

INTEGRATED REPORT

The Hokuriku Electric Power Group

2021

CSR & Financial Report

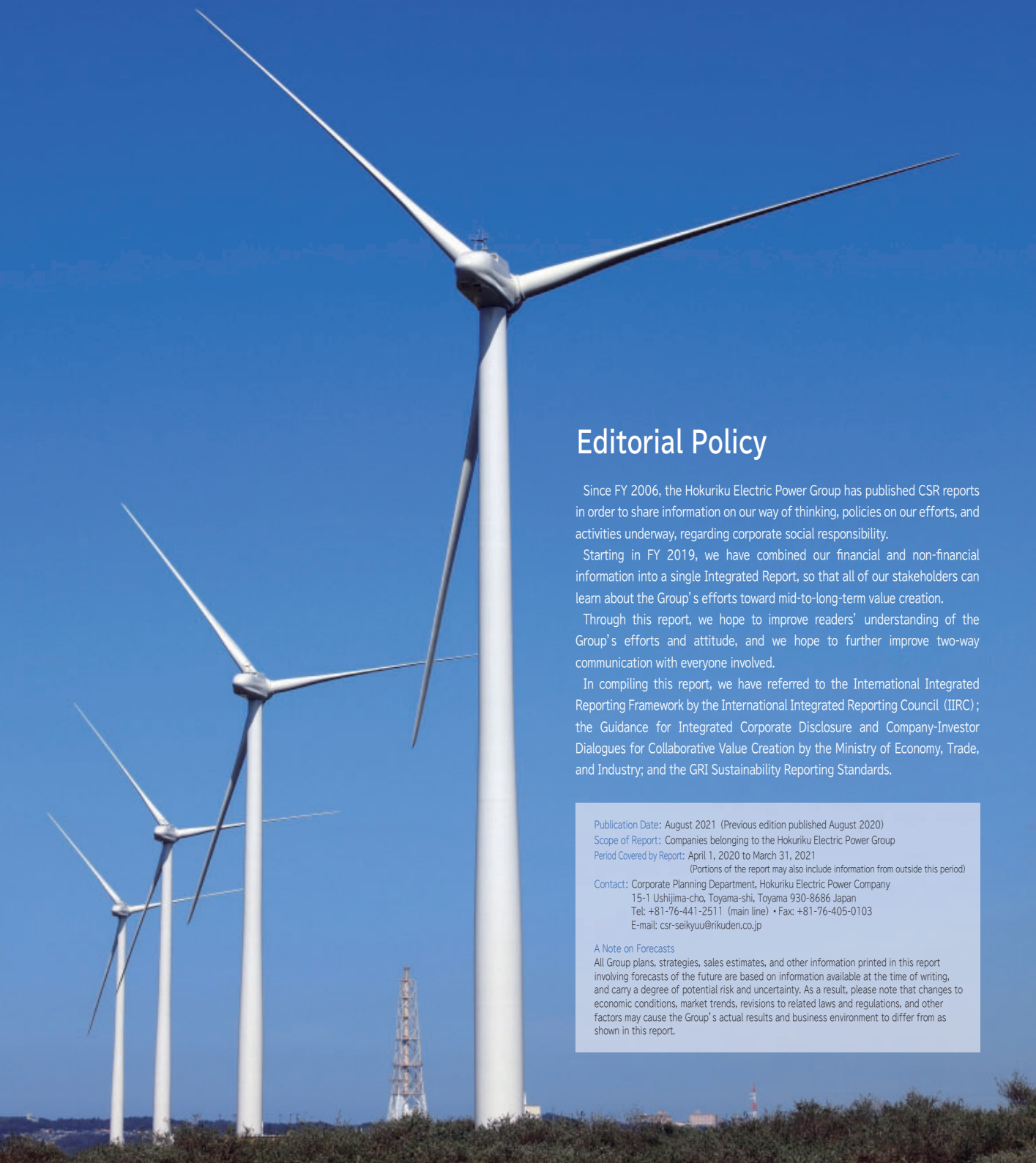


The Hokuriku Electric Power Group Philosophy

Building an Affluent, Lively Hokuriku Through Power and Intelligence







Editorial Policy

Since FY 2006, the Hokuriku Electric Power Group has published CSR reports in order to share information on our way of thinking, policies on our efforts, and activities underway, regarding corporate social responsibility.

Starting in FY 2019, we have combined our financial and non-financial information into a single Integrated Report, so that all of our stakeholders can learn about the Group's efforts toward mid-to-long-term value creation.

Through this report, we hope to improve readers' understanding of the Group's efforts and attitude, and we hope to further improve two-way communication with everyone involved.

In compiling this report, we have referred to the International Integrated Reporting Framework by the International Integrated Reporting Council (IIRC); the Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation by the Ministry of Economy, Trade, and Industry; and the GRI Sustainability Reporting Standards.

Publication Date: August 2021 (Previous edition published August 2020)
Scope of Report: Companies belonging to the Hokuriku Electric Power Group
Period Covered by Report: April 1, 2020 to March 31, 2021
(Portions of the report may also include information from outside this period)
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A Note on Forecasts

All Group plans, strategies, sales estimates, and other information printed in this report involving forecasts of the future are based on information available at the time of writing, and carry a degree of potential risk and uncertainty. As a result, please note that changes to economic conditions, market trends, revisions to related laws and regulations, and other factors may cause the Group's actual results and business environment to differ from as shown in this report.

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Overview of the Hokuriku Electric Power Company and the Hokuriku Electric Power Transmission & Distribution Company

Hokuriku Electric Power Company

Main business: Generation and sales of electricity
Head office location: 15-1 Ushijima-cho, Toyama-shi, Toyama Prefecture
Date of establishment: May 1, 1951
Capital: 117.641 billion yen
Company representative: Koji Matsuda, Executive President and Representative Director
Total Assets*: 1,595,626 million yen (1,506,958 million yen)
Sales*: 639,445 million yen (577,106 million yen)
Ordinary Income*: 12,354 million yen (Δ8,371 million yen)
Net Income*: 6,834 million yen (Δ5,094 million yen)

* Consolidated figures for FY 2020 or as of March 31, 2021, are shown. Figures in parentheses are nonconsolidated figures.

Major Shareholders (As of March 31, 2021)

Name	Number of Shares Held (thousands of shares)	Investment Ratio (%)*
The Master Trust Bank of Japan, Ltd. (Trust Account)	13,208	6.3
Toyama Prefecture	11,270	5.4
Hokuriku Electric Power Company Employee Stock Ownership	7,991	3.8
The Hokuriku Bank, Ltd.	7,700	3.7
Custody Bank of Japan, Ltd. (Trust Account)	7,259	3.5
The Hokkoku Bank, Ltd.	6,000	2.9
Nippon Life Insurance Company	4,752	2.3
Mizuho Bank, Ltd.	3,341	1.6
Custody Bank of Japan, Ltd. (Trust Account 5)	2,821	1.4
The First Bank of Toyama, Ltd.	2,740	1.3

* Investment ratio is calculated after deducting treasury shares.

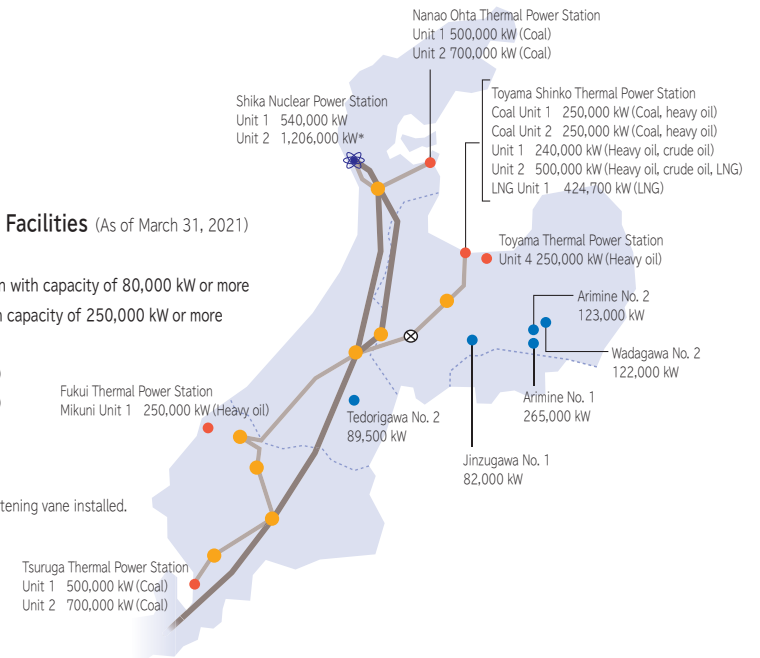
Hokuriku Electric Power Transmission & Distribution Company

Main business: Power Transmission and Distribution
Head office location: 15-1 Ushijima-cho, Toyama-shi, Toyama Prefecture
Date of establishment: April 1, 2019 (Operation commenced on April 1, 2020)
Capital: 10 billion yen
Company representative: Koichi Mizuno, Executive President

Major Power Supply Facilities (As of March 31, 2021)

- Hydroelectric power station with capacity of 80,000 kW or more
- Thermal power station with capacity of 250,000 kW or more
- ⚙ Nuclear power station
- Transmission line (500 kV)
- Transmission line (275 kV)
- Substation
- ⊗ Switching station

* If operated with turbine straightening vane installed.



Overview (As of FY 2020 or March 31, 2021)

Hokuriku Electric Power Company	Power-generating Facilities	Number of Power Stations	Capacity
	Hydro power	131	1,934 MW
	Thermal power	5	4,565 MW
	Nuclear power	1	1,746 MW* ¹
	Photovoltaic	4	4 MW
Total	141	8,249 MW	
Total Electricity Sales Volume	Retail	Wholesale	
	25,940 GWh	6,614 GWh	
	Total*²	32,554 GWh	
Hokuriku Electric Power Transmission & Distribution Company	Transmission Facilities	Overhead	Underground
	Total Length of Transmission Lines	3,199 km	160 km
	Transformation Facilities	Number of Substations	Capacity
		261	32,336 MVA
	Distribution Facilities	Overhead	Underground
Total Length of Distribution Lines	42,110 km	1,543 km	
Power-generating Facilities	Number of Power Stations	Capacity	
	Thermal power	1	288 kW

*1 Estimation based on the assumption that Shika Unit 2 is operated with turbine straightening vane installed.

*2 Due to rounding, the total figure may not exactly equal the sum of the individual figures.

History of the Hokuriku Electric Power Company

The Hokuriku Electric Power Company was established in 1951, built on a foundation of the Toyama Electric Light Company, established in 1898 as the Hokuriku region's first electric power company, and other locally-capitalized electric power companies. In May 2021, we celebrated our 70th anniversary.

As a company established with the backing of the regional community, including industrial and economic circles, we have developed alongside the Hokuriku region by ensuring a stable supply of low-cost, high-quality energy, keeping coexistence and co-prosperity with the region in mind as our fundamental management philosophy, while aggressively undertaking projects such as the development of power sources. We will continue to make progress together with the region, and strive to contribute to the resolution of social issues, including the realization of carbon neutrality.

The Beginning of the Electricity Business in the Hokuriku Region – the Roots of the Hokuriku Electric Power Company

1898 Establishment of the Toyama Electric Light Company and the Kanazawa Electricity Company

A number of electric power companies, including the Toyama Electric Light Company, were established in Hokuriku. Electric power resources were developed, capitalizing on the area's plentiful water resources. The low-cost electricity generated by hydropower allowed the area to develop industries, attracting industries that are heavy consumers of power, such as the steel and carbide industries, as well as the textile industry.

1899 Establishment of the Kyoto Electric Light Company Fukui Branch



Okubo Power Station of the Toyama Electric Light Company Completed in 1899



Fushiki Industrial Area (Toyama Prefecture)

1941 Establishment of the Hokuriku Joint Electricity Company

Shosaku Yamada (later the first president of the Hokuriku Electric Power Company) approached electric utility companies in Hokuriku, and 12 companies voluntarily consolidated, establishing a unified electricity business in the Hokuriku region.



Shosaku Yamada

1951 Establishment of the Hokuriku Electric Power Company

When Japan's power supply framework was discussed during and after the war, the initial plan suggested that the whole country should be divided into eight blocks, with the Hokuriku area merged into the Chubu area. However, Shosaku Yamada, with the support of the local business community, strongly emphasized the unique distinctiveness of Hokuriku and persistently persuaded the national government, which led to approval for the Hokuriku area's independence.

1951 History of the Hokuriku Electric Power Company

Today

The Hokuriku Electric Power Company has contributed to the development of the Hokuriku region through the stable supply of low-cost, high-quality energy, while diversifying power sources in line with the needs of the times. During the high economic growth period, the company supported the strong demand for electricity by developing thermal power sources, as well as developing hydroelectric power in the Arimine area, taking advantage of the region's abundant water sources. The company's other efforts in this regard include ensuring energy security following the experience of the oil crises, and decarbonizing from power generation to help address global warming.

Amount of Total Electricity Sales

2.1 billion kWh*

1951

1954



Jinzu River No. 1 Power Station (Hydro Power)

1964



Toyama Thermal Power Station Unit 1

1981



Arimine No. 1 Power Station (Hydro Power)

1991



Tsuruga Thermal Power Station Unit 1

2006



Shika Nuclear Power Station Unit 2

2012



Mikuni Photovoltaic Power Station

2018



LNG-fired Unit 1 of Toyama Shinko Thermal Power Station

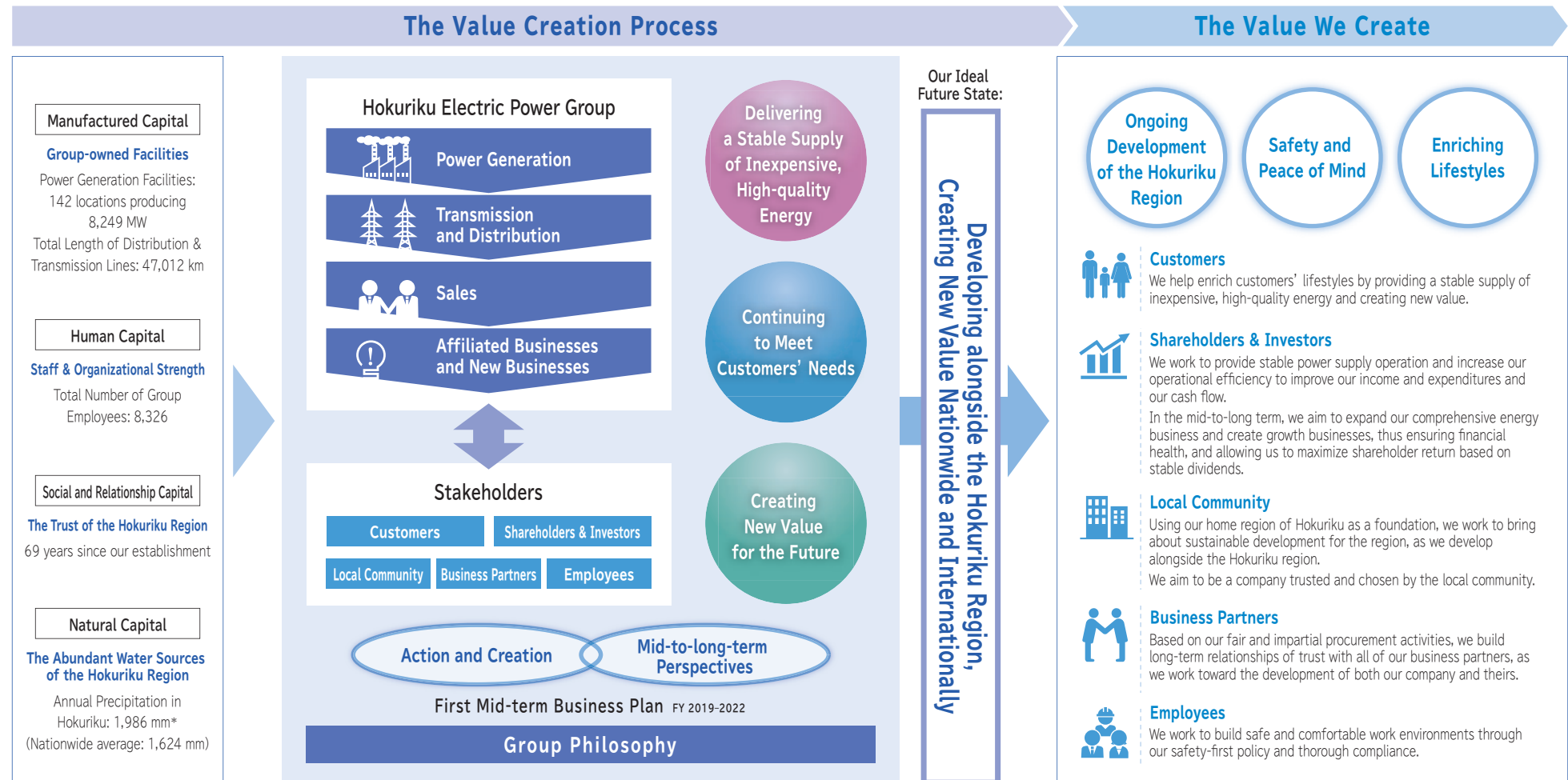
2020

32.6 billion kWh

* Retail electricity sales in the Hokuriku area

The Value Creation Process of the Hokuriku Electric Power Group

We strive to bring about the ideal state of the Group in the future, in order to contribute to regional development and enriching people's lifestyles. We engage in our business with a focus on making a sustainable society a reality.



(As of March 31, 2021)

* Source: Statistical Observations of Prefectures 2021 by the Statistics Bureau, Ministry of Internal Affairs and Communications (actual values from FY 2019)

**Koji Matsuda**

Executive President and
Representative Director
Hokuriku Electric Power Company

A handwritten signature in black ink that reads "Koji Matsuda".

At the Hokuriku Electric Power Group, we consider this era of **Changes** to be an era of **Chances**, and take on **Challenges** to create new value, as we aim to continue to contribute to customers and the local community.

On Taking Office as the Company President

My name is Koji Matsuda. I assumed the position of company president in June 2021.

For many years, I worked primarily in sales and marketing, with opportunities to get in touch with customers at the head office and branches, where I always tried to understand our customers' views. In our business management going forward, I would like to continue to keep in mind the importance of thinking from our customers' perspective, rather than only from the supply side theory.

Our corporate message, "Continuing to live up to customers' needs," is intended to show our commitment to responding to the various expectations of our community and customers, and to fulfill their requests. We aim to continue to be chosen by customers, by being of service to them.

Changes in the Business Environment Surrounding the Group

The acceleration of the trend toward decarbonization, including the Japanese government's carbon neutrality declaration and the drastically more ambitious greenhouse gas emission reduction target, and the rapid progress in digital technology, including AI and IoT, have compelled the energy industry to face tremendous changes that are truly game-changing.

Amid this dramatically changing business environment, we must deepen and strengthen our existing businesses, as well as take on the challenges of new businesses — a balanced implementation of both will be required. The Group will strive to deepen our electricity business, while pursuing the creation of new value in the future.

Strengthening Our Management Base for Our Electricity Business

Mainly due to intensified competition in retail and increased use of distributed renewable energy resources, it has become difficult to maintain our electricity business by simply buying and selling electricity, and great changes are required. In addition to stabilizing our business foundation for our ongoing electricity business, we will reform our business structure to further strengthen it.

First of all, we will take appropriate actions, one by one, to meet the review requirements toward the restart of Shika Nuclear Power Station at the earliest possible date, which is indispensable for stable power supply and improved financial balance. In order to stay ahead of the tough competition in the electricity market, we will work to offer added value tailored to each customer, in addition to low and attractive electricity rates, with the aim of further expanding sales, including the acquisition of more and more customers in the Tokyo metropolitan area, where sales are favorable.

To this end, we will reform our work processes and strengthen our business foundation, by further streamlining operations and reducing costs, as well as reallocating resources to meet changes in the business environment, quickly responding to cross-functional issues, and making other efforts.

Taking on Challenges toward Carbon Neutrality by 2050

We recognize that the realization of a decarbonized society is a major social challenge, and addressing the issue of global warming is an important part of our business. As a responsible energy provider to be trusted and chosen, the Group has taken on the challenge of achieving carbon neutrality by 2050. In April 2021, we established a roadmap placing emphasis on three points: decarbonization of power sources, increased sophistication of transmission and distribution networks, and support for customers' and the region's decarbonization. In July, with the aim of strongly promoting group-wide efforts, we set up the Carbon Neutral Promotion Meeting, with myself as the chair.

Toward the decarbonization of power sources, we have established a target of increasing the amount of electricity generated by renewable energy sources, by 2.0 billion kWh per year by FY 2030 compared to FY 2018; however, we aim to accelerate this effort and further increase this amount. In addition, we continue working to achieve an early restart of nuclear power generation, which does not emit CO₂, and mainly by making the most of this, we strive to realize decarbonization. Along with the establishment of our roadmap, we have also set a new target for the ratio of electricity generated from non-fossil-fuel sources: 50% or higher in 2030.

Coal-fired power generation is a base load generation source with excellent supply stability at low costs, and we are currently using it while working to improve its efficiency by replacing turbines and increasing biomass co-combustion ratios. In addition, toward the future, we will actively seek to utilize next-generation technologies, such as power generation with ammonia and hydrogen.

In order to achieve carbon neutrality, efforts by not only the supplier side but also the consumer side are essential. We strive to properly meet customers' needs for decarbonization, and thus to contribute to "zero emission" efforts in the Hokuriku region, by providing new services such as consulting focused on saving energy and reducing CO₂ emissions, proposals of solutions for electrification, development of

renewable energy sources (e.g. the photovoltaic power equipment third-party possession model, in collaboration with customers and local communities), and providing renewable-energy-oriented electricity rate plans (e.g. RE100-compliant plans). Going forward, we will continue to work to deepen our focus on environmental, social, and governance (ESG) factors in our management, with the goal of bringing about a sustainable society (achieving SDGs).

Business Development Transcending the Framework of Our Existing Electricity Business

Taking into consideration the changes in the value structure of the electricity business, we will work to develop businesses transcending the framework of our existing electricity business. In April 2019, we established the Hokuriku Electric Power Group 2030 Long-term Vision, with a 2:1 ratio of electricity business to non-electricity business as the business portfolio target for FY 2030. In April 2021, we also established the future vision of the Group, wherein the Group is expected to grow by solving social issues, in the forms of sustainable regional development and the realization of a smart society. In particular, carbon neutrality is a major issue that should be addressed by the entirety of society, and achieving this goal will require not only innovations for the practical application of decarbonization technologies, but also drastic changes in lifestyles and other aspects of society. We consider this trend toward decarbonization to be a great business opportunity, and will work to expand our business domains, by creating new added value based on the knowledge and expertise we have accumulated as an energy company, toward the growth of the Group.

Message to Stakeholders

We must always keep in mind that we are a part of the Hokuriku region, and this is also true when we take on new challenges. When the electric power industry was reorganized during the war, the independence of the Hokuriku area was protected through the support of local enterprises. This laid the foundation of our company, and we have inherited in our corporate DNA a strong drive to develop alongside the Hokuriku region. Our electricity business is expected to experience significant changes going forward; even amid this situation, I believe that it is our mission to work with the Hokuriku region, as we continue to aim for future growth. Our ideal future state, "Developing alongside the Hokuriku Region, Creating New Value Nationwide and Internationally," in our long-term vision, was likewise based on this same idea.

Against the backdrop of the rapid changes that our electricity business has been facing, we choose to think of these changes as chances, and will continue taking on the challenges of the new era. Accordingly, I aim to build a corporate culture that tolerates risks and failures, and where people can take on challenges with pleasure and enthusiasm.

Finally, I would like to express my sincere gratitude to all of our stakeholders, whose continued understanding and support is greatly appreciated. Thank you very much.

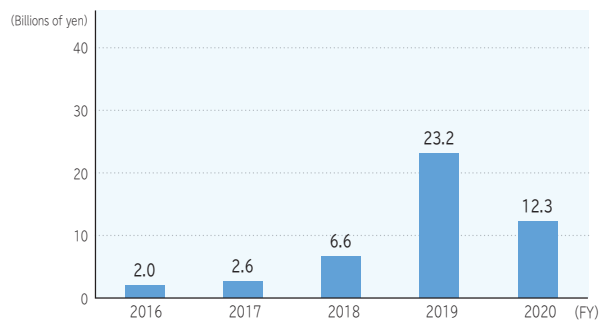
FY 2020 Financial Results (Consolidated)

Sales (operating revenues) amounted to ¥639.4 billion, an increase of ¥11.4 billion from the previous fiscal year, mainly due to an increase in total electricity sales, despite a decrease in fuel cost adjustment; together with non-operating revenues, total ordinary revenues amounted to ¥642.2 billion, an increase of ¥11.8 billion.

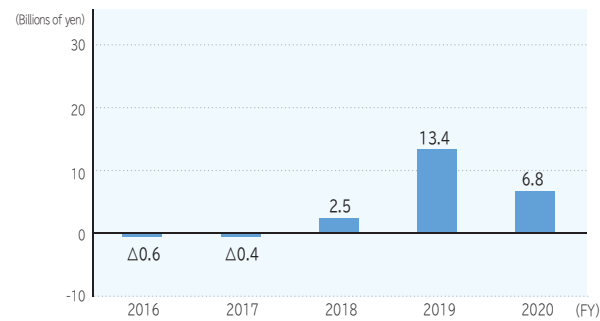
Ordinary income amounted to ¥12.3 billion, a decrease of ¥10.8 billion from the previous fiscal year, mainly due to an increase in the amount of electricity purchased and the impact of the price spike on the Japan Electric Power Exchange, despite an increase in total electricity sales serving as a factor for increased profit against the impact of COVID-19.

Net income attributable to owners of parent was ¥6.8 billion, a decrease of ¥6.5 billion from the previous fiscal year.

