

Special Topic 3 Ecoste

JR East employs various environmental preservation technologies and is working to create energy-saving stations known as “ecoste.”

“Ecoste” stations introduce various technologies for environmental preservation, including energy conservation and use of renewable energies. We will create “ecoste” in different areas making use of regional characteristics.

■ Yotsuya Station on JR Chuo Line ~ First ecological station, Yotsuya Station ~

At the first “ecoste” model, JR Yotsuya Station, under the four key concepts given below, various environmental preservation measures are being implemented and 17 eco-menus are employed.

<p>1. Saving energy</p> 	<p>LED lighting is used at platforms and concourses and LED lights are used for illuminated ads and ITV for conductors. In addition, the station endeavors to save water in restrooms, increase the efficiency of air-conditioning equipment, and install skylights so that lighting can be turned off in the daytime. As a result, CO₂ emissions can be reduced by about 176 tons annually.</p>	
<p>2. Creating energy</p> 	<p>Solar panels with a total capacity of 50kW were installed on the roof of the station near the Akasaka Exit, reducing CO₂ emissions by about 13 tons annually. Atre Co., Ltd., a JR East Group company, also installed solar power panels on the roof of atre Yotsuya, next to Yotsuya Station.</p>	
<p>3. Feeling the ecology</p> 	<p>“Eco-information display boards” are installed in the station and customers can see at any time how much energy is being generated and used, helping them to more fully appreciate our eco-activities. We are also improving the thermal environment for pedestrians by paving areas near station exits with water-retentive material.</p>	
<p>4. Harmonized environment</p> 	<p>There is a garden on the roof top of the station building, and there is greenery on the roofs above platforms and on retaining walls.</p>	

In addition to the above, station staff at Yotsuya work diligently to further conserve energy, toward the total result of cutting CO₂ emissions by 189 tons a year (40% reduction from FY2009). That reduction is equivalent to the CO₂ amount absorbed by about 13,500 Japanese cedars in a year.

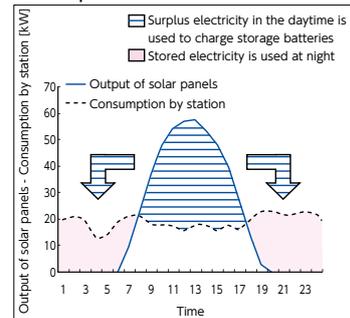
■ Hiraizumi Station on Tohoku Main Line ~ Realizing zero-emissions ~

Hiraizumi Station on the JR Tohoku Main Line is striving, through the use of solar panels and storage batteries, to become a “zero-emissions station,” which generates more electricity than it consumes on fine weather days*.

* According to the Meteorological Agency, a “fine weather day” is one on which 40% of the day is sunny - typically about 170 days annually in the vicinity of Hiraizumi Station.

<p>1. Saving energy</p> 	<p>LED lighting has been introduced on platforms and in offices. Insulation of the station building is improved by using insulating paint.</p>	
<p>2. Creating energy</p> 	<p>Solar power generation panels and storage batteries are installed on the east side of the station.</p>	
<p>3. Feeling the ecology</p> 	<p>“Eco-information display boards” are installed at the station enabling our customers to check the state of our activities at any time.</p>	

Concept of zero-emissions station



VOICE

Yotsuya Station, transformed to an “ecoste,” is a facility where you can learn about ecology

The JR Yotsuya Station on the Chuo Line in Tokyo has been reborn as an “ecoste,” embracing the four concepts of energy conservation, energy generation, Feeling the ecology and environmental harmonization. Working at Yotsuya Station, where we have introduced 17 eco-menus including solar panels, greenery and LED lighting, we can feel and enjoy the natural breezes and light. This is largely attributable to two specific eco-menus – skylights and natural ventilation systems. Blessed with greenery in an area near an ancient outer moat of Edo Castle, Yotsuya Station has become even more pleasant, comfortable and bright, filled with natural light and fresh air. It is especially satisfying to hear so many customers say so. With LED lighting, energy consumption is reduced and platforms are as bright at night as they are in the daytime. Train crews, too, often comment on this. Train drivers in particular say they can see customers on the platform better. Every JR station’s top priority is of course customer safety. Being “bright and easy to see” is about more than being ecological.



“Rooftop garden,” symbol of “ecoste”

Since becoming an “ecoste,” we have had more visitors – educational visits and school trips by elementary- and junior-high school students – and we are working on ideas that will allow more students in the community to make “ecoste” Yotsuya Station a practical resource in their environmental education. Currently, we plan to create guidebooks for our 17 eco-menus, primarily by our eco-promotion members.

It will be a unique accomplishment of the station if people in Yotsuya consider Yotsuya Station to be a symbol of environmental education. Ekinaka (in-station business) is becoming increasingly popular and the utility value of stations has grown as shopping and entertainment spaces. Yotsuya Station is opening up the new possibility of transformation into a educational facility where you can learn about ecology.

With “ecoste” projects to be carried out in various locations, and as the stationmaster of the first, I hope those involved will look at us, gather information, and apply it usefully elsewhere. Of course the picture of a successful “ecoste” will be very different depending on local needs and characteristics.

Quality of “ecoste” boosts eco-awareness of station staff

Awareness of the staff at an “ecoste” is crucial. Hardware has been developed according to 17 eco-menus and it is now up to us, the station staff, to promote eco-activities with greater awareness than

before. Surrounded by exciting equipment and facilities, we must make sure we meet the challenge; otherwise we waste an excellent environment. At present, eco-promotion members are taking the initiative in trial activities to improve awareness of the entire station staff.



Electric energy meter facilitating employee’s activities



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