Tohoku Electric Power Group

70th Anniversary 2021
Tohoku Electric Power Group

Tohoku Electric Power Group

INTEGRATED REPORT 2021

The Tohoku Electric Power Group's Management Philosophy and Group Slogan

The Tohoku Electric Power Group's Management Philosophy

Prosper with Local Communities

We seek to create value only the Tohoku Electric Power Group can deliver and to realize growth and a more abundant society by continuing to take on challenges and pursue innovation alongside our customers and our communities.

The Tohoku Electric Power Group Slogan

Yori, Sou, Chikara

(The Strength to Work Alongside)

Our motto, yori, sou, chikara, derives from the care we take in providing each and every customer with services suited to their lifestyles and working lives. Moving forward, driven by our founding motive of serving as a bedrock for the region, we will continue working hand-in-hand with local communities, delivering services to the individuals within them based on a true sense of gratitude and broad vision of the future.

Tohoku Electric Power was founded in 1951. Amid the postwar recovery, our first President, Ungoro Uchigasaki, established the management philosophy which called for "Rebuilding Japan starting in Tohoku and developing Tohoku starting with electric power." The Group rephrased this motto thereafter as follows: "The prosperity of the Tohoku region is essential to our own growth." We've continued to do business under this philosophy for some 70 years.

The strong concern for local communities expressed in this concept is a fundamental management value and the ultimate expression of the Tohoku Electric Power Group's Management Philosophy of prospering with local communities. This vision of extending our roots to contribute to the regions in which we operate is an unshakeable pillar from which all Group employees continue to approach their work, even amid dramatically changing business conditions.

However, the way to prosper with local communities must change with the times. To date, prosperity with local communities has referred to generating earnings by providing a stable, low-cost source of electricity to customers in Tohoku and Niigata. Looking forward, we will seek to expand our business area and secure management resources beyond Tohoku and Niigata, while maintaining in our hearts the commitment to give back to the Tohoku and Niigata communities. Through value created by progressive activities grounded in energy services and creating solutions to social challenges, our goal is to contribute to Tohoku and Niigata, attracting human resources, technology, and investment to the region.

Essential aspects of putting this management philosophy into practice include receptiveness to the needs and issues confronting the customers who make up our local communities and the commitment of each individual employee to creating new forms of prosperity in joint efforts.
The Tohoku Electric Power Group slogan—Yori, Sou, Chikara (The Strength to Work Alongside)—is a promise to our customers and to local communities. Based on the perspective of working together with and alongside our customers and communities, this promise says each and every Group employee will take this management philosophy to heart in his or her work and everyday activities. Under this slogan, we will seek to help co-create a comfortable, safe, reliable, and smart society and to provide the added value only the Tohoku Electric Power Group can deliver.

Editorial Policy

Tohoku Electric Power Group Integrated Report 2021 Editorial Policy

The Tohoku Electric Power Group has published integrated reports since FY2018 to promote understanding of the Group's plans for medium- and long-term value creation from both financial and non-financial perspectives.
Based on a careful selection of the information we want to convey to shareholders and investors, this FY2021 Report includes a special feature on our efforts to achieve carbon neutrality by 2050 and an introduction to specific measures toward the implementation of Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision.
The Report also reflects the International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC), the Guidance for Collaborative Value Creation from the Ministry of Economy, Trade and Industry of Japan, and other materials. Prior to its publication we submitted this Report to the Board of Directors and confirmed its validity.
We will continue to enhance the content provided in the Report to deepen understanding of the Tohoku Electric Power Group among our stakeholders.

Tohoku Electric Power's media for information disclosure

The Tohoku Electric Power Group reports issues and actions of high significance in its Integrated Report. Indepth financial information and non-financial information are available from other information sources.

Financial information

Fact Book

Flash earnings report

Tohoku Electric Power Group Integrated Report

Financial report, Hotline (business overview), Notice of Convocation of the Ordinary General Meeting of Shareholders, materials for financial results briefings

www.tohoku-epco.co.jp/

Non-financial information

Corporate Governance Report

Tohoku Electric Power Group Environmental Action Report

Sustainability Data Book

Guidelines and other information used for reference

- Ministry of Economy, Trade and Industry: Guidance for Collaborative Value Creation
- International Integrated Reporting Council (IIRC): The International <IR> Framework
- Global Reporting Initiative (GRI): GRI Sustainability Reporting Standards
- Final report of the Task Force on Climate-related Financial Disclosures (TCFD)
- Sustainability Accounting Standards Board (SASB): SASB Standards

Environment Social Governance
価値協創ガイダンス

Forward-looking statements

This report contains financial forecasts and other forward-looking statements. They represent Tohoku Electric Power's judgments based on information available at the time of disclosure and certain assumptions. They involve known and unknown risks, uncertainties, and other factors that may cause actual results, performance, and achievements to differ materially from expectations.

Scope of Report

The 73 companies in the Tohoku Electric Power Group

Period subject to Report

While the Report in principle covers initiatives during FY2020 (April 1, 2020–March 31, 2021), certain activities presented include information from past fiscal years or FY2021

Date of publication

November 2021 (previous Report: September 2020)

Planned next date of publication

September 2022

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Special feature

Tohoku Electric Power Group

Carbon Neutral Challenge 2050

The Tohoku Electric Power Group regards measures to prevent global warming as a key management issue. To date, the Group has made proactive efforts to cut CO_2 emissions in various ways, including renewable energy development, higher efficiency thermal power generation, and eco-friendly electric heat pumps.

Measures to counteract global warming continue to grow more important, as evidenced by the Japanese government's announcement in October 2020 of its goal to achieve of carbon neutrality by 2050.

In March 2021, against this backdrop, the Group announced the Tohoku Electric Power Group Carbon Neutral Challenge 2050.

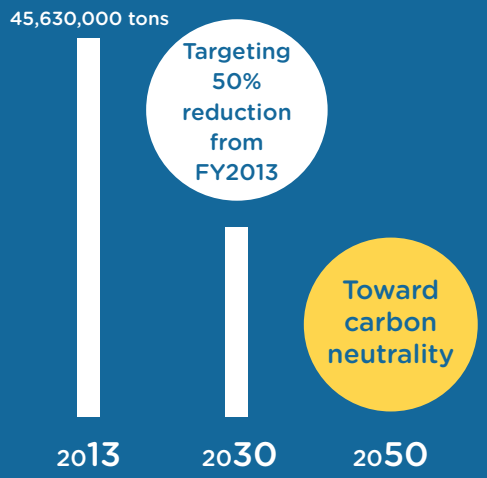
Under this initiative, we will accelerate CO_2 emissions reductions in three main ways: maximum use of renewable energy and nuclear power; decarbonization of thermal power sources; and electrification and realization of a smart society.

As a group of companies working alongside our community and customers, the Group is committed to overcoming the challenge of achieving carbon neutrality to achieve a sustainable society.

Special feature

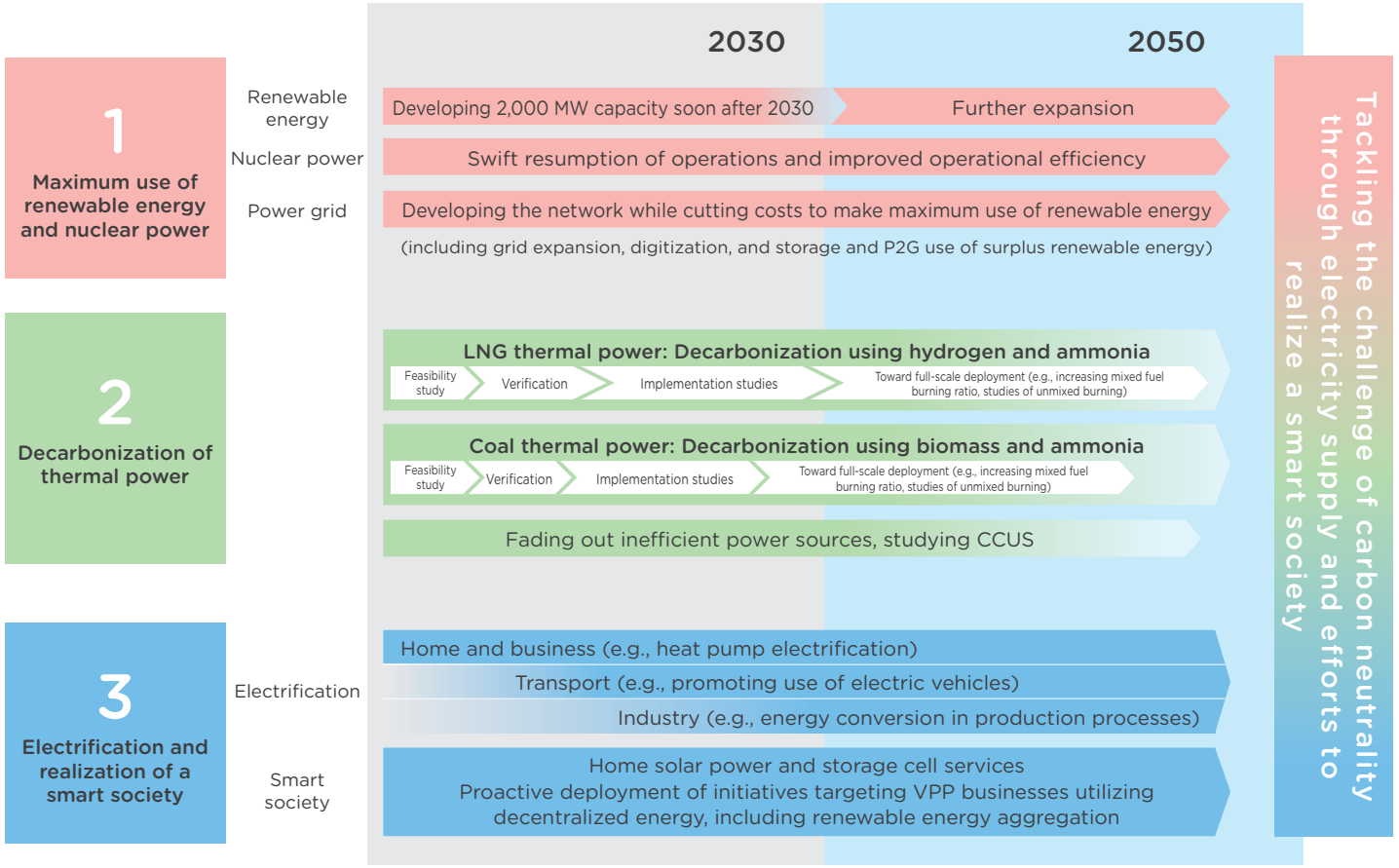
CO_2 reduction target for FY2030

In FY2030, to make progress toward carbon neutrality, we will seek to halve CO_2 emissions from our FY2013 figure.



Approaches to achieving carbon neutrality

Carbon Neutral Challenge 2050



We will consider measures besides the initiatives above, including measures involving the carbon credit market currently being studied by the Japanese government.

Special feature

Verification study of mixed burning with hydrogen and ammonia to decarbonize LNG-fired thermal power

Expectations are high for hydrogen and ammonia as energy sources to move closer to achieving carbon neutrality. Neither substance releases CO_2 emissions when burned.
Since use of hydrogen and ammonia to generate power requires verification of stability when burning, we will proceed with verification testing at our Niigata Thermal Power Station No. 5. This natural gas plant in the city of Niigata, Niigata Prefecture, has a capacity of 109 MW.
Another issue raised by the use of hydrogen and ammonia is the lack of supply chains for fuel purchase and supply. It is our hope that the verification of these fuels in an actual power station will advance supply chain development.

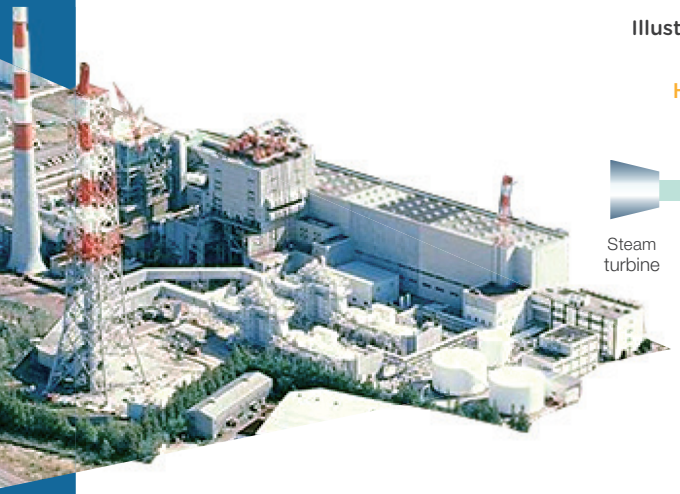
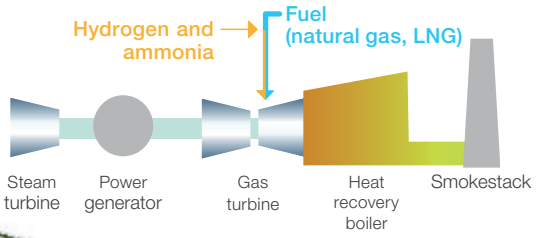
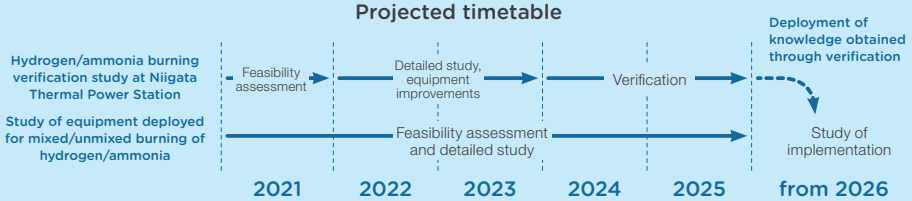


Illustration of mixed burning of hydrogen and ammonia



Projected timetable



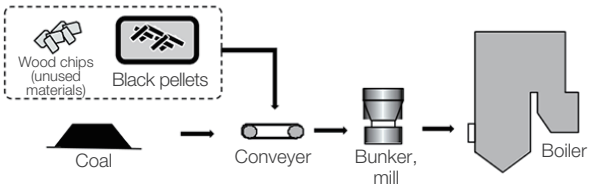
Verification study of mixed burning with black pellets to decarbonize coal thermal power

Carbon Neutral Challenge 2050

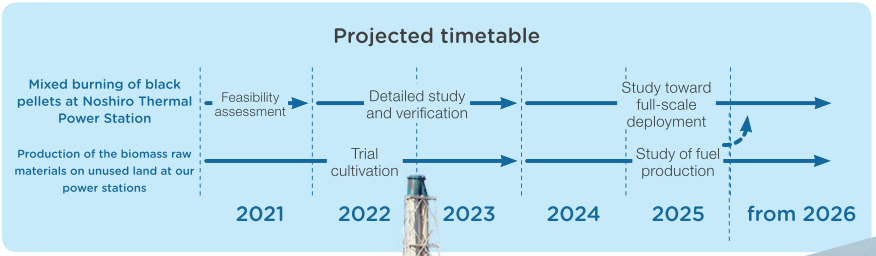
The Tohoku Electric Power Group is working on mixed burning with wood biomass fuels at joint thermal power stations and other facilities.
Seeking to achieve even higher mixed fuel burning ratios, the Noshiro Thermal Power Station (coal-fired station with total output of 1,800 MW, located in Noshiro, Akita Prefecture) is undertaking verification testing of mixed burning with black pellets,* which offer greater energy efficiency than wood chips. Planned initiatives to decarbonize coal-fired thermal power include feasibility assessments of mixed burning with ammonia in addition to mixed burning with black pellets. We are also performing verification testing of measures to produce the raw materials for biomass fuel on unused land at our power stations, with the goal of securing the stable procurement and supply of biomass fuels.

