

Business Segments

Transmission and Distribution Business

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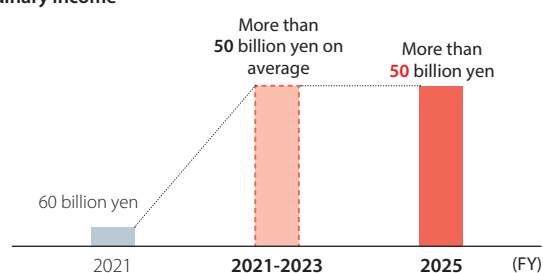
Overview

Kansai Transmission and Distribution, Inc. took over the general power transmission and distribution business of the Kansai Electric Power Co., Inc. in April 2020 to further ensure neutrality in the transmission and distribution business. Kansai Transmission and Distribution, Inc. is committed to providing affordable electricity in a safe, stable manner while placing a premium on being fair and neutral. Its operations include managing power grids, and planning and constructing transmission, transformation, and distribution facilities.

In addition, the power grid network is being upgraded to achieve zero-carbon power generation with efforts underway to meet diversified needs of grid users (e.g., distributed power sources) and offer flexible grid services, all designed to contribute to the development of local communities.

Medium-term Management Plan Targets

Ordinary income



Business environment

- The cost in striking a balance between demand and supply increased significantly in fiscal 2021 due in part to a surge in fuel prices.
- Recent international situations caused by the conflict in Ukraine and other factors may impact construction work due to material supply shortages, etc. and influence income and expenditure resulting from shortages and price hikes in raw materials and fossil fuels.
- A new wheeling pricing system is scheduled for introduction in fiscal 2023, and we will be tasked with meeting the diversified needs of customers and society, providing safe and stable electricity, developing renewable power sources, becoming more resilient, and reducing wheeling charges.

Opportunities

- Investment to respond to a new wheeling pricing system
- Electrification promoted by the zero carbon movement
- Increased use of wide area power grids
- Customers' diversified needs for the use of power grids, etc.
- Advancement in digital technologies (AI, IoT, etc.)

Risks

- Decreased power grid demand due to power and energy saving
- Intensified natural disasters and possible earthquakes in the Nankai Trough
- Changing social needs (lifestyles, etc.) post COVID-19
- Impact on earnings resulting from short supply of materials, etc., due to the war in Ukraine and other situations

Business strategies

Directions to take

The three business areas will be developed in Kansai Transmission and Distribution, Inc., involving transmission and distribution, growth promotion and business foundations, with a positive growth cycle created between them to turn ourselves into "what we aspire to be."

① Transmission and distribution

Create the industry's leading cost structure and produce results exceeding public expectations with a new wheeling pricing system in place, aiming to improve cost efficiency and secure investments in next-generation power grid networks.



2 Growth promotion

Develop new businesses, promote global investment operations and increase external sales of Kansai Transmission and Distribution Group to expand the overall business.

3 Business foundations

Promote safety and compliance, improve the organization culture through the Toyota Production System (Kaizen), etc., contribute to local communities, and increase productivity through DX and workstyle innovation to build a stronger business foundation.

What we aspire to be as Kansai Transmission and Distribution Group

Leveraging our advanced technology to develop and provide attractive services that support customers and society, we aim to be a corporate group spearheading development of the transmission and distribution business at home and abroad.

5-year Efforts

1 Transmission and distribution

1. Ensuring stable supply

- ① Upgrade asset management.
- ② Respond to intensified natural disasters.

2. Contributing to zero carbon initiatives

3. Reforming cost structures and promoting measures to expand earnings

2 Growth promotion

1. Further expanding new and overseas business operations

- ① Develop new areas in new businesses.
- ② Develop investment operations in overseas businesses.

2. Developing new services leveraging new technologies

3. Expanding operations through cooperation among three group companies of Kansai Transmission and Distribution, Inc.

3 Business foundations

1. Building a robust safety and health culture

2. Steadily implementing business improvement plans

3. Reforming the organization culture

- ① Promote a customer-oriented organization culture.
- ② Foster an open organization culture.
- ③ Foster an organization culture that pursues genuine work.

4. Contributing to development of local communities

5. Improving productivity through drastic operational reforms

- ① Upgrade systems and push forward with DX.
- ② Further promote workstyle innovation.

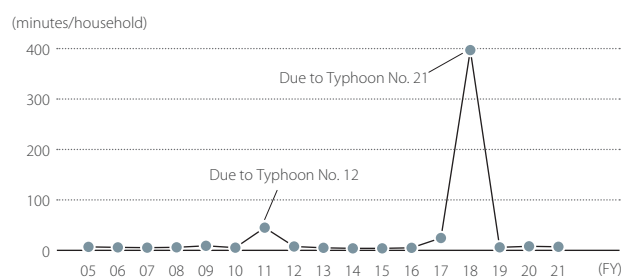
Initiatives in fiscal 2021

1 Transmission and distribution

To provide high-quality electric power

Our commitment is to ensure the operation of power grids between power plants and customers, optimize facilities, and prevent and respond quickly to power outages. As a result of our efforts, with the exception of major natural disasters, we are maintaining one of the world's highest power quality levels in the transmission and distribution business.

