

Measures by Japan's Electric Power Industry to Reduce CO₂ Emissions

1. 2020 Targets for Reducing Domestic Emissions from Business Activities	Target Standards	<ul style="list-style-type: none"> ○ From the perspective of simultaneously achieving S+3E--the prerequisite of ensuring Safety (S), along with the (3 Es) of Energy security, Economic viability and Environmental conservation, and under the premise of pursuing an ideal mix of energy sources, take steps on both the electricity demand and supply side and continue to strive to realize a low-carbon society. ○ When newly installing thermal generation, use the highest standard of technology that can be applied economically (BAT), according to the scale of the plant, in order to achieve a potential reduction that is forecast to be up to 7 million tons of CO₂. *1, *2
	Foundations for Establishing Targets	<p>Each participating company shall put together initiatives according to their business structure and strive to realize a low-carbon society.</p> <ul style="list-style-type: none"> ○ Promote the use of nuclear energy under the prerequisite of ensuring safety. <ul style="list-style-type: none"> · In addition to implementing thorough safety measures at nuclear power plants, based on the lessons learned and knowledge gained from the Fukushima nuclear power plant accident, take independent, continuous steps to improve safety, not restricted to regulatory standards. · In order to gain the broad understanding of everybody in society, including residents living near plants, in addition to providing careful explanations, strive to safely and stably operate plants whose safe operation has been confirmed. ○ Promote the use of renewable energies <ul style="list-style-type: none"> · Utilize hydro, geothermal, solar, wind and bio-mass energy sources. · Promote technological R&D etc. for dealing with fluctuations in output of renewable energy sources. <p>Investigate measures for dealing with fluctuations in the output of solar power. Investigate introducing and expanding wind power generation, utilizing tie lines between regions.</p> <ul style="list-style-type: none"> ○ Strive to improve the efficiency of thermal plants, etc. <ul style="list-style-type: none"> · When developing thermal generation, use the highest standard of technology that can be applied economically (BAT), according to the scale of the plant. · Strive to maintain the appropriate thermal efficiency of existing plants. ○ Strive to provide customer energy efficiency and low carbon services that contribute to a low carbon society. <ul style="list-style-type: none"> · Strive to provide energy efficiency and low carbon services based on customer needs for a low carbon society in the field of electricity retailing.
2. Strengthen Cooperation between Entities		<p>Recognize that in order to reduce electricity-related CO₂ emissions and improve the emissions factor, cooperation is essential between the government, which makes energy policies including those for nuclear power and renewable energy, and customers who use electricity via generation, transmission and distribution, and retailing. In addition to company's own efforts, linkages between the main players should be strengthened.</p> <ul style="list-style-type: none"> ○ From the perspective of getting customers to use electricity more efficiently, we will help them achieve CO₂ reductions by spreading the use of highly efficient electrical devices and through energy and CO₂ conserving initiatives. ○ Work to introduce smart meters, as a green technology to help customers achieve more efficient use of electricity.
3. Promote International Contributions		<p>Contribute to reducing CO₂ in various countries by spreading overseas the technology and know-how gained by electricity companies in Japan.</p> <ul style="list-style-type: none"> ○ Support shifting to low carbon output in developing countries and transfer or supply Japanese power generation technologies via international partnership (GSEP) activities for energy efficiency, such as assessing coal-fired equipment and CO₂ reduction initiatives. ○ Aim for a global shift to low carbon through the development and introduction of advanced and feasible electric power technologies based on trends in international schemes including Joint Crediting Mechanism (JCM). <p>(Note) There is potential for a reduction of up to 500 million tons/year of CO₂ from coal fired power plants in the OECD and Asian developing countries in 2020 if high-efficiency plants are introduced and operations are improved.</p>
4. Development of Innovative Technologies		<p>Continue to work to develop technologies that contribute to environmental protection on both the electricity demand and supply sides.</p> <ul style="list-style-type: none"> ○ Develop technologies for the use of nuclear power ○ Thermal technologies that reduce environmental impact (A-USC, IGCC, CCS etc.) ○ Manage the large-scale introduction of renewable energy (improvement of thermal plant load following, stabilization of transmission and distribution networks, increased adoption of biomass and geothermal generation, etc.) ○ Develop technologies for the efficient use of energy

*1: Review these targets and action plans as necessary based on trends in energy and environmental policies, technology development in Japan and overseas, and changes in the business environment, etc., while promoting the PDCA cycle.

*2: Maximum reduction potential based on a comparison of the effect of adopting the BAT for the development of the main electricity sources from FY2013 onward instead of conventional technologies.