## **Targets and outcomes**

Accomplishments of environmental targets to be met in the fiscal year ending March 2009 and new targets to be met in the fiscal year ending March 2011

| Category of environmental conservation activities  | Main activities  | Target to be met by fiscal 2009  | Base value (base year: fiscal 1991) | Results for fiscal 2009   | Results                                | Targets to be met by fiscal 2011   |
|--|--|--|-------------------------------------|---|--|--|
| Measures to prevent global warming                 | Total CO <sub>2</sub> emissions from railway business activities   | 22% reduction (as compared with fiscal 1991) (2.15 million t-CO <sub>2</sub> ) | 2.76 million t-CO2                  | 18% reduction (2.26 million t-CO <sub>2</sub> ) - Act on Promotion of Global Warming Countermeasures 24% reduction (2.10 million t-CO <sub>2</sub> ) - relative to                    | (C) Achieved                           | 50% reduction by fiscal 2031(relative to fiscal 1991) 2.76 million t-CO <sub>2</sub> → 1.38 million t-CO <sub>2</sub> (reduction by 1.38 million t-CO <sub>2</sub> ) |
|  |  | (2.13 Hillion (2002)   |                                     | target management values*3  |  | 32% reduction by fiscal 2018(relative to fiscal 1991) 2.76 million t-CO <sub>2</sub> → 1.88 million t-CO <sub>2</sub> (reduction by 0.88 million t-CO <sub>2</sub> ) |
|  | CO2 emissions per unit electricity generated at JR East's thermal power plant  | 40% reduction  | 726g-CO <sub>2</sub> /kWh           | 36% reduction (465g-CO <sub>2</sub> /kWh) - Act on Promotion of Global Warming Countermeasures  38.9% reduction (444g-CO <sub>2</sub> /kWh) - relative to target management values *3 | 98.9% of the target<br>figure achieved | No target has been established because CO <sub>2</sub> emissions are controlled in the total emissions from railway business activities.                             |
|  | Energy-efficient railcar utilization rate  | 82%  | _                                   | 86%   | Achieved (                             | 86%  |
|  | [A new establishment]<br>Electricity used for train operation  | _  | _                                   | 4.06 billion kWh  | -                                      | 2% reduction (relative to fiscal 2007) 4.17 billion kWh → 4.09 billion kWh (reduction by 0.08 billion kWh)   |
|  | Train energy consumption per unit transport volume   | 19% reduction  | 20.6MJ/car-km                       | 15% reduction (17.5MJ/car-km) - Act on the Rational Use of Energy. 18.9% reduction(16.7MJ/car-km)- relative to target management values *3  | 99.9% of the target<br>figure achieved | No target has been established because the basic unit is managed by newly adopted electricity per unit transport volume."  |
|  | [A new establishment] Train electricity used per unit transport volume   | _  | _                                   | 1.80kWh/car-km  | _                                      | 2% reduction (relative to fiscal 2007)<br>1.85 kWh/car-km → 1.81 kWh/car-km (reduction by 0.04kWh/car-km)  |
|  | [A new establishment]<br>Energy saving at stations and offices   | _  | _                                   | 15.3 billion MJ   | _                                      | 4.5% reduction (relative to fiscal 2007)<br>15.3 billion MJ → 14.6 billion MJ (reduction by 0.7 billion MJ)  |
|  | Large refrigerators using specified chlorofluorocarbons (CFCs)   | 100% reduction   | 82                                  | 100% reduction  | Achieved (                             | -  |
| Measures for<br>resource<br>circulation            | Recycling rate for waste generated at stations and on trains   | 45%  | _                                   | 70%   | Achieved (                             | 70%  |
|  | Recycling rate for waste generated at General Rolling Stock Centers, etc.  | 85% (Average for 4 years of plan) *1   | _                                   | 92% (Average for 4 years of plan) *1  | Achieved (E)                           | 95%  |
|  | Recycling rate for waste generated in construction projects  | 92% (Average for 4 years<br>of plan) *1  | _                                   | 90.7% (Average for 4 years of plan) *1  | 98.7% of the target figure achieved    | 92%  |
|  | Recycling rate for general waste   | 43%  | -                                   | 55%   | Achieved (E)                           | No target has been established because all group companies set their own numerical   |
|  | Recycled office paper utilization rate   | 100%   | -                                   | 92%*4   | 92.0% of the target figure achieved    | 100%   |
| Chemical substance management                      | NOx emissions from JR East's thermal power plant   | 63% reduction  | 994t                                | 61.9% reduction (379t)  | 98.9% of the target figure achieved    | No target has been established because all available measures with the current tech have been taken.   |
| Environmental<br>activities<br>along railway lines | Reduction of noise to 75dB or less along the Tohoku and Joestsu Shinkansen Lines (in designated noise control area) *2 | 100% (Target to be met<br>by fiscal 2010)                                      | _                                   | 81%   | Ongoing                                | 100% (Fiscal 2010 targets have been achieved)  |
| Environmental communication                        | Participation in specific environmental protection activities every year   | Participation in tree planting, etc.   | -                                   | 54 thousand trees planted at 18 locations   |  | Participation in tree planting, etc.   |
| Environmental<br>management                        | [A new establishment] Setting of numeric targets by all group companies  | -  | -                                   | Established   |  | All group companies set their own numerical targets  |

Targets for the JR East Group

\*1 Average for 4 years of plan Fiscal 2006-2009 average.

\*2 Measures to reduce noise along the Tohoku and Joetsu Shinkansen Lines We have completed measures to reduce noise to 75dB or less, following guidance by the national government. In areas not subject to guidance, we are carrying out improvements to be completed in the fiscal year ending March 2010.

\*3 Relative to target management values We manage progress toward achievement of targets for the fiscal year ending March 2009 using values calculated with coefficients in "Voluntary Action Plan on the Environment" by the Japan Federation of Electric Power Companies, and from other sources, as of the date that the targets were set, in order to clearly understand changes to our measures on a year-to-year basis.

\*4 Recycled office paper utilization rate Papers sold as recycled paper by manufacturers are calculated as recycled paper.