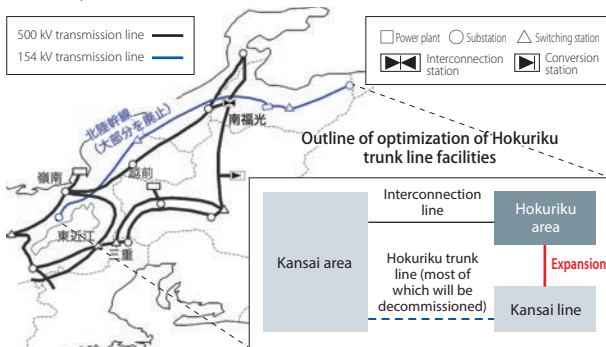
Annual duration of power outage per household



Transmission and Distribution Business

Optimization of the Hokuriku trunk line facilities

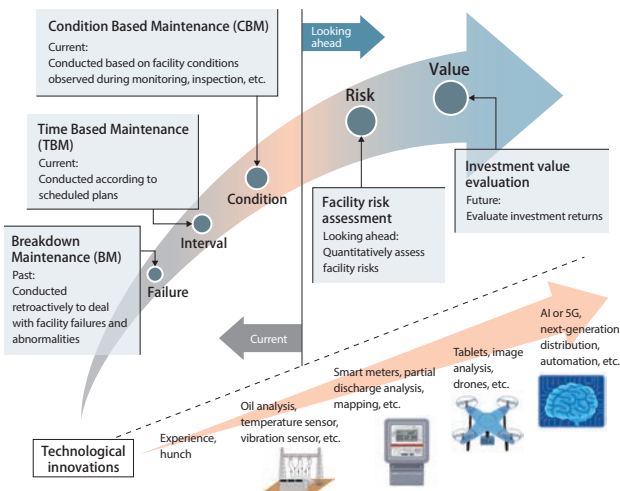
Of hydropower trunk lines that have been in operation since the 1920s, the Hokuriku trunk line, which is considerably dilapidated, will mostly be decommissioned while the remainder will be connected to the grid operated by the Hokuriku Electric Power Transmission & Distribution Company. This will obviate the need for large-scale replacement of facilities and reduce the resulting costs. We will continue to further improve the efficiency of our operations by promoting interconnection between power transmission and distribution utilities.



Advanced asset management

The number of aging facilities is increasing. These facilities should be systematically refurbished to ensure safe and stable electricity supply. Rational and efficient implementation of refurbishment, however, requires a comprehensive plan that takes into account facility risks, refurbishment costs, construction capabilities, etc.

We are thus developing a planning system based on investment value evaluation to upgrade our asset management.



Expansion of the maximum transmission capacity of a 500 kV transmission grid

We expanded the maximum transmission capacity of 500 kV transmission grids to accommodate the trend toward acceptance of power transmission in wider areas across regions.

Specifically, increased power transmission routes following work to change the grid system completed in fiscal 2021 resulted in an expansion of the maximum transmission capacity

of the east-to-west 500 kV transmission grid, from 5.1 GW to 8.3 GW. This expansion significantly contributes to the enhanced use of grid systems for renewable energy in the context of zero carbon and to the revitalization of electricity trading nationwide.

Emergency response system for disasters, etc.

We designate initial responders and have initial response supervisors put on night watches to prepare for quickly setting up the response system in case of emergency. In addition, special training drills are conducted several times a year for both initial response supervisors and initial responders.

Moreover, with the President of the Kansai Electric Power Co., Inc. serving as Chief of the Emergency Headquarters, group-wide comprehensive emergency response drills are conducted every year and these drills see full collaboration between the Kansai Electric Power Co., Inc. and Kansai Transmission and Distribution, Inc. We are committed to improving our disaster response skills and raising disaster awareness, not only to prepare for the occurrence of the Nankai Trough Earthquake but also with consideration for severe incidents such as the simultaneous occurrence of a nuclear power disaster or during occasions when the balance of power supply and demand is tight.

Furthermore, in line with the disaster cooperation plan, we will cooperate with general power transmission and distribution utilities and relevant authorities in times of disasters to quickly recover and restore electricity facilities and systems for stable supply of power.



