

Environmental Action Plan by the Japanese Electric Utility Industry CO₂ emissions 2008–2012

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Federation of Electric Power Companies

The CO₂ emissions for fiscal 2012 were announced by the electric power companies, totaling 415 million t-CO₂ with a collective CO₂ emissions intensity of 0.487 kg-CO₂/kWh. Accordingly, the average CO₂ emission intensity for the five years from 2008 to 2012 (First Commitment Period of the Kyoto Protocol) was 0.406 kg-CO₂/kWh.

With the target of “reducing CO₂ emissions intensity by an average of approximately 20% from the fiscal 1990 level” under the “Environmental Action Plan by the Japanese Electric Utility Industry”, the power companies have been taking measures to reduce CO₂ emissions on both the supply and demand sides, including reducing the carbon emissions from energy on the supply side and improving the efficiency of energy utilization by end users on the demand side. The power companies have continued to make utmost efforts despite the worsening management environment following the Great East Japan Earthquake, including amortizing 270 million t-CO₂ of emissions credits in total under the Kyoto mechanism during the five years in order to meet the target.

Despite such efforts, the average CO₂ emissions intensity decreased only 2.6% from fiscal 1990 due to the increased use of thermal power plants to compensate for the long-term shutdown of nuclear power plants following the earthquake.

For fiscal 2013 and beyond, it is difficult to set a target at present as the national energy policy and the prospects for restarting nuclear power plants remain uncertain. However, the power companies will continue to consider how best to set the target, and strive to achieve a low-carbon society by promoting measures on both the supply and demand sides.

Target for reducing CO₂ emissions

Reducing CO₂ emissions intensity (emissions per unit of user-end electricity) by an average of approximately 20%, about 0.34 kg-CO₂/kWh, from the fiscal 1990 level, between fiscal 2008 and fiscal 2012

CO₂ emissions during the five years from fiscal 2008 to fiscal 2012

| Item \ Year | 1990 | 2008 | 2009 | 2010 | 2011 | 2012 | Five-year average (2008–2012) |
|---|-------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Electric power consumption (billion kWh) | 659 | 889 | 859 | 906 | 860 | 852 | — |
| CO ₂ emissions ^{*1} (million t-CO ₂) | 275 | 332 [395] ^{*2} | 301 [353] ^{*2} | 317 [374] ^{*2} | 409 [439] ^{*2} | 415 [486] ^{*2} | — |
| CO ₂ emissions intensity of user-end electricity ^{*1} (kg-CO ₂ /kWh) | 0.417 | 0.373 [0.444] ^{*2} | 0.351 [0.412] ^{*2} | 0.350 [0.413] ^{*2} | 0.476 [0.510] ^{*2} | 0.487 [0.571] ^{*2} | 0.406 [0.469] ^{*2} |

*1 CO₂ emissions and the CO₂ emissions intensity of user-end electricity reflect the Kyoto mechanism credits (“credits”) in accordance with the method stipulated in the “Act on Promotion of Global Warming Countermeasures”. The figures for 2012 and the five-year average may improve slightly when the additional credits currently outstanding due to the delay in reviewing by the UN have been incorporated.

*2 Figures in brackets [] are the CO₂ emissions and user-end CO₂ emission intensity not reflecting carbon credits.