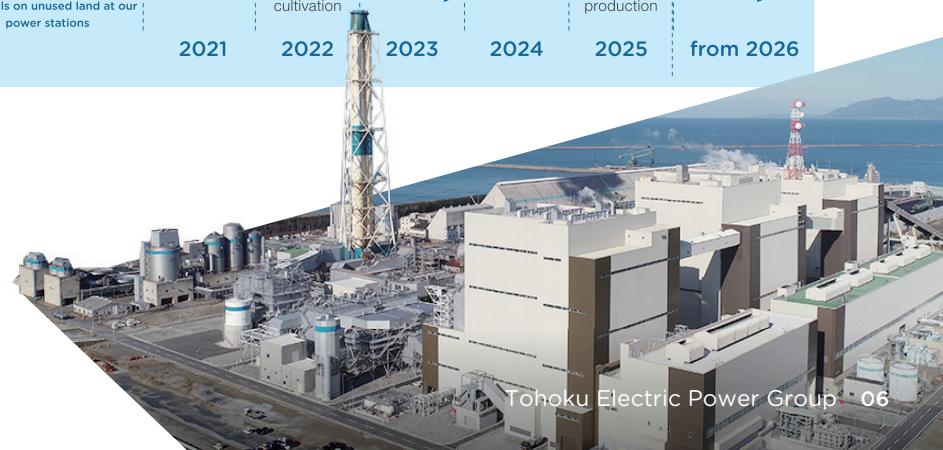
* Black pellets: Biomass fuel produced through partial carbonization of wood by heating

Illustration of mixed burning of black pellets



Projected timetable

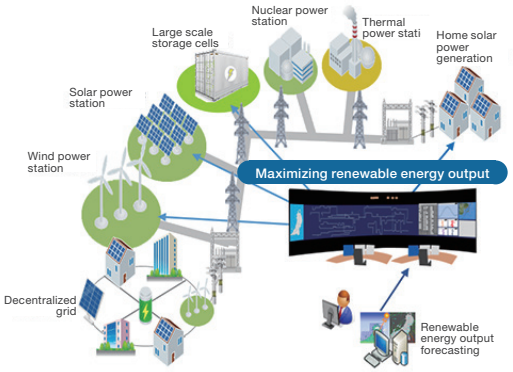




Special feature

Maximum use of renewable energy

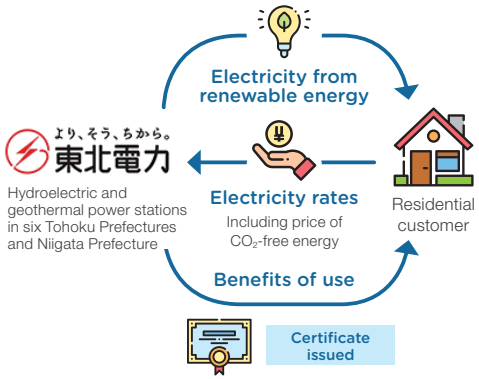
We will establish a power network environment that enables stable power supply and the expansion of renewable energy use.
Specifically, we will implement steady progress on network expansion plans, including the process of seeking bids for connection of power sources in the northern Tohoku area and the power lines connecting Tohoku with Tokyo; promote the effective use of existing grid infrastructure, including non-firm transmission*1 and other aspects of the Japanese connect-and-manage system;*2 develop advanced demand/supply and grid operation technologies; and refine renewable energy output forecasts, among other efforts to address inherent technological issues.



*1 Non-firm transmission: Method allowing new connections when they would not disrupt the power grid—for example, when other power sources are not operating
*2 Japanese connect-and-manage system: General term referring to efforts to maximize use of existing power grid

Offering the optional Eco Denki Premium service to deliver electricity from renewable energy

We offer an optional service for residential customers that supplies electricity from our hydroelectric, geothermal, and other renewable power sources in return for the payment of a premium corresponding to the price of CO_2-free energy.
This lets users cut the CO_2 emissions from the power they use to zero.



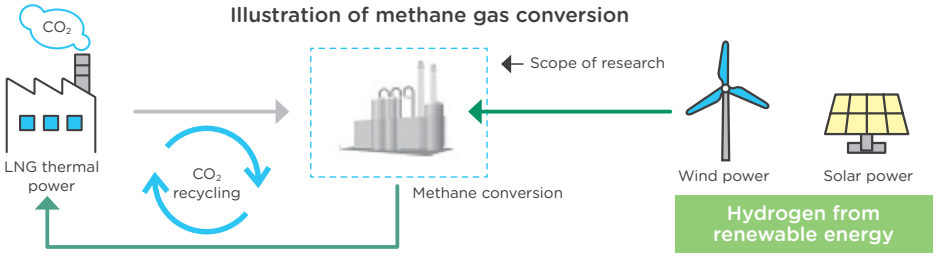
See >> Residential and business services p. 47

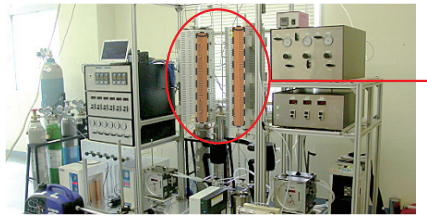
Research on conversion of CO_2 generated by thermal power to methane gas using hydrogen from renewable energy

Carbon Neutral Challenge 2050

We're currently undertaking joint research with Shizuoka University on converting the CO_2 generated by thermal power sources to methane gas—a carbon capture, utilization and storage (CCUS) technology.
This project seeks to synthesize methane gas from CO_2 generated by a thermal power station and hydrogen produced using renewable energy for reuse in mixed burning in LNG thermal power generation. This technology will enable reductions in and more effective use of CO_2 generated by thermal power sources.
This project is currently studying expanding the size of the equipment used to convert CO_2 to methane gas, extending the useful life of catalyzers used in methane conversion, and other approaches.

Illustration of methane gas conversion

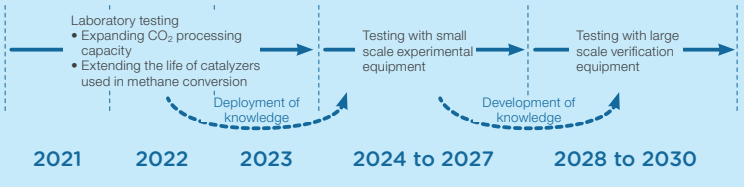




Experimental CO_2-to-methane conversion equipment (in laboratory)

Catalyzers used in methane conversion

Projected timetable



See >> Research on output fluctuation measures for renewable energy using hydrogen production technologies p. 52

Special feature

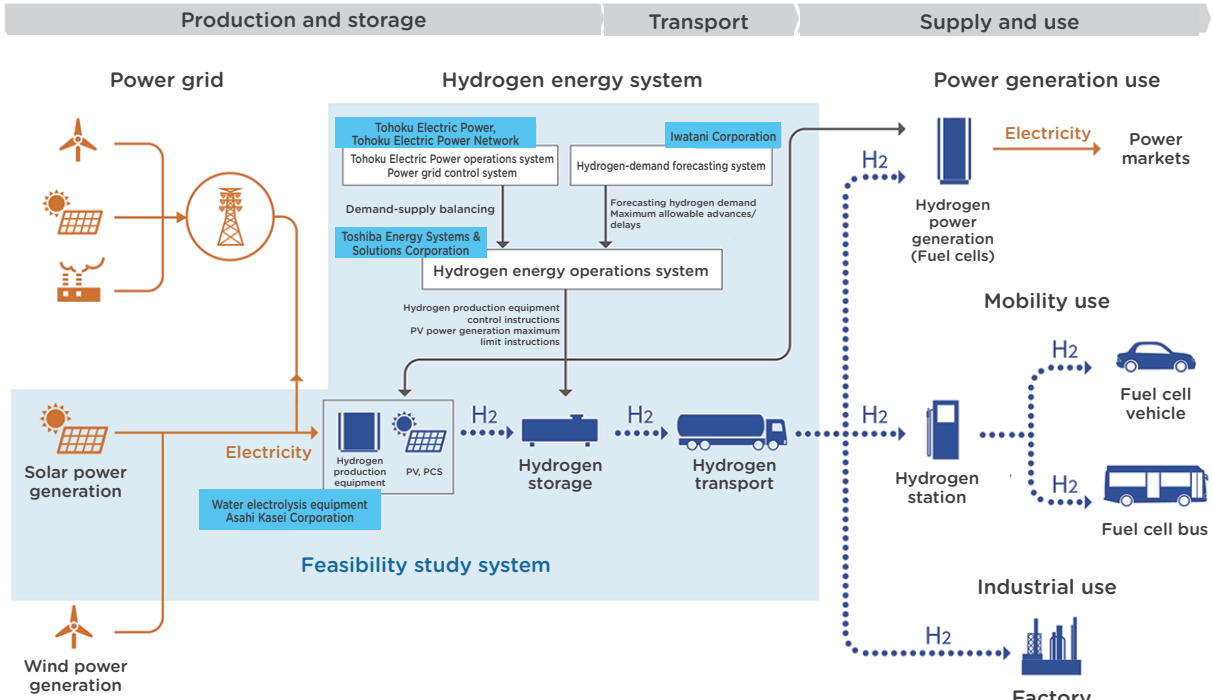
Initiatives toward realizing a hydrogen society

Carbon Neutral Challenge 2050

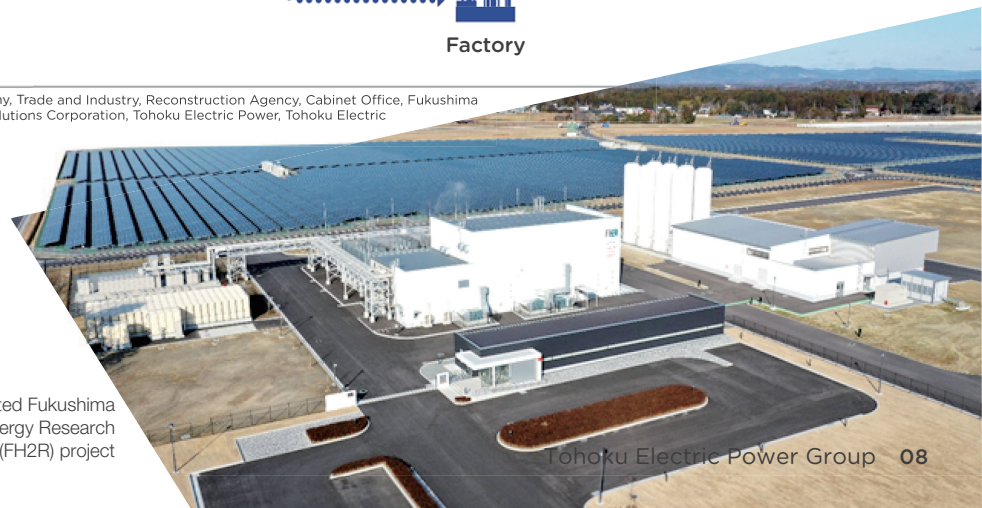
Alongside the New Energy and Industrial Technology Development Organization (NEDO), Toshiba Energy Systems & Solutions Corporation, Iwatani Corporation, and Asahi Kasei Corporation, Tohoku Electric Power and Tohoku Electric Power Network are taking part in feasibility studies, which began in February 2020, for the Fukushima Hydrogen Energy Research Field (FH2R) in the town of Namie, Fukushima Prefecture. Plans call for this to become one of the world's largest hydrogen production facilities based on renewable energy. This facility will have the capacity to generate 1,200 Nm³* of hydrogen per hour (during rated operation) from renewable energy and other sources. Based on adjustments of grid demand and supply, this is intended both to put renewable energy (which entails considerable output variation) to maximum use and to establish clean, low-cost hydrogen production technologies and technologies to enable practical implementation of the power-to-gas concept. Toward these ends, during the feasibility study period through the end of February 2023 the project seeks to achieve progress in various control systems (hydrogen energy operation systems, control systems on the grid side, and hydrogen-demand forecasting systems) and in water electrolysis.

* Normal cubic meter (Nm³) is a unit indicating volume of gas in a dried state at pressure of 1 ATM and temperature of 0 °C.

This project is part of the NEDO Development of Technologies for Realizing a Hydrogen Society/Development of Hydrogen Energy System Technology/Formulation of Business Model for Renewable Energy-based Hydrogen System and Development of Technologies for Large-scale Verification.



Related organizations: Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry, Reconstruction Agency, Cabinet Office, Fukushima Prefecture, Town of Namie / Implementing businesses: Toshiba Energy Systems & Solutions Corporation, Tohoku Electric Power, Tohoku Electric Power Network, Iwatani Corporation, Asahi Kasei Corporation



The completed Fukushima Hydrogen Energy Research Field (FH2R) project

Message from Top Management

At our 70th anniversary: Reaffirming our traditions and values

On May 1, the Tohoku Electric Power Group marked the 70th anniversary of its founding. We are deeply grateful for the support and patronage of all our stakeholders, without whom we would not have achieved this milestone.

Throughout these 70 years, we have continued to stress our management philosophy, which calls for us to “Prosper with Local Communities,” based on our conviction that “the prosperity of the Tohoku region is essential to our own growth.”

The predecessor of Tohoku Electric Power was Tohoku Shinko Denryoku, founded in 1936 as part of a national policy to promote the Tohoku region. In 1951, when Tohoku Electric Power was established, we adopted a motto that called for “Rebuilding Japan starting in Tohoku and developing Tohoku, starting with electric power,” to contribute to the region’s postwar recovery. Since then, we have continued to progress under the belief that the sustained progress of our community aligns with our growth as a company through the development of energy sources on the Tadami River and other efforts.

Ever since our founding, we have strived to live up to the expectations of community members: to provide a stable supply of low-cost energy. To meet these expectations, each and every employee recognizes that our mission is to ensure a stable supply of electric power. We have passed responsibility for fulfilling this from generation to generation based on comprehensive

Message from Top Management

training and successive transfer of duties. The power failures resulting from the Great East Japan Earthquake in 2011 affected a total of 4.86 million households in our service area, which includes the six Tohoku prefectures and Niigata Prefecture. The entire Group worked day and night to restore the electricity supply. We were able to resolve around 80% of all power outages within three days and 94% within eight days after the disaster.

The electricity business is an aspect of infrastructure deeply rooted in the local community. Looking back at our progress over the decade since the Great East Japan Earthquake, one is struck by the cooperation of local residents in aspects such as conserving electricity to enable equipment restoration and avoid rolling power outages and shouldering higher electricity rates. Whenever we benefit from such cooperation, we are keenly aware that our business would not be possible without the trust of the community.