Consolidated Ordinary Income

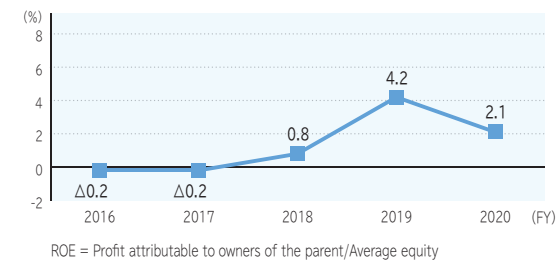


Consolidated Net Income (Loss)

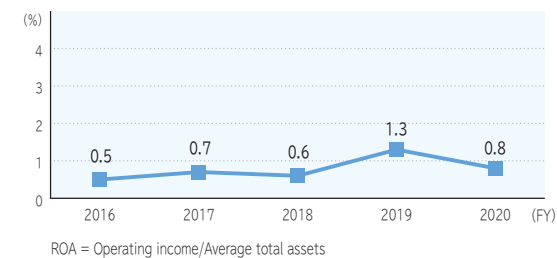


Note: Net income (loss) attributable to owners of parent is shown

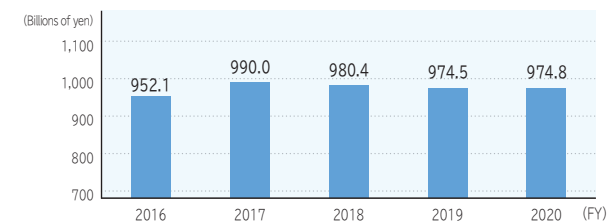
Consolidated Return on Equity (ROE)



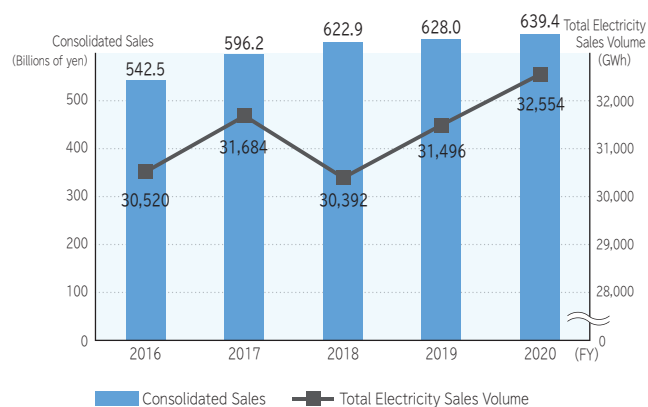
Consolidated Return on Assets (ROA)



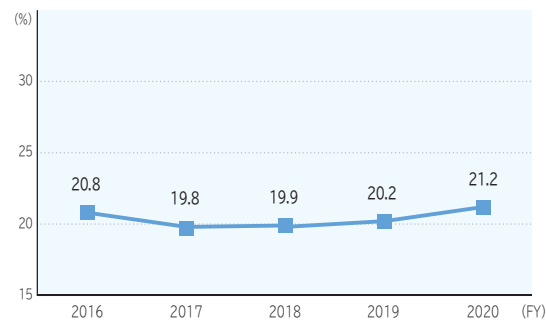
Consolidated Outstanding Interest-bearing Debt



Consolidated Sales and Total Electricity Sales



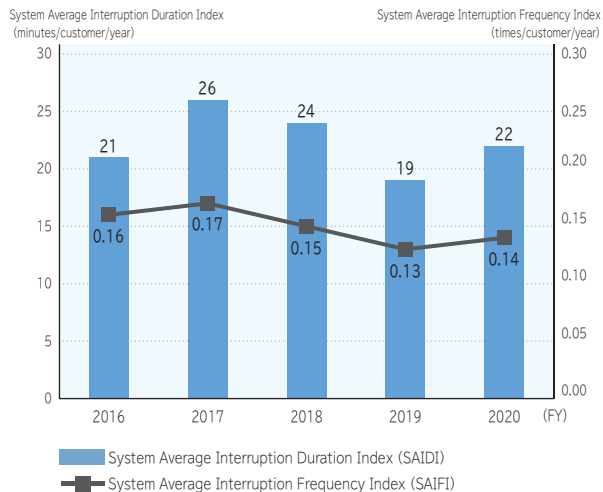
Consolidated Equity Ratio



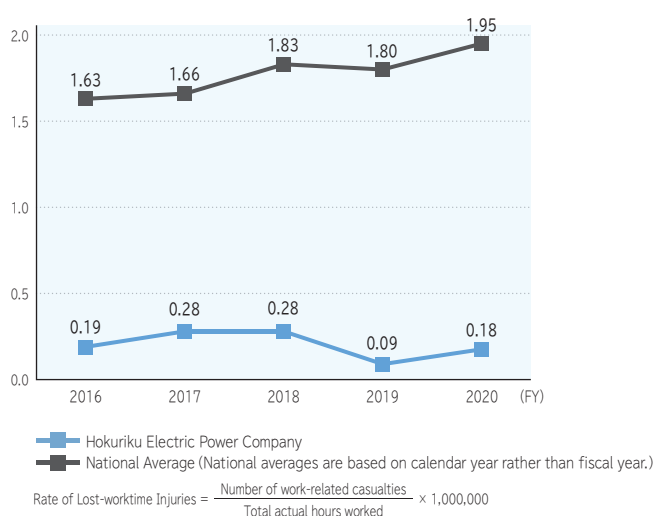
Note: The equity ratio has been calculated by dividing shareholders' equity by total assets.

Non-financial Highlights

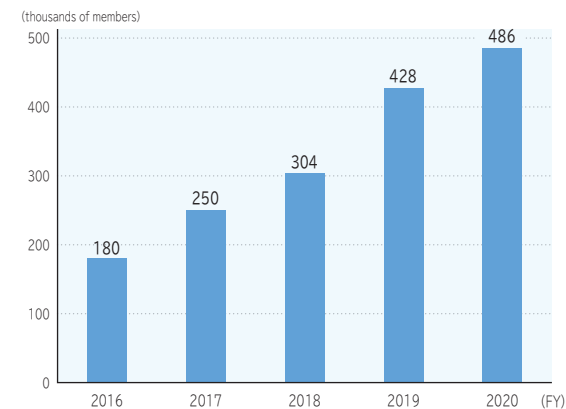
System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI)



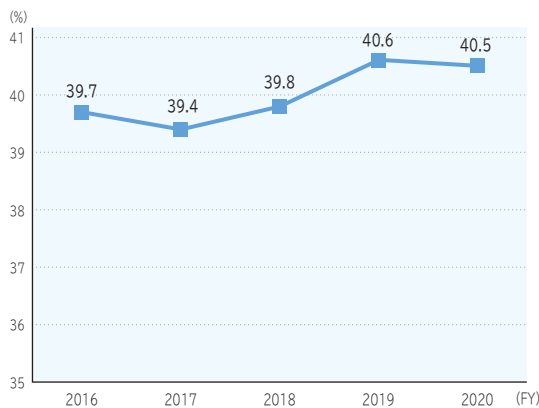
Rate of Lost-worktime Injuries



Hoku-Link Membership

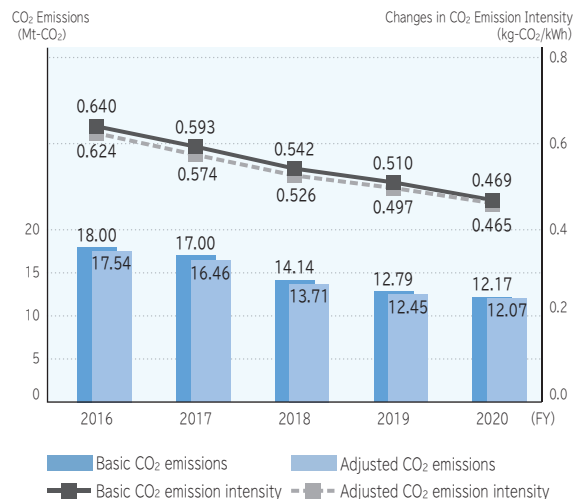


Overall Thermal Power Generation Efficiency (Benchmark Index B of the Act on the Rational Use of Energy)



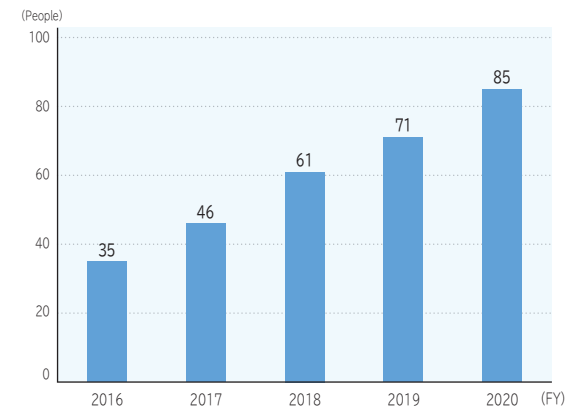
Index B = (actual coal-fired power generation efficiency × ratio of coal-fired power generation to total thermal power generation) + (actual LNG-fired power generation efficiency × ratio of LNG-fired power generation to total thermal power generation) + (actual oil-fired power generation efficiency × ratio of oil-fired power generation to total thermal power generation)

Changes in CO₂ Emission Intensity/CO₂ Emissions



Note: The adjusted values reflect the adjustment amounts based on the feed-in tariff system for renewable energy, and other factors. Calculations were made based on the Law Concerning the Promotion of the Measures to Cope with Global Warming.

Number of Female Managers



The Hokuriku Electric Power Group 2030 Long-Term Vision (Publicly announced in April 2019)

In April 2019, we established and announced the Hokuriku Electric Power Group 2030 Long-term Vision, drawing a roadmap to sustainable growth, in order to handle not only immediate tasks, but also forward-looking challenges, with a sense of speed amid the drastic changes in the business environment.

Our Ideal Future State

Taking into account our future business environment and changing societal needs, we have set our ideal future state:

Developing alongside the Hokuriku Region, Creating New Value Nationwide and Internationally

Two Main Strategies toward Bringing About Our Ideal State

In addition to expanding the comprehensive energy business we have established, with the Hokuriku region as our foundation, we are also working based on our main strategy of cultivating new growth businesses. In addition, we engage in our work with deliberate consideration given to environmental, social, and governance topics.

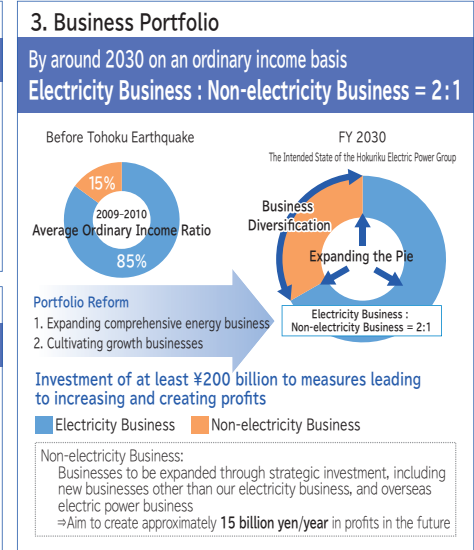
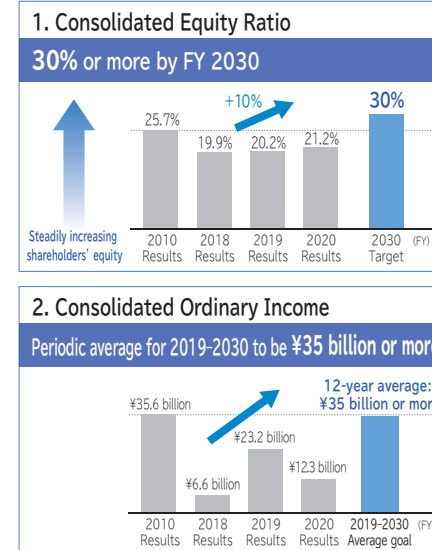


Efforts toward FY 2030 by Category

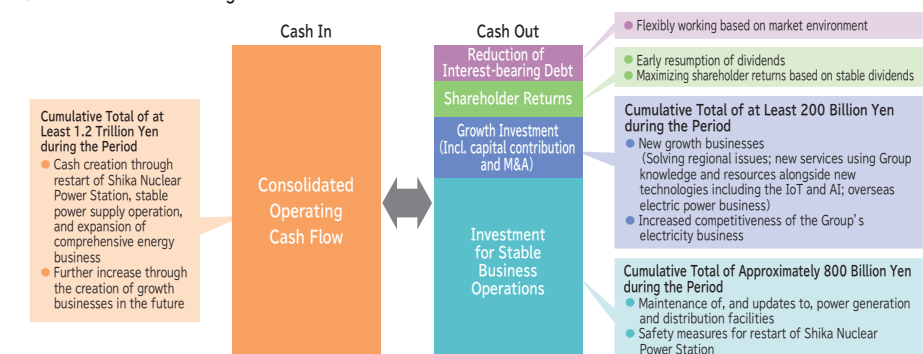
Category	Efforts toward 2030	
Power Generation	Nuclear power	<ul style="list-style-type: none"> Safe and stable operation of Shika Nuclear Power Station
	Hydro power & renewables	<ul style="list-style-type: none"> Increase in electricity generated by renewable energy sources
	Thermal power	<ul style="list-style-type: none"> Restructuring equipment with an eye on economic performance and environmental affects
	Working toward Cost and Carbon Reductions	<p>Numerical Targets to Reach by FY 2030:</p> <ul style="list-style-type: none"> Amount of renewable energy power generation: up 2.0 billion kWh/year*1 (renewable energy ratio: 30%) Coal consumption: 10% reduction/year*1 Energy Conservation Act Environmental Index achievements: <ul style="list-style-type: none"> Overall thermal power generation efficiency: 44.3% Actual thermal power generation efficiency record/target value: 1.00
Sales	<ul style="list-style-type: none"> Positive expansion of integrated energy services and added-value services 	<p>Numerical Targets to Reach by FY 2030:</p> <ul style="list-style-type: none"> Electricity sales: 40.0 billion kWh/year Sophisticated Method Act Environmental Index achievements: <ul style="list-style-type: none"> Ratio of electricity sold produced from non-fossil sources: 44% Greenhouse gas emission intensity: 0.37 kg-CO₂/kWh*2 Total cumulative LNG contract quantity: 0.2 million tons
Transmission and Distribution	<ul style="list-style-type: none"> Flexibly addressing the social environment and technical innovations 	
Group Business and New Business	<ul style="list-style-type: none"> Expansion of existing business domains Creation of new business domains 	

*1 Compared to FY 2018 *2 Target set by the Electric Power Council for a Low Carbon Society (comprising former general electric power suppliers, including the Hokuriku Electric Power Company, certain new electric power suppliers, etc.)

Financial Objectives



Overview of Mid-to-long-term Cash Flow Distribution: Cumulative Totals for 2019-2030



Working with Local Communities toward a Sustainable Smart Society in 2050

In April 2021, amid the dramatically changing business environment surrounding the Group, such as the announcement of the 2050 Carbon Neutrality Declaration, we established the future vision of the Group for the year 2050, with a determination to contribute to the resolution of social issues concerning global warming, sustainable regional development, and the realization of a smart society, by developing businesses that transcend the framework of our existing electricity business. We aim to be a leading problem-solving company that proactively addresses issues faced by the region, in cooperation with local governments and enterprises.

Regional Issues

- Labor shortages and difficulty in maintaining local community infrastructure, resulting from a shrinking and aging population
- Industrial development, regional revitalization, measures against global warming and natural disasters ...and more

Future Vision for 2050

Connect, Support, and Deliver — Working with Local Communities toward a Sustainable Smart Society

- 1 Creating a Society Friendly to People and the Environment with Decarbonization of Energy
- 2 Bringing Vibrant Communities to the Next Generation
- 3 Bringing Peace of Mind to Everyday Life through Connected Networks
- 4 Bringing Comfort to People's Lives with Digital Technologies

Initiatives toward 2050

We promote the following initiatives toward the realization of our future vision.

1 Creating a Society Friendly to People and the Environment with Decarbonization of Energy

We will take on the challenge of **realizing carbon neutrality by 2050** through the following efforts: **decarbonization of power sources** by utilizing renewable energy as the major power source and other measures; **increased sophistication of transmission and distribution networks** to support the utilization of renewable energy as the major power source; **promotion of electrification** of lifestyles, mobility, etc.; and **support for customers and the region to achieve zero emissions** through the popularization of renewable energy and storage batteries, net zero energy houses/buildings, and other means.

⇒See Roadmap on pp. 13-14 for specific initiatives.

3 Bringing Peace of Mind to Everyday Life through Connected Networks

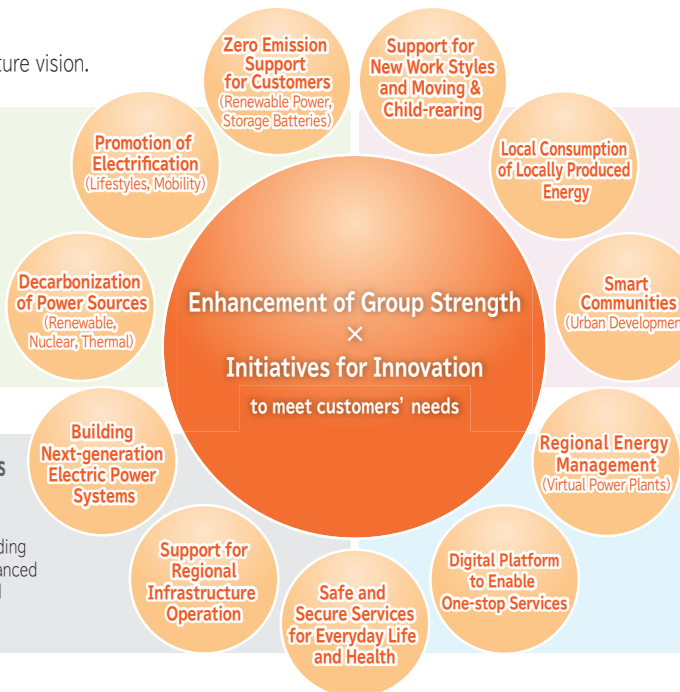
We will support **safe and secure communities** through efforts including: **building next-generation electric power systems** to support the 4 Ds (decarbonization, decentralization, digitalization, and depopulation) and resilience improvement; providing **support for the efficient operation of regional infrastructure** that combines advanced communications networks and digital technologies such as big data, AI, and IoT; and providing **safe and secure services for everyday life and health**.

2 Bringing Vibrant Communities to the Next Generation

We will contribute to the **creation of sustainable vibrant communities** through the following efforts: **support for new work styles**, such as telework, and **moving and child-rearing**, taking advantage of our favorable access to Japan's three largest metropolitan regions and rich living environments; **local consumption of locally produced energy** by utilizing the region's rich natural resources; and **development of smart communities** by utilizing distributed resources.

4 Bringing Comfort to People's Lives with Digital Technologies

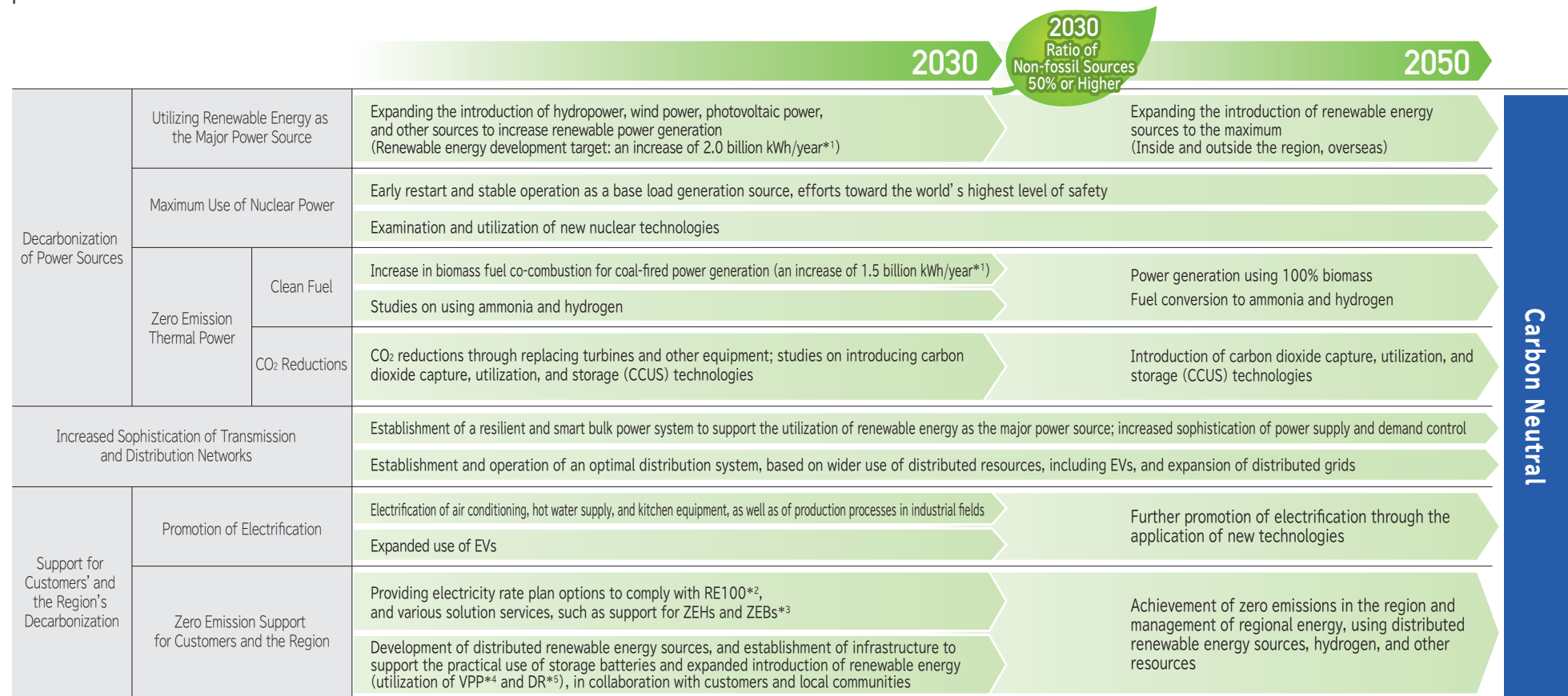
We will contribute to **comfortable lifestyles with the use of digital technologies** through the following efforts: **building a digital platform to enable one-stop services** with electricity plus additional services to help improve customers' lives; supporting **P2P trading of electricity** with blockchain technologies; and implementing **regional energy management** with integrated management of distributed resources.



The Hokuriku Electric Power Group's Roadmap toward Achieving Carbon Neutrality (Outline)

Alongside the announcement of the Group's future vision for 2050, we established a roadmap toward the achievement of carbon neutrality. As a responsible energy provider to be trusted and chosen, we have taken on the challenge of achieving carbon neutrality by 2050, through decarbonization of power sources, increased sophistication of transmission and distribution networks, and support for customers' and the region's decarbonization. We will also actively work to establish the required technologies and the economic feasibility, upon which the roadmap is predicated.

In July 2021, with the aim of strongly promoting group-wide efforts toward the achievement of carbon neutrality, we established the Carbon Neutral Promotion Meeting, chaired by the company president.



*1 Target for FY 2030 (compared to FY 2018). Increased amount of electricity through increase in biomass fuel co-combustion (an increase of 1.5 billion kWh/year) is included in the renewable energy development target (an increase of 2.0 billion kWh/year).

*2 Abbreviation of "Renewable Energy 100," a global initiative for businesses to commit to procuring 100% of the electricity needed for their operations from renewable energy sources. The initiative's target is 100% renewable energy by 2050.

*3 Abbreviations of "Net Zero Energy Houses" and "Net Zero Energy Buildings," respectively. In these houses and buildings, the balance of annual primary energy consumption is to be zero, by means of energy savings and energy generation (e.g. photovoltaic power generation).

*4 Abbreviation of "Virtual Power Plant." Remote/integrated control of energy resources (such as storage batteries, electric vehicles, and electric power generators) at factories, houses, and other facilities, which enable demand and supply adjustment, provides functionality as though constituting a single power station.

*5 Abbreviation of "Demand Response." Energy resources are controlled based on the status of power supply, and consumption patterns are changed.

The Hokuriku Electric Power Group's Roadmap toward Achieving Carbon Neutrality (Specific Initiatives)

		Specific Initiatives (up through 2030)	Specific Initiatives (up through 2050)	
Decarbonization of Power Sources	Utilizing Renewable Energy as the Major Power Source	Expanding the introduction of hydropower, wind power, photovoltaic power, and other sources, to increase renewable energy power generation by 2.0 billion kWh/year (compared to FY 2018) as described in our long-term vision <ul style="list-style-type: none"> ● Construction and operation of Shin-Himekawa No. 6 Hydroelectric Power Station (a new power station) ● Studies on the development of offshore wind power generation projects off the coast of Awara, Fukui Prefecture, and in other locations ● Studies on the development of onshore wind power generation and other projects through alliances with other companies ● Strengthening of the organizational structure and utilization of alliances with other energy companies, to promote development projects with a sense of speed 	<ul style="list-style-type: none"> ● Expanding the introduction of renewable energy sources to the maximum (Inside and outside the region, overseas) 	
	Maximum Use of Nuclear Power	<ul style="list-style-type: none"> ● Early restart of Shika Nuclear Power Station and stable operation as a base load generation source ● Efforts toward the world's highest level of safety ● Examination and utilization of new nuclear technologies 		
	Zero Emission Thermal Power	Clean Fuel	<ul style="list-style-type: none"> ● Increase in biomass co-combustion (an increase of 1.5 billion kWh/year) at coal-fired power stations (Tsuruga Unit 2, Nanao Ohta Unit 2) ● Studies on power generation exclusively using biomass at coal-fired power stations ● Studies on using ammonia and hydrogen 	<ul style="list-style-type: none"> ● Power generation using 100% biomass ● Fuel conversion to ammonia and hydrogen
		CO ₂ Reductions	<ul style="list-style-type: none"> ● Reduction of CO₂ emissions in coal-fired power generation, through replacement of turbines and other equipment ● Studies on equipment for carbon dioxide capture, utilization, and storage (CCUS) ● Studies on converting coal-fired generation to LNG-fired, and on introducing next-generation thermal power generation, such as the integrated coal gasification combined cycle (IGCC) and the integrated coal gasification fuel cell combined cycle (IGFC) 	<ul style="list-style-type: none"> ● Construction of CO₂ capture systems, such as carbon dioxide capture, utilization, and storage (CCUS) ● Improvements to inefficient thermal power sources, including replacements
Increased Sophistication of Transmission and Distribution Networks		<ul style="list-style-type: none"> ● Establishment of a smart, resilient bulk power system to support the utilization of renewable energy as the major power source ● Future infrastructure development for more sophisticated forecasts and observations of renewable energy conditions, and for increased sophistication of and efficiency improvements to supply and demand control, taking into consideration the utilization of renewable energy as the major power source and distributed resources such as EVs, which are expected to be utilized more and more ● Optimal distribution system measures, equipment arrangement, and increased sophistication of operations (such as infrastructure development related to remote power control), taking into consideration the increased use of distributed resources such as EVs ● Study and operation of smart grids that make use of new technologies and systems 		
Support for Customers' and the Region's Decarbonization	Promotion of Electrification	<ul style="list-style-type: none"> ● Electrification of heat sources for air conditioning, hot water supply, and kitchens, through the use of high-efficiency heat pump equipment and other means, as well as of production processes in industrial fields ● Promotion of use of EVs (including leasing of EV charging equipment and car sharing services) 	<ul style="list-style-type: none"> ● Further promotion of electrification through the application of new technologies 	
	Zero Emission Support for Customers and the Region	<ul style="list-style-type: none"> ● Providing electricity rate plan options to comply with RE100; invitation of RE100 companies ● Consulting services to enable ZEHs and ZEBs ● Expansion of sales of the photovoltaic power equipment third-party possession model*6 ● Development of renewable energy sources in collaboration with customers and local communities ● Promotion of renewable energy aggregation*7 and services for local consumption of locally produced renewable energy ● Energy management through the utilization of energy data ● Support for P2P trading of electricity from distributed energy resources, utilizing blockchain technology*8 ● Establishment of infrastructure to support the practical use of storage batteries and expanded introduction of renewable energy (verification and implementation of VPP, establishment of DR for demand control) 	<ul style="list-style-type: none"> ● Achievement of zero emissions in the region and management of regional energy, using distributed renewable energy sources, and other resources ● Support for utilization of hydrogen and other resources 	

*6 A service to allow customers to introduce renewable energy with no need for an initial investment, requiring them to pay bills based on their consumption of electricity generated by the photovoltaic power equipment installed by an energy provider on the customers' premises.

*7 Remote/integrated control of multiple pieces of renewable energy power generation equipment owned by multiple customers, to implement VPP or DR operations.

*8 A technology to process and record information, such as trading records, in a distributed manner using encryption technology, between devices directly connected on an information communication network.

Risks, Opportunities, and Priority Measures

With the aim of achieving our Long-term Vision, we at the Group first analyze our business environment (risks and opportunities) taking into consideration the changes in our business environment, before establishing our policy (First Mid-term Business Policy) and a specific action plan (First Mid-term Business Plan). For the specific action plan, we specify priority measures based on an evaluation of their importance, and strive to steadily implement each measure.

