy utilization will also show the trend of comprehensive and optimized utilization in the process of supply, transmission, consumption and conversion for cooling, heating, power and natural gas. This report mainly focuses on the discussion of the key technologies of the Integrated Smart Energy System under the background of the Dual-Carbon Goal, which is expected to promote the breaking of technical barriers, market barriers and institutional barriers of the existing energy system, achieve the complementary and coordinated optimization of multiple energy sources, and contribute to the Dual-Carbon Goals.