

The Environment

Environmental Actions Taken by Group Companies

All JR East Group companies are implementing a variety of environmental protection activities that are appropriate for their type of business.

Biodiesel Bus Services

JR Bus Kanto Co., Ltd.

Jointly with JR East Consultants Company, JR Bus Kanto conducted demonstration experiments on circular bus routes in Shirakawa City, Fukushima Prefecture, using biodiesel made from waste edible oil collected from JR East Group hotels.

Biodiesel fuel, one of the next-generation fuels, is generally comprised of rapeseed oil, waste edible oil and other fats and oils that are chemically processed to make biodiesel. Compared with traditional fossil fuels, biodiesel is a relatively clean energy source with the following expected environmental effects: ① reduction of CO₂; ② reduction of black lead to one-third; ③ reduction of sulfur oxide (SO_x) to near zero; ④ operational performance on a par with diesel fuel; and ⑤ reduction in engine noise when idling. JR East will continue to further promote Group-wide measures for global environmental protection.

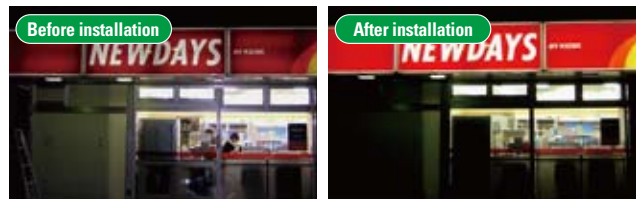


Biodiesel test vehicle

50% Reduction in Fluorescent Tubes in Bright Displays

JR East Retail Net Co., Ltd.

JR East Retail Net succeeded in reducing its use of fluorescent tubes by half while at the same time improving the brightness of displays by installing reflecting plates inside electrically-lit advertising displays at NEWDAYS and Kiosk stores. The number of fluorescent tubes used in fiscal ended March 2008 was reduced by 2,700, and through this measure JR East Retail Net was able to reduce its annual CO₂ emissions by approximately 176t. The company will continue to implement such installations and is aiming for a reduction of approximately 5,310 fluorescent tubes providing a CO₂ reduction of 345t by the end of fiscal March 2009. Furthermore, NEWDAYS has continued with its Suica Eco-Bag Campaign and has proceeded with eco bag use promotion and other active environment preservation measures.



CO₂ emissions reduction at NEWDAYS, Shinagawa.
 Before installation: Used 50 40-watt and 12 20-watt fluorescent tubes, with electricity usage of 2,240W
 After installation: Equal lighting was provided using reflecting plates with 31 40-watt and 4 20-watt fluorescent tubes, with electricity use reduced to 1,320W.

Numerical Targets of Major Group Companies (Fiscal ending March 2009)

LUMINE Co., Ltd.

- 0.71% reduction in electricity for lighting (from fiscal ended March 2006 levels)
- 1.01% reduction in electricity for air conditioning (from fiscal ended March 2006 levels)
- 0.96% reduction in general waste (from fiscal ended March 2006 levels)
- 4.11% reduction in gas usage (from fiscal ended March 2006 levels)
- 102 environmental improvement activities

JR East Food Business Co., Ltd.

- Increase in food recycling rate to 24% by fiscal ending March 2011
- 113t approximate reduction in annual CO₂ emissions through the replacement of disposable chopsticks (annual use is approximately 12.5 million chopsticks) with eco chopsticks (from fiscal ended March 2008)

Morioka Terminal Building Co., Ltd.

- 40% reduction in CO₂ emissions from automobiles (from fiscal ended March 2008 levels)
- 10% reduction in general waste (from fiscal ended March 2008 levels)
- Recycling rate exceeding 25% for general waste

Tokky Co., Ltd.

- 24.4% reduction in energy consumption (electricity, gas, etc.) and 27% reduction in CO₂ emissions at CoCoLo Nagaoka (from the average of fiscal ended March 2002 to fiscal ended March 2004)
- 43% companywide recycling rate for general waste by fiscal ending March 2011

*Figures are targets set by individual Group companies.

*Targets set by each Group company are targets to be achieved by fiscal ending March 2009, but there are some companies which set targets with fiscal years later than fiscal ending March 2010 as the year for target achievement.

*Numerical targets for all Group companies are published on our website.



Composite Waste Processor That Does Not Require Waste Separation

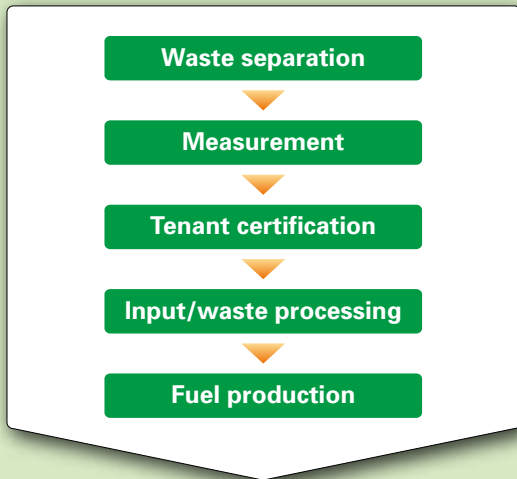
JR East Urban Development Corporation

JR East Urban Development Corporation conducted tests at Ichikawa Shopping Center using a bio-composite waste processor for two years beginning in 2004. Based on the results, improvements were made and commercial operations commenced in April 2008 at Akabane Shopping Center.

The bio-composite waste processor can simultaneously process food waste, plastic, vinyl, paper and disposable wooden chopsticks, and has thus reduced the volume after disposal by 85%. In addition, the processor has many other advantages over conventional processors, including producing almost no odor, providing improved safety due to low temperature processing, and saving space.

Processed materials are converted to fuel and thus contribute greatly to increasing the general waste recycling rate and solving global environmental problems such as CO₂ emissions.

■ Bio-composite waste processor work flow



- Energy resources can be produced from waste at the facility.
- By certifying tenants with ID cards, waste emission information can be compiled into tenant-specific data.

Total Building Energy Savings

JR East Facility Management Co., Ltd.

JR East Facility Management is currently promoting two energy conservation businesses. One is Energy Management Company, which diagnoses the energy usage of specific buildings and proposes energy conservation measures. The other is Energy Service Company (ESCO), which does the full range of construction and thereby guarantees energy saving results. Energy conservation and reduction of utilities costs can be achieved in many ways, such as ground water usage, heat source improvements and the change of lighting and equipment to energy-saving models.

In fiscal ended March 2008, ESCO reduced CO₂ emissions in stations, station buildings and hospitals by 4,326t, the equivalent of the annual CO₂ absorption volume of a forest 165 times the area of the Tokyo dome, and reduced the usage of clean water by 326,700m³, the equivalent of the annual consumption of 1,400 average households.

JR East Facility Management will continue to promote energy conservation-related activities, constructions and technology developments to nurture global environmental protection.



Development of LED light (BT-OWL) — electricity-saving (50% less consumption than fluorescent tubes), long life (7 times longer than fluorescent tubes), no pollution (no mercury)



Automatic water flow controller for toilets (BT-Crab)—reduces toilet water consumption by 50%