STEP 1 Analyzing Our Business Environment and Establishing Our Policy

- Analyzing our business environment (risks and opportunities) taking into consideration the changes in our business environment, and establishing our policy (the Hokuriku Electric Power Group First Mid-term Business Policy)

Changes in the Business Environment Surrounding the Group	Risks	Opportunities	Policy
<p>1. Acceleration of the Trend toward the Realization of a Decarbonized Society</p> <ul style="list-style-type: none"> Drastic changes in the government's energy policy toward decarbonization (the 2050 Carbon Neutrality Declaration, the Green Growth Strategy, etc.) Acceleration of the worldwide trend toward decarbonization (the Paris Agreement, ESG investing, SDGs, green recovery, etc.) Increasing environmental needs among customers and local communities (RE100, zero-carbon cities, smart cities, etc.) 	<ul style="list-style-type: none"> Prolonged shutdown of Shika Nuclear Power Station Unscheduled shutdowns of coal-fired and other power generation facilities Large-scale disasters, such as typhoons and earthquakes, causing facility problems Aging of power generation, transmission, and distribution facilities 	<ul style="list-style-type: none"> Improved performance of equipment due to technological innovations 	<p>Ensuring a Stable Supply of Electricity</p>
<p>2. Changes in the Value Structure of the Electricity Business Due to the Progress of the 4 Ds* and Other Factors</p> <ul style="list-style-type: none"> Slumping wholesale electricity market prices Increased use of distributed renewable energy sources Technological progress in EVs and storage batteries, and expansion of the roles of distributed resources including DR 	<ul style="list-style-type: none"> Tighter environmental regulations toward carbon neutrality by 2050 Decrease in electricity sales and decline in wholesale electricity market prices due to the spread of renewable energy sources Decrease in electricity sales due to population declines, deteriorating economic conditions, etc. Obsolescence of business models due to technological innovations and other changes in the business environment Intensified competition in retail business Rising costs due to difficult power procurement environment Financing environment becoming more difficult due to downgrade of ratings, higher interest rates, etc. Risk of water shortages due to precipitation fluctuations Steep rise in costs for the procurement of fuel, materials, and equipment Decrease in electricity sales and impact on business operations due to the spread of infectious disease 	<ul style="list-style-type: none"> Expansion of opportunities to invest in renewable energy Increased advantages of carbon-free power sources including nuclear power generation Progress of electrification toward carbon neutrality by 2050 Added-value services to meet diversified customer needs (Renewable-energy-oriented electricity rate plan options, such as an RE100-compliant option; the photovoltaic power equipment third-party possession model; storage batteries and EVs; VPP; package deals that include gas or other options; etc.) Expansion of trading opportunities through new markets (non-fossil value trading market, capacity market, etc.) 	<p>Enhancing Competitiveness of Comprehensive Energy Business</p>
<p>3. Acceleration of social change following the COVID-19 pandemic</p> <ul style="list-style-type: none"> Acceleration of digitalization of work and everyday life, such as the establishment of telework and expansion of online spending Progress of digital technologies, such as AI and IoT 	<ul style="list-style-type: none"> Downturns in expected investment returns due to changes in the business environment and other factors 	<ul style="list-style-type: none"> Expansion of business opportunities toward carbon neutrality by 2050 Expansion of business opportunities by solving social issues such as SDGs and local issues Increasing demand for electricity in Asia and other overseas markets 	<p>Expanding Business Domains through the Combined Strength of the Group</p>
	<ul style="list-style-type: none"> Decline in social trust caused by breaches of business ethics or occurrence of work-related accidents Impact on business operations due to cyber attacks 	<ul style="list-style-type: none"> New value creation through the utilization of diverse human resources Productivity improvement through work style reforms Productivity improvement and expansion of new business opportunities through the utilization of digital technologies 	<p>Deepening Our Corporate Culture</p>

* Decarbonization, decentralization, digitalization, and depopulation

Status of Our Efforts regarding Risk Management

- Management risks are handled appropriately: after being grasped and evaluated as appropriate, they are reflected in various plans, including the business plan, established for each fiscal year at the board of directors' meeting. In addition, we establish organizations to discuss the issues and policies relating to such risks, as well as setting up company-wide cross-department committees and other equivalent units, on an as-needed basis.

STEP 2 Establishing Our Business Plan

- Establishing our business plan as a specific action plan, based on the business policy, taking into account CSR and ESG

First Mid-term Business Policy (FY 2019–2022)

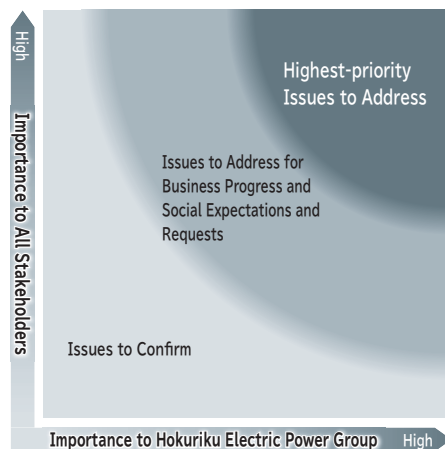
- Ensuring a Stable Supply of Electricity
- Enhancing Competitiveness of Comprehensive Energy Business
- Expanding Business Domains with the Combined Strength of the Group
- Deepening Our Corporate Culture

FY 2021 Version of First Mid-term Business Plan (FY 2019–2022)

For details of specific measures, refer to the efforts by each operational division, starting on page 17.

STEP 3 Specifying the Priority Measures

- Evaluating the importance of the measures in the business plan, from the viewpoint of the Group and stakeholders



- Specifying the priority measures based on the importance evaluation

	Important Issues	Main Efforts	Corresponding Page(s)
Power Generation	Early restart of Shika Nuclear Power Station	<ul style="list-style-type: none"> Response to reviews on conformity to new regulatory requirements Steady Implementation of Safety Measures 	P19-21
	Stable operation and improved efficiency of thermal power stations	<ul style="list-style-type: none"> Upgrading of Thermal Power Generation Facilities 	P22
	Building an electric power generation mix that achieves decarbonization while being economical	<ul style="list-style-type: none"> Increase in Hydroelectric Power Generation Increasing Wood Biomass Co-combustion Ratios at Coal-fired Power Stations Consideration toward the Utilization of Decarbonization Technologies, Including Application of Ammonia and Hydrogen Feasibility Studies on Offshore and Onshore Wind Power Generation Projects Strengthening of Renewable Energy Development Structure 	P23-24
Transmission and Distribution	Efforts to ensure the electric supply reliability of power transmission and distribution equipment, and to maintain their functions	<ul style="list-style-type: none"> Steady Replacement of Aging Facilities and Equipment Efforts to Secure Work Execution Capability 	P27
	Improvement of resilience to prepare for disasters	<ul style="list-style-type: none"> Strengthening of Equipment and Restoration Systems Strengthening of collaboration with other electric power companies, and with relevant organizations such as local governments 	P28
	Efforts to ensure a stable supply	<ul style="list-style-type: none"> Improvement of Supply and Demand Control Efficiency 	P29
	Improvement of work efficiency using digital technologies	<ul style="list-style-type: none"> Utilization of AI to improve bird nest patrol work efficiency 	P30
	Efforts toward expanded use of renewable energy	<ul style="list-style-type: none"> Efforts toward Increased Sophistication of Distribution System 	P31
Sales	Effective sales activities according to customer segments	<ul style="list-style-type: none"> Approaches in the Residential Sector For the Corporate Sector 	P33
	Providing new added-value services aimed at decarbonization	<ul style="list-style-type: none"> Providing 100% renewable-energy-oriented electricity rate plan options to comply with RE100 The photovoltaic power equipment third-party possession model, and more 	P34-35
	Proactive participation in local energy projects	<ul style="list-style-type: none"> Establishment of a local energy company 	P35
New Businesses	Services to contribute to solving regional issues	<ul style="list-style-type: none"> Transfer of Gas and Power Generation Businesses from Kanazawa City 	P37
	Investment for acquiring new technologies and know-how, and for other purposes	<ul style="list-style-type: none"> Investment in SBI 4&5 Fund 	P38
	Overseas electric power business	<ul style="list-style-type: none"> Participation in a Gas-fired Power Generation Project in the UAE 	P38
Deepening Our Corporate Culture	Work process reform in line with changes in our business environments	<ul style="list-style-type: none"> Development of business structure to accelerate the implementation of measures Promotion of Telecommuting 	P46 & P49
	Utilization of digital technologies and efforts toward system cost minimization	<ul style="list-style-type: none"> Productivity improvement through digital transformation 	P22-23 & P30
	Deepening of safety culture to prevent work-related accidents	<ul style="list-style-type: none"> Efforts to Eliminate Work-related Accidents 	P55

Power Generation

Working toward an Early Restart of Shika Nuclear Power Station and the Establishment of an Optimal Generation Mix toward a Decarbonized Society

Representative Director & Executive Vice President
General Manager of Community Relations & Development Division
General Manager of Nuclear Power Division

Nobuhiko Ishiguro

As moves accelerate toward the realization of a decarbonized society, including the 2050 Carbon Neutrality Declaration by the Japanese government, our most important mission at our power generation division is to work toward the establishment of an optimal generation mix for decarbonization, as a responsible energy provider. In April 2021, we created a roadmap aiming to achieve carbon neutrality by 2050. We now work toward the decarbonization of power sources, with the goal of making the ratio of electricity generated from non-fossil sources 50% or higher in 2030.

An early restart of Shika Nuclear Power Station is indispensable for the realization of a decarbonized society, as well as to ensure a stable supply of electricity. Seven years have passed since we filed our application for a review on conformity to the new regulatory requirements regarding Unit 2, and at the review meeting in January 2021, our explanation of the inactivity of the faults at the site gained an overall understanding.

As part of our efforts toward decarbonization, we have established in our long-term vision a

target of increasing the amount of electricity generated by renewable energy sources by 2.0 billion kWh per year compared to FY 2018, by FY 2030, and are promoting our study to increase our hydroelectric power generation through the construction and large-scale renovations of power stations, and other means, as well as to discover new sites for renewable energy such as wind power. In addition, in May 2021, we set up the Renewable Power Department to further accelerate our efforts. Coal-fired power generation faces severe criticism worldwide from the perspective of greenhouse gas reduction; however, as we still consider it to be an important base-load power source for stable supply at low costs, we will work to improve power generation efficiency by replacing turbines and utilizing AI and IoT technologies, and to increase biomass co-combustion ratios. Furthermore, we will advance our studies for the utilization of next-generation technologies for the introduction of carbon-free fuels such as ammonia and hydrogen.

The Need for Nuclear Power

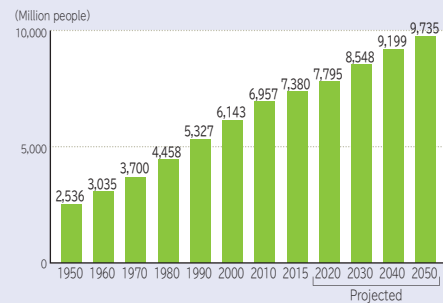
From the perspectives of both ensuring a stable supply and achieving carbon neutrality, we consider nuclear power generation to be an essential power source, based on the major premise that safety should come first. The proper energy mix is important for Japan given the country's low energy self-sufficiency rate; additionally, from the perspectives of not only energy security and environmental suitability, but also economy, nuclear power generation must continuously play an important role as a base load generation source.

Energy Self-sufficiency Rate

Japan is poor in natural energy resources, with an energy self-sufficiency rate of only 12%, meaning that Japan relies on imports for almost all energy resources.

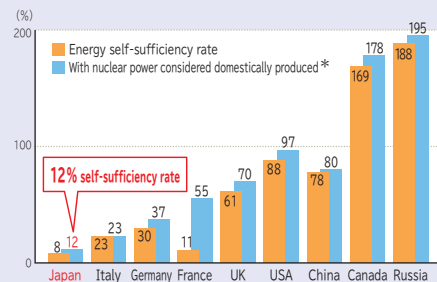
With the increasing global population, especially in emerging countries, energy demand is expected to rise significantly in the future, requiring energy composition that does not rely excessively on fossil fuels.

Changes in the Global Population



Source: UN, World Population Prospects: The 2019 Revision (Figures for 2020 and later are projections.)

Energy Self-sufficiency Rates of Major Countries (2018)

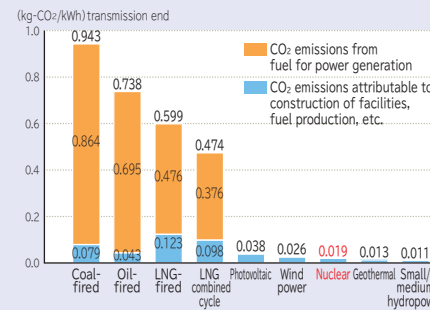


*Uranium is a nuclear fuel, which can be used for a long period after import and can be reprocessed and recycled, and is considered a quasi-domestic energy source. Source: IEA World Energy Balances (2020 Edition)

CO₂ Emissions by Sources

Nuclear power does not emit CO₂ when generating electricity, akin to renewable energy sources like photovoltaic and wind power.

CO₂ Emissions per kWh by Sources

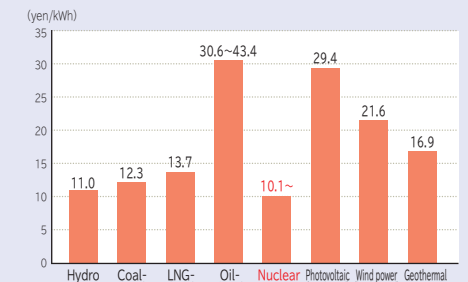


Source: Central Research Institute of Electric Power Industry Report (July 2016)

Power Generation Cost by Sources

The cost of nuclear power generation measures up favorably to other power generation sources, even if additional costs such as accident risk costs are included.

Power Generation Cost by Sources (2014 Model Plants)



(Figures vary depending on preconditions and other factors.)

Source: Power Generation Cost Verification Working Group (May 2015)

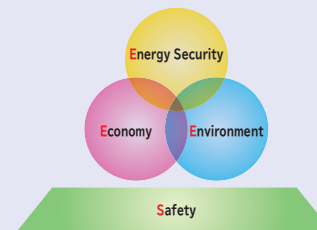
Energy Mix

Electric utilities have a social mission to ensure a stable supply of low-cost, high-quality electricity. The proper energy mix is of importance for a supply of electricity that supports daily life and industry from the perspective of "S+3Es," to simultaneously achieve energy security, economy, and environmental suitability, while putting the highest priority on safety.

In addition, it is crucial to produce power based on a well-balanced combination of various generation resources that makes effective use of their respective characteristics, including economic efficiency, responsiveness to changes in electricity demand, etc., in order to satisfy ever-changing power demand.

The policy of Japan's energy mix for FY 2030 was revised in the Fifth Basic Energy Plan, which was approved by the Cabinet in July 2018. While the approximately 20-22% share of nuclear power set for 2030 was unchanged, a policy to proceed with efforts to make renewable energy serve as a main power source was indicated.

The concept of energy mix (S+3Es)



	Before Tohoku Earthquake (2010)	Current (2018)	FY2030
Renewable Energy	Approx. 9%	Approx. 17%	Approx. 22-24%
Nuclear	Approx. 25%	Approx. 6%	Approx. 20-22%
Coal	Approx. 28%	Approx. 32%	Approx. 26%
LNG	Approx. 29%	Approx. 38%	Approx. 27%
Oil	Approx. 9%	Approx. 7%	Approx. 3%

Source: Created based on the data presented at the 26th meeting of the Basic Policy Subcommittee on Electricity and Gas under the Electricity and Gas Industry Committee of the Advisory Committee for Natural Resources and Energy (July 2020) of the Agency for Natural Resources and Energy

Efforts toward Early Restart of Shika Nuclear Power Station

State of Responses to Reviews on Conformity to the New Regulatory Requirements

Toward the early restart of Shika Nuclear Power Station, we are working on our responses to the reviews on conformity to the new regulatory requirements by the Nuclear Regulation Authority.

At the review meeting in January 2021, we **explained the inactivity of all** of the ten evaluation target faults at the site, through an **expansion of the data on the crossing vein method and the covering bed method**, and **gained an overall understanding**. The final judgment regarding the activity of the faults at the site will be made at a later time, following on-site surveys.

In parallel with this, reviews are in progress to evaluate the faults in the area surrounding the site. At future review meetings, we will provide clear and detailed explanations regarding the evaluation of these faults, and appropriately take actions to gain understanding as soon as possible.

Evaluation of Activity of Faults at the Site

- We explained that the ten evaluation target faults in the land and coastal areas, selected from among the faults at the site, have been inactive for the past 120,000-130,000 years, through evaluation by mineral veins and other methods, and gained an overall understanding.

Crossing Vein Method	Covering Bed Method
No displacement or deformation was observed in the mineral veins that formed at least 6 million years ago and travel across the latest slip surfaces of the faults.	No displacement or deformation was observed on the strata that were deposited at least 120,000-130,000 years ago covering the faults.
The fault is not active	The fault is not active

We gained an overall understanding at the review meeting in January 2021. The final judgment will be made at a later time following on-site surveys.

Evaluation of Activity of Faults in the Area Surrounding the Site

- We are evaluating the faults around the site that have the potential to cause earthquakes, as shown in the map below (green lines —).

Reviews are underway. We will respond appropriately to future review meetings.

Steady Implementation of Safety Measures

In order to further improve the safety of Shika Nuclear Power Station, we are proceeding with safety improvement works, including independent safety measures, taking account of the review statuses and results for other companies and other factors. Alongside the steady implementation of the safety improvement works, we continue to take appropriate actions in relation to reviews on conformity to the regulatory requirements, with the goal of an early restart of Shika Nuclear Power Station.

● Overview of safety improvement works

(2) Preparing for Tsunamis

Flood prevention for premises/buildings
(Establishment of seawall and installation of watertight doors)

Seawall

(1) Preparing for Earthquakes

Improvement of seismic resistance
(Seismic reinforcement by increasing the design's basic earthquake ground motion from 600 Gal to 1,000 Gal)

Seismic reinforcement of the overhead crane
Seismic reinforcement of the fuel handling machine
Seismic reinforcement of the roof truss

Seismic Reinforcement inside the Reactor Building

(5) Preventing dispersion of radioactive materials

Reduction of radioactive material emissions
(Installation of reactor containment vessel vent with filter, deployment of water discharging apparatuses, etc.)
Hydrogen explosion prevention
(Installation of mobile nitrogen supplying devices, etc.)

Reactor containment vessel vent with filter

(4) Securing water and cooling the reactor

Diversification of water sources
(Installation of high-capacity fresh water tanks, use of Otsubogawa Dam, etc.)
Diversification of water injection (cooling) functions
(Installation of permanently installed alternative low-pressure pumps, deployment of mobile low-pressure water injection pumps, etc.)

High-capacity fresh water tank (5,100 m³)
High-capacity fresh water tank (4,900 m³)

High-capacity fresh water tank

Mobile Low-pressure Water Injection Pumps

(6) Other (Setup of disaster-prevention base)

Establishment of emergency response building and expanded emergency response center

Emergency response building
Expanded emergency response center

Emergency response building and expanded emergency response center

(7) Measures for Other Disasters

Fire measures for inside buildings
(Occurrence prevention, improvement of detection and extinguishing functions, mitigation measures)
Flooding measures for inside buildings
(Flood prevention for critical equipment)
Provisions for natural phenomena
(Measures for volcanoes, tornadoes, and forest fires)

Width more than 24m
Firebreak

Firebreak for measures for forest fires

(3) Securing Power

Strengthening external power source
Redundancy and diversification of power sources
(Installation of underground light oil tanks for the emergency diesel generator, setting up permanently installed alternative AC power supply equipment, deployment of high-capacity power supply vehicles, etc.)

Power supply vehicle
Control vehicle

Permanently installed alternative AC power supply equipment

Nuclear Disaster Prevention Training

As part of our efforts to prepare for unexpected situations including natural disasters such as earthquakes or tsunamis, we conduct various ongoing training programs to maintain and improve our response capability.

In addition, we took part in a nuclear disaster prevention training program, conducted on November 22, 2020, by Ishikawa Prefecture, Shika Town, and other organizations; we confirmed the division of roles and coordination with the government and the local public authorities, and performed various drills.



Emergency Response Room during Disaster Prevention Training with Ishikawa Prefecture, Shika Town, and Other Organizations



Evacuation Screening during Disaster Prevention Training with Ishikawa Prefecture, Shika Town, and Other Organizations

Efforts to Gain Understanding Concerning the Safety of Shika Nuclear Power Station

The COVID-19 pandemic has made it difficult to hold events like power station tours and visits for dialog activities. Under these circumstances, we created a “virtual tour” of Shika Nuclear Power Station in December 2020, in order to help as many people as possible understand our efforts at the power station and its safety, and feel at ease. Visitors can also view videos showing inside the power station facilities (which are normally closed to the public), the power generation process, and more.

WEB Shika Nuclear Power Station Virtual Tour
http://www.rikuden.co.jp/genshiryoku/shika_kengaku/

In addition, we provide information on the power station by distributing our newsletter *Hamanasu Net* to all households in Shika Town, where the power station is located, as well as through a local cable TV program in the town.



Hamanasu Net Newsletters



Shika Nuclear Power Station Virtual Tour

Information Disclosure on Nuclear Power

In the event of an accident, equipment trouble, or other issue at Shika Nuclear Power Station, we contact and/or submit reports to the national government, and related local governments, including Ishikawa Prefecture and Shika Town, in compliance with laws and ordinances, safety agreements, MOUs, or as otherwise determined. We also continuously measure radiation levels and other data near the border of the site of the power station, and provide this data to Ishikawa Prefecture and other relevant organizations.

Efforts for Stable Operation and Improved Efficiency of Thermal Power Stations

Upgrading of Thermal Power Generation Facilities

We work to reinforce measures to prevent problems at our main coal-fired power stations by replacing turbines and introducing AI, as well as to further improve power generation efficiency.

● Replacement of Turbines

Replacing turbines strengthens our measures to prevent problems, and improves power generation efficiency to help reduce fuel costs and CO₂ emissions.

Fuel costs will be reduced by approximately 1 billion yen/year, and CO₂ emissions will be reduced by approximately 0.18 million t-CO₂/year.

Unit	Turbine Replacement Work (Fiscal Year of Replacement)
Tsuruga Unit 1	Low-pressure turbines (2021)
Tsuruga Unit 2	All turbines (2022)
Nanao Ohta Unit 1	All turbines (2021)
Nanao Ohta Unit 2	All turbines (2020)



Replacement of All Turbines at Nanao Ohta Thermal Power Station Unit 1

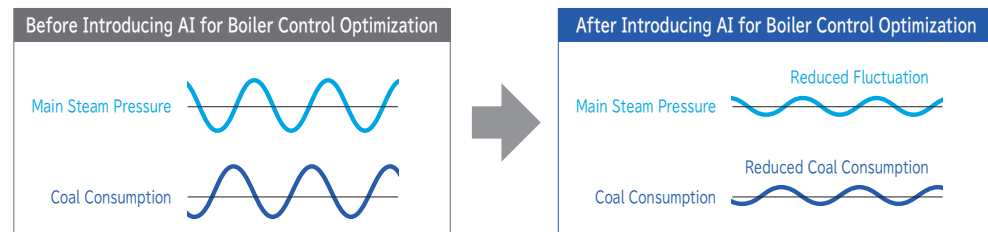
● Utilization of AI and IoT Technologies

Boiler Control Optimizations

AI* for optimized boiler control will be additionally introduced in Tsuruga Units 1 and 2 and Nanao Ohta Units 1 and 2. The optimization of fuel control helps reduce fuel costs and CO₂ emissions.

* Developed by an AI system manufacturer

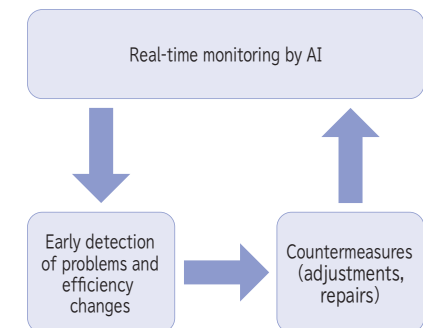
Fuel costs will be reduced by approximately 0.5 billion yen/year, and CO₂ emissions will be reduced by approximately 0.1 million t-CO₂/year.



Early Problem Detection and Efficiency Monitoring

Real-time analysis of massive amounts of operation data enables detection of problems and efficiency changes before operators can notice them. (This allows for prompt response, leading to early resolution of problems and continued high-efficiency operation.)

Unit	Introduction of AI for Boiler Control Optimization	Introduction of AI for Early Problem Detection and Efficiency Monitoring
Tsuruga Unit 1	2021	2021
Tsuruga Unit 2	2021	2020
Nanao Ohta Unit 1	2021	2021
Nanao Ohta Unit 2	2021	2021



Building an Electric Power Generation Mix That Achieves Decarbonization while Being Economical

With the goal of increasing our amount of renewable energy production by FY 2030, we promote measures such as increasing our hydroelectric power generation and increasing biomass co-combustion ratios at coal-fired power stations, for an electric power generation mix that achieves decarbonization while being economical.

Increase in Hydroelectric Power Generation

We will work to increase hydroelectric power generation through the construction of new power stations, the renovation of aging facilities, and other measures, in order to promote decarbonization of power sources.

● Construction of New Hydroelectric Power Stations

Members of the Group are constructing new power stations, as follows: Shin-Himekawa No. 6 Power Station by Kurobegawa Denryoku Co., Ltd.; Konomoto Small Hydroelectric Power Station by Hokuriku Electrical Construction Co., Ltd.; and Betsumatadani Power Station by Hokuden Engineering Consultants Co., Ltd.

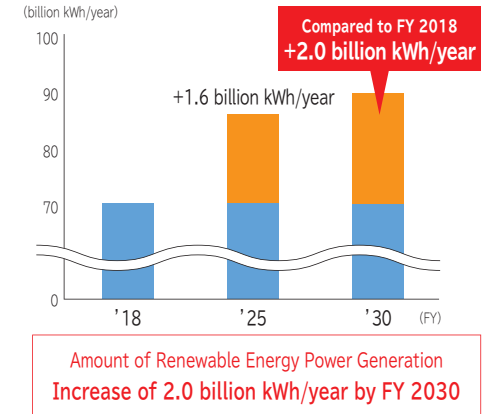
Power Station	Output	Electricity generated	Scheduled start of operation	CO ₂ reductions
Shin-Himekawa No. 6	28,000 kW	90 million kWh/year	April 2022	Approx. 45,000 t-CO ₂ /year
Konomoto Small Hydroelectric	660 kW	3 million kWh/year	June 2022	Approx. 1,780 t-CO ₂ /year
Betsumatadani	400 kW	2 million kWh/year	June 2024	Approx. 1,010 t-CO ₂ /year

● Renovation of Aging Facilities

We are considering large-scale renovation works for hydroelectric power stations that have been operating for significant periods of time.