At the same time, since the Great East Japan Earthquake there have been major changes in the environment in which the electricity business operates. Amid changes such as intensified competition with the full-scale liberalization of retail electric power sales and changes in the demand and supply structure resulting from large scale adoption of renewable energy, our management approach has been expressed in “Yori, Sou, Chikara” (The Strength to Work Alongside), the Tohoku Electric Power Group slogan. This slogan embodies our goal to ensure that customers will continue to choose the Tohoku Electric Power Group as we offer products and services that meet their needs amid the structural changes in electricity rates from the previous system of regulated rates, when the ultimate performance parameter was total costs to market-based prices. Even as our regional monopoly fades, we will continue to focus on working alongside communities in the service area of the six Tohoku prefectures and Niigata Prefecture.

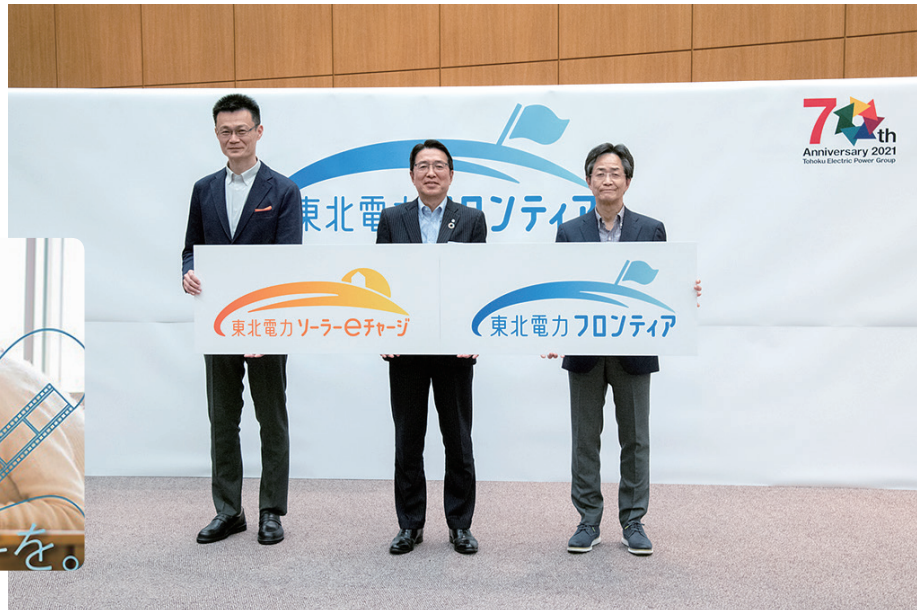
Toward realizing “Working alongside next,” the Tohoku Electric Power Group’s Medium- to Long-Term Vision

As we reaffirm our commitment to “Prosper with Local Communities,” it has become apparent that the Tohoku Electric Power Group henceforth must realize both solutions to social issues and our own business growth. Setting us apart from the framework of conventional electricity businesses, we must help realize a smart society by drawing on our knowledge of energy services accumulated to date and on our networks with stakeholders in the community. We believe that by doing so we will be able put into practice the Group slogan “Yori, Sou, Chikara” (The Strength to Work Alongside).

In the smart society building business, we will employ means such as next-generation digital technologies and innovations in various activities, including offering services to enable customers to live with greater comfort, safety, and peace of mind. These plans center on bundling electricity with various services based on energy management initiatives such as energy conservation, energy creation, and energy storage through optimal device controls. In April 2021, we established Tohoku EPCO Frontier Co., Inc. to play a central role in this business; in November, Tohoku EPCO Frontier will begin providing services. We are striving to achieve profitability as quickly as possible to help realize a smart society.

The cash flow needed for this transformation toward smart society building business will be generated through strengthening the power supply business. To do so, we will enhance risk management and pursue selective resource investment amid a harsh business environment created by various factors, including lower demand for power due to COVID-19, intensifying competition, and the extended suspension of operations at a power station damaged by the February earthquake off the Fukushima coast.

Simple Denki with Netflix, the first fixed-priced service bundle offered by Tohoku EPCO Frontier



Message from Top Management

Sustainability initiatives

In the face of recent challenges to society in areas such as intensifying natural disasters, climate change, the COVID-19 pandemic, and human rights, we see a strong need to implement sustainability initiatives.
To further accelerate the Tohoku Electric Power Group's sustainability initiatives, we have enhanced our management organization in various ways, including formulating a Sustainability Policy and establishing a Sustainability Promotion Committee. By continuing to enhance our efforts with respect to the environment, society, and governance (ESG), we will take a leadership role in addressing issues related to societal sustainability; contribute to achieving the United Nations Sustainable Development Goals (SDGs); and strengthen our capacity to generate earnings over the medium to long term.

Tackling the challenge of realizing carbon neutrality

Recognizing the importance of responding to climate change, we have made proactive efforts to reduce CO_2 emissions on both the demand and supply sides by improving the efficiency of thermal power generation, adopting eco-friendly heat pumps, and other steps. The Japanese government's announcement in October 2020 of a national goal to achieve carbon neutrality by 2050 underscores the urgency of our response to climate change. The societal mood in favor of decarbonization has continued to gather strength. In March 2021, we announced the Tohoku Electric Power Group Carbon Neutral Challenge 2050, whereby we will strive to realize carbon neutrality, chiefly through three main approaches: maximum use of renewable energy and nuclear power; decarbonization of thermal power; and electrification and realization of a smart society. At the same time, we will seek to cut CO_2 emissions by half in FY2030 vs. the FY2013 figure.
As major initiatives, in addition to the swift resumption of nuclear power generation based on the key prerequisites of safety and peace of mind, we will strive to develop 2,000 MW in renewable power generating capacity by the early 2030s, based primarily on wind power, thereby putting to effective use the wealth of renewable energy sources in the six Tohoku prefectures and Niigata Prefecture. We will also continue improving the power network through various related measures, including grid expansion, to prepare for an age in which renewable energy becomes the main power source. At the same time, we believe thermal power sources will remain necessary to accommodate fluctuations in power generation and demand, owing to the nature of electric power distribution, in which demand and supply must be balanced. We will promote R&D, testing, and implementation efforts to realize thermal electricity using fuels such as ammonia and hydrogen, which do not emit CO_2 when burned.
In addition, we will promote the effective use of decentralized energy sources in our communities by offering services to install residential solar power systems and fuel cells and by participating in the renewable energy aggregation business to control decentralized energy sources.
Setting the goal of realizing carbon neutrality by 2050 as a growth opportunity for the Tohoku Electric Power Group, we will continue to pursue this challenge through bold decarbonization initiatives.

Wind Farm Tsugaru (photo courtesy Green Power Investment Corporation)

Resumption of operations at the Onagawa Nuclear Power Station

Nuclear power ensures stable output regardless of weather conditions. It is key to achieving carbon neutrality and a vital energy security cornerstone.
In November 2020, we obtained the understanding of the local governments of Miyagi Prefecture, the town of Onagawa, and the city of Ishinomaki regarding our request for preliminary discussions to apply for a review of Unit No. 2 at the Onagawa Nuclear Power Station and its compliance with new regulatory standards. Amid the wide-ranging debate on resumption of operations, we take our responsibilities in light of this important decision with the utmost seriousness. Based on our firm belief that safety measures for nuclear power will remain a ceaseless obligation, we will strive ceaselessly to improve safety at the Onagawa Nuclear Power Station.

Message from Top Management

Resumption of operation of Unit No. 2 at the Onagawa Nuclear Power Station involves more than simply restarting the unit. We consider this a unique opportunity to start afresh, building upon the lessons learned from our predecessors who built the power station. We will strengthen our ties to local communities and continually return to the lessons of the accident at Tokyo Electric Power's Fukushima Dai-Ichi Nuclear Power Station. I will assume personal leadership as we continue preparing for this new start to the best of our abilities, based on our unshakable commitment to ensuring the power station is trusted by and contributes to the community.

The importance of maintaining trust and transforming our outlook

Our relations with local communities built up over the past 70 years make it possible for us to do business here today. We must continue to value and maintain these deep bonds of trust.

Amid the dramatic changes in the business environment generated by COVID-19, merely continuing to do things as they were done previously poses the risk of inability to progress, increased difficulty to earn trust and grow, and perhaps even decline. To continue generating earnings and to grow as a company, each and every employee must transform his or her outlook and broaden his or her perspective to take on every challenge proactively, without overreliance on past ways of doing things.

At the same time, it is important to ensure that our employees can live healthy and active lives while putting their own diverse backgrounds, individuality, thoughts, and experiences to maximum use. We believe that promoting diversity and inclusion generates innovation. For this reason, we will make proactive efforts to develop and expand systems that make it easier for diverse human resources to do their jobs and to raise awareness and build an appropriate culture in the workplace.

Our mission is to lead the Tohoku Electric Power Group to a brighter future by tackling challenges with a positive approach, based on the "Working alongside next" Medium- to Long-Term Vision. To do so, all of us must exercise our creativity to generate new ideas and to put them into practice, while constantly questing for even better ways of doing things.

Keeping in mind at all times our mission to deliver stable electricity supply and our strong desire to grow together with local communities, the Tohoku Electric Power Group will strive to continue growing in step with the sustained progress of our communities, no matter how the business environment may change, as we look ahead to our future as an organization a decade—and a century—from today.

About Tohoku Electric Power Group

Our History of Value Creation

Tohoku Electric Power was founded in 1951, a time when Japan was still recovering from the turmoil of the Second World War. Since then, we've confronted difficult challenges in each era, including power shortages during the postwar period of reconstruction, oil crises, numerous natural disasters, and the deregulation of the electric power market. On each occasion, the Group has worked as a team to fulfill its mission of delivering a stable, high-quality supply of electricity. Moving forward, we will continue to work with local communities to contribute to the growth and development of the six Tohoku prefectures and Niigata Prefecture while ceaselessly working to create new corporate value.

1950s —

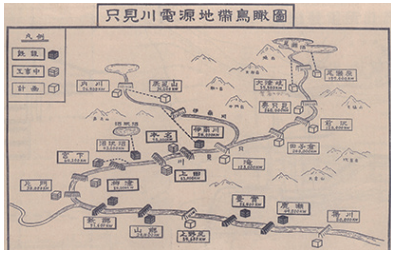
Developments in society

- **Postwar reconstruction and rapid economic growth bring growing demand for electric power**

Value provided by Tohoku Electric Power

Contributing to postwar recovery and the development of Tohoku and Niigata by developing power sources catering to growing demand for electric power

Amidst electricity shortages during the postwar period of recovery, Tohoku Electric Power pushed ahead to develop energy sources within the Tadami River water system, its largest hydroelectric power zone, working under the motto: "Rebuilding Japan starting with Tohoku and developing Tohoku through electric power." Later, to meet growing demand for electric power, we began building and expanding state-of-the-art thermal power stations, starting with the Hachinohe Thermal Power Station. We've supported local economic growth and the lives of local residents ever since.



Bird's eye view of the Tadami River power source region at the time of the construction of the hydroelectric power station

Business topics

1958 Our first large-scale thermal power plant, Hachinohe Thermal Power Station Unit 1 comes online

We made the decision to build our first large-scale thermal power station since the uneven distribution of hydroelectric power sources in the southern portion of the Tohoku region generated the urgent need to bolster power supplies in the north. Based on geographical factors, we chose to build the power station in the city of Hachinohe, in Aomori Prefecture, where it would be easy to procure coal produced in Hokkaido. We assembled a team of first-rate engineers from both within and outside the company to begin construction. Unit 1 came online in June 1958, followed by Unit 2 in October of the same year.


Group photograph at the Hachinohe Thermal Power Station construction office

1970s —

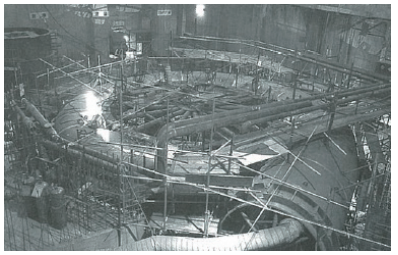
Developments in society

- **A global oil crisis and power shortages**

Value provided by Tohoku Electric Power

Pursuing diversification of power sources to break from dependency on oil-fired thermal power and ensure a stable supply of electrical power

Motivated by the global oil crisis, Tohoku Electric Power approached various issues, including research on diverse power sources and development site surveys, with the aim of breaking the dependency on oil-fired power. Power source diversification advanced considerably. Both the large-scale pumped-type Numazawa Power Station No. 2 and Onagawa Nuclear Power Station Unit 1 came online during this period.


Scene from the construction of Numazawa Power Station No. 2

Business topics

1984 Onagawa Nuclear Power Station Unit 1, our first nuclear power station, begins operating

From the initial planning stages in building the Onagawa Nuclear Power Station, we recognized countermeasures against tsunamis as a key issue. An in-house committee including external academic experts determined that the minimum site elevation had to be 14.8 m above sea level, a figure based on data from past tsunamis, including the Jogan (869) and Keicho (1611) tsunamis. The height of the tsunami in the Great East Japan Earthquake in this area was 13 m and did not exceed the site elevation.


Onagawa Nuclear Power Station at the time of commencing operation

Our History of Value Creation

1990s —

Developments in society

- Deregulation of the electricity retail market begins
- Growing interest in environmental issues

Value provided by Tohoku Electric Power

Responding to partial deregulation of the electric power retail market and seeking to reduce environmental impact in response to growing interest in global environmental issues

Partial deregulation of the electric power retail market launched in the 1990s targeted in particular extra high-voltage customers. In response to partial deregulation, Tohoku Electric Power sought to achieve a corporate transformation and ensure competitive pricing. We also implemented measures to reduce impact on the global environment and make more effective use of energy, working to develop renewable wind, solar, and geothermal power generation and improve the thermal efficiency of thermal power stations.

Higashi Niigata Thermal Power Station series 4–1 achieved world-class thermal efficiency levels exceeding 55%.

Business topics

2000 2000 Rates lowered for the first time after partial deregulation

Following the partial deregulation implemented in March 2000, we worked to improve management efficiency with the goal of achieving price levels that would make it possible to compete against our competitors while maintaining the quality of our electricity supply. These efforts included largescale organizational improvements. Starting with the first rate reduction in October 2000 after partial deregulation went into effect, we achieved a total of four rate reductions over six years.

We established call centers in Sendai and Niigata to consolidate the handling of customer phone calls.

2010s —

Developments in society

- Phase of major change in the electricity business brought about by the Great East Japan Earthquake
- Full deregulation of electricity retail market

Value provided by Tohoku Electric Power

Supporting efforts to recover from the Great East Japan Earthquake and tackling the challenge of creating new value in the era of full-scale competition

We're currently tackling various management issues, including intensifying competition and the legal unbundling of the power transmission and distribution sectors, while supporting local communities working to recover in the aftermath of the earthquake.
We're engaged in various new initiatives, including offering new pricing plans and services, supplying electricity outside our traditional operating region, and expanding use of renewable energy, as well as efforts to strengthen our corporate value.

Campaign activities for the convenient, money-saving web service Yorisou e Net

Business topics

2011 Rapid recovery from power outages caused by the Great East Japan Earthquake

The Great East Japan Earthquake and the ensuing tsunami wrought significant damage to power stations, transmission towers, utility poles, and many other elements of the infrastructure, ultimately leaving almost the entire Tohoku region without power. Despite these conditions, drawing on the combined strength of the Tohoku Electric Power Group, we resolved around 80% of all power outages within three days after the disaster. These efforts were driven by the strong sense of duty of our employees and the desire to restore power to our customers as soon as possible. We plan to pass on the experiences and memories of this difficult time to the next generation of Tohoku Electric Power employees to help prepare for future unforeseen disasters. Moving forward, we will continue to pursue activities to support recovery within the Tohoku region.

