

#### Power plant Improvement

Our thermal and hydroelectric power plants can supply about 60 percent of the electricity needed to run trains. We are renewing power generation equipment to ensure a more reliable and eco-friendly power supply, promoting studies for low-carbon and decarbonization of a thermal power plant to reduce CO<sub>2</sub> emissions to zero by 2050.

Kawasaki thermal power plant



Senju hydroelectric power plant



#### Power line Renewal and Upgrade

We are working on renewing and upgrading our power line to supply reliable energy to the Tokyo metropolitan area. As a result, the electric power required to operate trains can be stably supplied without power outages, contributing to stable railway transportation.

Duct for high voltage cable



Cable installation work



#### Superconducting Flywheel Energy Storage System

We are further developing the Superconducting Flywheel Energy Storage System in order to reduce CO<sub>2</sub> emissions and reduce energy consumption.

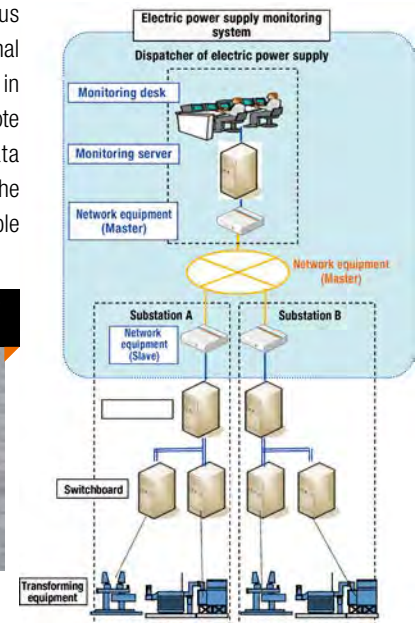
Ikebukuro Substation



#### Renewal of monitoring network

In order to monitor and control the status of power supply equipment for conventional lines, we upgrade the central equipment in the Tokyo Metropolitan area and the remote control network equipment in the Niigata Branch area. To improve the reliability of the system, we replace the communication cable from metal cable to optical cable.

Control console of electric power supply for conventional line



#### Terminal Stations Development

In order to promote city development with our stations as a focus, we are renovating and building our stations to be more attractive and convenient.

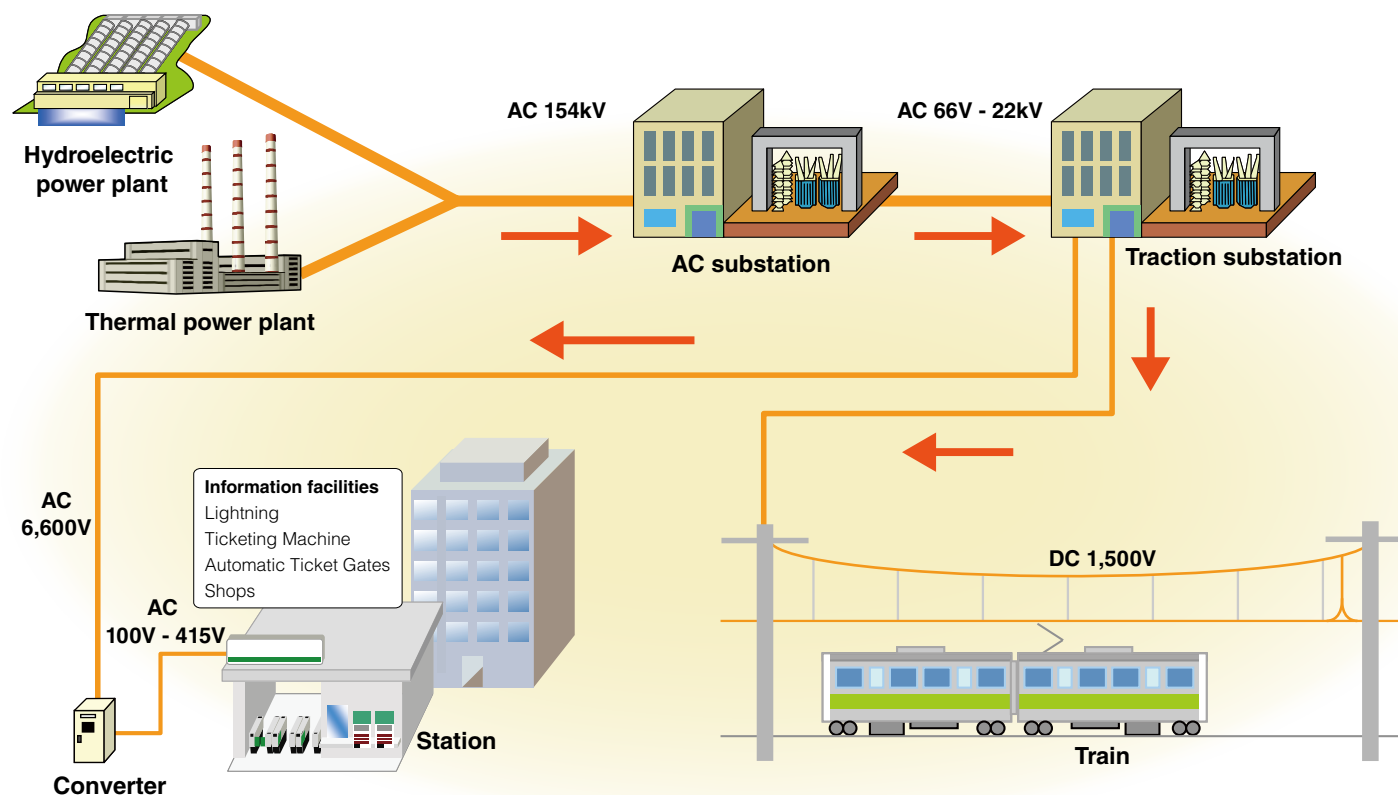
Takanawa Gateway St.



Shinjuku Sta.



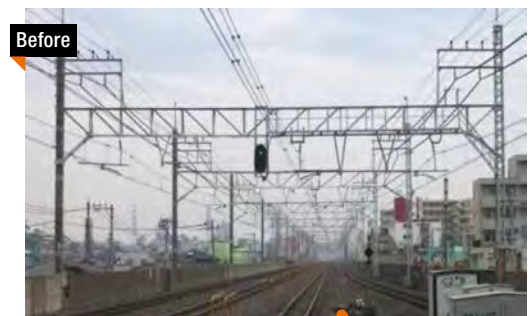
### Power supply system



#### Simplification and Integration of Overhead Catenary System

The Overhead Catenary System (OCS) is designed to have a simplified and integrated structure. The reduction of the number of components needed improves overall safety, and lowers maintenance cost. This system is planned to be implemented in future OCS renewal projects such as Shibuya station and the Haneda Airport Access Line.

Before



"Integrated" structure