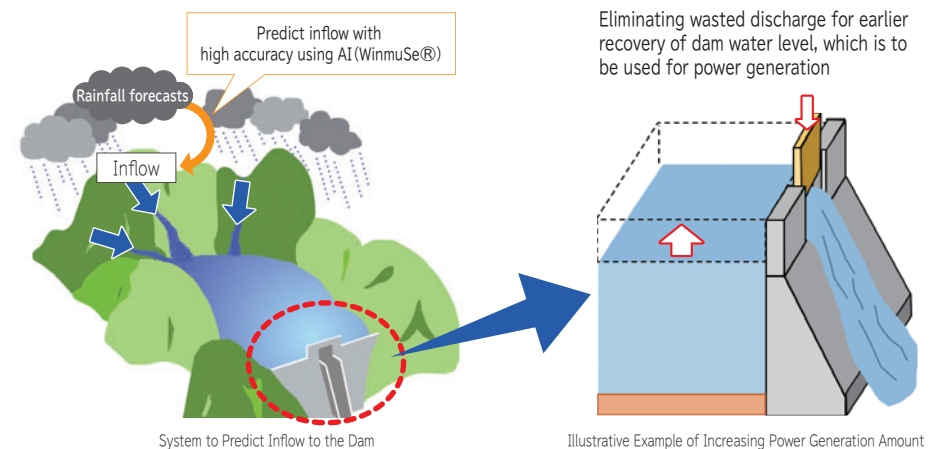
The power stations shown below are planned for renovation.

Power Station	Capacity before Renovation and Estimated Increase	Scheduled commercial operation
Hokuriku Electric Power Company	Shirayama 1,470 kW (increase of approx. 100 kW)	April 2025
	Akarajima 4,700 kW (increase of approx. 200 kW)	April 2025
	Banbajima 21,700 kW (increase of approx. 100 kW)	May 2025
	Dainichigawa No. 2 15,200 kW (increase of approx. 600 kW)	April 2026
	Mitsumata No. 1 13,000 kW (increase of approx. 700 kW)	May 2026
Toyama Kyodo Jikahatsuden	Kuzuyama 25,000 kW (increase of approx. 600 kW)	May 2023
	Miza 25,500 kW (increase of approx. 800 kW)	May 2026
Under review	2 19,100 kW (increase of approx. 1,500 kW)	-
Total	125,670 kW (increase of approx. 4,600 kW)	-



● Increasing Power Generation by Using AI

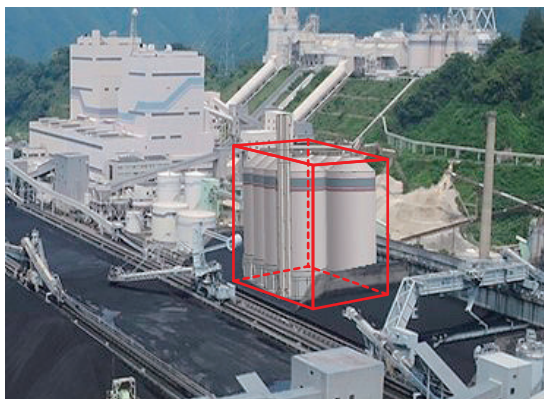
We are working to increase the amount of hydroelectric power generation by developing an AI system that predicts inflow into dams, and by optimizing power station operation. We also intend to sell this system to other businesses who are interested in predicting inflow for flood control or increasing their power generation, and through which we will provide a wide range of services.



Increasing Wood Biomass Co-combustion Ratios at Coal-fired Power Stations

● Efforts to Increase Biomass Co-combustion Ratios



In order to increase biomass fuel co-combustion ratios (15%) starting in FY 2024, works are in progress to modify power generation facilities and construct new biomass fuel storage silos at Tsuruga Thermal Power Station Unit 2. We are also working on a study for Nanao Ohta Thermal Power Station Unit 2.



Biomass Fuel Storage Silos at Tsuruga Thermal Power Station (Rendering)

● Biomass Fuel Procurement

With the aim of increasing co-combustion ratios, we are making various preparations to procure wood pellets (black pellets and white pellets) from North America and Southeast Asia — in addition to the domestically produced materials we currently use — taking into account cost effectiveness, supply stability, and usability. The preparation work includes checking the legality and sustainability of the imported materials, and organizing a system to accept them.

Black Pellets	White Pellets
	
Made by carbonizing and pelletizing wood. More resistant to water and higher in heating value compared to white pellets.	Made by pulverizing wood and compressing it to form pellets.

Consideration toward the Utilization of Decarbonization Technologies, Including Application of Ammonia and Hydrogen

Ammonia and hydrogen, which do not emit CO₂ during combustion, are expected to serve as some of the fuels that will contribute to achieving carbon neutrality by 2050. We will conduct studies on their use at thermal power stations.

As part of our efforts, we agreed to conduct the Feasibility Study on Establishing a Clean Fuel Ammonia Supply Chain from Australia to Japan, in cooperation with the Japan Oil, Gas and Metals National Corporation; Marubeni Corporation; Woodside Energy Ltd.; and the Kansai Electric Power Co., Inc., and signed a joint research agreement on July 20, 2021. Going forward, we will proceed with a study to establish an ammonia supply chain.

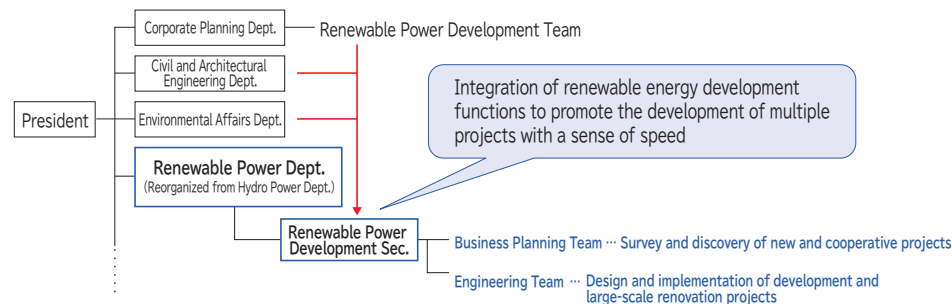
Feasibility Studies on Offshore and Onshore Wind Power Generation Projects

We are conducting a feasibility study on an onshore wind power generation project in Asahi Town, Toyama Prefecture, and will start an environmental impact assessment in September 2021. We are also considering an offshore wind power generation project off the coast of Awara City, Fukui Prefecture, in cooperation with Chubu Electric Power Co., Inc. and OSCF Co., Ltd.; a feasibility study is in progress. We are currently conducting surveys of wind conditions and the seabed.

We will also conduct feasibility studies on wind power generation in other areas within and outside Hokuriku.

Strengthening of Renewable Energy Development Structure

In order to strengthen our renewable energy development structure toward achieving the target of increasing renewable energy power generation by 2.0 billion kWh/year compared to FY2018, we set up the Renewable Power Department in May 2021. Works related to renewable energy development, which were previously handled by multiple departments, have been integrated to further accelerate our renewable energy development.

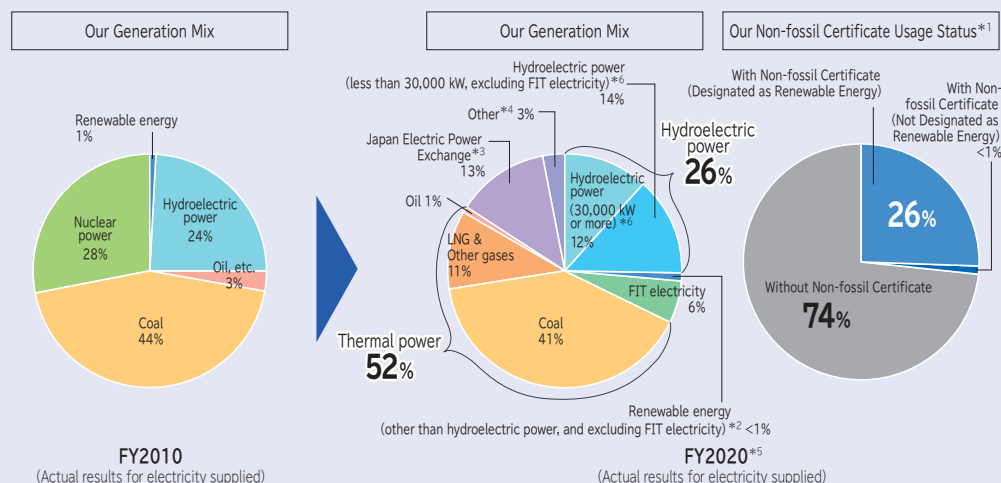


Hokuriku Electric Power Company's Generation Mix

Our generation mix is characterized by a higher ratio of hydroelectric power generation, capitalizing on the Hokuriku area's plentiful water resources; this ratio is 26%, the highest among former general electric power suppliers.

After the Great East Japan Earthquake, Shika Nuclear Power Station stopped operation; in its place, thermal power stations have been operating at high utilization rates since then. We steadily continue working toward restarting Shika Nuclear Power Station and the development of renewable energy sources in view of cost-effectiveness as ways to further diversify our generation resources.

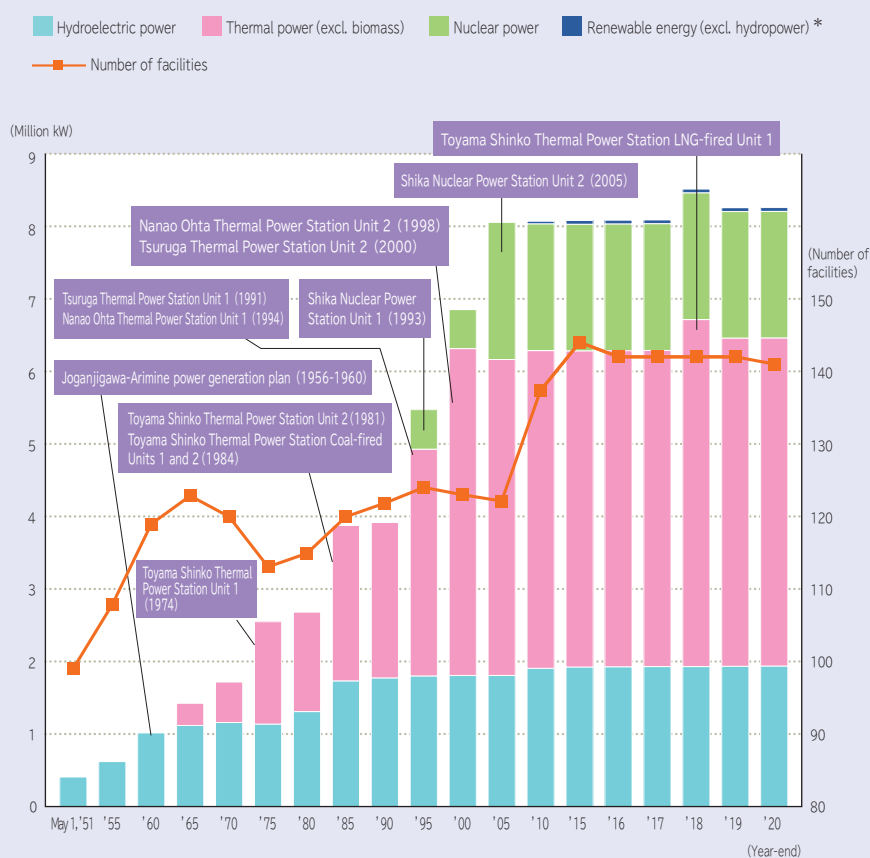
Component Ratio of Electricity Generated (Component ratio relative to our retail power demand)



Total figures may not exactly equal values obtained by adding up the individual figures, which are rounded off.

- Note 1: "FIT electricity" refers to electricity produced by hydroelectric power, photovoltaics, wind power, etc., and procured under the Feed-in Tariff Program for renewable energy. Part of the cost that we incur to procure this electricity is covered by surcharges collected from all electricity users, including non-customers of our company. CO₂ emissions from this electricity are calculated based on national average CO₂ emissions from all types of electricity, including those from thermal power generation. The total value of FIT electricity in FY 2020 amounted to 6%.
- Note 2: We offer some customers the option of 100% hydroelectric power; the percentage figures shown above were calculated based on the total amount of electric power sold (transmission side: 27,162 GWh), taking into account the amount of electricity sold through this option (19 GWh) and the amount sold using non-fossil certificates. (Actual results for FY 2020 (April 1, 2020 to March 31, 2021))
- Note 3: The non-fossil certificates that can be used for the calculation of the ratio of the non-fossil certificate usage are those for the calendar year (Jan. to Dec.); however, the actual calculation was made based on the non-fossil certificates for 9 months (Apr. to Dec.), because non-FIT non-fossil value trading started during or after April 2020. The total amount of electricity sold is calculated by multiplying the value for the fiscal year (Apr. to Mar.) by $\frac{9}{12}$, as with the calculation for the Act on Sophisticated Methods of Energy Supply Structures.
- Note 4: Our CO₂ emission intensity (adjusted emission intensity) for FY 2020 is 0.465 (kg-CO₂/kWh).
- *1 Based on the Guidelines Concerning the Management of the Electricity Retail Business (April 2021) established by the Ministry of Economy, Trade and Industry. A non-fossil certificate is a tradable certificate of "non-fossil value" of electricity derived from non-fossil sources (e.g. renewable sources).
- *2 "Renewable energy (other than hydroelectric power, and excluding FIT electricity)" refers to photovoltaics, wind power, and biomass (excluding FIT electricity).
- *3 This includes electricity obtained from hydroelectric power, thermal power, nuclear power, the FIT program, and renewable energy.
- *4 Electricity procured from other electric utilities, and for which the generation resource is unknown, falls under "Other."
- *5 The component ratio in FY 2020 was calculated and published based on the Guidelines Concerning the Management of the Electricity Retail Business (April 2021) established by the Ministry of Economy, Trade and Industry.
- *6 The electricity not using non-fossil certificates is not considered to have any value as renewable energy sources nor as generation resources with zero CO₂ emissions, and is treated as electricity with the national average CO₂ emissions including thermal power generation.

Power Generation Facilities (Number of facilities and output capacity)



* Biomass capacity calculated based on the biomass co-combustion ratio target at coal-fired power stations (3%)

Power Transmission and Distribution

Contributing to the Development of the Hokuriku Region, Bearing in Mind Our Mission of Providing a Stable Supply of Electricity.

Hokuriku Electric Power Transmission & Distribution Company
Representative Director & President

Koichi Mizuno



In our power transmission and distribution operations, it is essential to appropriately control supply and demand, and maintain equipment and facilities, to fulfill our mission of delivering a stable supply of electricity. Because replacement works for the facilities and equipment installed in the high-growth period of the Japanese economy will eventually reach a peak, we strive to systematically update this equipment and these facilities with reference to asset management methods, while securing the capability necessary to execute these works.

In addition, we will strive to further prepare for natural disasters, which have been increasingly frequent and severe in recent years, by redoubling our efforts to strengthen our equipment and facilities, improve training programs, and more, as well as working closely with relevant organizations, as part of our group-wide approaches to boost resilience. We will also continue our ceaseless efforts to improve work efficiency and reduce costs, in addition to working to provide better services to our customers through the use of digital technologies.

We will also work to build a smart, resilient next-generation electric power system, with the aim of achieving carbon neutrality by 2050.

To this end, we will also conduct studies for the increased sophistication of transmission and distribution networks through the introduction of a distribution automation system, and for the handling of non-firm connection and redispatching methods to avoid congestion during normal periods, in line with the trends of decarbonization of power sources, including the utilization of renewable energy as the major power source.

In order to impartially allow various power providers to use the transmission and distribution networks, we continue to maintain neutrality with transparent business operations, and strive to contribute to the further development of the Hokuriku region, bearing in mind our mission of ensuring the stable supply of electric power that we have developed over the years.

Efforts to Ensure Electric Supply Reliability of Power Transmission and Distribution Equipment, and to Maintain Their Functions

Based on our expectation that replacement work for the facilities and equipment installed in the high-growth period of the Japanese economy will increase, we strive to maintain equipment functions by securing our work execution capability and steadily carrying out necessary works.

Steady Replacement of Aging Facilities and Equipment

In order to continue providing a stable supply of electricity, we are carrying out reconstruction of concrete poles and transmission towers, transformer replacements, and other works. On the other hand, because our capacity to carry out works is limited, we also perform life extension works, and other efforts to even out the amount of works each year.



Concrete Pole Replacement Work



Transformer Replacement Work



Transmission Tower Construction Work

Efforts to Secure Work Execution Capability

In order to maintain and enhance our work execution capability, we continue efforts to secure and develop human resources for transmission and distribution works, such as providing teaching materials for technical high schools and producing promotional videos to improve the public image of the industry.

● Teaching Material for Technical High Schools



● PR for E-League Hokuriku



(PR movie)



(Twitter)

● "So-High" Special Website

Delivering electricity 24 hours a day, 365 days a year, without interruption — E-League Hokuriku is a group of companies involved in power transmission and distribution works, indispensable for the development of the region.

This website provides information about working in the industry, such as what the work entails, and the appeal of the work.



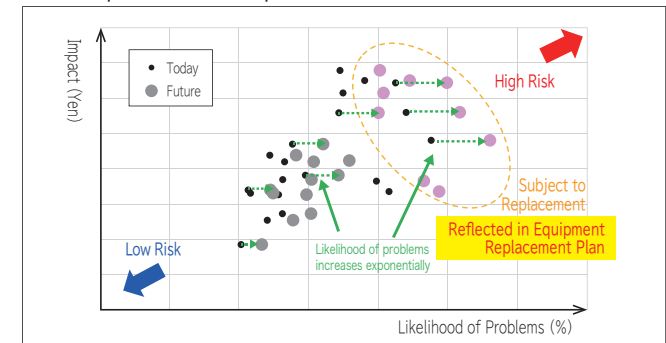
● Transmission Tower Cards (Series 2)



Introduction of Asset Management Methods

In order to address the increasing amount of aging equipment, we will promote the introduction of asset management methods, which will help us to quantitatively evaluate the likelihood and impact of problems related to each piece of equipment, and determine the amount of equipment requiring replacement.

● Risk Map (Illustrative Example)



Improvement of Resilience (Tenacity and Ability to Recover) to Prepare for Disasters

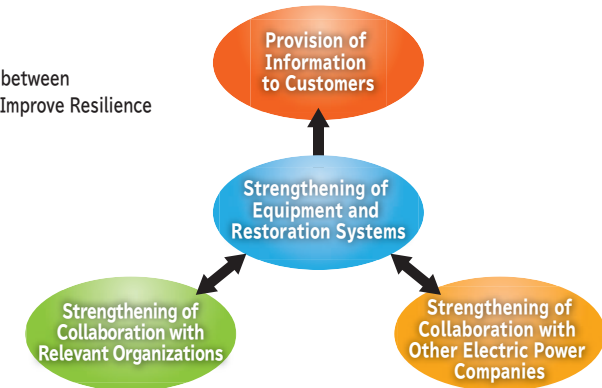
In order to prepare for natural disasters, which have been increasingly frequent and severe in recent years, we have been steadily implementing measures to improve our resilience, by strengthening our internal systems and seeking collaboration with relevant organizations.

Provision of Information to Customers

- Prompt and accurate provision of information via a power outage information notification app, our website, and social media
- Chat-based support service launched for inquiries about power outages, as well as about power transmission and distribution facilities such as poles and wires (See page 30 for details)



● Relationship between Measures to Improve Resilience



Strengthening of Equipment and Restoration Systems

- Additional deployment of high-voltage power generation vehicles
- Raising the foundations of switchgear and other facilities, and expanding mobile transformers integrated with switchgear, as measures to protect substations from flooding
- Start of operation of the Emergency Disaster Equipment Information Sharing System (EDISS) for integrated management of site information, vehicle locations, and high-voltage power generation vehicle operation information



Strengthening of Collaboration with Relevant Organizations

- Establishment of agreements with local governments (Dispatch of liaison personnel, removal of fallen trees, proactively cutting down trees, etc.)
- Participation in drills organized by local governments, and implementation of joint drills (with Self-Defense Forces and other relevant organizations)
- Establishment of agreements with oil sales businesses and other organizations, for the procurement of fuel for power supply vehicles
- Establishment of a memorandum of understanding with the 8th Regional Coast Guard Headquarters regarding cooperation during disasters



Strengthening of Collaboration with Other Electric Power Companies

- Holding recovery support drills with other transmission system operators
- Dispatching employees to assist other power companies coping with disasters
- Formulation of plans on how to cooperate in the event of disasters



Efforts to Ensure a Stable Supply

In order to continue to supply electricity stably at low prices, we collaborate with other power transmission and distribution companies to secure necessary reserve capacity, as well as efficiently controlling supply and demand.

Stable Supply

In order to deliver electricity generated at power stations to customers, our power transmission and distribution division conducts patrols and inspections daily to ensure that our facilities, such as power transmission lines and substations, are in good condition, as well as consistently being prepared to quickly respond to equipment problems.

Our Central Load-dispatching Center and three Regional Control Centers are responsible for the monitoring of the flow of electricity. They monitor and control power systems in order to maintain high quality electricity with minimal fluctuations in voltage and frequency, through operations such as adjusting the amount of electricity generated to the ever-changing electricity demand, on an around the clock basis.

Furthermore, in the event of accidents, or when performing work, we always make sure to switch the power transmission lines, for a stable supply of electricity.



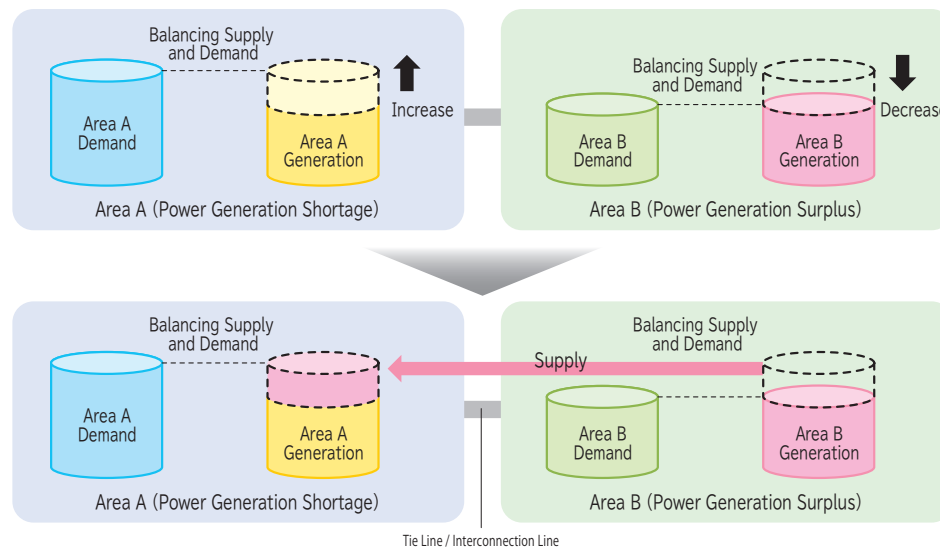
Central Load-dispatching Center

Improvement of Supply and Demand Control Efficiency

● Wide-area Supply and Demand Balance Control

As part of our efforts to improve supply and demand control efficiency, the three transmission system operators (TSOs) for the Chubu, Kansai, and Hokuriku areas started wide-area supply and demand balance control operations in March 2020. This effort expanded nationwide during FY 2020.

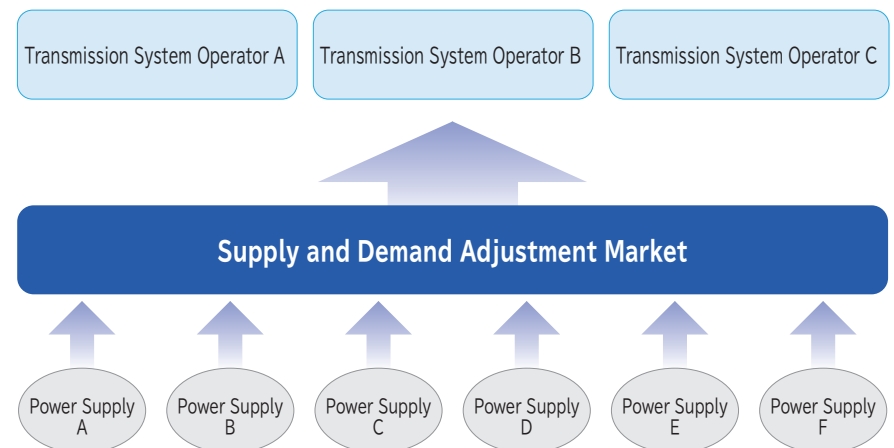
The wide-area supply and demand balance control enables cross-regional supply and demand balancing, through which the TSOs have now been able to interchange low-cost electricity to reduce costs of reserve capacity.



Tie Line / Interconnection Line

● Establishment of Supply and Demand Adjustment Market

The supply and demand adjustment market was launched in April 2021, for TSOs to procure reserve capacity from the market across regions. In order to ensure a stable supply in the Hokuriku region, we continue striving to secure necessary reserve capacity, as well as working to procure low-cost reserve capacity for efficient supply and demand control.

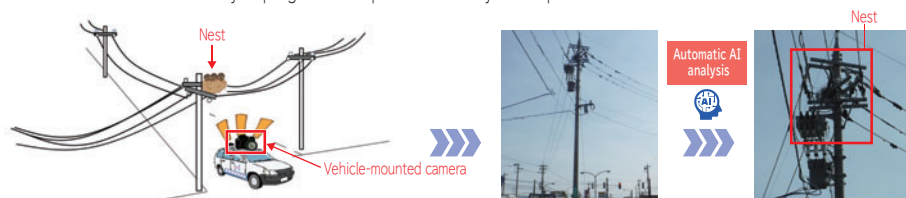


Improved Work Efficiency through Digital Technologies

We strive to improve our work efficiency, such as reducing the amount of work needed for patrolling, through AI and other digital technologies.

Utilization of Vehicle-mounted Camera Images and AI, to Improve Bird Nest Patrol Work Efficiency

Our patrol work to detect bird nests* has conventionally been performed by human eyes, checking a total of 1.8 million utility poles per year. In FY 2021, we experimentally introduced an automatic nest detection AI system, which automatically detects abnormalities in power distribution facilities using photos taken by a vehicle-mounted camera. Verification tests are currently in progress to improve efficiency in our patrol work to find bird nests.



* From spring to early summer, crows and other birds occasionally build nests on utility poles for their eggs. They may build their nests using electrically conductive materials like wire hangers, which can lead to power outages.

Utilization of Drones for Streamlined Surveys of Interfering Trees in Microwave Communication Sections

Conventionally, surveys of interfering trees have been performed by visiting sites. We are currently working to improve surveying efficiency by utilizing drones to take pictures from multiple angles and visualize the vegetation in the microwave communication sections; this communication method is used for electric power system operation and other purposes. By identifying the interfering trees and forecasting vegetation growth, it is possible to forecast which trees may become obstacles in several years.

Utilization of LiDAR Surveying and 3D CAD Drawings for Efficient Construction Planning

Conventionally, creation of construction plans has involved visual checks of the sites by workers. We are currently working to utilize LiDAR surveying and create 3D CAD drawings of the overall views of substations, for improved accuracy and streamlined planning processes.



Before



After research and study on paper, on-site survey is conducted for several days using binoculars

After Using Drones



3D data is created after taking photos of the target area using drones

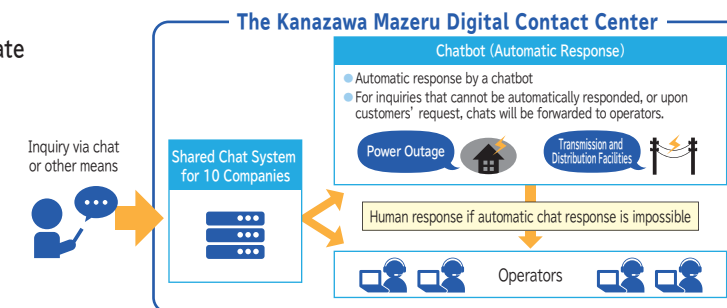
Utilization of Digital Technologies for Customer Service Improvements

We strive to improve the quality of our services by utilizing digital technologies to provide customers with prompt, accurate information.