Powerline equipment restoration work

Value Creation Process

In doing business over its 70-year history, the Tohoku Electric Power Group has steadily accumulated both financial and non-financial capital. The human capital, intellectual capital, natural capital, production capital, and social and community capital created and accumulated to date constitutes the Group's competitive advantages of being power professionals with strong ties to the community. We will continue to do business while adapting to a changing business environment based on this financial and non-financial capital.

Business environment

Accelerating pace of changes due to COVID-19 and other factors

Current business environment

Structural changes in electricity demand and supply (growing adoption of renewable energy, intensifying competition brought about by deregulation of retail electricity sales), etc.

Medium-/long-term business environment

The trend toward the four Ds (depopulations, decarbonization, decentralization, digitization) in the energy industry
Rising movement to achieve carbon neutrality by 2050, etc.

Input

70th Anniversary 2021 Tohoku Electric Power Group

Building up financial capital and non-financial capital through 70 years of doing business

Our history since our founding

A focus on the six Tohoku prefectures and Niigata Prefecture

The prosperity of the Tohoku region is essential to our own growth.

Main capital inputs

Financial capital

Total assets
4,471 billion yen

Natural capital

Fossil fuels, industrial water, and the abundant natural environments within the six Tohoku prefectures and Niigata Prefecture

Production capital

Generation facilities	Transmission facilities	Distribution facilities
223 plants	15,385 km	148,734 km

Social and community capital

Customers	Relationships characterized by trust with customers based on a safety-first outlook
Communities	Strong ties to local communities
Shareholders, investors	Relationships characterized by trust built up through proactive IR activities
Business partners	Strong cooperative ties based on fair and impartial trade activities
Employees	A positive, vital company culture based on respect for individuals

Intellectual capital

The Tohoku Electric Power Group's knowledge, know-how, and technological capabilities

(Power generation operation technologies, power grid operation and control technologies, capacity to respond to disasters)

Human capital

Total Group employees
24,717

Strengths

Electricity professionals

- Human resources and sense of mission supporting the stable supply of electricity
- Power generation operation technologies and world-class high efficiency thermal power generation technologies
- Power grid operation and control technologies
- Experience overcoming and recovering from the Great East Japan Earthquake
- Renewable energy development potential of the six Tohoku prefectures and Niigata Prefecture

Strong community ties

- Customer base, business sites, and power infrastructure in the six Tohoku prefectures and Niigata Prefecture
- Ties to local governments and local business associations in the six Tohoku prefectures and Niigata Prefecture
- Social contribution activities in the six Tohoku prefectures and Niigata Prefecture

Trust earned from stakeholders

Focal points of business development

1. Seeking solutions to social issues present business opportunities.
2. Comprehensive enhancements of competitive strengths in the grid power supply business
3. Active use of decentralized energy sources

Business development

OUTCOME

Value Creation Process

Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision, reflects business circumstances, our strengths, and other factors. Through this plan, the Tohoku Electric Power Group will move to create a comfortable, safe, reliable and smart society for the new era, starting in Tohoku. We will provide value to diverse stakeholders while growing alongside the sustainable progress of society.

Group Management Philosophy

Prosper with Local Communities

Group Slogan

Yori, Sou, Chikara

(The Strength to Work Alongside)

Tohoku Electric Power Group's Medium- to Long-Term Vision
Working alongside next
よりそうnext
Targeting a smart society, starting in Tohoku

What we want to be in the 2030s

A group of companies growing in step with sustained societal progress by helping to establish a smart society for a new age, starting in Tohoku

2020 to 2024 Business model transformation period

2025 to 2030 Accelerating growth

Outputs of business development

Business model transformation

Power supply business (core business)

Maximizing the value of electricity through an optimal portfolio of power sources, including renewable energy, and maximizing business efficiency

Smart society building business (growth business)

Maximizing value for the customer through a broad range of comfortable, safe, reliable services

Tohoku Electric Power Group Carbon Neutral Challenge 2050

Tackling the challenge of carbon neutrality through electricity supply and efforts to realize a smart society

Fiscal year 2020 2030 2050

Management in infrastructure supporting corporate value creation (Group management stressing ESG)

Focal points of the FY2021 medium-term plan

Basic concept for business promotion

Accelerating efforts to realize the "Working alongside next" vision

- Shifting gears to accelerate structural reforms in the power supply business
- Resuming nuclear power station operation based on a safety-first approach, while proactively communicating information to local residents and gaining their understanding.
- Boldly tackling the challenge of realizing profitability in the smart society building business and fully implementing digital transformation (DX)
- Helping to reduce customers' CO_2 emissions through smart society building business

Point 1 Change Enhancing competitive strengths through comprehensive reforms in the power supply business

Point 2 Challenge Taking on the challenge of swiftly achieving profitability in smart society building business

Point 3 Create Evolving the management foundations to support corporate value creation

Outcomes

Main impacts on capital/ value provided to stakeholders

● Internal outcomes
★External outcomes

Priority SDGs

Financial capital

- ● Increasing capacity to generate cash flow (consolidated cash income of 320 billion yen or more in FY2024)
- ● Maintaining financial discipline, securing financial soundness

Production capital

- ● Decarbonizing power sources (e.g., renewable energy development target of 2,000 MW)
- ● Advanced equipment operation based on digital technologies

Intellectual capital

- ● Further enhancing our capacity to respond to disasters
- ● Accumulating knowledge assets through technological development and R&D
- ● New business creation through open innovation

Human capital

- ● Improving employee morale
- ● Promoting diversity
- ● Building a corporate culture that puts safety first
- ● Human resources assignment and development to support business-model transformation

Natural capital

- ★ Controlling greenhouse gas emissions
- ★ Controlling environmental impact in areas such as air pollution and waste generation

Social and community capital

Customers	★ Providing services tailored to customer needs
Communities	★ Solutions to social issues and sustainable progress in the six Tohoku prefectures and Niigata Prefecture
Shareholders, investors	★ Stable returns to shareholders
Business partners	★ Building relationships characterized by trust through fair and impartial trade activities
Employees	● Developing working environments in which employees can work with vitality and in good health

INPUT ← Growth cycle

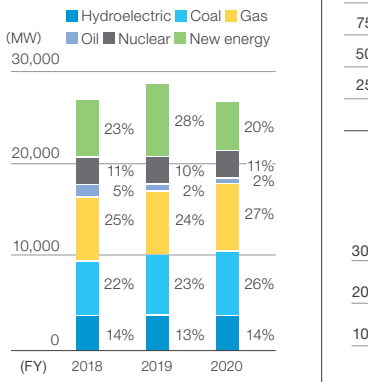
The Tohoku Electric Power Group's Value Chain

By demonstrating its combined capabilities through further progress in Group management while clarifying the roles of each member company and optimally allocating management resources throughout the Group, the Tohoku Electric Power Group will strive to quickly put the "Working alongside next" vision into practice and, by so doing, increase corporate value Groupwide.

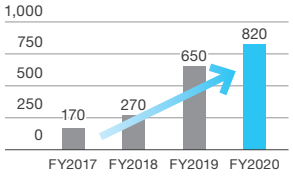
Power supply business

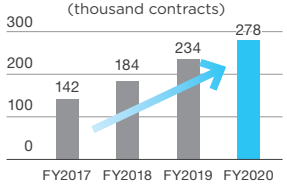
Smart society building business

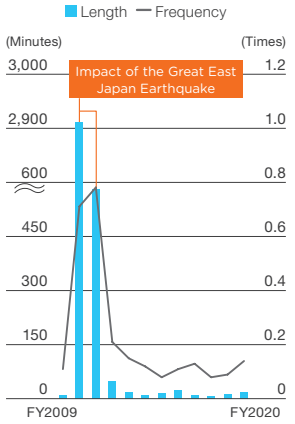
	Fuel procurement	Thermal / Nuclear / Renewables	Trading	Electricity wholesaling	Power transmission & distribution	Electricity retail sales
	Fuel procurement with consideration for efficiency, flexibility, etc.	**Pursuing an optimal power source structure in light of the S+3E approach**	**Growing profits by maximizing the value of electricity**		**Maintain a stable power supply.**	**Maximizing value for the customer by establishing a comfortable, safe, reliable smart society**
Main related companies See p. 97 for a list of Group member companies.	Tohoku Electric Power NIHONKAI LNG Tohoku Natural Gas	Tohoku Electric Power, Tohoku Sustainable & Renewable Energy, Tohoku Electric Power Engineering & Construction, SAKATA KYODO POWER, JOBAN JOINT POWER	Tohoku Electric Power Tohoku EPCO Energy Trading Synergia Power Tokyu Power Supply		Tohoku Electric Power Network Tohoku Power Transmission and Distribution Service Yurtec Kitanihon Electric Cable	Tohoku Electric Power, Tohoku EPCO Frontier, Tohoku EPCO Solar e Charge, Tohoku Energy Service, Yurtec, Tohoku Intelligent Telecommunication, HNK, E life-Partners
Topics	**Main sources of imported fuel used for power generation** Crude oil: Indonesia Coal: Indonesia, China, Russia, Canada, US LNG: Mozambique, Qatar, Malaysia, Indonesia, Russia, US Uranium: Niger, Kazakhstan, Canada	**Ratios of power generation capacity** (including power received from other companies)	**Synergia Power** Trends in contracted capacity (MW) / **Tokyu Power Supply** Trends in (electricity) contracts (thousand contracts)		**Average frequency and length of power failures per customer household**	**Yori, Sou eNet members**

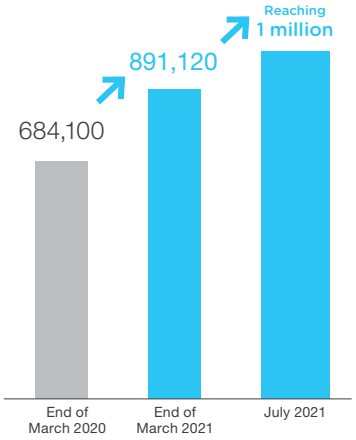


* Since FY2020, the power transmission and distribution business has not been included following a spinoff of the business.









See >> Fuel procurement, thermal power pp. 28-30

See >> Corporate information p. 96

See >> Wholesaling p. 38

See >> Performance Data Sustainability Data Book 2021 p. 70

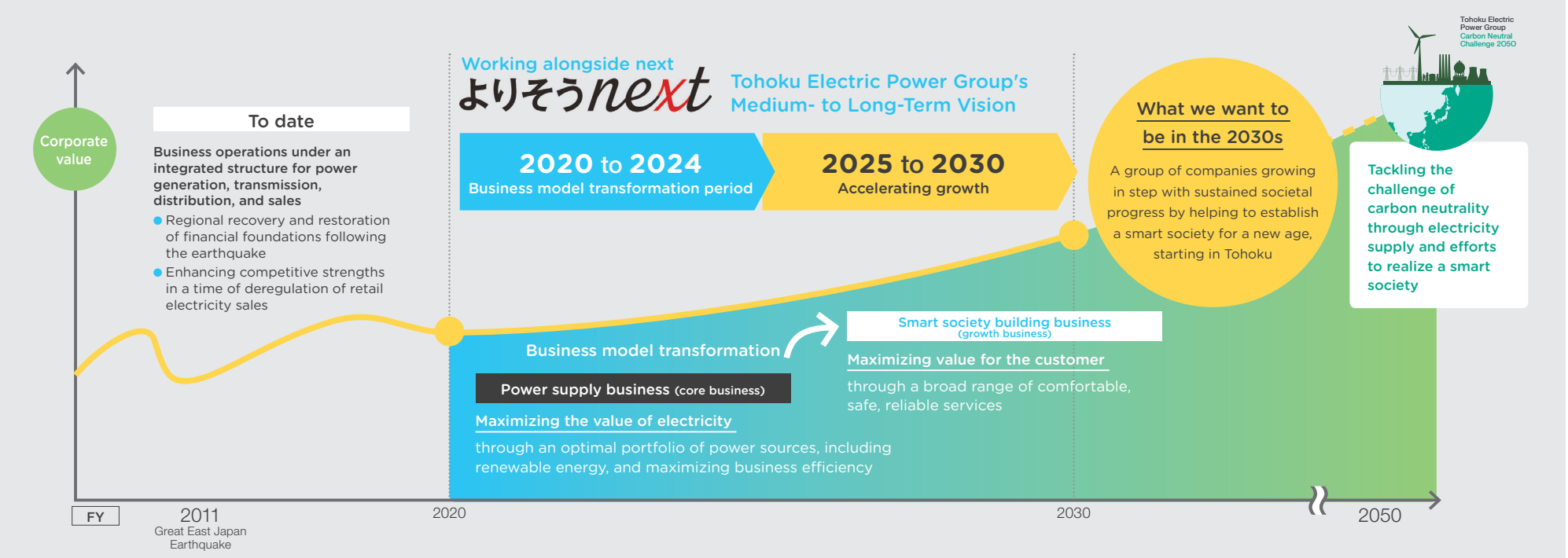
Yori, Sou eNet https://www3.zf1.tohoku-epco.co.jp/

Tohoku Electric Power Group's Medium- to Long-Term Vision

Overview of the Tohoku Electric Power Group's Medium- to Long-Term Vision

Working alongside next: The Tohoku Electric Power Group's Medium- to Long-Term Vision

In February 2020 the Group published Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision. The publication of the Vision was motivated by a certain urgency: Should the Group fail to advance and successfully tackle the challenge of proactive reforms in this time of dramatic changes in society and in electric power demand and supply structures, it would be difficult to continue pursuing the mission that has guided us since our founding, as expressed in the Management Philosophy, which calls for Prosperity in Partnership with the Community, or to achieve sustained growth alongside society. Using this Vision as a guidepost, we plan to contribute to sustained societal progress through businesses that help realize a smart society (Society 5.0)—primarily in the six Tohoku prefectures and Niigata Prefecture. In so doing, we plan to achieve our own growth. This will lend energy needed to achieve what we want to be in the 2030s to work as a group of enterprises to bring us closer to a smart society for a new era, starting from Tohoku, and keeping pace with sustainable societal progress.
As we strive to realize this ideal, we will seek to achieve stable earnings by enhancing our competitive strengths and structural reforms in our core power supply business, while pursuing the transformation of our business model through the strategic investment of management resources in growth businesses that will bring us closer to a smart society.



About the title of the Tohoku Electric Power Group's Medium- to Long-Term Vision

In February 2021, on the 70th anniversary of the Tohoku Electric Power Group's founding, we titled the Tohoku Electric Power Group's Medium- to Long-Term Vision "Working alongside next." "Working alongside next" embodies our resolve to overcome the current harsh business conditions, including structural changes in power demand and supply, as well as the emergence of various social challenges. By realizing a smart society starting in Tohoku, we will create and deliver new value alongside our customers and forge new paths in the coming, post-COVID-19 era.
Regarding changes in the business environment as opportunities for reform, we will quickly realize a transformation in our business model by accelerating efforts to realize the "Working alongside next" vision by taking advantage of our strengths and harnessing the combined power of all Group employees.

