

Achieving Carbon Neutrality in 2050

May 21, 2021

The Federation of Electric Power Companies of Japan

Building on the concurrent achievement of “S + 3E,” we electric power operators will strive to decarbonize power sources on the supply side, promote maximum electrification on the demand side, and consolidate our technologies and wisdom as we willingly take up this challenge of achieving carbon neutrality in the year 2050.

The basic approach and direction of our initiatives are outlined below.

<Basic approach>

- The achievement of carbon neutrality in 2050 is an extraordinarily challenging goal, encompassing many uncertainties and issues that will need to be addressed and requiring innovation to develop radical groundbreaking technologies.
- In addition, we recognize that the electric power industry must play a major role as efforts are needed on both the demand and supply sides with decarbonization of producers’ power sources as well as the promotion of electrification among users to the greatest extent possible.
- In addition, even as we seek to achieve carbon neutrality, there will be no change in our energy policy, an integral part of which is pursuing the concurrent realization of Energy Security, Economic Efficiency, and Environment on the premise that Safety is assured first and foremost.

<Direction of initiatives>

- In moving to decarbonize power sources on the supply side, it is important that we pursue a balanced energy mix that does not excessively rely on any particular power source and takes into account the perspectives of resilience as well as Japan’s dearth of energy resources and suitable sites for renewable energies. We will endeavor to develop renewable power sources with the aim of establishing these as part of our core sources, maximize use of nuclear power while placing the highest priority to safety along with replacing and constructing new plants, and promote the development, verification, adoption, and commercialization of technologies for decarbonizing thermal power sources.
- In addition to efficiently utilizing energy and facilitating maximum electrification on the demand side, we need to promote the supply and use of carbon-free energies, such as hydrogen, in sectors where electrification has faced technical difficulties. We will employ greater ingenuity in our efforts to expand services and other systems with the aim of maximizing electrification in industry, transport, business operations, households, and a variety of sectors. In addition, we will utilize water electrolysis systems in our objective of supplying and promoting the use of hydrogen as a new method for using electrical energy, and we will endeavor to phase in this technology to see its practical application for society.

In addition, we believe that the following conditions and policies are essential for these initiatives.

<Essential conditions and policies>

- Achievement of compatibility and consistency between economic rationality and socially-implementable innovative technologies as well as policy and fiscal measures contributing to the aforementioned initiatives.
- Promotion and support for capital, R&D, and other investment necessary for achieving carbon neutrality. Construction of a framework and fostering of an understanding that enabling such

costs to be borne by society as a whole.

We will integrate the wisdom, experience, and other assets of utilities as we make a concerted effort to work responsibly and comprehensively to achieve carbon neutrality in 2050, and thereby contribute to balancing global warming prevention with progress and development of the Japanese society as a whole.

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