Participation in the Operation of the Kanazawa Mazeru Digital Contact Center (MDCC)

In order to provide chat services to respond to inquiries about power outages, as well as about power transmission and distribution facilities such as poles and wires, ten transmission system operators jointly operate the Kanazawa MDCC.

The Kanazawa MDCC strives to provide customers with peace of mind, through the knowledge that they can be connected even in the event of disasters, by using a chatbot that automatically responds to inquiries through websites and other channels.

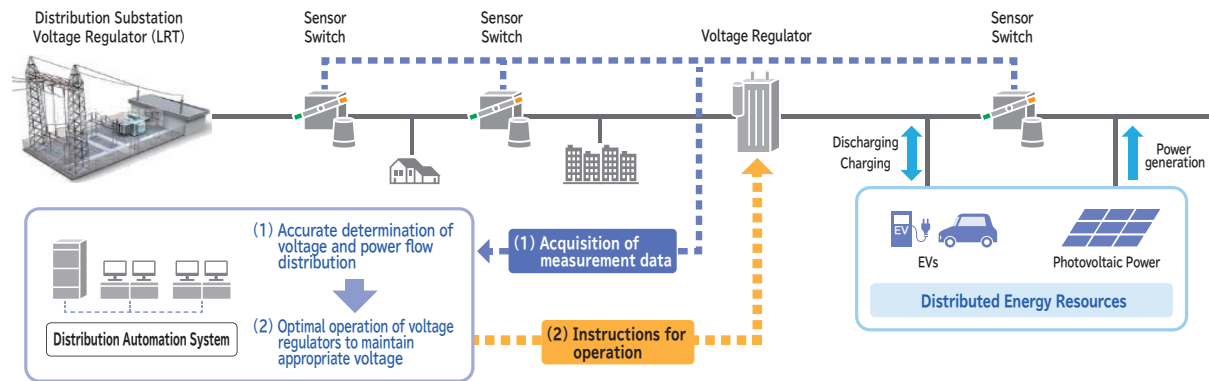


Efforts toward Expanded Use of Renewable Energy

In light of the trend toward the large-scale introduction of renewable energy and expanded use of electric vehicles (EVs) and storage batteries, we strive for increased sophistication of the distribution system, and to support non-firm connection and redispatching methods.

Efforts toward Increased Sophistication of the Distribution System

We promote the introduction of sensor switches to enable the measurement of voltage, current, and other values, and work to improve the quality of electricity and optimize the equipment formation.



Efforts to Support Non-firm Connection and Redispatching Methods

In order to overcome grid constraints, which have come about as a result of large-scale introduction of renewable energy sources, we strive to support non-firm connection*1 and redispatching methods*2 to avoid congestion during normal periods.

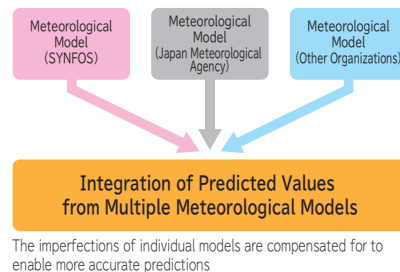
*1 An initiative to allow new power sources to connect to the grid even when there is not enough capacity, on certain conditions such as output power control.
 *2 Congested transmission lines are not identified in advance; instead, congestion is handled at the point when such a state is judged to occur (or highly likely to occur).

Efforts to Improve Power Generation Prediction Accuracy

Toward the large-scale introduction of renewable energy sources, we work to reduce errors in power generation prediction, and promote efforts to improve its accuracy, in order to lower the amount of curtailed renewable energy output in the future and efficiently secure reserve capacity.

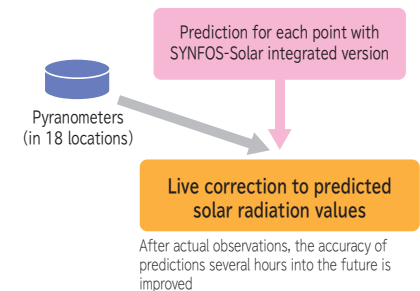
As part of our efforts to improve power generation prediction accuracy, we have introduced SYNFOSS-Solar integrated version prediction, which utilizes multiple meteorological models to predict the amount of solar radiation.

One of the main causes of errors in predictions using meteorological models is the imperfection of these models. In order to compensate for these errors, we integrate multiple models to improve prediction accuracy.



In order to improve same-day prediction accuracy, we plan to introduce live correction during FY 2021, to reduce discrepancies between predictions and actual measurements of solar radiation.

Solar radiation data based on actual observations is collected at 30-minute intervals, and the difference between the latest measured value and the predicted value is set as the initial correction value, through which corrections are made to the original predicted values to bring them into line with actual values after a certain time, for improved predictions.



Sales

Aiming to Be a Company That Leads the Way to Carbon Neutrality for Our Customers and the Region, by Providing Services That Meet the Need for Decarbonization

Managing Executive Officer
General Manager of Marketing & Sales Division

Takahide Cho



Since the full liberalization of the retail electricity market in 2016, the increase of new entrants and other factors have further intensified competition. Amid these circumstances, we maintain our efforts to flexibly provide value and services to meet customers' needs, and we strive to be chosen by customers, with the target of total electricity sales volume of 40.0 billion kWh/year by FY 2030, as presented in our long-term vision.

For the residential sector, the household subscription rate for the Hoku-Link membership has exceeded 40%. We continuously work to further upgrade this service and improve its convenience for our customers.

For the corporate sector, we continuously upgrade our expert energy-related consulting, and we are adding new free and paid services to fulfill our customers' various needs.

As electricity sales in the Tokyo metropolitan area are increasing steadily, we aim to accelerate the rate of increase and serve more new customers in that area.

We have set the carbon neutrality by 2050 as one of our key management targets. Our customers' needs for decarbonization are growing from day to day, and we aim to be a company that fulfills the needs of our customers.

We already offer a 100% hydroelectric power rate plan, and we are planning to offer new rate plan options which fully comply with RE100. We will also expand availability of our photovoltaic power equipment service with a third-party possession option, which enables customers to use renewable energy without the need for an initial investment, to household customers. Moreover, we will provide various support programs for our customers who are planning to install or evaluating the use of electric vehicle charging and discharging equipment and other equipment to contribute to business continuity plans (BCPs).

Furthermore, as countrywide initiatives to promote regional decarbonization, such as the Regional Decarbonization Roadmap and the Revised Act on Promotion of Global Warming Countermeasures, have been discussed by the national government and other leading institutes, and as it has become increasingly important to solve problems in cooperation with local governments and communities, we will actively be involved in regional energy projects. In October 2020, we established Himi Furusato Energy, Inc. jointly with Himi City and other relevant organizations: this company works to support the region's decarbonization, promote the local consumption of locally produced energy, and revitalize the region, through its energy business and other efforts.

Effective Sales Activities Based on Customer Segments

Through group-wide efforts, such as providing appealing services, we continue striving to meet the diverse needs of our customers, including those outside the Hokuriku area, in order to be chosen by more and more customers.

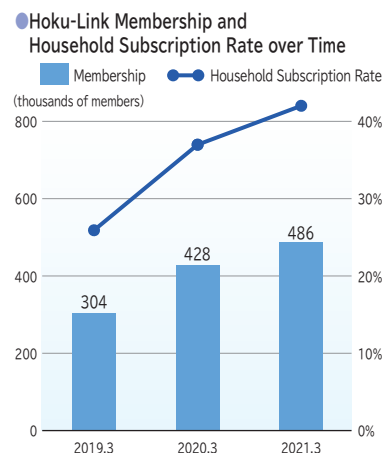
Approaches in the Residential Sector

● Further Upgrades to the Hoku-Link Membership Service



In order to further upgrade our Hoku-Link membership service and improve its convenience, we will consider and implement the following efforts:

- Improvement of Hoku-Link app service functions (E.g. Lists of electricity fees and point balances)
- Conversion of Hoku-Link points into e-coupons
- Low-price senior citizen monitoring assistance service, based on 30-minute consumption of electricity



● Inspection Services for Long-Operating Power Conditioning Systems (PCSs)

The Feed-in Tariff Program (FIT), which started in 2009, and other factors have encouraged households to install photovoltaic power equipment at their houses. Now, twelve years after the start of the program, there are more and more units approaching the end of their expected functional life.

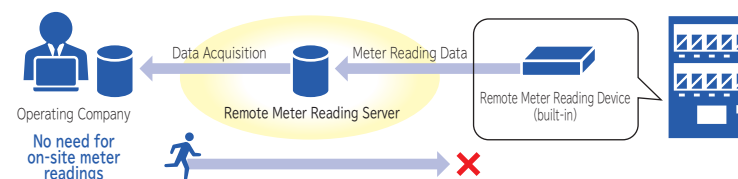
PCSs operating for a long time are at high risk of failures that prevent our customers from utilizing their photovoltaic cells even if they are still functional. In order to reduce this risk, we offer PCS inspection and replacement services for customers who are willing to sell their excess electricity to us even after the FIT program period. This is also one of our efforts to contribute to the stable utilization of renewable energy.



For the Corporate Sector

● Remote Meter Reading Service for Vending Machines

In March 2021, we started providing remote meter reading services of electricity for vending machines utilizing IoT technology, for companies that operate vending machines (such as beverage manufacturers). These services, the first of their kind in Japan, eliminate the need for on-site electric power meter readings and other related work, contributing to reductions in the amount of labor required. Going forward, we intend to expand these services nationwide.



● Smartphone Meter Reading Service

In April 2021, we started providing a service to let customers use their smartphones to read their conventional meters for electricity, gas, water, and other utilities, that they own and manage at factories, buildings, and other facilities: the meter, photographed together with the pre-affixed QR code using a smartphone, is read by an image analysis AI, and automatically recorded in a cloud-based ledger. This service, provided on a monthly-fee basis with no initial cost, will help not only reduce the amount of labor required, but also prevent errors in meter readings and inputs.



● Proposals of Solutions Including Leasing of EV Charging and Discharging Equipment to Contribute to BCPs

We will offer services to provide distribution boards for EVs that utilize our patented technology, EV charging and discharging equipment, BCP consulting, and follow-up support as a package, for small offices and other customers.

Promotion of New Added-value Services and Other Efforts Aimed at Decarbonization

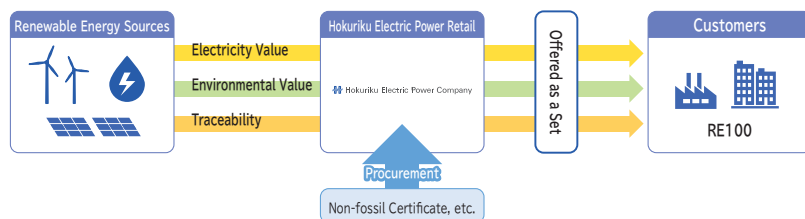
We will contribute to the decarbonization of our customers, by providing renewable-energy-oriented electricity rate plans, such as RE100-compliant plans.

● Providing RE100*-compliant, 100% Renewable Energy Electricity Rate Plan Options

We offer 100% hydroelectric power plans: the Aqua ECO Plan for residential lighting and low voltage power, Green Special Contract (Aqua Green) for high and extra-high voltage, and Toyama Mizu-no-sato Denki (“Toyama Water Village Electricity”).

In addition to these, we offer RE100-compliant, 100% renewable energy electricity rate plan options with traceability (specified power stations), to meet customers’ needs for decarbonization.

● Providing RE100-compliant Environmental Value



* A global initiative for businesses to commit to procuring 100% of the electricity needed for their operations from renewable energy sources. It aims to achieve 100% of energy use from renewable energy sources by 2050.

● Certified for EV Subsidies by the Ministry of the Environment and Starting Environmental & Eco-Car Discount

Our Aqua ECO Plan, Green Special Contract (Aqua Green), and Toyama Mizu-no-sato Denki have been certified as renewable energy electricity plans by the Ministry of the Environment. This certification is a condition for receiving the Ministry’s EV subsidies. Consequently, customers who purchase a new electric vehicle and sign up for one of these plans will be eligible for a subsidy of up to 800,000 yen.

We also offer other special benefits to customers who own electric vehicles or other eco-friendly vehicles and have signed up for the Aqua ECO Plan: the Environmental & Eco-Car Discount option for electricity rate discount and the EV Charging Equipment Installation Service provided on a one-stop-shop basis.

● EV Subsidies

Before	New Program from MOE
Up to ¥400,000 Condition: Purchase an EV	Up to ¥800,000 Condition: Purchase an EV and sign up for a certified renewable energy electricity plan

■ Overview of the Environmental & Eco-Car Discount
 Eligible Customers:
 Customers who own an electric vehicle, plug-in hybrid electric vehicle, or fuel cell vehicle, and who have signed up for the Aqua ECO Plan (additional unit price 2.2 yen/kWh incl. tax)
 Discounted Unit Price:
 0.5 yen (incl. tax) per kWh of electricity consumed

● ZEB* Consulting

In order to meet the needs for ZEBs, we acquired the qualifications to become, and were registered as, a ZEB planner in February 2021. The Hokuriku Electric Power Group provides one-stop services, from architectural design and equipment consulting, to applying for subsidies and installing energy-saving equipment, to help customers’ buildings become ZEBs.

● ZEB Consulting Implementation Framework

Hokuriku Electric Power Company	• Energy-saving consulting, subsidy application support	
Hokuriku Electric Power Biz Energy Solutions Co., Ltd.	• Equipment consulting, subsidy application support, installation work	
Hokuden Engineering Consultants Co., Ltd.	• Architectural design	

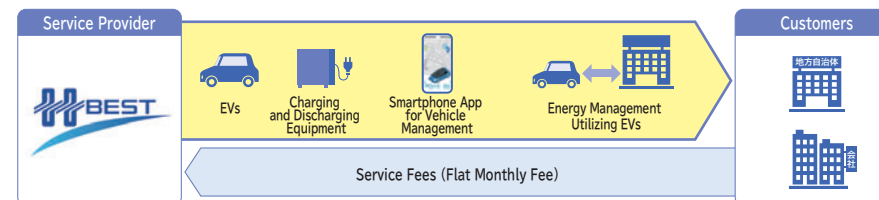
* Net Zero Energy Building (ZEB): a building that aims to make the balance of annual primary energy consumption zero

● Comprehensive Service for Corporate Customers to Introduce EVs

For local governments and corporate customers, we provide the following equipment and services as a package: simulations to determine the optimal number of EVs and charging and discharging equipment based on vehicle usage status for the possible reduction of cars necessary for operation, a smartphone app for vehicle management, and energy management utilizing EVs.

By introducing this service, customers can reduce their costs related to introducing EVs, such as by no longer having to pay the initial costs. In addition, this service helps improve convenience for vehicle users and efficiency of vehicle management work. It is also possible to utilize EVs’ functionality as storage batteries, to compensate for customers’ electricity demand fluctuations and to provide an emergency power supply during power outages.

● Comprehensive Support for Introducing and Utilizing the Optimal Number of EVs Based on Vehicle Usage Status



(Provided as a package by Hokuriku Electric Power Biz Energy Solution Co., Ltd., a company belonging to the Group)

● Photovoltaic Power Equipment Third-party Possession Model*

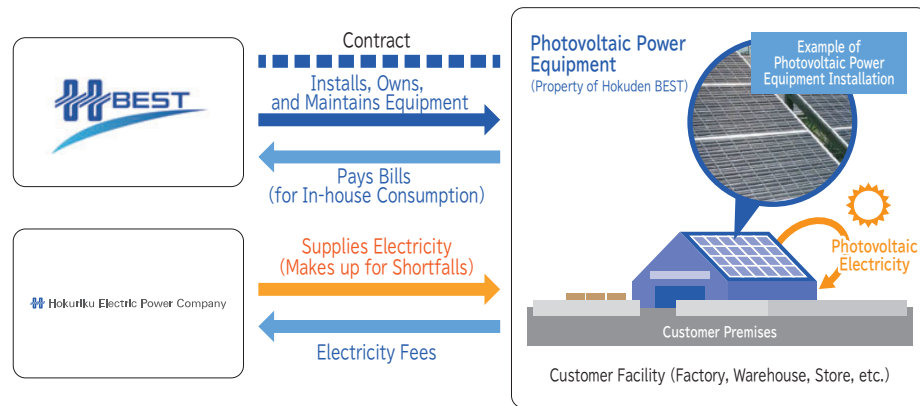
This service originally was tailored for our corporate customers, and the first facility started operation in March 2021. Since then, this service has been adopted at nine facilities, with a photovoltaic panel capacity of approx. 6,500 kW, by July 2021. We have received numerous inquiries and much acclaim. In July 2021, we started offering a similar service to our household customers, and the service is now provided under the name Easy Solar. In addition, we have installed photovoltaic power generation systems with BCP features at major supermarket chain stores in our region, in collaboration with other companies.

* Our group company installs photovoltaic power equipment on customers' premises, and supplies electricity generated from this renewable source. The customers pay bills based on the electricity supplied. As a result, this service enables customers to use renewable energy without having to pay for the initial investment.



Photovoltaic Panels Installed at a Fukui Byora Co., Ltd. Facility

● Outline of the Third-party Possession Model for Corporate Customers



● Photovoltaic Generation System with BCP Feature

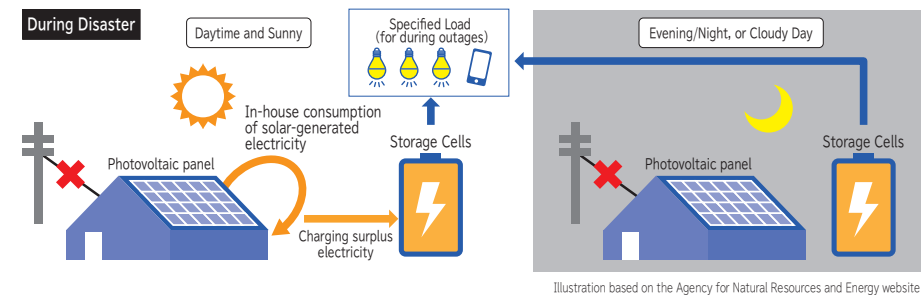
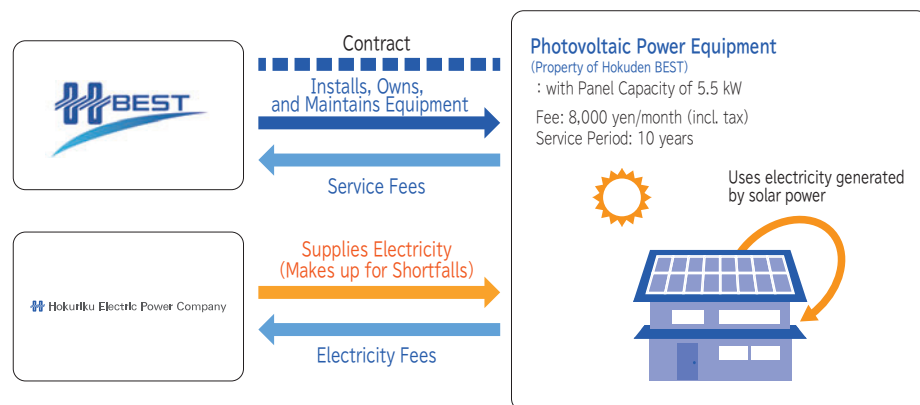


Illustration based on the Agency for Natural Resources and Energy website

● Outline of the Third-Party Possession Model for Household Customers (Easy Solar)



Active Involvement in Local Energy Projects

We are actively involved in regional energy-related projects in collaboration with local governments and other relevant parties, in order to support the region's decarbonization, local consumption of locally produced energy, and revitalization efforts.

● Establishment of Himi Furusato Energy, Inc.

In October 2020, Himi Furusato Energy, Inc. was established through joint investment by the Hokuriku Electric Power Company, Himi City, the Himi Chamber of Commerce and Industry, and other relevant organizations. With the aim of revitalizing the region, this company works to promote the generation of electricity in the city to be consumed in the city (local consumption of locally produced energy) through increased introduction of renewable energy equipment and other efforts, and to contribute to the regional economic cycle by purchasing goods and ordering electrical work from businesses in the city.

The company offers community-based special discounts on electricity rates for child-rearing households, people who have moved into the city from outside, and those who have moved from Himi to the Tokyo metropolitan area.



New Business

Aiming to Expand Existing Business Domains and Create New Ones

Directors & Managing Executive Officer

Wataru Hirata

As the 4 Ds (decarbonization, decentralization, digitalization, and depopulation) and other factors progress, the value structure of the electricity business is expected to change significantly in the coming years. Given this, in order for the Group to continue sustainable growth, it is necessary to develop businesses that transcend the framework of our existing electricity business.

In our Long-term Vision, which we established and announced in April 2019, we set objectives of increasing ordinary income and establishing a business portfolio with a 2:1 ratio of electricity business to non-electricity business in FY 2030, and we have since worked to expand our current business domains while creating new ones.

It has now been two years since the Long-term Vision was established, and our new businesses are starting to show results. Regarding our efforts to solve regional issues, a group composed of six companies, including the Hokuriku Electric Power Company, was selected as

the priority negotiation rightsholder for taking over the gas and power generation services operated by Kanazawa City; we are now proceeding with preparations for the business transfer. Additionally, in March 2021, we invested in a gas-fired power generation project in the UAE, marking our first foreign direct investment. Going forward, we will work to get our new businesses on track to secure profits.

We also declared, in the future vision of the Group that we announced in April 2021, that we will develop businesses that transcend the framework of our existing electricity business, in order to contribute to resolving social issues concerning global warming, sustainable regional development, and the realization of a smart society. We will continue to take on the challenges of new business opportunities to ensure safety and peace of mind in everyday life and health, to provide services that contribute to improving the quality of life of our customers through digital technologies, and more.

Services to Contribute to Solving Regional Issues

We actively address the issues and needs of local communities, in order to create business opportunities and to contribute to the development of the region.

Transfer of Gas and Power Generation Businesses from Kanazawa City

In the process of privatizing the gas and power generation services provided by Kanazawa City, a group of six companies represented by the Hokuriku Electric Power Company was selected as the priority negotiation rightsholder. The other members of the group are Toho Gas Co., Ltd.; the Hokkoku Bank, Ltd.; Hokkoku Shimbun Inc.; Matsumura Bussan Co., Ltd.; and Komatsu Gas Co., Ltd. On May 13, 2021, we established Kanazawa Gas & Electricity Co., Ltd., with operations to commence on April 1, 2022.

On June 30, the company entered into a tentative business transfer agreement with Kanazawa City.

● Main Operations of the New Company (Proposal)

We plan for the new company to handle electricity retail business and other operations, in addition to the two existing services. On the major premise of ensuring safety and security, and placing the highest priority on the development of Kanazawa City and the lives of the people living there, we will propose business operations that leverage the expertise of private companies.

Gas Business	<ul style="list-style-type: none"> ● Gas production and supply ● Gas retail (approx. 60,000 customers)
Electricity Business	<ul style="list-style-type: none"> ● Power generation (hydroelectric) (5 power stations, including Kamiterazu Power Station; total capacity approx. 33,000 kW) ● Electricity retail

Through the integrated management of the two businesses, the company provides new services, such as rate plan options to meet customer needs (e.g. package deals of gas and electricity) and monitoring.

By being trusted by the people and providing services that meet and exceed expectations, the company aims to become a comprehensive energy enterprise with close ties to the local community.

Compound Building Construction Plan East of Komatsu Station

In January 2021, we established a basic agreement with Komatsu City, on the development of a compound building in the eastern area of Komatsu Station. In line with the agreement, we will develop the said building adjoining the station, which would serve to revitalize the community, to bring liveliness, and to increase the appeal of the city. The building, planned to be completed in 2024, will contain a public university, municipal facilities, a hotel, commercial facilities, offices for our group companies, and others.

The building will be constructed and operationally managed by Hokuden Sangyo Komatsu Building G.K., a subsidiary of Hokuden Sangyo Co., Ltd., which runs the business of real estate within the Group.



Conceptual design of completed compound building

Plant Factory

In March 2021, we established FreDelish Co., Ltd., a new company to operate a fully-artificially-lit plant factory in Tsuruga City, Fukui Prefecture.

Plant factories can stably produce agricultural products without being affected by weather or other external environmental factors. The company is working to build a system to produce 800 kg of leaf lettuce per day.

For the plant factory business, which consumes a large amount of electricity, we believe we can leverage our expertise on energy savings and energy management.



Rendering of the Plant Factory

Investment in Asset Finance Hakusan Investment Project Limited Liability Partnership

For the purposes of contribution to the development of Hokuriku's economy and the acquisition of stable dividend income based on rent from Aeon Mall Hakusan, we invested in the Asset Finance Hakusan Investment Project Limited Liability Partnership via Hokuriku Electric Power Business Investment G.K.

We expect that this investment will contribute to the economic development of Hokuriku through Aeon Mall Hakusan.



Rendering of Aeon Mall Hakusan

Vacant House Maintenance and Management Service

Recently, there have been more and more vacant houses with each passing year, causing social problems such as a decline in public security and a worsening landscape due to deteriorating house condition.

Given this social background, in December 2020, the Hokuriku Electric Power Transmission & Distribution Company began to offer Vacant House Maintenance and Management Service. By providing maintenance and management services for vacant houses on behalf of the owners, the company works to help solve local issues, in addition to meeting customers' needs.

- **Service Details**
- Visit Frequency: Once per month
- Services: Visually checking the interior and exterior, cleaning the mailbox, ventilating the house, giving the house a light cleaning, running water through the pipes, and creating and submitting reports
- Target Areas: Areas served by the Hokuriku Electric Power Transmission & Distribution Company (Toyama Prefecture, Ishikawa Prefecture, Fukui Prefecture (excl. certain areas), part of Gifu Prefecture)
- Usage Fee: ¥6,000 (+ tax) per month



Cleaning a Mailbox

Wraps around Distribution Facilities for Public Service Advertisements

In April 2021, the Hokuriku Electric Power Transmission & Distribution Company started an advertising wrap service to provide public information (and for other purposes) with artistic designs, as a new business to effectively use power distribution facilities.



Utility Pole with Decorative Wrap (Sabae City)

Roadside Equipment Box with Decorative Wrap (Ichijodani, Fukui City)

This service is expected to contribute to communities as a means of sharing information from local governments. The displays can include local information about disaster prevention and evacuation measures, landscape improvement and environmental beautification efforts, tourism and municipality promotions, and more.

IoT Communication Line Services

In April 2020, the Hokuriku Electric Power Transmission & Distribution Company began providing communication line services for IoT (communication line service and line connection service) using the data transmission networks for smart meters.

Through these services, we aim to promote the introduction of IoT for gas, water, and various other services in the Hokuriku region, in order to further improve the convenience for the people in the region.

Investments to Acquire New Technologies and Know-how, and for Other Purposes

We work to cultivate new growth businesses through investments, for opportunities to acquire new technologies and know-how.

● Business Investment Targets

Investment Date	Investment Target	Description of Target's Business
September 2018	ENECHANGE Ltd.	Services centered around data applications in the energy field, and other related operations
November 2019	Next Energy & Resources Co., Ltd.	Expanded use of distributed energy resources, including photovoltaic power generation and storage batteries
April 2020	Japan Infra Waymark, Inc.	Proposals for new forms of infrastructure inspections, using advanced technologies such as drones and AI
February 2021	HIGHRESO Co., Ltd.	Development and operation of GPU* data centers that are among the largest in Japan
August 2021	REXEV Inc.	Car-sharing business specializing in EVs, providing EV management platforms, etc.

* Abbreviation of "graphics processing unit." A type of arithmetic logic unit specializing in image processing.