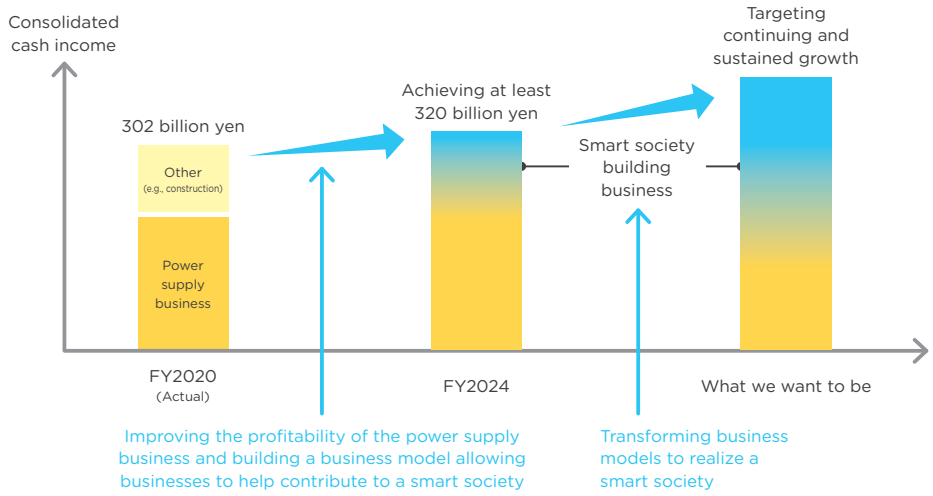
Tohoku Electric Power Group's Medium- to Long-Term Vision
Working alongside next
よりそうnext
Targeting a smart society, starting in Tohoku

Qualitative Goals (Financial Targets)

In addition to securing stable revenue through comprehensive enhancements in competitive strengths and structural reforms of our core power supply business, the Tohoku Electric Power Group will assume the challenge of business growth to help realize a smart society by strategically investing management resources into dramatically transforming our business model. Success in this endeavor will require generation of the funding (cash income) for investments in related initiatives. To increase our capacity to generate cash flow, we established the financial target (indicator) of consolidated cash income.
In addition to achieving consolidated cash income of at least 320 billion yen in FY2024 and building the foundations for the sustainable generation of cash income over the long term, we will seek not just to realize continuing and sustained growth but to generate stable returns to our diverse stakeholders.

Financial targets

Based on the levels of cash needed to maintain stable supply, invest in new growth fields, pay various costs, and provide returns to our diverse stakeholders, we've set a target of consolidated cash income of 320 billion yen in FY2024 as the minimum we must achieve.



Reference **Consolidated cash income**

To measure our capacity to generate the cash needed, we established consolidated cash income as a financial target. This includes non-cash expenses (i.e., depreciation and impairment of nuclear fuel) not included in accounting profit indicators such as ordinary income, as well as shares of gains or losses of entities accounted for by the equity method. Consolidated cash income is calculated as follows:

Consolidated cash income = operating income + depreciation + amortization of nuclear fuel + share of profit of entities accounted for using equity method
(Operating income does not include the effects of the time lag in the fuel cost adjustment system.)

Efforts toward achievement of financial targets

To increase the efficiency of the core power supply business in response to dramatic changes in the business environment, the Tohoku Electric Power Group is advancing bold structural reforms in its businesses, striving to cut both variable and fixed costs on the scale of tens of billions of yen.
In addition, alongside efforts to advance sales strategies focused on generating improved cash flow and profits, we will accelerate initiatives to transform our business model as we move toward our financial targets.

Making steady progress toward achieving financial targets through comprehensive enhancements in profitability	Anticipated downside risk factors
Sales strategies targeting profitability ■ Transformation to a sales approach with a greater emphasis on capacity to generate cash flow (within and beyond our major regions in both retail and wholesale sales)	Decreased profitability due to intensifying competition Structural changes on the supply side (decreased competitive strength of thermal power sources) accompanying large-scale adoption of renewable energy
Maximum use of and improving supply capabilities ■ Enhancing competitive strengths in power supply by optimizing demand and supply via flexible fuel procurement and trading functions; reducing power generation costs by suspending and decommissioning aging thermal power facilities	**We will respond appropriately to downside risks through the key measures indicated at left.**
Comprehensive review of business processes ■ Shifting human resources to growth fields through productivity increases resulting from review and consolidation of business processes and accelerating work-style reforms	

Results of Efficiency Improvements in FY2020

We are moving ahead with efficiency improvements throughout our businesses to increase our competitive strength through structural reforms to the power supply business. In FY2020, we achieved improvements of approximately 20 billion yen in cash income by optimizing fuel procurement and improving the power source portfolio.
In addition, we are shifting approximately 120 staff members made available through reduction in operational workloads to growth areas. This is made possible by productivity improvements resulting from reviews and consolidation of business processes and accelerated work-style reforms.

Details of main initiatives in FY2020

	Details of main initiatives
Optimizing fuel procurement	● Enhancing competitiveness of power sources through demand-supply optimization utilizing flexible fuel procurement (use of LNG spot purchasing) and trade mechanisms
Optimizing power source portfolio	● Commencing operation of Unit No. 3 Noshiro power station with state-of-the-art facilities, and suspending and discontinuing operation of aged thermal facilities
Review and consolidation of business processes	● Enhancing the staffing available to support growth business through improved efficiency in sales and back office operations ● Comprehensive reductions in general expenses through teleconferencing, paperless offices, etc.
Productivity improvements through accelerating work-style reforms	● Comprehensive reductions in general expenses through teleconferencing, paperless offices, etc. ● Reducing labor costs by shortening working hours, accelerating decision-making, and labor savings via advances in work-style reforms and business process efficiency improvements
Improving efficiency in costs related to labor	● Improving labor efficiency through continued reduction of employee salaries (base pay) and restraint on hiring, and reviewing benefit programs
Improving efficiency in costs related to capital investment, maintenance costs, etc.	● Operating equipment efficiently and improving the efficiency of maintenance, etc. ▶ Streamlining construction specifications and methods through the adoption of new technologies and close review of the scopes for construction and thoroughly identifying optimal times for upgrading equipment based on measures such as inspections of aging machinery ▶ Close review of the scope of maintenance work through identifying the state of equipment aging, reviewing construction and inspection cycles, and streamlining construction specifications and methods ▶ Reviewing details and specifications, expanding competitive bidding, reducing purchase prices associated with materials and services procured from business partners, including affiliate companies, and other means of reducing costs

Reference: Procurement reform initiatives

In July 2013, to reduce procurement costs for supplies, materials, and services provided—an important pillar of cost structural reforms—we established the Procurement Reform Committee. This body is charged with advancing various measures in line with the three focal points of purchasing methods, items purchased, and volumes purchased. During Phase III, which began in June 2019, to achieve further improvements in management efficiency and competitive strengths and in light of the intensifying competition accompanying the deregulation of retail electricity sales and other developments, this committee is advancing cost savings by building on its initiatives to date, while prioritizing safety and supply stability.

Details of Phase III studies (June 2019 – May 2022)
• Enhancing actions to boost competitiveness • Strengthening of organizational capabilities, systems and infrastructure to pave the way for continuous cost reduction

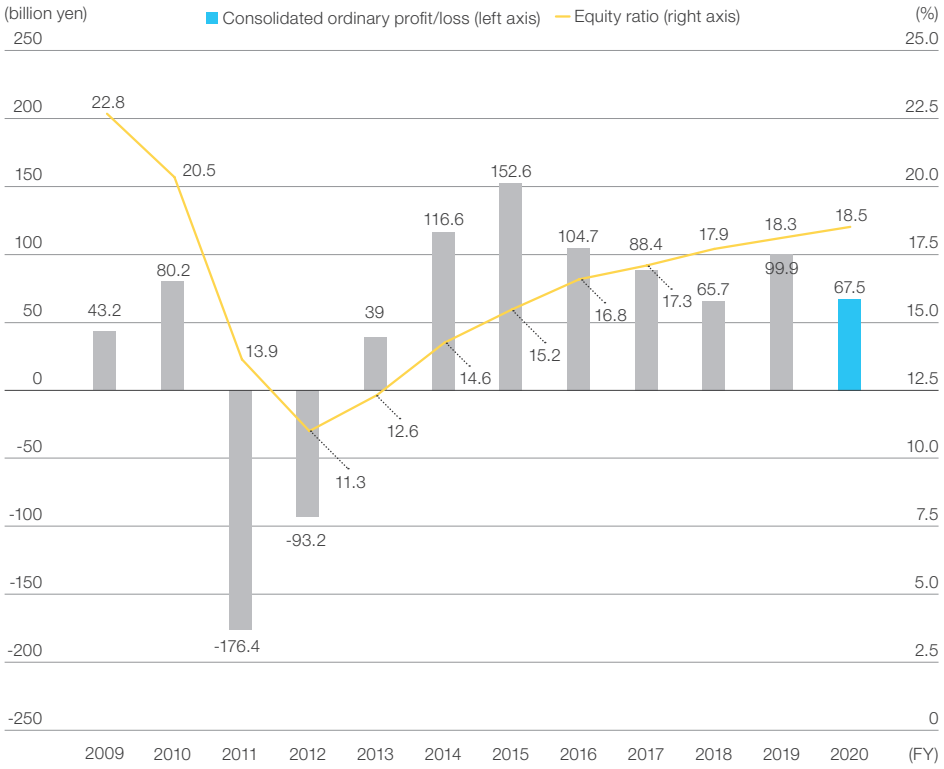
Three focal points for the Procurement Reform Committee	
Change the **purchasing methods**	Expansion of competitive bidding Concentration and leveling of orders Joint procurement with outsiders Increase in overseas suppliers
Change items **to be purchased**	Revision to design, specification and others (including revision to proprietary specifications, high specifications, work specifications and processes)
Change the **amount of purchase**	Revision to the standards for facility maintenance Revision to the work standards

Our Thinking on Financial Soundness, Returns to Shareholders, and Capital Efficiency

During the period of business model transformation, we expect to invest in growth businesses as a step toward just such a transformation, in addition to investing to resume operations at nuclear power stations and in renewable energy development. To secure a degree of financial discipline and soundness, we will move steadily forward with initiatives seeking to enhance our capacity to generate cash flows through achievement of financial targets and strengthen balance sheet management.

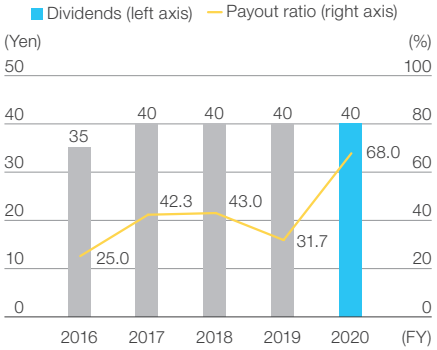
Trends in ordinary income and equity ratio

The March 2011 Great East Japan Earthquake significantly damaged our financial foundations. Since then, we have sought to enhance equity. Through the management efficiency improvements advanced to date, steady generation of profits, and other measures, we have made stable progress toward restoring equity levels.
In the future, as we seek to realize the “Working alongside next” vision, we will make steady progress toward achieving targeted consolidated cash income while monitoring indicators such as the ratio of consolidated interest-bearing debt to cash income and the consolidated equity ratio, striving to maintain financial discipline and secure financial soundness.



Policy on returns to shareholders

As part of our efforts to realize the “Working alongside next” vision, we will strive to meet shareholder expectations based on a policy of stable dividends while continuing to improve our financial standing by steadily improving our capacity to generate profits.



A Company briefing for individual investors (held online)

The thinking behind “Working alongside next,” the Tohoku Electric Power Group’s Medium- to Long-Term vision

Financial soundness

In addition to investing in the electricity business, including resumption of nuclear power station operation and renewable energy development, we will put interest-bearing debt to effective use through investments in growth businesses while monitoring our capacity to repay debts (flow) and our financial standing.

FY2020 results

Consolidated interest-bearing debt/cash income ratio: 8.1 times

Consolidated equity ratio: 18.5%

Returns to shareholders

Steady returns based on consideration for stable dividends as well as matters such as resumption of operations at Unit No. 2 at Onagawa, progress on development of the smart society building business, and achievement of financial targets

FY2020 results

Interim: 20 yen/
year-end: 20 yen

Capital efficiency

We plan to improve returns on invested capital by monitoring returns on individual investments and groupwide capital efficiency, as well as by securing profitability in the power supply business and shifting resources to quickly achieve profitability in growth businesses.

FY2020 results

ROIC 2.0%

Business Strategy

Awareness of the Business Environment

Since our announcement of the "Working alongside next" vision in February 2020, the environment in which the power supply business operates has grown increasingly severe. Various factors have contributed, including lower demand for electricity due to COVID-19 and falling market prices. At the same time, the trends of digitization, decentralization, and decarbonization recognized as drivers of changes in the business environment when formulating the "Working alongside next" vision have advanced rapidly and significantly, alongside changes in aspects such as economic and social structures, values, and ways of life.

Since **the course of action of the "Working alongside next" vision coincides with the directions of these social changes**, the Tohoku Electric Power Group sees the need **to accelerate the pace of efforts toward realizing this vision and to rapidly transform our business model to one suited to customer needs and community challenges in the coming era**.

