



# Tackling energy and environment issues in the field of industrial and social infrastructure

We are using our energy and environment technology, developed and refined over the period of more than 90 years since the Company was established, to provide customers with products and services in various aspects of industrial and social infrastructure.

Power Generation Facilities



↑ Nga Awa Purua Geothermal Power Station, one of the world's largest (New Zealand)

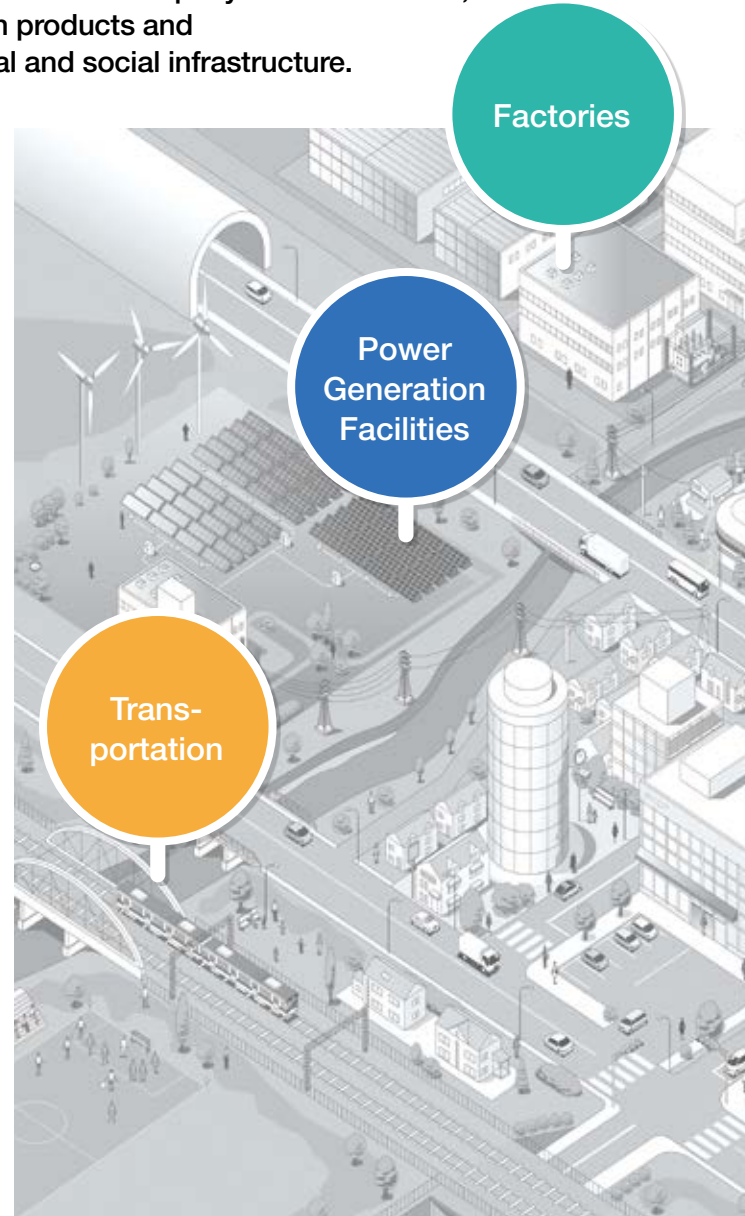
← Kisozaiki reclaimed land mega-solar (Mie Prefecture). The power conditioning sub-systems and substation equipment are at the center.

## Providing Clean Energy

Fuji Electric offers a variety of technologies and products that help to reduce CO<sub>2</sub> emissions and provide environmentally friendly energy at thermal power plants using highly efficient equipment, and at power generation facilities using renewable energy sources including geothermal, water, solar, and wind.

Geothermal power generation uses steam created by magma underneath the earth's surface, and we are one of the world's leading suppliers of **geothermal steam turbines and power generators**. In the area of solar and wind power generation, we supply key equipment, including the power conditioning sub-systems and **substation equipment that are essential for a stable power supply**. Our strength in power plant work is **our ability to handle one-stop orders for plant construction, from overall facility design to equipment procurement and installation**.

We are also one of the world's few manufacturers developing industrial uses for **fuel cells**, on which hopes are being placed as a next-generation form of energy.



## Safe, Energy-Saving Cars and Trains

In the area of transportation, we contribute to safe driving and energy savings. Our **power semiconductors** are used in sensors and electric converters for engines, brakes, steering controls, and motor drives for electric vehicles, which are expected to gain popularity as a means of preventing global warming. For railways, we supply Japanese and overseas rolling stock manufacturers with **door drive systems** that ensure a high level of safety, and **power converters** that provide a stable supply of electric power.



Power semiconductor



Main converter for railway rolling stock

Transportation



↑ Contributing to energy savings in transportation infrastructure



## Factories



- ↑ We support customers in improving facility productivity and saving energy.
- ← Tomatoh Farm plant factory in Tomakomai City, Hokkaido

## Improved Productivity and Energy Savings

Factories are becoming increasingly automated and energy efficient. We provide **motors** needed in all types of electric equipment, and the **inverters** and **programmable controllers (PLCs)** that run these motors using as little power as possible. We also supply **sensors** that measure and “visualize” variables such as temperatures and pressure generated by manufacturing activities as well as **systems that use this information for optimal energy control on a factory-wide basis**. We have recently begun to apply these technologies developed for factories in new sectors, including plant factories and refrigerated distribution.



Inverter



Motor



PLC



Sensor

- ↓ Data center in Rokkasho Village, Aomori Prefecture. An air-conditioning unit is in front.

## Data Centers



UPS

## Stable Supply of Energy-Efficient Electricity

Data centers use large amounts of electricity, and we supply **uninterruptible power systems (UPSs)** that protect equipment from electrical stoppages or drops in voltage, and **air-conditioning units** that efficiently cool servers. We also use combinations of these types of **equipment to construct entire data centers**. Using our construction technologies cultivated in convenience store construction, we are able to achieve significant reductions in construction period compared with conventional construction methods.

## Retail Stores

## Heating and Cooling Technologies for Optimal Temperature Control

Fuji Electric excels in technologies for cooling and heating products. Our **vending machines**, for which we have the No. 1 domestic share, and **showcases** for convenience stores and supermarkets feature optimal temperature control and reduced energy consumption. We also have a product lineup for retail stores that includes coffeemakers that use our cup vending machine technologies and automatic change dispensers for cash registers.



- ↑ Supermarket showcases
- ← Energy-efficient vending machine