Investment Date	Investment Target	Fund Description
April 2020	Japan Energy Capital 1 L.P.	An overseas-specialized energy fund, investing in renewable energy businesses and energy tech companies
December 2020	SBI 4&5 Fund	A fund investing in venture businesses with proprietary technologies or services that promise technological innovations in areas where market growth is highly expected.

Investment in SBI 4&5 Fund

In December 2020, Hokuriku Electric Power Business Investment G.K., a wholly-owned subsidiary of Hokuriku Electric Power Company, invested in SBI 4&5 Fund, a fund investing in venture businesses with proprietary technologies or services that promise technological innovations in areas where market growth is highly expected.

By investing in this fund, we expect to have opportunities to acquire not only dividend income from the fund, but also new technologies and knowhow from the venture businesses in which the fund invests, which should prove helpful for solving social issues and developing new services.

Overseas Electric Power Business

Leveraging the Group's knowledge and expertise, we continue to enter into electric power businesses overseas, where economic growth is expected, in order to improve our group-wide profitability.

Participation in a Gas-fired Power Generation Project in the UAE

In March 2021, we participated in the investment in the Fujairah F3 IPP Project (in the UAE), which is under development jointly by Marubeni Corporation and the government of Abu Dhabi; we acquired part of the shares of a company holding interests in this project and the operation and maintenance company, each from Marubeni. This is the largest gas-fired power generation project in the UAE, targeted to commence full commercial operation in April 2023.

This is the first foreign direct investment for the Hokuriku Electric Power Company. Through participation in this project, we intend to build and strengthen relationships with the UAE government, and aim to participate in photovoltaic power generation projects, which are expected to increase in the future as part of the national clean energy strategy set forth by that government. In addition, in order to further expand our overseas business operations, we will proactively collect information about that government's initiatives related to ammonia and hydrogen as next-generation fuels, which are now the subject of full-fledged research.

Project Name	Fujairah F3 IPP Project
Sponsors	60% by an Abu Dhabi government-affiliated company 40% by a holding company invested in by Marubeni and Hokuriku Electric Power Company (51% by Marubeni, 49% by Hokuriku Electric Power)
Off-Taker	EWEC (Wholly-owned subsidiary of the Abu Dhabi government)
Generation Capacity	2,400 MW (to be the largest output capacity in the UAE)
Generation Method	Gas turbine combined cycle (GTCC) power generation



Measures for Improving Managerial Efficiency

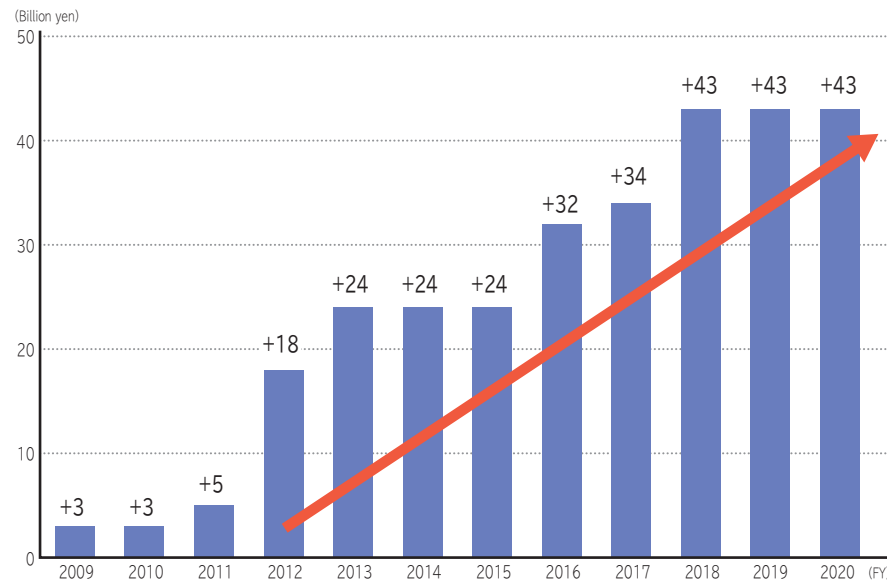
In order to deal with the harsh business environment after the Great East Japan Earthquake in 2011, including the increase in fuel costs as a result of the suspended operations of Shika Nuclear Power Station, we have been working to streamline our operations.

When we decided to revise electricity rates starting April 2018 for some customers, we set a target of reducing costs by 43 billion yen/year for the three years from FY 2018 through FY 2020. As a result of our company-wide streamlining efforts, we achieved our target of 43 billion yen/year cost reductions from FY 2018 through FY 2020.

We will continue striving to reduce costs, as well as our other efforts.

Improved Efficiency after the Great East Japan Earthquake

(The streamlined amounts shown are comparisons based on the prices revised in 2008.)



Efforts to Be Continued toward Further Cost Reductions to Achieve Financial Objectives Presented in the Hokuriku Electric Power Group 2030 Long-term Vision

Managerial Efficiency Improvements in FY2020

Category	Main Details	Streamlined Amount
Reductions in personnel-related costs	<ul style="list-style-type: none"> Lowered annual salary levels for both directors and employees Revisions to benefit programs, including the closure of the company's resort facilities, lowering of the subsidy rate for stock ownership, and raises in rents for company dormitories and apartments Improvements in labor productivity through the integration of operations, remote control and automation of equipment, and other efforts 	¥7.5 billion
Streamlining related to supply and demand costs	<ul style="list-style-type: none"> Fuel cost reductions by shortening the periodic inspection duration at coal-fired power stations (through process changes, etc.), replacing turbines, and taking other measures Utilization of economical power sources (increased electricity generated by hydropower and LNG-fired thermal power) Expansion of sales to the Japan Electric Power Exchange, with utilization of excess supply capability Reduction in fuel costs through extended use of low-cost coal sourced from nearby countries 	¥19 billion
Reductions in repair and other equipment-related costs	<ul style="list-style-type: none"> Further reconsideration of the timings of equipment inspection and repair, taking into account the impact on stable supply and work execution capability 7% reduction of acquisition costs through various procurement measures, including competitive bidding and joint procurement, and changes to work process specifications 	¥9.5 billion
Other cost reductions	<ul style="list-style-type: none"> Reduction of overall miscellaneous costs by selecting only effective measures and actions to be taken 7% reduction of acquisition costs through various procurement measures, including competitive bidding and joint procurement Discontinuance of the Elf Plaza public relations facilities 	¥7 billion
Total		¥43 billion*

* In FY 2020, in order to limit negative effects to our financial balance due to COVID-19, we expanded beyond our base cost reduction of 43 billion yen, with an additional 4 billion yen as an emergency measure to bring about an improvement to our financial balance.

Efforts Related to Environmental, Social, and Corporate Governance Issues

The Group is working toward achieving carbon neutrality by 2050 and realizing a sustainable smart society. We will continue to work to help bring about a sustainable society (achieving SDGs), by further deepening our focus on ESG factors in our management.

The Group's Main Efforts Related to ESG Issues

Environment	Social	Governance
<p>Taking on Challenges toward Carbon Neutrality by 2050</p> <ul style="list-style-type: none"> Utilizing renewable energy as the major power source (Increase of 2.0 billion kWh/year by FY 2030) Early restart and safe and stable operation of Shika Nuclear Power Station Increase in biomass fuel co-combustion for coal-fired power generation, and other measures Increased sophistication of transmission and distribution networks to support the utilization of renewable energy as the major power source Support for customers' and the region's decarbonization, including the promotion of electrification <p>Active Efforts toward Environmental Conservation</p>	<p>Ensuring a Stable Supply of Electricity</p> <ul style="list-style-type: none"> Planned updates of facilities and resilience improvements <p>Realizing a Sustainable Smart Society</p> <ul style="list-style-type: none"> Development of new businesses to contribute to solving regional issues <p>Coexisting with the Local Community</p> <p>Ensuring a Pleasant Work Environment</p>	<p>Maintaining the Governance System</p> <ul style="list-style-type: none"> Establishment and maintenance of our corporate governance system, and ensuring compliance <p>Deepening Our Corporate Culture</p> <ul style="list-style-type: none"> Further deepening of our safety culture and promotion of diversity

Sharing ESG-related Information

Related SDGs

5
GENDER
EQUALITY

7
AFFORDABLE AND
CLEAN ENERGY

8
DECENT WORK AND
ECONOMIC GROWTH

9
INDUSTRY, INNOVATION
AND INFRASTRUCTURE

11
SUSTAINABLE CITIES
AND COMMUNITIES

12
RESPONSIBLE
CONSUMPTION
AND PRODUCTION

13
CLIMATE
ACTION

16
PEACE, JUSTICE
AND STRONG
INSTITUTIONS

17
PARTNERSHIPS
FOR THE GOALS

The Group's CSR Efforts

Philosophy	On the basis of the stable supply of low-cost, high-quality, clean electricity and ensured compliance, with top priority placed on safety, we shall appropriately and sincerely continue to live up to the expectations of, and requests from, our stakeholders, including customers, employees, communities, shareholders, investors, and business partners, with the aim of being an organization trusted and chosen.	Philosophy
Fundamental Efforts	<ul style="list-style-type: none"> Building a Culture of Safety Thorough Compliance Active Efforts toward Environmental Conservation 	Guidelines for Action
Efforts for Stakeholders	<ul style="list-style-type: none"> Providing Low-cost, High-quality Products and Services Establishing a Pleasant Work Environment with Respect for Human Rights Coexisting with the Local Community Promoting Transparent Business Activities Promoting Fair Transactions 	Guidelines for Action

Taking on Challenges toward Carbon Neutrality

We promote efforts toward achieving carbon neutrality, with the Carbon Neutral Promotion Meeting chaired by the company president.

Compliance with TCFD Recommendations

As a socially responsible energy company, we conduct our business operations with a focus on environmental, social, and governance factors, and support the aims of the TCFD recommendations on analyzing climate-related risks and opportunities to business activities, and promoting information disclosure. While continuing to disclose information in line with TCFD recommendations, we work to appropriately handle the risks and opportunities to our business brought about by climate change, through efforts such as promoting the decarbonization of power sources and electrification of everything, in order to contribute to the sustainable development of society.

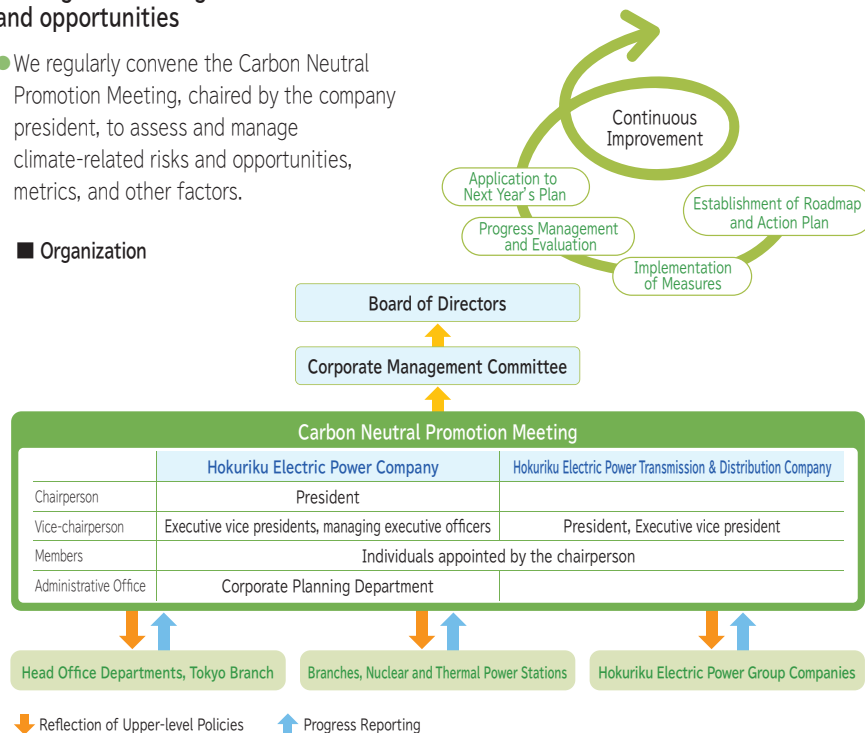


Governance

The organization's governance around climate-related risks and opportunities

- We regularly convene the Carbon Neutral Promotion Meeting, chaired by the company president, to assess and manage climate-related risks and opportunities, metrics, and other factors.

Organization

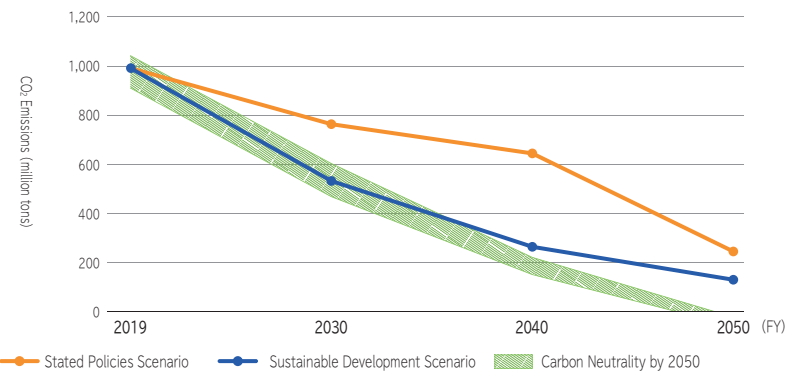


Strategy (→ P12-16, P23-24, P44)

The impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

- In order to recognize risks and opportunities related to climate change, we refer to climate scenarios presented by the IEA and other relevant organizations, and consider multiple scenarios, including one in which we achieve carbon neutrality by 2050, for the environments surrounding us.
- As a responsible energy provider to be trusted and chosen, the Group will continue to strive to achieve carbon neutrality by 2050 through various efforts, such as decarbonizing power sources by utilizing renewable energy as the major power source and by other means, and the promotion of electrification of lifestyles, mobility, and everything else.

CO₂ Emissions in Japan



● Reference: the IEA's World Energy Outlook 2020 (for the Stated Policies Scenario and the Sustainable Development Scenario), and the IPCC Special Report on Global Warming of 1.5°C
 ● Future estimations will be reviewed as appropriate, in light of discussions regarding national energy policy.

Active Efforts toward Environmental Conservation

Strategy (→ P12-16, P23-24, P34-35, P44)

The impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

We have organized climate-related risks and opportunities based on the premise that carbon neutrality must be achieved by 2050.

Climate-related Risks and Opportunities

■ Transition Risks and Opportunities

Risk	<ul style="list-style-type: none"> ● Tighter environmental regulations toward carbon neutrality by 2050 ● Changes in demand for electricity due to expanded use of renewable energy sources
Opportunities	<ul style="list-style-type: none"> ● Expansion of opportunities to invest in renewable energy ● Increased advantages of carbon-free power sources including nuclear power generation ● Progress of electrification toward carbon neutrality by 2050 ● Expansion of new demand due to diversified customer needs (Renewable-energy-oriented electricity rate plan options, such as an RE100-compliant option; the photovoltaic power equipment third-party possession model; storage batteries and EVs; etc.) ● Expansion of business opportunities toward carbon neutrality by 2050

■ Physical Risks

- Large-scale natural disasters, such as typhoons and earthquakes, causing facility problems
- Risk of water shortages due to precipitation fluctuations

Risk Management (→ P15-16)

How the organization identifies, assesses, and manages climate-related risks

- We handle management risks appropriately. After grasping and evaluating risks as appropriate, we reflect them in various plans, including the business plan established for each fiscal year at the board of directors' meeting. In addition, we establish organizations to discuss the issues and policies relating to such risks, as well as setting up company-wide cross-department committees and other equivalent units, on an as-needed basis.
- Climate-related risks are identified and assessed by the Carbon Neutral Promotion Meeting, and are reported to the board of directors, along with the management risks.

Metrics and Targets (→ P11, P13)

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

- We have established the following targets in the Hokuriku Electric Power Group 2030 Long-term Vision:
 - Amount of renewable energy power generation: up 2.0 billion kWh/year*1
 - Coal consumption: 10% reduction/year*1
 - Achievement of environmental metrics based on the Act on the Rational Use of Energy (Overall thermal power generation efficiency: 44.3% · Actual thermal power generation efficiency record/target value: 1.00)
 - Ratio of electricity sold produced from non-fossil sources: 44%
 - Greenhouse gas emission intensity: 0.37 kg-CO₂/kWh*2
- *1 Compared to FY 2018
*2 Target set by the Electric Power Council for a Low Carbon Society (comprising former general electric power suppliers, including the Hokuriku Electric Power Company, certain new electric power suppliers, etc.)
- We have established the following target in the Hokuriku Electric Power Group's Roadmap toward Achieving Carbon Neutrality:
 - Ratio of electricity generated from non-fossil-fuel sources: 50% or higher in 2030.

TCFD: The Task Force on Climate-related Financial Disclosures

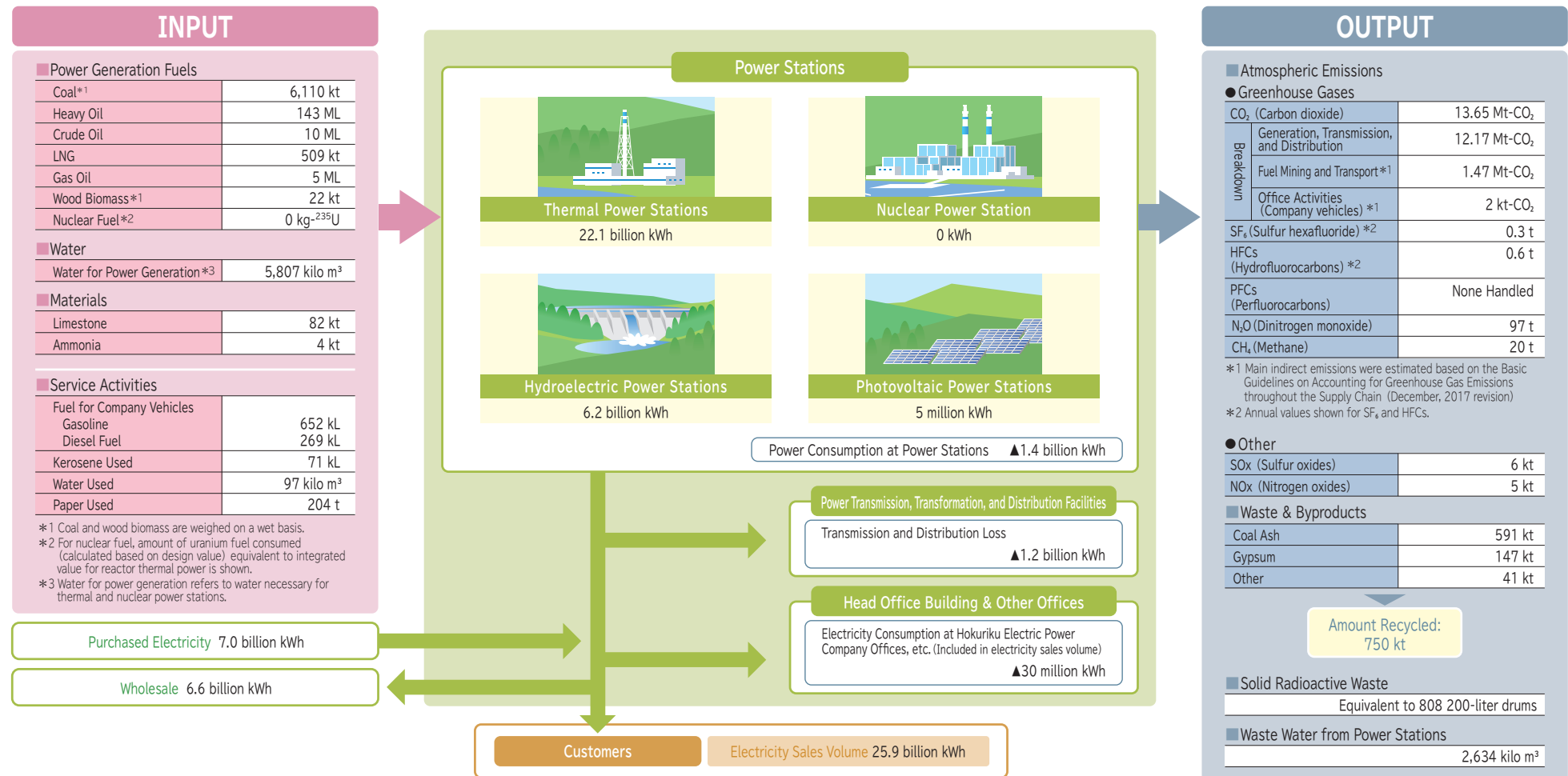
Established in December of 2015 by the Financial Stability Board (FSB). In June of 2017, the TCFD released voluntary recommendations. They encourage companies to disclose climate-related risks and opportunities necessary for investors to make investment decisions. We elected to support these recommendations in May 2019.

Active Efforts toward Environmental Conservation

Material Balance

We work to quantitatively grasp the material and energy flow that accompanies our business activities, in order to make effective use of limited resources and minimize environmental burden.

Hokuriku Electric Power Company and Hokuriku Electric Power Transmission & Distribution Company (FY 2020)



Establishment of Our Environmental Management Plan and Efforts toward Achieving Goals

As a responsible energy provider to be trusted and chosen, the Group has established the Hokuriku Electric Power Group Environmental Management Plan, a specific plan of action for appropriate approaches to various issues, including carbon neutrality by 2050.

We set up four pillars in the FY 2021 plan: acting properly to accelerate the decarbonization of power sources, acting properly to promote electrification on the demand side, contributing to a sustainable environment, and acting properly to reduce environmental risks and to build a recycling-oriented society; we steadily promote environmentally-conscious efforts in all of our operations.

WEB Hokuriku Electric Power Group Environmental Management System <http://www.rikuden.co.jp/managementsystem/taisei.html>
Hokuriku Electric Power Group Environmental Management Plan <http://www.rikuden.co.jp/kanrikeikaku/>

Initiatives to Bring About a Decarbonized, Recycling-oriented Society

We are working to build a decarbonized, recycling-oriented society, through the promotion of introduction of electric vehicles, effective use of resources, environmental conservation activities, and other efforts, in addition to environmentally-conscious efforts in all of our operations.

● Promotion of Introduction of Electric Vehicles

Toward the realization of a decarbonized society, the Group has worked toward a goal of ensuring that 100% of the company vehicles owned by the Hokuriku Electric Power Company and the Hokuriku Electric Power Transmission & Distribution Company are electric vehicles*1 by FY 2030. Starting in FY 2021, we have involved other companies of the Group in promoting the introduction of electric vehicles as company vehicles.

In addition, we consider the use of electric vehicles for emergency power supply at evacuation sites and other locations, including how to collaborate with municipal authorities. We also intend to analyze the driving and electricity storage data to be utilized for energy management and other purposes.



Company-owned Electric Vehicle

*1 Special-purpose vehicles, such as emergency vehicles and aerial work platforms, and other vehicles that are unreplaceable with electric vehicles (e.g. 4WD vehicles) are not to be included. Plug-in hybrid vehicles (PHVs) are to be included.

Establishment of a Partnership Agreement Regarding the Promotion of Electric Vehicle Utilization

Based on a partnership item, Matters Related to the Environment and Energy, in the comprehensive partnership agreement established with Hakusan City in March of 2020, we have conducted a study to expand the use of electric vehicles.

In November of the same year, we also established a partnership agreement regarding the promotion of electric vehicle utilization in relation to SDGs, with Hakusan City, the Kanazawa Institute of Technology, Nissan Motor Co., Ltd., and the Yonezawa Electric Group, for the purpose of collaborating and promoting various efforts, including providing support for evacuation site operations during disasters using electric vehicles, and raising awareness among citizens on the environment and disaster prevention.



Ceremony for Partnership Agreement

● Active Promotion of the Three Rs

The Group works to reduce, reuse, and recycle waste generated through our business activities.

In FY2020, the Group produced 798,000 tons of industrial waste, but through effective use efforts, 96.3% of that waste was recycled.

Effective Use of Coal Ash

We are working to effectively use coal ash as a material for cement and ground surfacing. In particular, fly ash (FA) concrete* is expected to extend the lifespan of structures, and to have an effect of reducing environmental burden through local consumption of locally produced material, and is used for public works and other works, including construction of the Hokuriku Shinkansen line. In July 2021, a council was established to discuss specific matters regarding FA concrete, including usage policy, by the Hokuriku Electric Power Company, the Toyama Prefectural University, the Toyama Fresh Concrete Industrial Association, and relevant public organizations, with the aim of further expanding its application to public works in the future. We hope to contribute to local communities by promoting the use of FA concrete in the Hokuriku region.



Elevated Hokuriku Shinkansen Line

Confidential Document Recycling by a Group Company

Japan Ecology and Security Service Company, a Group company, has a comprehensive security system and equipment. They store the confidential documents they have received from customers and process these documents after their storage period using a crusher, to be recycled into toilet paper, copy paper, or other paper products, thus developing a regional recycling system. In FY 2020, the company recycled about 1,730 tons of paper.



Recycled Products

Active Efforts toward Environmental Conservation

Efforts toward Environmental Conservation with Consideration for Biodiversity

We are working to bring about sustainable business activities, with proper concern for living things and the blessings of nature. We are also continuing our activities to maintain biodiversity, including forest conservation.

● Appreciating the Blessings of Water, and Repaying the Favor to Forests

As a show of appreciation to the forests for watershed cultivation,* CO₂ absorption, and everything else they do for us, the Group has expanded forest conservation activities in five areas (Toyama, Niikawa, Kaga, Noto, and Fukui) of the three prefectures of the Hokuriku region. As of FY 2020, a total of about 9,500 people (including participants of activities hosted by other organizations) have taken part in planting some 4,720 trees and clearing underbrush.



Forest Conservation Activities

● Cleanup Activities near Our Offices, at Beaches, and Other Locations

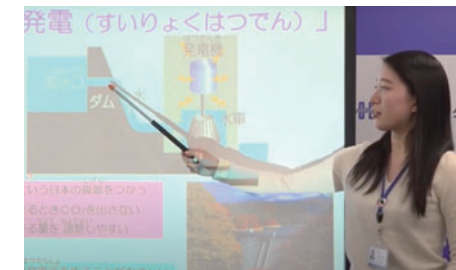
We continuously engage in activities to clean the areas near our offices, beaches, and more, with the goals of contributing to the region and lifting employees' environmental awareness. In FY 2020, about 2,900 employees of the Group participated in cleanup activities in various places, though activities were suspended for some periods to prevent the spread of COVID-19.



Beach Cleanup

● Sharing Information at Events Such as Environmental Exhibitions

We exhibit at environmental exhibitions organized by local governments or environmental groups, to present the environmental efforts made by the Group. At the 2020 Toyama Environment Fair on the Web, we presented our environmental conservation activities, such as our efforts toward decarbonization and our forest preservation activities, and posted videos and animations online about electricity and energy, which received 1,120 views.



Toyama Environment Fair 2020 in Web

● Young Fish Releasing Events

With the aim of giving thanks to the blessings of rivers, and teaching the importance of environmental protection to children, who will lead the next generation, our Hydro Power Center organizes events involving children to release young sweetfish and Japanese fluvial sculpin, and clean up areas around rivers, in cooperation with local fishery cooperatives and other organizations.



Sweetfish Releasing Event

Contribution to the Local Community

Cooperation with Local Governments toward Solving Regional Issues

By establishing comprehensive partnership agreements, we work together with local governments to promote initiatives to help solve regional issues, such as the expansion of renewable energy use. Going forward, we will continue to address the issues and needs of local communities, with the aim of contributing to the sustainable development of regional society, and creating business opportunities.