Politics P

Developments	Courses of action
Policies targeting carbon neutrality ● Studying new energy mixes ● Intensification of CO_2 reductions targets for 2030 ● Phasing out inefficient coal thermal power ● Debate on introduction of carbon pricing	**Under the Tohoku Electric Power Group Carbon Neutral Challenge 2050, accelerating efforts to reduce CO_2 emissions centered on maximum use of renewable energy and nuclear power and business development to realize a smart society, in addition to decarbonizing thermal power sources.**
Systemic redesign in electricity trading markets, including establishment of new markets	**Increasing the profitability of the power supply business through optimal strategies and organizational designs based on system design, as well as use of new markets**
Revision of the wheeling charges system and establishment of large scale grid infrastructure system	**Alongside steady grid improvements, building business foundations to generate stable earnings, even under the new wheeling charges system**
Enhanced regulatory environment for nuclear power	**Initiatives to resume operations at nuclear power stations, with safety set as the major prerequisite**

Economy E

Developments	Courses of action
COVID-19 pandemic (low electricity demand)	**Maintaining stable electricity supply as an infrastructure for social and economic activities even during the pandemic** **Offering new services to meet customer needs in the age of living with COVID-19 and thereafter; advancing measures, including proposing solutions for use of decentralized energy and smart-life electrification**
Low electricity trading market prices	**Advancing structural reforms in the power supply business and securing stability in the revenues structure**
Growing ESG investment	**Enhancing stakeholder dialogue while strengthening initiatives in each of the ESG areas**
Growth of platform businesses	**Striving to achieve swift profitability in smart society building business by providing comprehensive energy and other services based on retail electricity sales**

Society S

Developments	Courses of action
Firm establishment of ways of living with COVID-19 and changes in preparation for the post-COVID age	**Meeting customer needs for living with COVID-19 and life and work in the post-COVID age through smart society building business**
Rising movement toward carbon neutrality	**Proposing solutions involving renewable energy and electrification (smart-life electrification) essential to reducing CO_2 emissions**
Intensification of natural disasters	**Thorough preventive measures to ensure stable electricity supply and Groupwide initiatives to ensure stable supply and swift recovery in the event of emergencies**
Growing interest in compliance (e.g., stricter approaches to misconduct)	**Ensuing that each and every employee acts in line with the Tohoku Electric Power Group Code of Conduct**
Accelerating population declines in the six Tohoku prefectures and in Niigata Prefecture	**Business development that regards solutions to social issues as business opportunities to help realize a smart society**

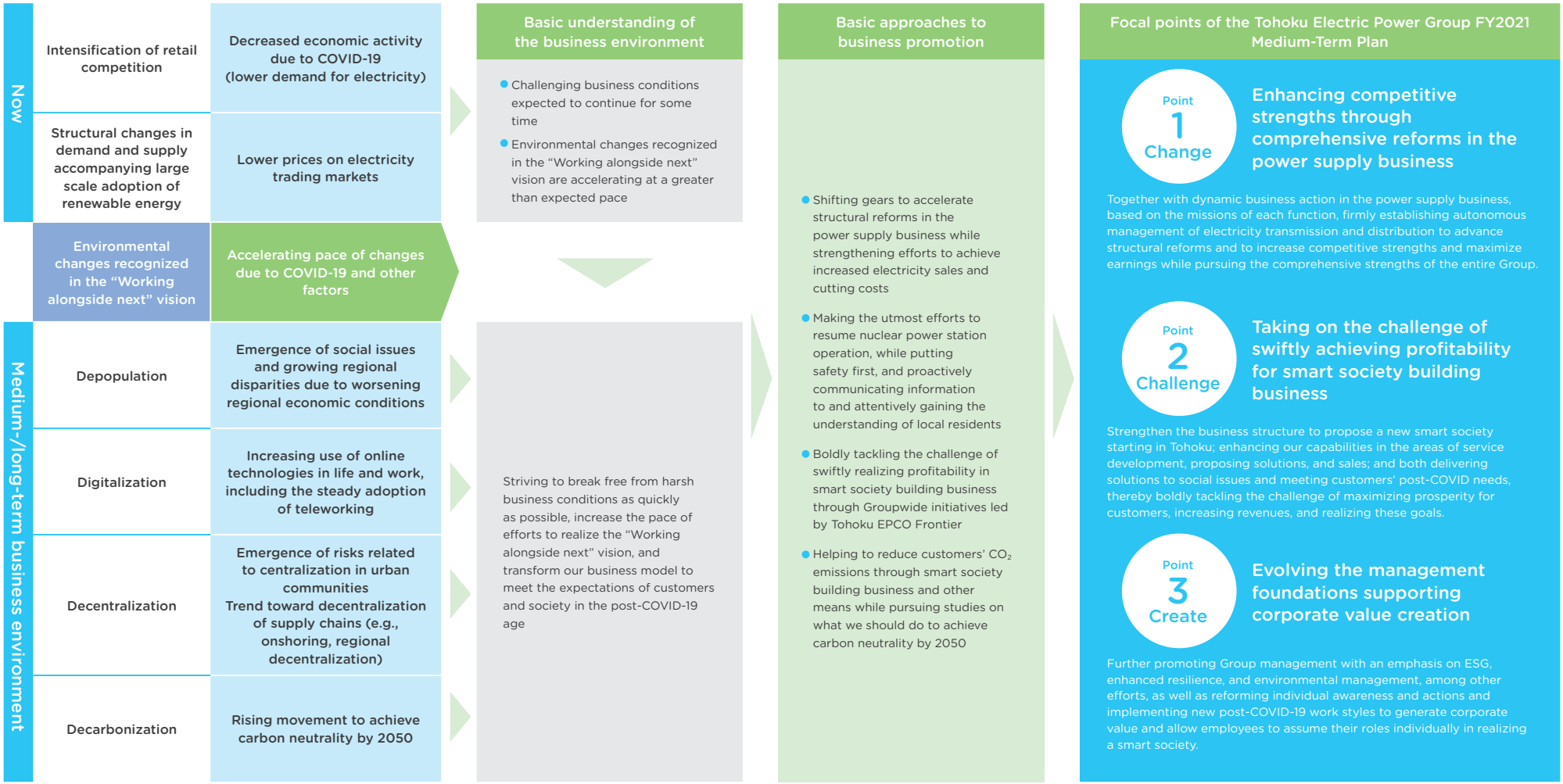
Technology T

Developments	Courses of action
Growing spread of decentralized energy	**Expanding business using decentralized energy sources, including solar and storage cell installation services and virtual power plants (VPPs)*** **In the power transmission/distribution business, enhancing the transmission/distribution grid to allow increased use of renewable energy**
Accelerated development and adoption of digital technologies	**Drawing on digital technologies to increase efficiency in the power supply business; creating new services in smart society building business**
Growing need to develop and implement decarbonization technologies	**Advancing verification testing of technologies related to decarbonization, including those involving use of hydrogen and ammonia, to move closer to achieving carbon neutrality**

* Virtual power plants realized through IoT and other new information technologies in the remote control and integration of decentralized energy resources across the community

Focal Points of the Tohoku Electric Power Group's FY2021 Medium-Term Plan

We face an increasingly harsh business environment generated by various factors, including lower demand for electricity due to COVID-19. At the same time, structural changes in electricity demand and supply due to digitization, decentralization, and decarbonization recognized in the "Working alongside next" vision continue to accelerate. We see a compelling need to accelerate the pace of efforts to realize the "Working alongside next" vision and to transform our business model to one that can meet customer expectations in the coming post-COVID-19 age.
Based on this understanding of the FY2021 business environment, we will deploy practical measures to contribute to acceleration of efforts to realization of the "Working alongside next" vision while maintaining the focal points of FY2020, through utilization of four new basic approaches to business promotion.



Focal Points of the Tohoku Electric Power Group's FY2021 Medium-Term Plan

In FY2021, we will implement initiatives to contribute to accelerating realization of the "Working alongside next" vision in line with the three focal points. Through these initiatives, we plan to overcome harsh business conditions and achieve sustainable growth toward the realization of a smart society, starting in Tohoku, by achieving profitability of the smart society building business and enhancing the competitive strengths of the power supply business.

Point 1 Change

Enhancing competitive strengths through comprehensive reforms in the power supply business

Power generation, wholesaling

Fuel procurement

- Reducing risks of fuel supply interruptions by diversifying and decentralizing procurement sources
- Reducing fuel costs and securing flexibility in fuel procurement by diversifying procurement and other measures

Thermal power

- Moving forward with the development of Joetsu Unit No. 1 (thermal efficiency: 63% or higher)
- Suspension and discontinuation of operation of environmentally and economically inefficient aged power stations
- Refining and achieving efficiency improvements in power station operations
- Commercializing advanced equipment monitoring services in FY2022

Renewable energy

- New development of 2,000 MW generating capacity based primarily on wind power
- Continuing use of aged facilities through thorough renovations
- Development of the operation and maintenance business through Tohoku Electric Power Renewable Energy Service.

Nuclear power

- Rapid resumption of operations for Onagawa Unit No. 2
- Responding appropriately to conformity testing at Higashidori Unit No. 1
- Studies related to applying for conformity testing at Onagawa Unit No. 3

Wholesaling

- Providing services that increase added value in electricity wholesaling through full use of trade mechanisms
- Strategic sales drawing on a diverse portfolio of power sources

Advancing optimization to maximize earnings while putting trade mechanisms to maximal use based on an overview of the market process, from fuel procurement to power generation and wholesaling

Power transmission and distribution

- Capital investment essential to stable supply and efficient facility maintenance and operations
- Enhancing resilience by increasing our capacity to respond to natural disasters
- Network improvements toward realizing a smart society
- Responding to the widening adoption of renewable energy through large scale grid infrastructure expansion

Point 2 Challenge

Taking on the challenge of swiftly achieving profitability for smart society building business

Smart society building business

Establishing Tohoku EPCO Frontier Co., Inc. as the core company in the smart society building business (Business operations began in November 2021.)

Electricity retail (corporate)

- Proposing energy (electricity, gas, renewables) optimization plans
- Enhancing energy solutions services through our proprietary exEMS energy management system
- Proposing services to support the adoption of information and communication technologies (ICT) and business continuity planning (BCP) based on customer needs

Electricity retail (residential)

- Enhancing services that support resident lifestyles under the "Yori, Sou, Chikara +ONe" brand
- Proposing lifestyle solutions through eco-friendly, smart electrification
- Proposing more affordable rate plans and increasing the convenience of "Yori, Sou eNet"
- Reducing customer environmental impact through the "Eco Denki Premium" service

Services

- Commercializing virtual power plants (VPP)
- Providing solar power and storage cell services through Tohoku EPCO Solar e Charge
- Participating in solutions to issues facing local governments and communities, through smart city, town management, and other services
- New business creation in partnership with startups

Gas sales

- Growing wholesale supply volumes by uncovering potential demand via sales activities in partnership with gas utilities

3 Focal point Create

Evolving the management foundations supporting corporate value creation

Environment

- Advancing initiatives to achieve decarbonization throughout the entire value chain
- Contributing to CO_2 emissions reductions throughout the entire Tohoku and Niigata area by realizing a smart society

Society

Building a corporate culture based on a safety-first outlook

- Building a corporate culture based on a safety-first outlook through joint efforts involving management and the entire Group, with the goal of eliminating workplace accidents
- Enabling the plan-do-check-act (PDCA) cycle to ensure safety while sharing information on safety efforts and related initiatives

Enhancing resilience

- Minimizing risks and improving emergency response through drills and other activities
- Enhancing cooperation with local governments and other parties and strengthening information communication to customers in preparation for natural disasters
- Enhancing systems that detect and respond to signs of cyber attacks (SOC) and respond to resulting damage (SIRT)

Finding solutions to social issues in partnership with community members

- Joint initiatives with community members to find solutions to social issues and achieve regional revitalization

Promoting diversity and health improvements

- Building workplaces in which diverse human resources can demonstrate their full capabilities
- Strengthening employee vitality by improving both mental and physical health
- Implementing comprehensive measures to balance efforts to ensure a stable supply of electricity with measures to halt the spread of COVID-19

Governance

- Making compliance more effective based on the Tohoku Electric Power Group Corporate Ethics and Compliance Activity Policy
- Making the governance structure more effective based on societal trends and demands

Power Supply Business: Fuel Procurement, Thermal Power Generation

Business environment

Amid shrinking populations, COVID-19, and other factors that have made it increasingly difficult to grow the power supply business, power system reforms have caused intensifying electricity sales competition. These reforms include the development of electricity markets and the emergence of new electricity services.
There also is a need to build a portfolio of power sources and fuels that reflects intensification of energy policies such as restraints on output from thermal power generation and phasing out of inefficient coal-fired power stations, accompanying developments including increasing adoption of renewable energy to achieve the target of carbon neutrality by 2050.

Courses of action

As we seek to enhance competitive strengths and efforts toward carbon neutrality, we plan to move forward with the following initiatives in line with the safety-first principle.

- Cutting fuel costs and boosting fuel procurement flexibility through diversification of fuel procurement methods and other means
- Enhancing competitive strengths by developing Unit No. 1 at the Joetsu Thermal Power Station and decommissioning and replacing aging thermal power stations
- Promoting advances and efficiency improvements in power station operations through new technologies
- Proactive technological developments, including practical implementation of hydrogen and ammonia power generation and study of carbon capture, utilization, and storage (CCUS)

Cutting fuel costs and boosting fuel procurement flexibility

Our fuel procurement is based on the concurrent pursuit of economy, flexibility, and stability. Operation of thermal power generation is undergoing dramatic changes due to various factors, including the growing adoption of renewable energy and utilization of wholesale electricity trading. For this reason, to reduce fuel costs and secure fuel procurement flexibility, we're advancing various initiatives, including procurement that reflects market conditions and diversification of suppliers and pricing structures. Specifically, to increase flexibility in LNG procurement, we're expanding use of economical and flexible short-term and spot contracts and expanding use of contracts for which destinations may be changed. For coal procurement, in addition to reducing transport costs through increased use of closer sources such as Russia, we're procuring economically efficient spec coal* and low grade coal and expanding procurement of low-ash subbituminous coal, which promises lower ash processing costs. These are part of efforts to reduce total procurement costs.
We're also advancing efforts to optimize the supply chain from the procurement of fuel and power sources through power generation and sales while making full use of market trading functions (see p. 38).

* Spec coal: Coal designated based on specifications suitable for our coal-fired thermal power stations (e.g., aspects of coal grade such as its calorific value and moisture and ash content) rather than coal brand

Details of specific initiatives

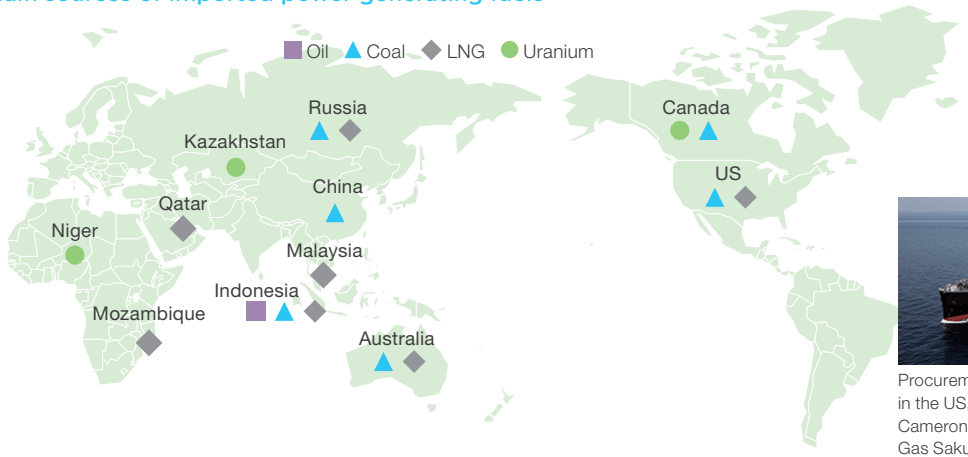
Further reducing procurement costs through efficiency improvements and other measures

- Expanding competitive bidding (coal)
- Economical coal procurement, including purchasing coal with higher ash content than standard grades because of total lower cost despite ash processing costs
- Expanding procurement from closer sources (coal)
- Adopting automation systems in coal shipping operations
- Promoting economical short-term and spot contracts in LNG procurement
- Accelerating the pace of spot procurement in response to short-term changes in demand and supply

Building an optimal fuel portfolio

- Optimizing LNG procurement volumes based on contractual terms allowing destination change
- Enhancing cooperation with alliance partners in LNG procurement
- Securing volume flexibility to allow flexible response to demand and supply fluctuations
- Studying optimization of coal and ship portfolios to enable stable and economic procurement of coal over the medium to long term amid a global trend toward eliminating coal use

Main sources of imported power generating fuels



Procurement of natural gas produced in the US, including shale gas from the Cameron LNG project (tanker: Diamond Gas Sakura)

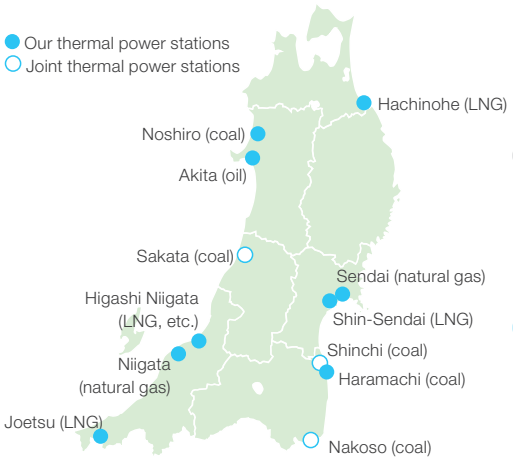
Power Supply Business: Fuel Procurement, Thermal Power Generation

Enhancing competitive strengths in thermal power generation

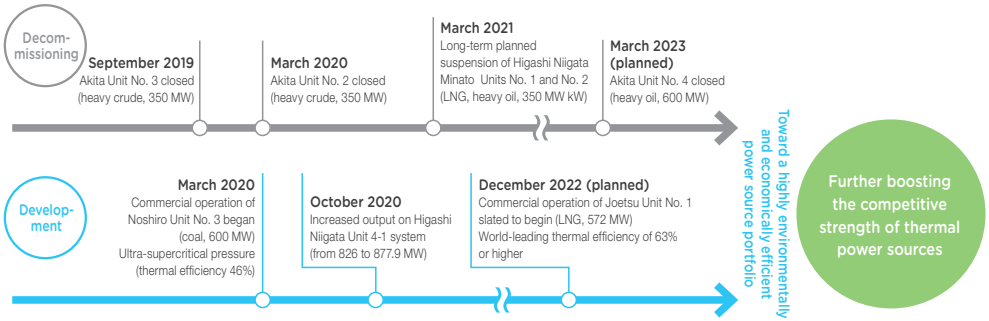
In addition to steady progress on developing high-efficiency thermal power stations, we're also suspending and decommissioning old and inefficient thermal power stations, enhancing competitive strengths in power sources, and responding to fluctuations in power demand and supply accompanying the growing adoption of renewable energy.