Group-wide comprehensive emergency response drills

Number of participants in group-wide comprehensive emergency response drills (fiscal 2021)

1,141

Timely communication of power outage information

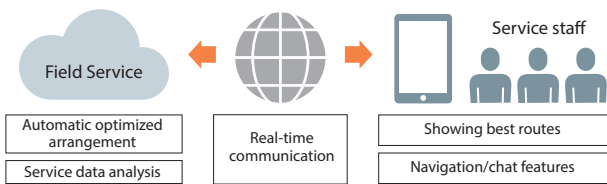
Kansai Transmission and Distribution, Inc. communicates detailed power outage information on a timely basis to as many customers as possible through various channels such as the smartphone application Kansai Power Outage Information, its website, and its official Twitter account. The website, for example, shows power outage areas on a map, while the smartphone application provides push notification to registered customers when power outages occur and restoration is completed in registered locations. Likewise, power outage situations are quickly communicated in detail through the official Twitter account.

A new arrangement system and smart device to better serve the requests of customers

A new arrangement system using cloud services, coupled with use of smart devices, is in place to better serve the requests of customers, where customer services are streamlined through advanced arrangements and field services.

These measures specifically include automatic arrangements,

real-time communication of service data, and navigation/chat features, all designed to ensure high-quality, fast, and reliable services onsite.



Promoting cost structure reforms

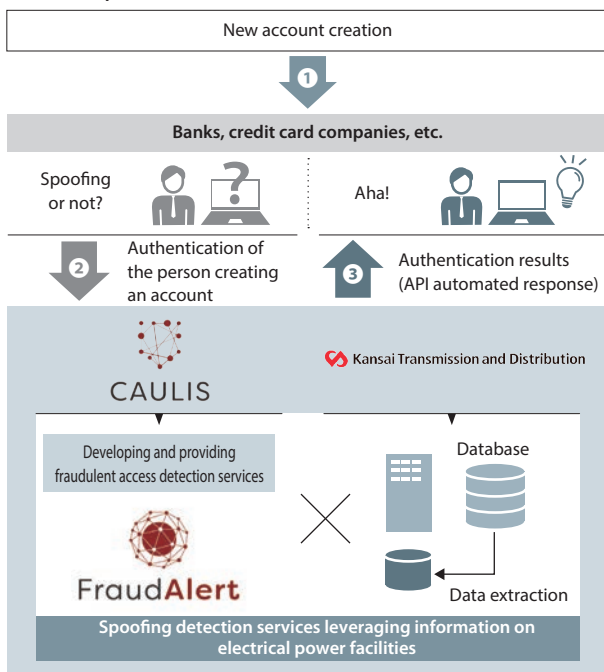
A project spearheaded by the president of Kansai Transmission and Distribution, Inc. aggressively promoted unconventional cost structure reform, with the completion of a review of 30-billion-yen efficiency improvement measures. These measures will be incorporated into day-to-day operations for decisive implementation.

2 Growth promotion

Services to prevent fraudulent account creation, leveraging information on electrical power facilities

Fraudulent accounts using “stolen identities” are often abused for criminal purposes such as money laundering, which is becoming a public concern. Kansai Transmission and Distribution, Inc. and Caulis Inc., therefore, collaborate with each other in providing financial institutions with services to prevent fraudulent account creation, with the former’s proprietary information on power facilities combined with the latter’s fraudulent access detection system. Services are expanding through the network with Hokkaido Electric Power Network, Inc., Chubu Electric Power Grid Co., Inc. and Chugoku Electric Power Transmission & Distribution Co., Inc., which contributes to preventing fraudulent transactions.

Overview of services leveraging information on electrical power facilities to prevent fraudulent account creation



Expanding overseas operations

We are extending our reach worldwide, focusing on “expansion of earnings,” “technological contribution,” and “sustainability promotion.” In fiscal 2021, for example, we were awarded five consulting projects in five countries, including Papua New Guinea and Nepal.

Kansai Transmission and Distribution, Inc. meanwhile, is looking at investing independently in overseas projects to further boost its earnings.



Papua New Guinea Power Grid Planning and Operational Capability Improvement Project

3 Business foundations

Promoting Kaizen activities

Kansai Transmission and Distribution, Inc. has been rolling out Kaizen activities since fiscal 2021 to nurture a corporate culture that aims to improve productivity while cooperating with external partners to make further improvements. This has resulted in significant improvements in productivity, brought about by 205 operational processes with increased added value, elimination of redundancies, and fundamental process innovation.

With our efforts growing in scope in fiscal 2022, we are committed to further promoting Kaizen activities, recognizing achievements made heretofore.

DX activities (automatic power outage response using voice recognition)

Interactive voice response services have been in place since September 2019 to communicate information regarding power outages and estimated recovery times. In fiscal 2021, a new function was added to the response services where customer requests are automatically dealt with from reception, dispatching field services when customer power supply points are identified through voice recognition. As such, we are working on faster customer service in addition to timely information dissemination during power outages.