● Local Governments with Which We Have Established Partnership Agreements (in order of date of agreement)

Toyama City, Toyama Prefecture, Hakusan City, Fukui City, Nanto City, Sabae City, Echizen City, Katsuyama City, Eiheiji Town, Minami-Echizen Town, Echizen Town, Ikeda Town, Tateyama Town, Uozu City, Funahashi Village, Kamiichi Town, Tsuruga City

Rate Plan Options in Collaboration with Local Governments

In collaboration with Toyama Prefecture, we set up the Toyama Mirai Sousei Denki (“Electric power for the creation of the future of Toyama”) plans, which are intended to contribute to the development of Toyama Prefecture through utilizing electricity generated by prefecturally-operated hydroelectric power stations in Toyama, and the environmental value of this electricity.

The Toyama Mizu-no-sato Denki (“Toyama Water Village Electricity”) plan is one of the Toyama Mirai Sousei Denki plans, and uses the non-fossil-certified electricity derived from prefecturally-operated hydroelectric power stations in Toyama as generation sources; as a result CO₂ emission intensity attributable to the use of the purchased electricity is zero.



Toyama Mizu-no-sato Denki Certification Ceremony

Electrical Inspection of Important Cultural Properties

During Electricity Usage Safety Month (Aug. 1-31), the Group conducts electrical inspections of buildings designated as important cultural properties, including the Suganuma Gassho-style Village (a World Heritage site), in cooperation with relevant organizations and companies, such as the Electrical Engineering Contractors Cooperatives and the Electrical Safety Inspection Association, in order to protect cultural properties by preventing electrical accidents and to raise awareness of the safe use of electricity.



Electrical Inspection of Sumiyoshi Shrine (Tangible Cultural Property Designated by Wajima City)

Donation of Hoku-Link Points to Organizations and Universities

Our Hoku-Link membership service provides an option to allow members to use the points that they have earned based on their electricity payments, and through other means, to donate to organizations (Japanese Red Cross Society, OISCA) and universities in the Hokuriku region. Based on applications from members, we have donated a total of about 940,000 yen as of the end of FY 2020.

Working toward Removing Electric Poles

The Hokuriku Electric Power Transmission & Distribution Company takes part in the Promotion Council for the Removal of Utility Poles, a council made up of the Ministry of Land, Infrastructure, Transport and Tourism; local government bodies; and other organizations, to promote work to remove electric poles, with the aim of facilitating safer and more convenient traffic flow, improving urban scenery, revitalizing regions, and more.

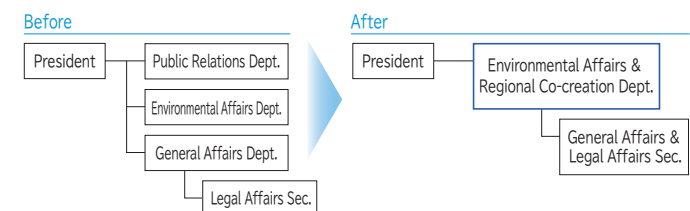
Since 1986, we have implemented approximately 208 km worth of electric pole removal in areas such as commercial districts and historic districts requiring townscape conservation.



Townscape after Removing Electric Poles (Terai-machi, Nomi City)

Development of a Structure to Accelerate Initiatives in Environment- and Region-related Affairs

For prompt, strategic action in our initiatives in environment- and region-related affairs, which were previously handled by multiple departments, we established the Environmental Affairs & Regional Co-creation Department in July 2021. We strive to be of further service to the people in the region.



Support for Education and Sports

Promoting and Supporting Regional Sports

The Hokuriku Electric Power Company's handball club, the Blue Thunder, offers handball lessons, and we also hold joint soccer lessons in association with the pro soccer club Kataller Toyama, as our way of helping the children of the area grow up healthy. We look forward to continuing to promote sports in the Hokuriku region.



Hokuriku Electric Power Junior Blue Rockets

Visit Lessons and Facility Tours

In order to help students at junior high schools and high schools, who will lead the next generation, become familiar with energy and global environmental problems, we dispatch members of our staff to provide visit lessons at schools and hold tours of power stations and other facilities. In FY 2020, we held 60 visit lessons and 8 tours, taking thorough measures to prevent COVID-19 infections, with a total of 2,976 participants.



Visit Lesson (Fukui Prefectural Koshi Junior High School)

Operational Support for the Hokuriku Electric Power Company Educational Advancement Foundation

Since its establishment in 1981, the Hokuriku Electric Power Company Educational Advancement Foundation has donated educational equipment, such as computers, projectors, and partitioned desks with LED lighting, to high schools in our home region.

In addition, in order to help provide the next generation with a way to decide on dreams and goals for the future as high school students, we have held Genki Sosei Juku ("Enthusiasm Creation School") events since FY 2005, where we invite people from the Hokuriku region who work in various fields to give talks and share their personal experiences. In FY 2020, 1,350 students from 9 schools participated.



Educational Equipment Presentation Ceremony
(Ishikawa Prefectural Noto High School)

Industry-Academia Cooperation

Our Innovation Laboratory works in cooperation with several universities (primarily in the Hokuriku region) to conduct research on electric power system stability, lightning countermeasures for electric power facilities, creation of new value, and more, and to develop technologies that can be conducive to a stable supply of electricity and new businesses. In addition, in order to promote research on issues related to electric power system engineering, and to cultivate talent in power engineering, we held a joint research course in advanced power system engineering at the University of Toyama, and provided lecturers for Courses for Next-Generation Super Engineers aimed at cultivating specialist engineers. Through these efforts, we provide opportunities for students to experience the appeal of working in electric power, and contribute to the development of human resources needed by the regional industry.

Facilities Coexisting with Local Communities

Wonder Laboratory: Hokuriku Electric Power Company Energy Science Museum

This museum helps encourage children to develop scientific ways of thinking and an interest in energy and electricity, through fun displays, experiment workshops, and more. We also provide handicraft workshops for children. (27,868 visitors in FY 2020; facility opened with limited use, to prevent the spread of COVID-19)



Scientific Experiment Demonstration at Wonder Laboratory

Alice-Kan Shika Energy Museum: A PR Facility for Nuclear Power

This museum features easy-to-understand explanations of how nuclear power works, the need for nuclear power, the safety measures at Shika Nuclear Power Station, and more.

We also provide handicraft workshops for children. (15,216 visitors in FY 2020)



Permanent Handicraft Area

Fleuri Musée de la Fleur

This Shika Town facility was built as a national model project with the goal of establishing a power station coexisting with the community, and it is managed and operated by the Hokuriku Electric Power Company, as designated by the town.

Visitors can enjoy seasonal flowers in the garden and greenhouse. This facility also offers craft workshops and other hands-on programs.

Creation of Workplaces Full of Vitality, Where Individuals and Organizations Can Reach Their Maximum Potential

Creating a Pleasant Workplace

At the Hokuriku Electric Power Group, we aim to be very active in both our work and personal lives, so we promote reforms of the way we work, in addition to improving our work itself.

Efforts toward Work-Life Balance

To build a work environment where employees who have childcare and nursing care needs can more easily balance their work and personal life, we offer childcare and nursing care leave systems, and temporary care leave systems for taking care of sick/injured children and other family members, exceeding the statutory requirements.

In FY 2020, our childcare leave system was used by 100% of female employees who gave birth (36 employees), as well as by nine male employees.

We also provide support for these employees to allow them to work without anxiety, such as by holding seminars on returning to work after childcare leave, and seminars on maintaining a balance between work and child-rearing or nursing care.

Furthermore, our top- and middle-level managers have declared their intentions to be *ikuboss* (“supportive bosses”) who work to support the work-life balance of the people who work under them, and who enjoy both work and private life for themselves too, thus striving to create comfortable work environments. Starting in FY 2019, we have held the Ikuboss Award to honor excellence among these *ikuboss* “supportive bosses,” based on recommendations by their staff members.

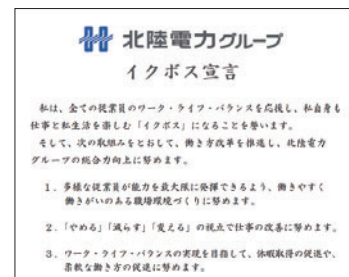
As a result of these efforts, the number of days of paid annual leave*1 taken in FY 2020 was 20.8 days per employee.

*1 Including leisure leave (five days granted annually, with no restrictions on purpose of use)

Platinum Kurumin is a sub-certification within Kurumin, a certification for companies that provide support for child-rearing, issued by the Minister of Health, Labour and Welfare, for companies whose efforts meet particularly high standards.



Platinum Kurumin symbol



Ikuboss Declaration



Ikuboss Award Ceremony

Women’s Empowerment

As a result of our efforts to promote opportunities for women in the workplace, for greater work motivation, in January of 2017, we were awarded the “L-Boshi” three-star certificate from the Ministry of Health, Labour, and Welfare, based on the Act on the Promotion of Women Participation and Career Advancement in the Workplace.

We also have set a new target for the number of female members of management as “an increase by 10% or more, by the end of March 2024, compared to the beginning of FY 2021.” We will proceed with efforts to achieve this target, including continued implementation of the mentor program to back the activities of female members of management, and the Shine! COSMOS Project, an inter-industry exchange meeting to share information with other local businesses.

Additionally, we have 92 female engineers as of April 2021, nearly tripling the number from 10 years ago. Women are steadily joining the front lines of electric power supply, which was once a job performed almost exclusively by male employees.



L-Boshi Symbol

Employees with Disabilities Playing Their Part

We have promoted the hiring of employees with disabilities for years: as of the end of FY 2020, 89 employees with disabilities play active roles with us.

In addition, the Hokuriku Electric Power With Smile Company, a special affiliate company that we established to help contribute to local communities by employing people with disabilities, hired ten new employees in FY 2020. This company handles interoffice mail collection and delivery, document digitization, and other office support services, and will further expand employment of people with disabilities.



Interoffice Mail Collection and Delivery by Employees of the Hokuriku Electric Power With Smile Company

Veteran Employees Playing Their Part

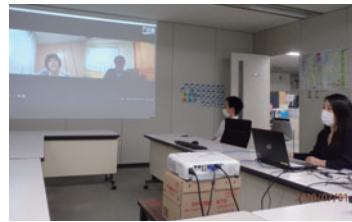
We strive to create an environment where employees can work until age 65 with peace of mind, maintaining high motivation, and taking advantage of the experience, knowledge, and skills they have developed over the course of their careers.

As of end of FY 2020:
300 Career Staff (Age 55-60)
344 Senior Staff (Age 60 and up)

Creation of Workplaces Full of Vitality, Where Individuals and Organizations Can Reach Their Maximum Potential

Promotion of Telecommuting

We have built an environment to facilitate telecommuting, such as allowing employees to connect the computers they use at the company to their home networks, to create the same type of work environment as at the company. In FY 2020, about 50% of our employees worked from home. We intend to establish this as a system to help further improve labor productivity and promote diverse and flexible work styles, in addition to using it as a measure to prevent the spread of COVID-19.



Web Meeting with Telecommuting Employees

Promotion of Health-conscious Management

Based on the strong belief of the top management that health and safety take priority over all else, we promote health-conscious management, and have been certified as a Health and Productivity Management Organization (Large Enterprise Category). We are also extending this initiative to other companies of the Group.

We work to strengthen support for employees through the Health Care Center, and push ahead with health promotion measures from both physical and mental perspectives, such as improving mental health, establishing exercise habits, and helping people quit smoking.



Development of Human Resources

We implement various educational measures to help each employee develop and demonstrate skills, with a feeling of fulfillment and achievement.

We provide basic education in the knowledge, attitudes, and other characteristics required of each level of employees (e.g. young, mid-grade, and managerial levels), and professional training in the knowledge, skills, and other qualities necessary to carry out duties in each specialty.

In addition, because global talent is becoming increasingly important for our operations, such as purchasing fuel (procurement of coal, LNG, etc.), providing explanations to overseas investors, and handling new businesses overseas, we send employees to various programs, such as overseas MBAs, with the aim of developing comprehensive competencies, including humanity and inner strength, in addition to language skills and professional knowledge.



Basic Education for Second-year Employees

Respect for Human Rights

Starting in 1995, we have annually held a Human Rights Enlightenment Promotion Committee meeting, including group-based information sharing, for the purpose of establishing better understandings of human rights issues and promoting the creation of a corporate culture with an open atmosphere, free of discrimination.

Each year, we host a lecture on human rights by an outside lecturer, on topics such as discrimination, harassment, and diversity. In FY 2020, we invited Yasuko Okada, Chairman and Chief Director of Cuore C Cube Co., Ltd., to give a presentation on the subject of "Prevention of Harassment: To Create a Pleasant Workplace."

In 2016, we set a Progress* Week to correspond with Human Rights Week (December 4-10) in order to further deepen our understanding of diversity; during this period, we share a message from the company president, and hold workplace discussions and other events.



Lecture on Human Rights

Maintaining the Corporate Governance System

Corporate Governance

Basic Way of Thinking for Corporate Governance*

The Group operates a comprehensive energy business centering on its competitive electricity business, and works toward coexistence and co-prosperity with the Hokuriku region, with the goal of being a company trusted and chosen by customers and all other stakeholders.

In order to make this goal a reality, achieving sustainable growth and evolution, with higher social trust through continuous efforts to increase the quality of our operations and services, we maintain internal control systems centered around our board of directors and audit & supervisory board, and strive to increase transparency through sharing information, IR activities, and more.

These are based on a resolution of our board of directors on the maintenance of a structure to ensure the propriety of our operations, as well as the Corporate Governance Code stipulated by the Tokyo Stock Exchange. We will continue these efforts to ensure the effectiveness of our corporate governance.

For more information on our fundamental policies related to corporate governance, as well as the status of our compliance with the Corporate Governance Code, please see the Corporate Governance Report on our website: <http://www.rikuden.co.jp/management/governance.html>

Corporate Governance System

● Board of Directors

As a general rule, the board of directors meets

once monthly, or as necessary. In addition to making decisions on important business execution matters in accordance with laws, regulations, and our articles of incorporation, the board also receives reports from directors on the status of their execution of duties, and supervises the directors' execution of duties. External directors provide surveillance, instruction, and advice for managerial judgment and decision-making processes, from various points of view. In addition, five audit & supervisory board members, three of whom are external members, are also present at meetings of the board of directors, and supervise the directors' execution of duties.

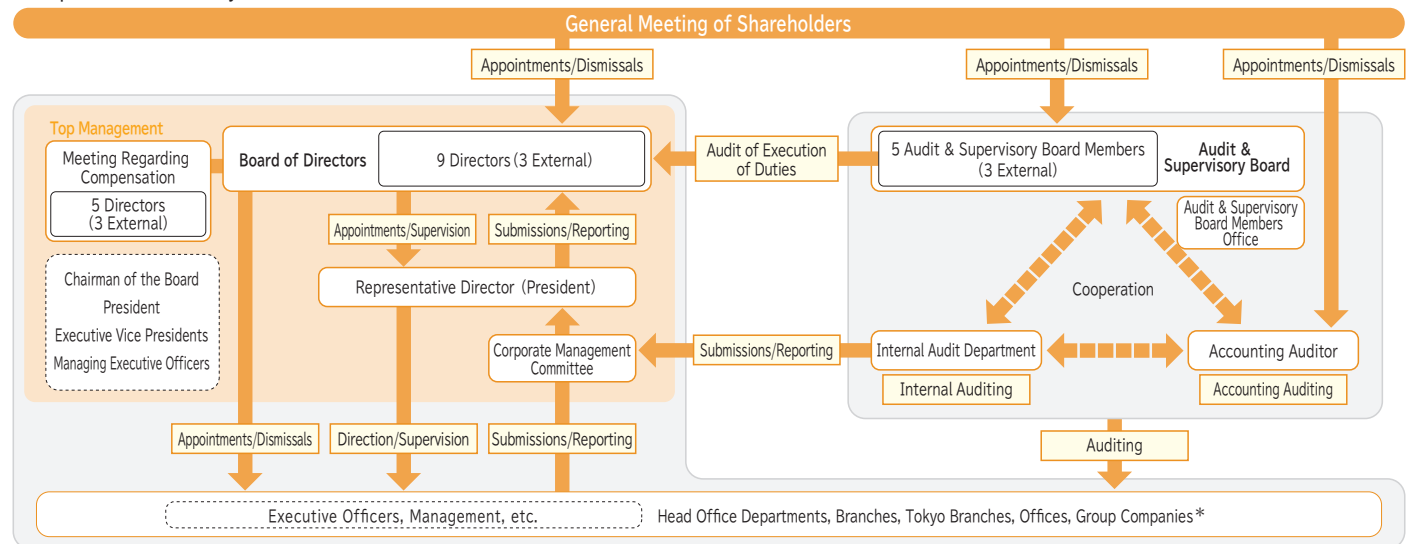
In order to build a management system capable of responding more quickly to changes in the business environment, the term of office for directors is one year; through this, we intend to allow even stricter supervision of our business operations by shareholders.

● Audit & Supervisory Board Members' Audits and Internal Audits

Our five audit & supervisory board members (including three external members, and a full-time corporate auditor with considerable knowledge of financial affairs and accounting) attend important meetings (such as meetings of the board of directors and corporate management committee meetings) to listen to the deliberations, carefully read important documents (such as documents for approval), hear from relevant parties, and perform other necessary tasks, for audits of directors' execution of duties, the maintenance and operation of internal control systems, etc. In addition, our auditors hold periodic meetings with directors, the internal audit department, and the accounting auditor to exchange opinions, in order to strengthen their auditing functions.

In addition, we have established an internal audit department, which works in cooperation with the audit & supervisory board members and accounting auditor to ensure the propriety of our operations.

● Corporate Governance System



* Note Regarding the Group Companies: The governance system of the Hokuriku Electric Power Transmission & Distribution Company is structured to conform to the conduct regulations set forth by the national government.

Maintaining the Corporate Governance System

● External Directors and External Audit & Supervisory Board Members

In order to strengthen our business supervisory functions from an outside perspective, we appoint three external directors. External directors provide surveillance, instruction, and advice for managerial judgment and decision-making processes, from various points of view.

In addition, audits by our three external audit & supervisory board members provide surveillance, instruction, and advice through more objective and multifaced points of view, and we take their work seriously as we work to take proper measures in response.

All of our external directors and external audit & supervisory board members are designated as independent officers, as stipulated by the Tokyo Stock Exchange, and notifications are filed with the Tokyo Stock Exchange.

Analysis and Evaluation of the Effectiveness of the Board of Directors

Matters requiring a resolution of the board of directors undergo advance deliberation by the corporate management committee and sufficient advance explanation to external directors, before being brought up for discussion by the board of directors. In addition, after evaluation of the operation, etc. of the board of directors, the company issues a report to the board of directors at the end of each fiscal year, alongside which, as necessary, the operation of the board of directors is reviewed, including revisions to standards for bringing up matters for discussion and reporting.

We also engage in opinion exchanges with external directors and external audit & supervisory board members on the operation of the board of directors, among other efforts toward further improvements to the effectiveness of the board of directors.

Through these efforts, we believe that the effectiveness of our board of directors is satisfactory.

Policies and Procedures for Appointment and Dismissal of Key Management Personnel, and for Nomination of Candidates to Director and Audit & Supervisory Board Member Positions

Individuals are nominated to be key management personnel, or as candidates to serve as directors or audit & supervisory board members, based on their career backgrounds, as well as their excellent character, insight, and abilities.

For our external directors and external audit & supervisory board members, we nominate individuals who possess broad knowledge and experience, and who can make use of their outstanding experience and insight to provide surveillance, instruction, and advice on our management, from a more objective perspective.

In the event of dishonesty in the execution of the duties of a member of the key management personnel, or a serious violation of laws, ordinances, or our articles of incorporation, that individual shall be dismissed.

Candidates for director and audit & supervisory board member positions shall be decided after sufficient deliberation at a meeting of the board of directors at which all members of the board, including the external directors and external audit & supervisory board members, are present.

Executive Compensation

At the Hokuriku Electric Power Company, matters such as compensation for individual directors are determined based on an established policy, as outlined below:

As a basic policy, compensation for individual directors shall be determined by taking into consideration its function as an incentive for the sustainable growth of corporate value, and shall be at appropriate levels for their individual duties. Specifically, compensation for directors (except external directors) comprises base compensation on a monthly basis and bonuses to be paid at certain times each year, while compensation for external directors comprises only monthly base compensation in view of their duties.

The amount of monthly base compensation for each director is determined through comprehensive consideration, according to their position, in light of the level at other companies, as well as the business environment, performance, and other factors regarding the Company. The bonus amounts for each director (except external directors) are determined according to their positions, in view of performance for each fiscal year and other factors, after a resolution of the general meeting of shareholders for each payment.

The amount of base compensation for individual directors is determined by the chairman of the board and the president having been entrusted by the board of directors, based on the discussion at a meeting regarding compensation consisting of the three external directors, the chairman of the board, and the president. The amount of bonuses for individual directors shall be determined for each payment by the chairman of the board and the president, having been entrusted by the board of directors, based on the discussion at a meeting regarding compensation, following a resolution of the general meeting of shareholders.

Compensation for our audit & supervisory board members comprises only monthly base compensation in view of their duties.

Base compensation for audit & supervisory board members is within the range of the total sum approved at the general meeting of shareholders, and determined through discussion among the audit & supervisory board members.

Internal Control

In accordance with the Companies Act, our board of directors has made a resolution on the maintenance of a structure to ensure the propriety of our operations (fundamental policies of the internal control system), stipulating basic systems such as compliance, risk management, and propriety in the operations of the Group. Based on this resolution, we work to maintain and operate systems to ensure propriety in our work.

Other Group companies have also decided upon fundamental policies based on each company's current status, as part of our Group-wide efforts to ensure propriety in our work.

With regards to the Financial Instruments and Exchange Act internal control and reporting system*, our company rules stipulate systems and mechanisms to ensure the trustworthiness of Group financial reporting, and we operate them appropriately. Alongside this, we also evaluate the effectiveness of our internal control, and perform the necessary corrections and improvements. In June of 2021, we also submitted our internal control report to the prime minister, in which we judged our internal controls to be effective based on a self-appraisal.

Maintaining the Corporate Governance System

Directors and Audit & Supervisory Board Members of the Hokuriku Electric Power Company (As of July 31, 2021)

■ Directors



Representative Director & Chairman of the Board

Yutaka Kanai

Apr. 1977 : Joined Hokuriku Electric Power Company
 Jun. 2005 : Became Manager
 Jun. 2007 : Became Executive Officer
 Jun. 2010 : Became Managing Director
 Jun. 2013 : Became Representative Director & Vice President
 Jun. 2015 : Became Representative Director & President
 Jun. 2021 : Became Representative Director & Chairman of the Board (Current Position)



Representative Director & President

Koji Matsuda

Apr. 1985 : Joined Hokuriku Electric Power Company
 Jun. 2016 : Became Executive Officer
 Jun. 2019 : Became Director & Managing Executive Officer
 Jun. 2021 : Became Representative Director & President (Current Position)



Representative Director & Executive Vice President
 General Manager of Community Relations & Development Division
 General Manager of Nuclear Power Division

Nobuhiko Ishiguro

Apr. 1983 : Joined Hokuriku Electric Power Company
 Jun. 2011 : Became Manager
 Jun. 2012 : Became Executive Officer
 Jun. 2015 : Became Director & Managing Executive Officer
 Jun. 2017 : Became Representative Director & Executive Vice President (Current Position)



Representative Director & Executive Vice President

Kazuhisa Mizutani

Apr. 1984 : Joined Hokuriku Electric Power Company
 Jun. 2015 : Became Executive Officer
 Jun. 2018 : Became Director & Managing Executive Officer
 Jun. 2020 : Became Representative Director & Executive Vice President (Current Position)



Director & Managing Executive Officer

Seisho Shiotani

Apr. 1983 : Joined Hokuriku Electric Power Company
 Jun. 2016 : Became Executive Officer
 Jun. 2018 : Became Director & Managing Executive Officer (Current Position)



Director & Managing Executive Officer

Wataru Hirata

Apr. 1986 : Joined Hokuriku Electric Power Company
 Jun. 2018 : Became Executive Officer
 Jun. 2020 : Became Director & Managing Executive Officer (Current Position)

Maintaining the Corporate Governance System



Director (External)
Tatsuo Kawada

Mar. 1962 : Joined Fukui Seiren Kako Co., Ltd.
 Aug. 1981 : Became Director at Seiren Co., Ltd.
 Aug. 1985 : Became Managing Director
 Aug. 1987 : Became Representative Director & President
 Jun. 2003 : Became Representative Director and President, and COO
 May, 2005 : Became Representative Director and Chair of KB Seiren, Ltd. (Current Position)
 Oct. 2005 : Became Representative Director and President, COO, and CEO of Seiren Co., Ltd.
 Jun. 2008 : Became Audit & Supervisory Board Member of the Hokuriku Electric Power Company
 Mar. 2009 : Became President of the Fukui Chamber of Commerce and Industry (Current Position)
 Jun. 2011 : Became Representative Director and Chair, President, COO, and CEO of Seiren Co., Ltd.
 Jun. 2014 : Became Representative Director and Chair, and CEO (Current Position)
 Aug. 2014 : Became Chair of Seiren U.S.A. Corporation (Current Position)
 Jun. 2015 : Became Director at the Hokuriku Electric Power Company (Current Position)



Director (External)
Shigeo Takagi

Apr. 1971 : Joined the Hokuriku Bank, Ltd.
 Jun. 1998 : Became Director
 Jun. 2002 : Became President
 Sep. 2003 : Became President of Hokugin Financial Group
 Jun. 2013 : Became Special Adviser to the Hokuriku Bank, Ltd.
 Nov. 2013 : Became President of the Toyama Chamber of Commerce and Industry (Current Position)
 Jun. 2014 : Became Audit & Supervisory Board Member of the Hokuriku Electric Power Company
 Jun. 2015 : Became Director (Current Position)
 Jul. 2016 : Became Special Counselor for the Hokuriku Bank, Ltd. (Current Position)



Director (External)
Tateki Ataka

Apr. 1973 : Joined the Hokkoku Bank, Ltd.
 Jun. 1998 : Became Director
 Jun. 2002 : Became Managing Director
 Jun. 2004 : Became Senior Managing Director
 Jun. 2006 : Became President
 Nov. 2016 : Became President of the Kanazawa Chamber of Commerce and Industry (Current Position)
 Jun. 2017 : Became Director at the Hokuriku Electric Power Company (Current Position)
 Jun. 2020 : Became Senior Advisor to the Hokkoku Bank, Ltd. (Current Position)

Audit & Supervisory Board Members



Audit & Supervisory Board Member of the Hokuriku Electric Power Company and Audit & Supervisory Board Member of the Hokuriku Electric Power Transmission & Distribution Company

Yasuhito Mizukami

Apr. 1981 : Joined Hokuriku Electric Power Company
 Jun. 2009 : Became Manager
 Jun. 2012 : Became Executive Officer
 Jun. 2018 : Became Audit & Supervisory Board Member (Current Position)
 Apr. 2020 : Became Audit & Supervisory Board Member of the Hokuriku Electric Power Transmission & Distribution Company (Current Position)



Audit & Supervisory Board Member of the Hokuriku Electric Power Company and Audit & Supervisory Board Member of the Hokuriku Electric Power Transmission & Distribution Company

Akitaka Eda

Apr. 1985 : Joined Hokuriku Electric Power Company
 Jun. 2018 : Became Executive Officer
 Jun. 2020 : Became Audit & Supervisory Board Member (Current Position)
 Jun. 2020 : Became Audit & Supervisory Board Member of the Hokuriku Electric Power Transmission & Distribution Company (Current Position)



Audit & Supervisory Board Member (External)

Toshihiko Hosokawa

Apr. 1970 : Appointed as Public Prosecutor
 Apr. 1981 : Registered with Osaka Bar Association
 Apr. 1985 : Registered with Toyama Bar Association
 Apr. 2000 : Became Professor at Kanazawa University Faculty of Law
 Apr. 2004 : Became Professor at Kanazawa University Law School
 Apr. 2004 : Re-registered with Toyama Bar Association (Current Position)
 Jun. 2015 : Became Audit & Supervisory Board Member of the Hokuriku Electric Power Company (Current Position)



Audit & Supervisory Board Member (External)

Etsuko Akiba

Apr. 1971 : Joined Japan Airlines
 Jul. 1989 : Joined Public Relations Department of the Foundation of Electric Power Companies
 Apr. 1996 : Joined Kanto Branch Public Relations Department of the Nippon Telegraph and Telephone Corporation
 Jun. 1999 : Became Director of the Nippon Association of Consumer Specialists
 May, 2003 : Became Chief Director of the Asca Energy Forum
 Jan. 2010 : Became Member of the Japan Atomic Energy Commission
 May, 2014 : Reappointed as Chief Director of the Asca Energy Forum (Current Position)
 Jun. 2015 : Became Audit & Supervisory Board Member of the Hokuriku Electric Power Company (Current Position)



Audit & Supervisory Board Member (External)

Masahiro Hayashi

Apr. 1981 : Joined the Fukui Bank, Ltd.
 Jun. 2008 : Became Director
 Jun. 2009 : Became Director and Statutory Executive Officer
 Jun. 2010 : Became Director and Managing Executive Officer
 Jun. 2014 : Became Director and Senior Managing Executive Officer
 Jun. 2015 : Became Director, President and Representative Statutory Executive Officer (Current Position)
 Jun. 2021 : Became Audit & Supervisory Board Member of the Hokuriku Electric Power Company (Current Position)

Directors and Audit & Supervisory Board Members of the Hokuriku Electric Power Transmission & Distribution Company (As of July 31, 2021)

■ Directors



Representative Director & President

Koichi Mizuno

Apr. 1983 : Joined Hokuriku Electric Power Company
 Jun. 2011 : Became Manager
 Jun. 2014 : Became Executive Officer
 Jun. 2016 : Became Director & Managing Executive Officer
 Jun. 2018 : Became Representative Director & Executive Vice President
 Apr. 2020 : Became Representative Director & President of the Hokuriku Electric Power Transmission & Distribution Company (Current Position)



Representative Director & Executive Vice President

Kazuya Tanada

Apr. 1985 : Joined Hokuriku Electric Power Company
 Jun. 2018 : Became Executive Officer
 Apr. 2020 : Became Director of the Hokuriku Electric Power Transmission & Distribution Company
 Jun. 2020 : Became Representative Director & Executive Vice President (Current Position)



Director
 General Manager of Distribution Dept.