Unit No. 1 at the Joetsu Thermal Power Station

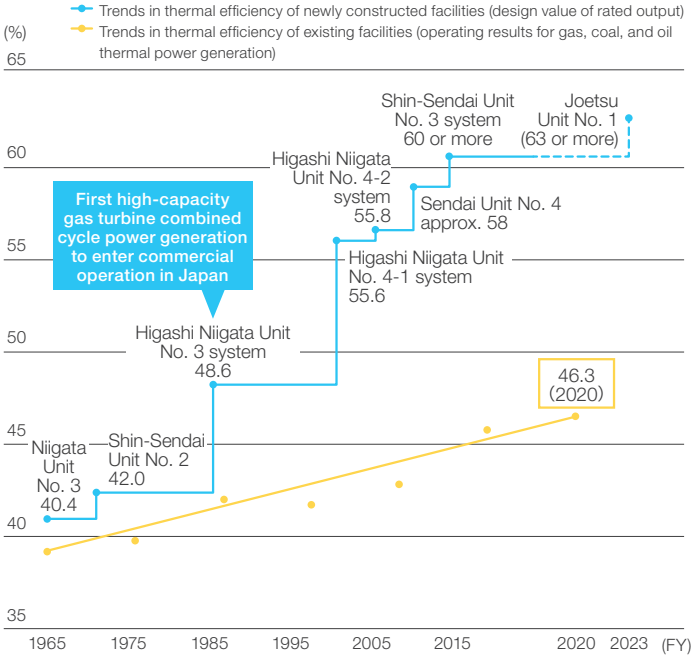
Construction of the new Unit No. 1 at the Joetsu Thermal Power Station began in July 2019, and mechanical and electrical work began in June 2020. Joetsu Unit No. 1 will employ a next-generation gas turbine based on a forced air-cooled combustor system developed jointly with Mitsubishi Power, Ltd. This technology was recognized by a 2018 Energy-Efficient Machinery Award from the Minister of Economy, Trade and Industry. The unit is designed to improve cost factors and reduce environmental impact by reducing fuel consumption and CO_2 emissions, with the goal of realizing a world-leading thermal efficiency of 63% or better for gas combined cycle power generation equipment. Thanks to steady progress on various tasks, including checking and testing performance and reliability in the plant producing the newly developed gas turbines, as well as readjustments of the construction schedule, including site construction and commissioning, we have accelerated the timetable for launching commercial operations to December 2022, from June 2023 in the initial plans. Once it comes online, this facility will contribute to competitive advantages in the aspect of power sources.



Status of thermal power stations in power source development plans



Trends in thermal efficiency of our own thermal power stations (based on lower heating value*)



* Lower heating value basis: volume of heat generated after subtracting condensation heat from water content of fuel and water generated by burning fuel

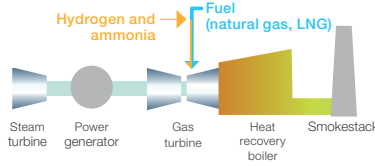
Practical initiatives to move closer to carbon neutrality

In July 2021, to accelerate initiatives to achieve the Tohoku Electric Power Group Carbon Neutral Challenge 2050, announced in March 2021, we set a target for FY2030 CO_2 emissions and decided to proceed with the verification of thermal power decarbonization and other concrete measures.

● Verification study of mixed burning of hydrogen and ammonia to decarbonize LNG thermal power

Based on testing of the system for Unit No. 5 at the Niigata Thermal Power Station, we're making progress on testing using equipment actually in operation and contributing to supply chain development through means such as procuring and securing fuel sources.

Illustration of mixed burning of hydrogen and ammonia



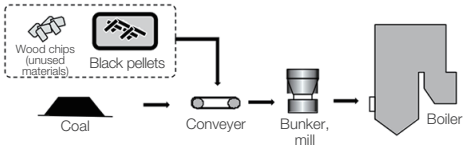
● Verification study of mixed burning of black pellets in coal thermal power generation

Striving to further improve the mixed fuel burning ratio for biomass fuels, the Noshiro Thermal Power Station is carrying out verification testing of mixed burning with black pellets in addition to wood chips.


Wood chips


Black pellets

Illustration of mixed burning of black pellets



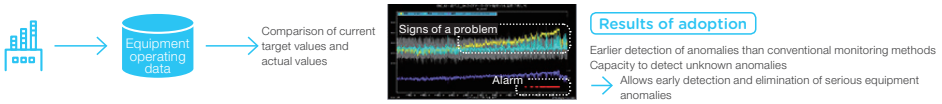
See >> Special feature: Carbon Neutral Challenge 2050 pp. 04-08

Power Supply Business: Fuel Procurement, Thermal Power Generation

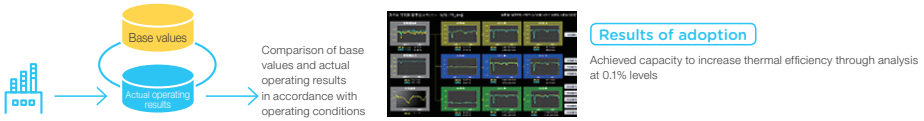
Advances in the operation of thermal power sources

Seeking to boost operational efficiency of thermal power stations still further, we're adopting advanced digital technologies like Big Data analysis and IoT.
Since 2017, we've moved forward in advanced joint verification efforts with Toshiba Energy Systems & Solutions Corporation for the following two systems, which are intended to contribute to the early detection of equipment anomalies and increased thermal efficiency. Through March 2020, we've deployed and launched these systems at all thermal power stations (16 units at eight stations).
Of these, we believe that systems for early detection of signs of equipment anomalies will contribute to safety and stable operations not just for our own power stations, but for customers with their own power generation equipment, as well as customers in various manufacturing industries. For this reason, in preparation for external sales of advanced equipment monitoring services utilizing these systems, we're making full use of Group strengths and working with Group members Tsuken Electric Ind. Co., Ltd. and Tohoku Intelligent Telecommunication Co., Inc. to develop related businesses by 2022.

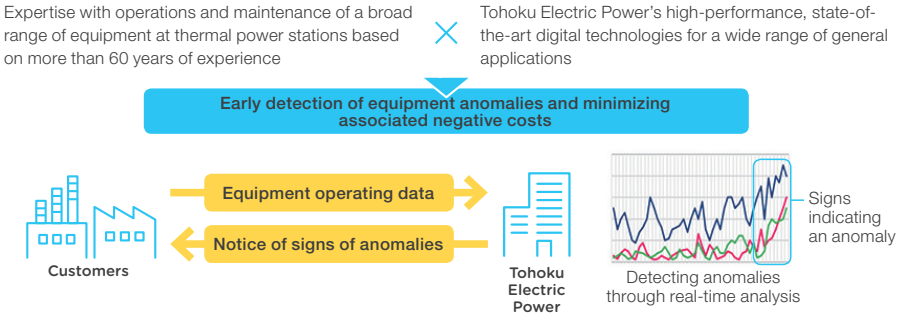
Systems for early detection of signs of equipment anomalies (utilizing Big Data analysis technologies)



Systems to increase thermal efficiency by modifying operating conditions (applying IoT technologies)



Advanced equipment monitoring services (targeting commercialization in FY2022)



Overseas power generation business

We've applied the technologies, experience, and other resources gathered in Japan in activities related to the power generation business in pursuing business opportunities around the world. We plan to press forward to launch the commercial operation and stable utilization of projects in which we have invested and participated worldwide. In development and planning for renewable energy and smart society building business we will make full use of the expertise, personnel networks, and other resources accumulated to date in our overseas power generation operations.

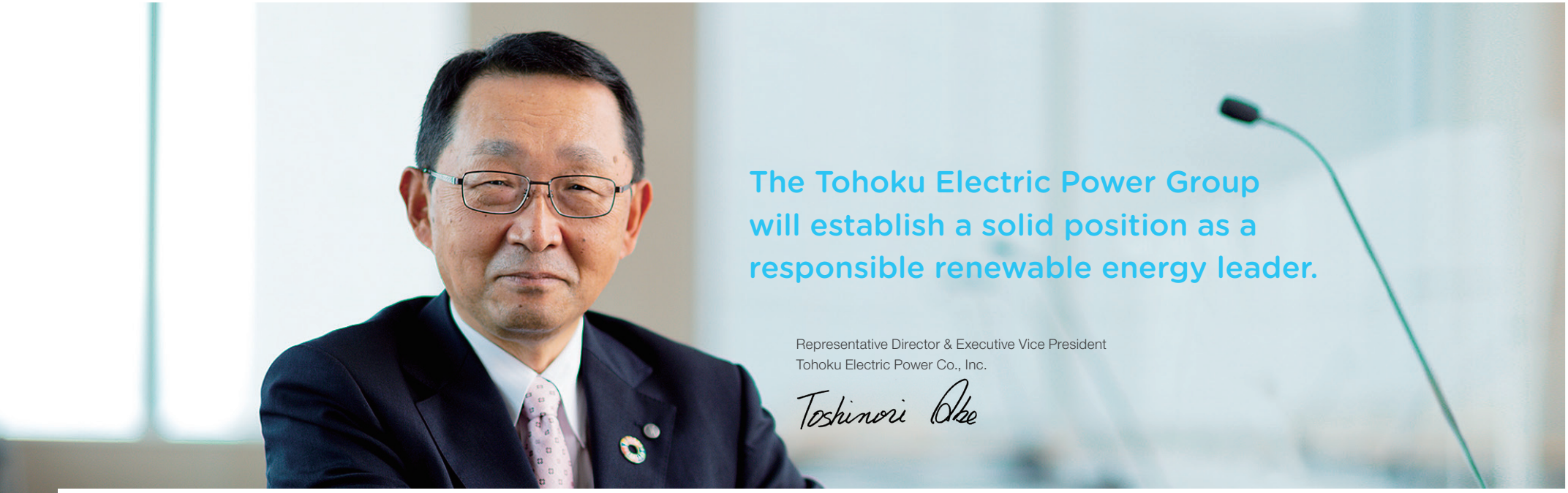
Projects in which we have invested and participate

	Falcon Gas Thermal IPP Project*	Lantau Dedap Geothermal Power Project (under construction)	Nghi Son 2 Coal-fired Power Project (under construction)
Country	Mexico	Indonesia	Vietnam
Output (thousand kW)	2,233	98	1,200
Our share of output (thousand kW)	223	10	120
Operational commencement	2001–2005	2021 (planned)	2022 (planned)

* Sale procedures are currently underway (planned for completion around March 2022).

Lantau Dedap Geothermal Power Project (Indonesia)

Power Supply Business: Renewable Energy



The Tohoku Electric Power Group will establish a solid position as a responsible renewable energy leader.

Representative Director & Executive Vice President
Tohoku Electric Power Co., Inc.

Toshinori Abe

Our franchise area of the six Tohoku prefectures and Niigata Prefecture is a region rich in natural resources. Since our founding in 1951, with a focus on hydroelectric power, we have moved energetically to develop renewable energy sources.
Today, we operate a network of 227 hydroelectric power stations and five geothermal power stations, which account for a roughly 45% share of Japan's nationwide geothermal power capacity.
Recently, we reached a major turning point on renewable energy. The Japanese government's Carbon Neutral Declaration announced in October 2020 sets the goal of effectively eliminating the nation's greenhouse gas emissions and to achieve a carbon-neutral society by 2050.

In March 2021, the Tohoku Electric Power Group announced its Tohoku Electric Power Group Carbon Neutral Challenge 2050. This challenge involves confronting the challenge of carbon neutrality through three primary approaches: maximum use of renewable energy and nuclear power, decarbonization of thermal power, and electrification and realization of a smart society.
In efforts to achieve carbon neutrality, we see renewable energy as a crucial power source. Our renewable energy efforts are based primarily on development of renewable energy sources and sustained and stable support for the renewable energy power generation business.
Regarding development of renewable energy sources, we established the target of generating 2,000 MW from renewable energy, chiefly through wind power, soon after 2030. We are currently making progress on new developments and participating in projects involving onshore and offshore wind power, solar power, and biomass power. As of September 2021, we held an equity stake in total output of about 600 MW. We are steadily expanding this capacity.
In the six Tohoku prefectures and in Niigata Prefecture, which offer high potential for renewable energy development, numerous businesses are launching efforts to develop renewable energy sources. While this high potential is creating intense competition, we will move forward with steady development efforts, drawing on our strengths as a company involved in the power business in this region for 70 years.

In the area of sustained and stable support for the renewable energy power generation business, we have established a new company to deliver maintenance and other services for renewable energy sources. Through this company, we will participate across the entire life cycle, including operations, maintenance, and replacement.
Based on the strong ties and relationships of trust established with our customers and communities, the Tohoku Electric Power Group will seek to build a solid position as a responsible renewable energy leader by continuing to tackle the challenge of renewable energy while reforming awareness and actions.

Power Supply Business: Renewable Energy

Business environment

The six Tohoku prefectures and Niigata Prefecture are home to rich renewable energy resources, including hydroelectric, geothermal, and wind power. In particular, many businesses participate in wind power; the development of wind power is expected to accelerate in response to the Japanese government's 2050 Carbon Neutral Declaration announced in October 2020.
We see renewable energy as a key future energy source. The Tohoku Electric Power Group is moving forward with development efforts by leveraging an extensive track record and strong community ties established over the years. We see a need to proceed with renewable energy development in response to growing demand while closely monitoring government policies related to support renewable energy adoption.

Courses of action

We will invest in renewable energy while prioritizing our target of 2,000 MW in generating capacity. To do so, we will participate in new development and business projects across various renewable energy sources, mainly wind power, but also hydroelectric, solar, geothermal, and biomass power.

