



Promote the Revolution in Energy Use to Enhance the Impetus for Green Transformation and Development

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Energy, as a core element of human civilization development, has always run through all stages of the evolution of social productive forces. From the pre-industrial period dominated by biomass energy to the industrialization process relying on fossil energy, and then to the current low-carbon transformation driven by renewable energy, the evolution of energy use structure has constituted the material support for the leapfrog development of productive forces. However, energy use has also brought unprecedented challenges to human survival, such as global warming and frequent extreme weather. To address the crisis, countries have successively proposed carbon peaking and carbon neutrality goals, and the green and low-carbon transformation of

energy has become a global consensus.

With the vigorous development of distributed renewable energy and the continuous construction of new energy systems, the ways and concepts of energy production, transmission, conversion and utilization have undergone fundamental changes. The traditional energy supply and demand balance model is also shifting from "source following load" to "source-load interaction". Therefore, driving the green and low-carbon transformation of energy from the energy use side is particularly worthy of attention. It is urgent to build a smart and efficient energy network, enhance the carrying capacity of new energy, and fully achieve flexible regulation in all links of source, network



and load, forming a new pattern of energy supply and demand coordination.

From the perspective of technological innovation, first, it is urgent to accelerate the technological innovation and promotion of smart energy use,

improve energy utilization efficiency; accelerate the intelligent and flexible transformation of the power system, integrate and consume the continuously increasing renewable energy nearby, and at the same time, promote

the interconnection and intercommunication among energy service providers, equipment and consumers through digital and intelligent technologies. Second, we should focus on the electrification of terminal energy use and the efficient use of renewable energy, cultivate and promote cross-industry solutions of "energy use internet + green and low-carbon", and promote the all-round development of green products and green industrial chains. Third, the market mechanism of energy use rights trading and green certificates should be improved to enhance the activity of green energy use.

In response to the deep transformation trend on the energy use side, the journal "Energy Use" is born. This journal aims to provide an international exchange platform for global researchers in the field of energy use, focusing on accelerating and disseminating research, innovation and practice of energy use. The scope of this journal is extensive, covering all disciplines and themes related to energy use, including green and low-carbon energy use, energy technologies related to energy use systems, energy use in various industries and fields such as power, industry, buildings, transportation and agriculture, modeling, design and planning of energy use systems, friendly

interaction between energy use systems and power grids, energy use assessment and management, application of artificial intelligence and new materials in energy use systems, energy use and carbon markets and policies. The journal is committed to promoting the coordinated development of scientific research, technological innovation and engineering application in the field of energy use. The editorial board of this journal is composed of scholars from renowned universities at home and abroad, such as the Massachusetts Institute of Technology in the United States, University College London in the United Kingdom, the University of Tokyo in Japan, the Technical University of Denmark, the Hong Kong Polytechnic University, Tsinghua University, Zhejiang University and Beijing Institute of Technology. This journal will also strive to be indexed in the SCI database within 3-5 years, with an expected impact factor of about 20. In addition, the editorial team of this journal will adhere to a rigorous attitude, abide by the principles of scientific integrity, and conduct a fair peer review process. We sincerely welcome researchers from all over the world to contribute cutting-edge scientific research results and new perspectives in the field of energy use.