Katsunori Tsukasaki

Apr. 1987 : Joined Hokuriku Electric Power Company
 Apr. 2020 : Transferred on loan to Hokuriku Electric Power Transmission & Distribution Company
 Became Executive Officer
 Jun. 2020 : Became Director of the Hokuriku Electric Power Transmission & Distribution Company (Current Position)



Director
 General Manager of Corporate Planning Dept.

Shiro Sejima

Apr. 1988 : Joined Hokuriku Electric Power Company
 Jun. 2021 : Became Director of the Hokuriku Electric Power Transmission & Distribution Company (Current Position)

Deepening Our Corporate Culture

Corporate Culture for Ensuring Transparency and Safety

In 2007, it came to light that we had not properly handled some incidents regarding power generation facilities, including the criticality accident at Unit 1 of Shika Nuclear Power Station. Following this, we have worked to establish a corporate culture for ensuring transparency and safety, with efforts company-wide to prevent any such issues from happening again. In February of 2011, an examination committee composed of external experts evaluated our efforts toward recurrence prevention, and concluded that the corporate culture for ensuring transparency and safety had been established. Even after this evaluation, every employee has continued and improved these long-term efforts, taking to heart the importance of never flagging in our dedication to the corporate culture.

We continue further deepening the culture that we have built, improving company-wide quality of services and operations, as we work to earn the community's trust and provide sense of security.

Deepening Our Safety Culture

Enlightenment on Prioritizing Safety, and Improving Safety Quality

● Discussions between Top-level Managers and Front-line Site Employees

We aim to share top-level managers' thoughts and passion for putting safety first with the company as a whole, as well as to increase mutual understanding within the company through frank discussion activities between top-level managers and employees.

● Sharing Case Studies of Failures to Prevent Reoccurrences

We share the lessons of failure cases within the company and facilitate improvement efforts in each department, with the goal of preventing similar accidents and problems through such conferences as "Electric Power Security Committee" and "Failure Cases Review Meetings."



Discussions between upper-level management and head office managers (Electric Power Security Committee)

Efforts to Eliminate Work-related Accidents

Based on the concept of placing top priority on safety, we work to prevent accidents that could affect any of our employees, contractors, outsourced staff members, or members of the public.

In FY 2021, we have particularly focused on encouraging workers to be familiar with the rules, by presenting clear rules to contractors and providing instructional materials to prime contractors, as well as focusing on inspections of worksites and instructions to personnel, including checking the state of communication from prime contractors to subcontractors, through patrols and other means.

Promoting Compliance

In 2002, we established the Compliance Promotion Committee, with the company president serving as chair, and a code of conduct.

We have continued to improve our efforts over time. In order to further increase the effectiveness of our compliance promotion, in 2003, we established Whistle Hokuden, a point of contact for business ethics information; in 2007, we added an external third party (lawyer) point of contact for reports; and starting in 2010, Group companies' compliance violations can now also be reported.

We continue efforts to maintain our dedication to our corporate culture for ensuring transparency and safety, such as messages from the president on in-company TV broadcasts. In addition, we strive to ensure strict compliance through autonomous initiatives, such as compliance training for each layer of our company, including top- and middle-level managers and general employees, as well as group compliance discussions at each workplace.

Connecting with Stakeholders

Investor Relations Activities

We hold corporate information sessions for institutional investors and analysts, at which we engage in candid exchanges of opinions with top management about our business policies, financial status, and other topics. We also work to share information, including financial results, through other means, such as explanations on an individual basis, and posting to our website.

For individual shareholders, we organize tours of facilities, including Shika Nuclear Power Station, thermal power stations, photovoltaic power stations, and wind power stations, to further deepen their understanding of our business activities. (In FY 2020, facility tours were canceled to prevent the spread of COVID-19.)

● Fundamental Policies for Procurement

1	Compliance with Laws, Ordinances, and Social Norms
2	Highest Priority on Safety
3	Consideration for the Environment
4	Open Transactions
5	Fair and Impartial Procurement
6	Establishment of Mutual Trust (Partnerships)
7	Proper Management and Protection of Information
8	Contribution to the Local Community

Fair and Impartial Procurement Activities

We build good long-term relationships with our suppliers, who are our business partners, and we engage in procurement activities based on our Fundamental Policies for Procurement, as we work together toward the development of both parties.

Preparedness for Risks

Crisis Management

We are working to establish crisis management regulations, in order to build a company-wide crisis management system to address various critical situations that would, or may potentially, have a significant effect on our business, and to avoid, as much as possible, any effect on our stakeholders.

Establishment of Disaster Prevention Systems

The Hokuriku Electric Power Company and the Hokuriku Electric Power Transmission & Distribution Company work together to prepare for disasters.

We immediately declare Alert Status when a disaster is expected to strike, and Red Alert Status when a disaster is predicted to occur within the next few hours, or has already occurred, or when an earthquake rated 6 Lower or above on the JMA Seismic Intensity Scale has occurred within the area we supply electricity to. In these cases, we set up an alert status (general) headquarters or a disaster response (general) headquarters at the relevant facility or office, according to the level of the alert status.

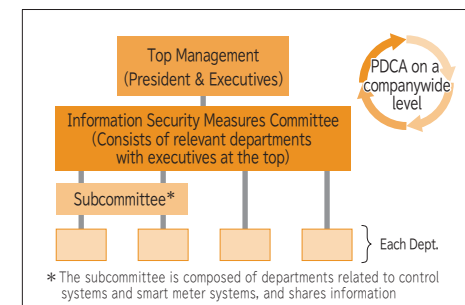
As a precaution for disasters, we have built a system of mutual cooperation to share disaster prevention information with local governments and other disaster-prevention-related organizations (local meteorological observatories, fire stations, the Self-Defense Forces, police, etc.). In addition, we have also established a mutual support system in association with other electric power companies, the Electric Power Development Co., Ltd., the Organization for Cross-regional Coordination of Transmission Operators, contracted companies, electrical engineering work companies, and more, to provide mutual assistance, such as supply of electric power, personnel, materials, transportation equipment, etc.



Company-wide disaster prevention training

Information Security

With the growing threat of international cyber-attacks on Japanese companies, we are working to enhance information security, as a critical infrastructure utility with social responsibility. In addition to cooperating with the national government and other electric power companies, we have set forth our basic policy on information security in our internal rules, and have established an in-house information security measures committee to promote information security measures under our top management.



Basic Policy on Information Security

- (1) We shall establish a system to continuously maintain and improve our information security level.
- (2) We shall enact protective measures to block attacks on information assets.
- (3) We shall determine emergency measures in the event of an attack, and prepare for quick recovery and to prevent attacks from recurring.
- (4) We shall raise awareness about information security among all employees.

Measures against COVID-19

We implement various measures based on our business continuity plan, in order to prevent our employees from being infected, and to maintain a stable supply of electricity.

● Workplace Vaccination

At the end of June, 2021, we started workplace vaccinations for employees of the Hokuriku Electric Power Company and the Hokuriku Electric Power Transmission & Distribution Company. In addition to this effort, which should contribute to reducing the burden on the community and accelerating the pace of vaccinations, we continue other measures that we have taken to prevent the spread of COVID-19, which should eventually help prevent the spread of the disease in the Hokuriku region and enable us to maintain a stable supply of electricity.

● Major Anti-infection Measures on the Front Lines of Electric Power Supply

- Restricted access to the central control rooms of power stations and the control rooms of load-dispatching centers
- Separate working locations for power station staff members
- Maintaining physical distance and disinfecting shared items (keyboards, etc.) when handing over duties
- Establishing backup systems, including securing substitute staff members who have previous experience performing the same jobs, in the event of an infection among power station operators or on-duty staff members at load-dispatching centers

Financial and Business Information

Main Data for the Past Five Years (Consolidated)

Fiscal Year	2016	2017	2018	2019	2020
Operating Revenue (Million yen)	542,572	596,283	622,930	628,039	639,445
Operating Income (Million yen)	10,539	14,826	12,824	29,461	17,828
Ordinary Income (Million yen)	2,012	2,671	6,656	23,236	12,354
Net Income (Loss) Attributable to Owners of Parent (Million yen)	Δ622	Δ485	2,520	13,433	6,834
Return on Equity (%)	Δ0.2	Δ0.2	0.8	4.2	2.1
Return on Assets (%)	0.5	0.7	0.6	1.3	0.8
Net Income per Share (Yen)	Δ2.98	Δ2.33	12.07	64.34	32.73
Capital Investment (Million yen)	94,889	109,057	102,988	76,502	84,289
Total Assets (Million yen)	1,518,076	1,588,757	1,573,127	1,592,933	1,595,626
Net Assets (Million yen)	327,614	327,645	326,950	336,456	355,740
Capital-to-asset Ratio (%)	20.8	19.8	19.9	20.2	21.2
Outstanding Interest-bearing Debt (Million yen)	952,145	990,004	980,494	974,547	974,858
Net Assets per Share (Yen)	1,515.08	1,509.29	1,501.40	1,542.20	1,622.02
Cash Flows from Operating Activities (Million yen)	63,547	82,277	54,018	101,475	56,639
Cash Flows from Investing Activities (Million yen)	Δ104,252	Δ91,259	Δ101,338	Δ75,141	Δ84,913
Cash Flows from Financing Activities (Million yen)	21,322	35,401	Δ9,912	Δ6,285	Δ3,300
Cash and Cash Equivalents at End of Period (Million yen)	173,746	200,166	142,934	163,019	132,310
Number of Employees	8,346	8,433	8,498	8,562	8,326

Group Companies (As of July 31, 2021)

Total Energy

- Hokuriku Electric Power Company
- Hokuriku Electric Power Transmission & Distribution Company
- The Nihonkai Power Generating Company, Inc.
- Hokuriku Lnes Co., Ltd.
- Kanazawa Gas & Electricity Co., Ltd.
- Fukui City Gas Co., Ltd.
- Toyama Kyodo Jikahatsuden Co., Ltd.

Information & Telecommunications

- Hokuriku Telecommunication Network Co., Inc.
- Power and IT Company
- Hokuden Information System Service Company, Inc.
- Cable Television Toyama Inc.

Electricity & Engineering

- Hokuriku Plant Services Co., Ltd.
- Nihonkaikenko Corporation
- HOKURIKU ELECTRICAL CONSTRUCTION CO., LTD.
- Hokuriku Electric Power Biz Energy Solutions Co., Ltd.
- Hokuden Engineering Consultants Co., Ltd.
- Hokuden Techno Service

Environment & Recycling

- Nihonkai Environmental Service Inc.

Daily Life, Offices, and Finance

- Hokuriku Electric Power Business Investment G.K.
- Hokuden Sangyo Co., Ltd.
- Hokuriku Electric Power Living Service Co., Ltd.
- Hokuden Partner Service Inc.
- Hokuriku Electric Power With Smile Company
- FreDelish Co., Ltd.
- Hokko Shoji Co., Ltd.
- Hokuden Sangyo Komatsu Building G.K.

Manufacturing

- Nihonkai Concrete Industries Co.
- Hokuriku Instrumentation Co., Inc.
- Hokuriku Electric Co., Ltd.

Overseas Electricity Business

- F3 Holding Company B.V.
- F3 O&M Company Ltd

and 10 other companies

Main Data for the Past Five Years (Non-consolidated)

Fiscal Year	2016	2017	2018	2019	2020
Operating Revenue (Million yen)	497,617	549,148	575,576	573,868	577,106
Operating Income (Million yen)	2,568	5,375	4,522	20,214	Δ6,463
Ordinary Income (Million yen)	Δ3,256	Δ5,630	2,447	15,707	Δ8,371
Net Income (Million yen)	Δ1,848	Δ4,195	2,411	10,294	Δ5,094
Ordinary Revenue / Loss (Million yen)	503,650	552,604	583,062	577,532	582,915
Electricity Sales (Retail)	433,913	472,251	477,440	453,412	440,559
Electricity Sales (Wholesale)	31,078	38,812	48,124	55,032	81,974
Other	38,658	41,540	57,497	69,087	60,380
Ordinary Expenses (Million yen)	506,906	558,234	580,614	561,825	591,286
Personnel Expenses	50,940	49,676	48,033	51,156	29,429
Fuel Expenses	102,624	118,990	124,485	109,837	90,899
Maintenance Expenses	63,111	69,087	64,414	60,053	32,318
Depreciation Expenses	61,328	59,162	68,330	47,828	28,872
Purchased Power Expenses	69,660	84,636	103,426	105,013	136,269
Interest Expenses	10,396	9,612	8,786	7,654	6,934
Taxes and Public Charges	30,281	30,787	30,457	31,440	13,170
Other	118,563	136,280	132,681	148,841	253,392
Return on Equity (%)	Δ0.6	Δ1.5	0.9	3.6	Δ1.8
Return on Assets (%)	0.1	0.3	0.2	1.0	Δ0.3
Net Income per Share (Yen)	Δ8.85	Δ20.09	11.55	49.31	Δ24.40
Dividend (Yen) per Share	35	–	–	10	15
Capital Investment (Million yen)	90,563	103,662	93,708	69,245	50,264
Total Assets (Million yen)	1,460,682	1,526,576	1,508,900	1,529,530	1,506,958
Net Assets (Million yen)	286,698	280,500	280,243	286,945	284,130
Capital-to-asset Ratio (%)	19.6	18.4	18.6	18.8	18.9
Outstanding Interest-bearing Debt (Million yen)	960,198	999,883	988,764	985,476	988,656
Net Assets per Share (Yen)	1,373.09	1,343.47	1,342.28	1,374.42	1,360.99
Number of Employees	5,010	5,229	5,278	5,325	2,801*

* Company split up in 2020

Environment *1

*1 Results for the Hokuriku Electric Power Company and the Hokuriku Electric Power Transmission & Distribution Company

(1) Data Related to Power Generation

	Category	Unit	Results			
			FY 2018	FY 2019	FY 2020	
1	Fuel Consumption for Power Generation	Coal	kt	5,573	6,079	6,110
		Heavy Oil	ML	140	35	143
		Crude Oil	ML	164	34	10
		LNG	kt	403	523	509
		Gas Oil	ML	10	8	5
		Wood Biomass	kt	22	18	22
		Nuclear Fuel	kg- ²³⁵ U	0	0	0
2	Electricity Generated (Generating End)	Thermal Power Generation	billion kWh	20.2	21.9	22.1
		Hydroelectric Power Generation	billion kWh	6.2	6.2	6.2
		Nuclear Power Generation	billion kWh	0	0	0
		Photovoltaic Power Generation	million kWh	4	5	5
3	Transmission and Distribution Loss Rate	%	4.3	4.1	4.4	
4	Electricity Consumption at Hokuriku Electric Power Company Offices, etc.	million kWh	31	29	30	
5	Electricity Sold to and Purchased from Other Utilities	Purchased	billion kWh	6.6	6.0	7.0
		Wholesale	billion kWh	4.3	6.4	6.6
6	Electricity Sales Volume	billion kWh	26.1	25.1	25.9	
7	Thermal Power Generation Efficiency: Benchmark Index B of the Act on the Rational Use of Energy	%	39.8	40.6	40.5	
8	Waste Water from Power Stations	Kilo m ³	2,772	2,696	2,634	

(2) Data Related to Greenhouse Gas Reductions

	Category	Unit	Results			
			FY 2018	FY 2019	FY 2020	
1	CO ₂ Emissions *2	Basic	Mt-CO ₂	14.14	12.79	12.17
		Adjusted	Mt-CO ₂	13.71	12.45	12.07
2	CO ₂ Emission Intensity *2	Basic	kg-CO ₂ /kWh	0.542	0.510	0.469
		Adjusted	kg-CO ₂ /kWh	0.526	0.497	0.465
3	SO _x Emissions	Standard Unit*3	g/kWh	0.26	0.26	0.25
		Emissions	t	5,284	5,783	5,593
4	NO _x Emissions	Standard Unit*3	g/kWh	0.20	0.22	0.21
		Emissions	t	4,096	4,827	4,652
5	SF ₆ Emissions	t	0.3	0.3	0.3	
6	SF ₆ Gas Recovery Ratio during Inspection and Disposal	%	99	99	99	
7	HFC Emissions	t	0.3	0.5	0.6	
8	PFC Emissions	t	None Handled	None Handled	None Handled	
9	N ₂ O Emissions	t	88	97	97	
10	CH ₄ Emissions	t	23	21	20	
11	Fluorocarbon Consumption	t	0.3	1.0	0.8	

*2 Calculations were made based on the Law Concerning the Promotion of the Measures to Cope with Global Warming.

*3 For power generated at thermal power stations.

(3) Other Data Related to Environmental Management and Waste Management

	Category		Unit	Results		
				FY 2018	FY 2019	FY 2020
1	Production and Proportion Recycled of Industrial Waste and Byproducts	Amount Produced (Amount of Coal Ash Produced, Included in the Total)	kt	784 (584)	798 (598)	779 (591)
		Percentage Recycled (Proportion Recycled of Coal Ash)	%	97.9 (99.2)	97.6 (98.0)	96.3 (96.7)
2	Office Waste Collected by the Hokuriku Electric Power Company	Worker Uniforms	kg	1,914	2,737	1,123
		Used Helmets	pcs.	328	278	439
		Used Safety Shoes	pairs	978	697	813
		Used Safety Harnesses	sets	64	324	168
		Used Fluorescent Lamps	t	3.8	3.9	4.1
		Used Batteries	t	1.6	1.6	1.4
3	Green Purchasing Coverage		%	98	97	91
4	Number of Electric Vehicles Introduced*4 (Proportion of EVs among company vehicles)		vehicles (%)	181 (47.6)	182 (47.9)	206 (52.2)
5	Amount of Electricity Use at Offices over Time (Percentage, using the FY 2004 amount as 100)		%	81.3	78.7	81.3
6	Production of Solid Radioactive Waste (200-liter drum equivalent)		drums' worth	544	760	808

*4 Special-purpose vehicles, such as emergency vehicles and aerial work platforms, and other vehicles that cannot be replaced with electric vehicles (e.g. 4WD vehicles) are not included. Plug-in hybrid vehicles (PHVs) are included.

Product name	Amount Produced (t)	Percentage Recycled (%)	Main Use
Coal Ash	590,622	96.7	Raw material for cement
Gypsum	147,293	100.0	Raw material for cement
Heavy/Crude Oil Ash	575	95.2	Raw material for cement
Electric Wire Scrap, Iron Scrap	12,420	99.9	Metal stock
Waste Plastics	710	50.5	Plastic products
Decommissioned Concrete Poles	4,790	100.0	Roadbed material
Insulator Scrap	629	77.5	Land reclamation material, aggregate
Sludge	10,089	26.1	Raw material for cement
Construction & Demolition Waste	7,030	97.6	Land reclamation material, aggregate
Other	4,668	81.8	-
Total	778,827	96.3	-

Uses		Proportion (%)
Cement Raw Material (Clay substitution)	Domestic	51.9
	Overseas	20.1
Cement (Other than clay substitution)		3.5
Land Reclamation Material		4.7
Recycled Base Course Material		6.3
Architecture		10.2
Soil Stabilization Material (Drainage material for grounds, rice fields, etc.)		2.1
Civil Engineering		1.2
Other		0.0

(4) Emissions and Transfers of Chemical Substances with Notifications Filed According to the PRTR Law*5

	Substance	No. of Facilities Submitting Notifications	Main Uses	FY 2020		
				Amount Handled (t)	Amount of Emissions (t)	Amount Transferred (t)
1	Asbestos	2	Heat insulating material	8.7	0.0	8.7
2	Styrene	1	Paints	1.7	1.7	0.0
3	Toluene	3	Power generation fuels, paints	5.8	5.8	0.0
4	PCB	1	Insulating oil for transformers	3.0	0.0	3.0
5	Methylnaphthalene	4	Power generation fuels, on-site boiler fuels	71.9	0.4	0.0

*PRTR Law: An abbreviated name for the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register/PRTR). The law stipulates the mechanisms by which businesses must track, collect, and publicize data regarding the amounts of harmful chemical substances they produce that are discharged into the environment in their course of their business activities.

Social *1

*1 Results for the Hokuriku Electric Power Company and the Hokuriku Electric Power Transmission & Distribution Company

(1) Data Related to Employees

	Category		Unit	Results		
				FY 2018	FY 2019	FY 2020
1	Number of Employees	Total (Proportion of women)	people (%)	5,278 (14.7)	5,325 (16.1)	5,543 (16.2)
2	Average Age		years old	42.1	42.2	42.2
3	Length of Service	Total	years	20.6	20.5	20.4
		Male	years	21.7	21.9	21.7
		Female	years	13.6	13.0	13.3
4	Number of Managers	Total	people	1,965	1,955	1,907
		Male (Proportion)	people (%)	1,904 (96.9)	1,884 (96.4)	1,822 (95.5)
		Female (Proportion)	people (%)	61 (3.1)	71 (3.6)	85 (4.5)
5	Proportion of Employees with Disabilities		%	2.09	2.16	2.25
6	Number of New Employees Hired	Total	people	156	158	168
		Male (Proportion)	people (%)	123 (78.8)	123 (77.8)	148 (88.1)
		Female (Proportion)	people (%)	33 (21.2)	35 (22.2)	20 (11.9)

	Category		Unit	Results		
				FY 2018	FY 2019	FY 2020
7	Number of Employees Taking Nursing Care Leave		people	2	1	1
8	Usage Rate of Child-care Leave	Male	%	1.2	3.0	5.1
		Female	%	100	100	100
9	Number of Days of Paid Annual Leave Taken per Employee*2		days	20.9	20.4	20.8

*2 Including leisure leave (five days granted annually, with no restrictions on purpose of use)

(2) Metrics Related to Local Society

	Category		Unit	Results		
				FY 2018	FY 2019	FY 2020
1	System Average Interruption Duration Index		minutes/ customer/year	24	19	22
2	System Average Interruption Frequency Index		times/ customer/year	0.15	0.13	0.14
3	Increased Amount of Buried Distribution Lines	Single Fiscal Year	km	2.52	1.68	2.08
		Total	km	204.82	206.50	208.58
4	Hoku-Link Membership		thousands of members	304	428	486
5	Visit Lessons and Facility Tours		sessions	177	155	68

Governance

(1) Data Related to Directors and Audit & Supervisory Board Members*1

	Category	Unit	Results		
			FY 2018	FY 2019	FY 2020
1	Number of Directors (Number of external directors included in the total)	people	12 (3)	12 (3)	11 (3)
2	Proportion of External Directors	%	25	25	27.2
3	Number of Board of Directors' Meetings Held (Average attendance rate)	sessions (%)	11 (99)	11 (99)	11 (99)
4	Term of Office of Directors	years	1	1	1
5	Number of Audit & Supervisory Board Members (Number of external audit & supervisory board members included in the total)	people	5 (3)	5 (3)	5 (3)
6	Number of Independent Officers (Proportion)	people (%)	6 (35.3)	6 (35.3)	6 (37.5)
7	Number of Female Directors and Audit & Supervisory Board Members	people (%)	1 (5.9)	1 (5.9)	1 (6.3)

*1 Results for the Hokuriku Electric Power Company

(2) Data Related to Occupational Safety*2

	Category	Unit	Results		
			FY 2018	FY 2019	FY 2020
1	Number of Employee Injuries *3	people	3	1	2
2	Rate of Lost-worktime Injuries *3 *4	—	0.28	0.09	0.18
3	Number of Contracted Worker Injuries *3	people	13	17	16
4	Number of Employee Fatalities	people	0	0	0
5	Number of Contracted Worker Fatalities	people	1	0	3

*2 Results for the Hokuriku Electric Power Company and the Hokuriku Electric Power Transmission & Distribution Company

*3 Work-related injury involving at least one day's absence from the workplace

*4 Rate of lost-worktime injuries = Number of work-related casualties ÷ Total actual hours worked × 1,000,000

[WEB](http://www.rikuden.co.jp/management/governance.html) Report on Corporate Governance <http://www.rikuden.co.jp/management/governance.html>

Environmental, Social, and Governance-related Policies, Guidelines, Plans, etc.

	Category	URL
1	CSR Philosophy and Guidelines for Action	http://www.rikuden.co.jp/csr/torikumi.html
2	Environmental Management Plan	http://www.rikuden.co.jp/kanrikeikaku/index.html
3	Action Plan for the Promotion of Women's Participation and Advancement in the Workplace	http://www.rikuden.co.jp/syokuba/attach/koudoukeikaku.pdf
4	Code of Conduct	http://www.rikuden.co.jp/conp/kodo.html
5	Fundamental Policies for Procurement	http://www.rikuden.co.jp/shizai/houshin.html
6	Disclosure Policy	http://www.rikuden.co.jp/management/disclosure.html

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