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## Basic Concept for Ecology Promotional Activities

### Basic philosophy and basic policies for promoting ecological activities (established May 1992, partially revised in September 2012)

The JR East Group formalized its basic philosophy and policies in 1992 and established activity guidelines in 1996.

Our specific environmental protection measures are based on these.

#### Basic philosophy

- The entire JR East Group, as a member of society, will diligently strive to balance global environmental protection with our business activities.

#### Basic policies

- To contribute to creating a global environment for the future through our business activities for our customers and local communities.
- To develop and provide the technology needed to protect the global environment.
- To maintain our concern for the global environment and raise global environmental awareness of our employees.

### Activity guidelines for the promotion of ecological activities (established March 1996 and partially revised in February 1998 and September 2012)

- While working to reduce total energy consumption by enhancing energy efficiency and introducing cleaner forms of energy, we endeavor to reduce CO<sub>2</sub> emissions, a contributor to global warming.
- We ensure the proper management and processing of environmental pollutants and ozone-depleting substances, in compliance with laws and regulations. Moreover, we do our best to reduce generation of such substances and adopt environmentally responsible substitutes as much as possible.
- We ensure the appropriate processing of various types of waste generated at our offices, establishments, stations, trains, and other locations. We strive to recycle waste and to reduce its generation, and to use more recycled and resource-saving products to minimize the burden we place on the environment.
- We respect the natural environment, which nurtures diversified life, and endeavor to reduce noise and vibrations caused by train operations, thus achieving harmony with the environment along railway lines.
- We are looking carefully at the impact of railways on the environment once again, in order to enhance the environmental superiority of railways and to spread that awareness throughout the world.

### Committee on Ecology

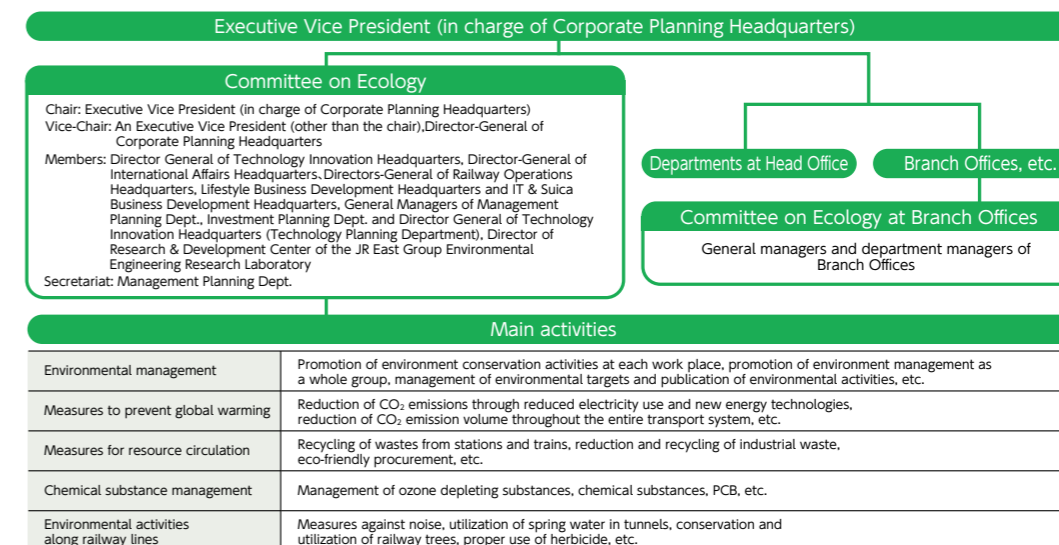
Established in 1992 as a top management organization to promote environmental activities and chaired by the executive vice president of JR East, the Committee on Ecology Promotion surveys the environmental impact of business activities, sets environment-related targets, implements environmental conservation activities and monitors progress toward target achievements, etc. which is also examined by top management. Furthermore, the

"Environmental Management Office" was established in our Management Planning Dept., and oversees environmental management for the entire JR East Group.

### Compliance with environmental laws and regulations

There were no major violations of environment-related laws and regulations resulting in penalties in FY2018.

[ Organizational structure to promote environmental management (as of July 2018) ]



## Environmental Management

### Management of Environmental Goals

#### FY2031 goals

With the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) held in December 2015 adopting the Paris Agreement which will be a new international framework for global warming countermeasures after 2020, JR East has set environmental goals to be achieved in FY2031.

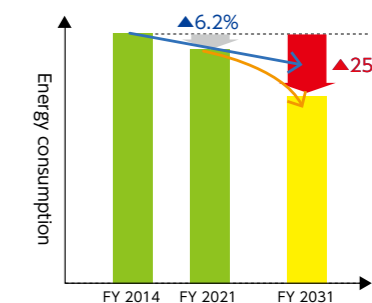
Category of environmental conservation activities	Performance indicators	Targets to be met by FY2031
Measures to prevent global warming	Energy consumption from railway business activities	25% reduction (compared to FY2014)
	CO <sub>2</sub> emission volume from railway operations	40% reduction (compared to FY2014)

#### 25% reduction of energy consumption for railway operations (compared to FY2014)

Towards realizing the FY2031 goals, we pursue achieving a reduction of 25% energy consumption

for railway operations (compared to FY2014) by accelerating the reduction pace to FY2021 through activities such as installation of power storage facilities, using renewable energy, and increasing the introduction of E235 series trains.

In addition, we aim to achieve further system innovation such as enabling energy-saving automated operation.



#### 40% reduction of CO<sub>2</sub> emission volume from railway operations (compared to FY2014)

Based on the assumption that power company emission factors will be 0.37 kg-CO<sub>2</sub>/kWh in FY2031, we have set goals on CO<sub>2</sub> emission volume, and a 25% reduction in energy consumption.



Safety



Society



Environment