- In hydroelectric power, we will advance by remodeling aging facilities. We will make progress on the Group's goal to develop the Tamagawa No. 2 Power Station.
- We will make steady progress on 19 onshore and offshore wind power projects and develop new projects.
- We will open the Kijiyama geothermal power station.
- We will develop and maximize the earnings of Tohoku Electric Power Renewable Energy Service Co., Inc.

State of initiatives

Since our founding in 1951, we've advanced hydroelectric power development in the Tadami River (Fukushima Prefecture) watershed and elsewhere. Currently, the Group owns 227 hydroelectric power stations and a large share (roughly 45%[*1]) of Japan's nationwide geothermal power generating capacity. We're active in solar power as well, having established megasolar facilities in Hachinohe, Sendai, and Haramachi.

*1 Estimated based on Agency for Natural Resources and Energy electricity survey statistics (March 2021)

Wind power generation potential in Tohoku and Niigata

Renewable energy has been rapidly adopted across Japan under the feed-in tariff program. Thanks to the large number of locations exposed to strong wind, the region consisting of the six Tohoku prefectures and Niigata Prefecture is ideally suited to wind power. In consideration of factors such as capacity connected to the grid to date and grid enhancements through the bidding process[*2] in the northern Tohoku area, as well as future progress with the connect and manage[*3] approach, the wind power generating potential in the six Tohoku prefectures and in Niigata Prefecture is estimated to be approximately 10,000 MW, based on wind power facilities currently operating and new facilities in the pipeline.

*2 System for soliciting bids from companies that will share in the cost of costly grid enhancements required for the high-voltage grid when connecting power generation facilities and other facilities to the electrical grid
*3 System that makes flexible use of available capacity on the electrical grid to permit connection under certain restrictive conditions

Renewable energy development target

In January 2019 we announced the target of developing 2,000 MW of capacity from renewable energy across various renewable energy sources, including hydroelectric, solar, geothermal, and biomass in addition to our main focus of wind power, chiefly in the six Tohoku prefectures and Niigata Prefecture.
As of the end of September 2021, we held an equity stake in total output of about 600 MW. We are making progress on development of 19 wind power facilities, including Wind Farm Tsugaru, Japan's largest wind power facility currently in operation. We are also playing a leading role in the Chokai-minami Biomass Power Project (slated to begin operation during FY2024) in Yamagata Prefecture, as our first co-firing biomass project.
To achieve our target of 2,000 MW in capacity soon after 2030, we will continue efforts such as new development and project participation utilizing the expertise we have accumulated throughout the Group as well as putting existing power stations to more effective use through means such as renovation of aging facilities.

Wind Farm Tsugaru (photo courtesy Green Power Investment Corporation)

Operation and maintenance business

In April 2021, we established Tohoku Electric Power Renewable Energy Service Co., Inc. to provide maintenance and other services for renewable energy sources. Drawing on the strengths of the Tohoku Electric Power Group, including the technical abilities and expertise accumulated through the electricity business as well as our extensive network in the six Tohoku prefectures and Niigata Prefecture, this company will provide services to support sustainable and stable power generation by operators of renewable energy businesses.

Basic services

Operation	Maintenance	Training
• 24-hour operation monitoring of renewable energy power sources and related facilities • Swift detection of abnormalities using IoT technology • Swift responses to abnormalities	• Maintenance of renewable energy power sources and related facilities • Safety, security, and quality control and work planning and management • Dispatching of licensed electrical engineers	• Safety training • Maintenance training on actual equipment • Training on responding to problems, based on actual case studies from thermal and hydroelectric power sources

Clients
(Power producers)

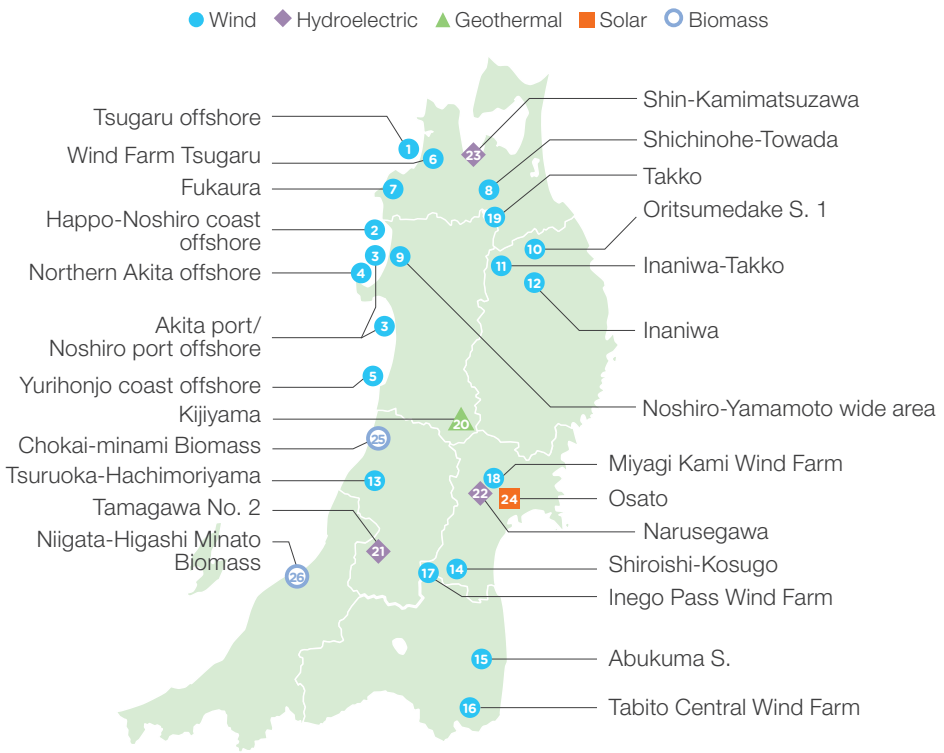
Delivering to clients high-quality services to maintain equipment reliability
Supporting operation of safe, reliable, and stable power generation business

Power Supply Business: Renewable Energy

Renewable energy development

Tohoku Electric Power sees renewable energy as an integral component of its portfolio of power sources. As a responsible business operator, the Group is working to develop renewable energy in the six Tohoku prefectures and in Niigata Prefecture.
To date, including our participation in existing projects, we've developed 26 sites (output capacity: 3,070 MW). As of the end of September 2021, we had an equity stake in total output of about 600 MW. We plan to continue to work toward our goals by adopting and expanding renewable energy through in-house development and joint efforts with other leading companies within the industry.

Major renewable energy development/participation projects
(including development feasibility studies)



(as of September 30, 2021)

		Project name	Output	Scheduled operational start date
Offshore wind	1	Tsugaru offshore	Approx. 480 MW	FY2028 or later
	2	Happo-Noshiro coast offshore	Approx. 155 MW (max.)	FY2024 or later
	3	Akita port/Noshiro port offshore	Approx. 140 MW	2022
	4	Northern Akita offshore	448 MW (max.)	FY2025 or later
	5	Akita Yurihonjo coast offshore	Approx. 700 MW	TBD
Onshore wind	6	Wind Farm Tsugaru	121.6 MW	Operation began April 2020
	7	Fukaura wind	Approx. 70 MW	FY2024 or later
	8	Shichinohe-Towada wind	Approx. 31 MW	December 2021
	9	Noshiro-Yamamoto wide area wind	Approx. 100 MW	FY2023 or later
	10	Oritsumedake S. 1 wind	Approx. 44 MW	January 2023
	11	Inaniwa-Takko wind	Approx. 100 MW	FY2025 or later
	12	Inaniwa wind	Approx. 100 MW	FY2025 or later
	13	Tsuruoka-Hachimoriyama wind	Approx. 14 MW	November 2021
	14	Shiroishi-Kosugo wind	Approx. 38 MW	FY2024 or later
	15	Abukuma S. wind	Approx. 90 MW	FY2022
	16	Tabito Central Wind Farm	Approx. 54.6 MW	FY2027 or later
	17	Inego Pass Wind Farm	Approx. 79.8 MW (max.)	FY2027 or later
	18	Miyagi Kami Wind Farm	Approx. 42 MW	April 2024
	19	Takko wind (tentative name)	75.6 MW (max.)	FY2027 or later
Geothermal	20	Kijiyama (tentative name)	14.9 MW	2029
Hydroelectric	21	Tamagawa No. 2 hydroelectric	14.6 MW (max.)	October 2022
	22	Narusegawa Power Station	2.3 MW (max.)	FY2034
	23	Shin-Kamimatsuzawa hydroelectric	9.4 MW (max.)	November 2031
Solar	24	Osato solar	37.5 MW	FY2021
Biomass	25	Chokai-minami Biomass Power Station	52.9 MW	FY2024
	26	Niigata-Higashi Minato Biomass Power Station	50 MW	October 2024

Promoting green financing

1 Issuing our 2nd Tohoku Electric Power Green Bonds

In September 2020, we issued our 2nd Tohoku Electric Power Green Bonds. This marked our second issue of green bonds; the first took place in February 2020. Like previous bonds, these green bonds were certified through the strict independent certification process of the Climate Bonds Initiative (CBI).

For renewable energy generation, centered mainly on wind power, we're striving to develop 2,000 MW of capacity in the six Tohoku prefectures and in Niigata Prefecture. Funds raised from these green bonds are used mainly for this business.

Overview

Name	2nd Tohoku Electric Power Green Bonds
Use of funds	New investment and refinancing in businesses related to development, construction, operation, and repairs for renewable energy
Date conditions decided	September 10, 2020
Date issued	September 16, 2020
Type of bonds	Straight bonds (with general mortgage)
Issue amount	10 billion yen
Redemption period on issue	10 years
Interest rate	0.320%
Lead/structuring agent	SMBC Nikko Securities (SA), Mizuho Securities, Mitsubishi UFJ Morgan Stanley Securities
Ratings secured	A+ (Rating & Investment Information, Inc.), AA (Japan Credit Rating Agency, Ltd.)
Consistency between use of funds and the SDGs	

2 Green loan from the Development Bank of Japan Inc.

In August 2021, we obtained a green loan from the Development Bank of Japan Inc. for construction costs related to the Tamagawa No. 2 Power Station developed by Group member company Tohoku Sustainable & Renewable Energy Co., Inc.

Overview

Lender	Development Bank of Japan Inc.
Use of funds	Construction funding for development by Tohoku Sustainable & Renewable Energy Co. Inc. of the Tamagawa No. 2 Power Station (in Yamagata Prefecture, planned to begin operation in October 2022 with maximum output of 14.6 MW)
Date issued	August 30, 2021
Consistency between use of funds and the SDGs	

3 Assessment by external agencies

Our issue of green bonds has been assessed and verified for compliance with various applicable standards (such as the Green Bond Guidelines 2020) by the independent agency DNV GL Business Assurance Japan K.K.

These green bonds have also been certified by the Climate Bonds Initiative (CBI)*, an international NGO that establishes strict standards to secure the reliability and transparency of green bonds.

On February 19, 2021, the first and second issues of Tohoku Electric Power Green Bonds were assessed by independent verification. We received post-issue verification reports on the bonds.

CBI certificate

* Refers to Certificate issued by CBI for bonds verified to be consistent with the standards for climate bonds. Climate bond standards are international standards formulated to ensure strict confirmation, based on scientific grounds, of the consistency between green bonds and the 2 °C target under the Paris Agreement.

4 Allocation of funds raised and environmental impact (as of March 31, 2021)

Tohoku Electric Power Green Bonds		Issue 1	Issue 2	Total
Funds raised		5 billion yen	10 billion yen	15 billion yen
Amount allocated		5 billion yen	8.5 billion yen	13.5 billion yen
Amount allocated to refinancing		3.1 billion yen	2.6 billion yen	5.7 billion yen
Unallocated balance		0 yen (allocation completed)	1.5 billion yen	1.5 billion yen
Projects	Geothermal	1	—	10*1, *2
	Onshore wind	5	4	
	Solar	—	1	
Facility capacity	Geothermal	98.4 MW	—	644 MW*1
	Onshore wind	291 MW	247 MW	
	Solar	—	51.6 MW	
Annual CO_2 emissions reductions (FY2020)	Geothermal	Under construction	—	273,981 t-CO_2/y※3
	Onshore wind	101,474 t-CO_2/y	172,507 t-CO_2/y	
	Solar	—	Under construction	

*1 Projects: Since some projects received funds allocated from both the first and second issues, total numbers of projects and facility capacities do not necessarily agree with the combined total of figures for each issue. Projects are disclosed for each type of renewable energy because some projects are joint efforts with other companies.

*2 While the start of operation of some projects has been revised due to COVID-19, these cases have not involved the suspension of the projects themselves.

*3 Methods for calculating annual CO_2 emissions reductions: FY2020 annual power generated (MWh) × CO_2 emissions factors (t-CO_2/MWh). Emissions reductions from all projects are estimated through prorating by the amount of funds allocated.

Power Supply Business: Nuclear Power

Business environment

Since it enables highly stable and efficient power supply, nuclear power is expected to grow increasingly important as a viable option for carbon neutrality in response to the Japanese government's 2050 Carbon Neutral Declaration announced in October 2020.
Amid intensifying competition accompanying progress on reforms of the electric power system, to enhance competitive strengths, we must continue to improve in cost savings and operating efficiency, based on the paramount precondition of safety, in nuclear power.

Courses of action

In addition to accelerating efforts to achieve rapid resumption of nuclear power station operations, based on the paramount precondition of safety, we will continue to improve cost savings and operating efficiency to enhance our competitive strengths.

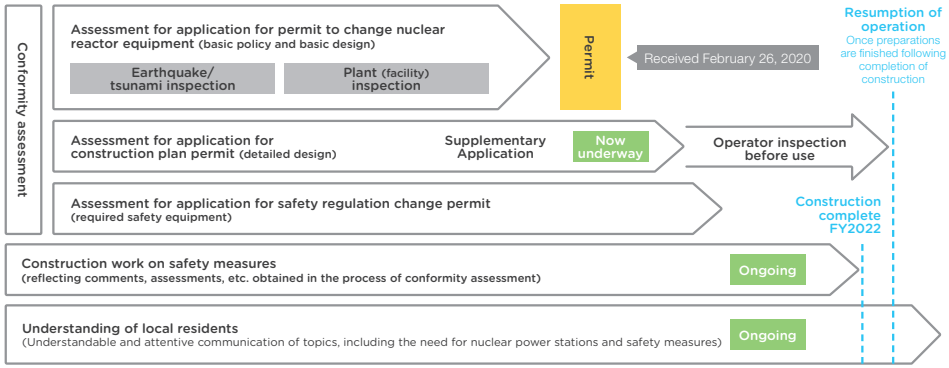
- Steadily implementing measures targeting tangible and intangible aspects in preparation for the swift resumption of operation of Onagawa Unit No. 2
- Responding appropriately to compliance testing at Higashidori Unit No. 1
- Studies toward applying for compliance testing at Onagawa Unit No. 3, reflecting considerations such as the state of compliance testing at Onagawa Unit No. 2
- Decommissioning of Onagawa Unit No. 1, with safety as the highest priority

Nuclear power station initiatives

We're moving forward with Companywide initiatives to review compliance with new regulatory standards in preparation for the resumption of nuclear power station operations. We aim to resume operation once all preparations are complete, not just in relation to compliance with new regulatory standards, but also as regards achieving greater nuclear power station safety and securing the understanding and consent of local residents.

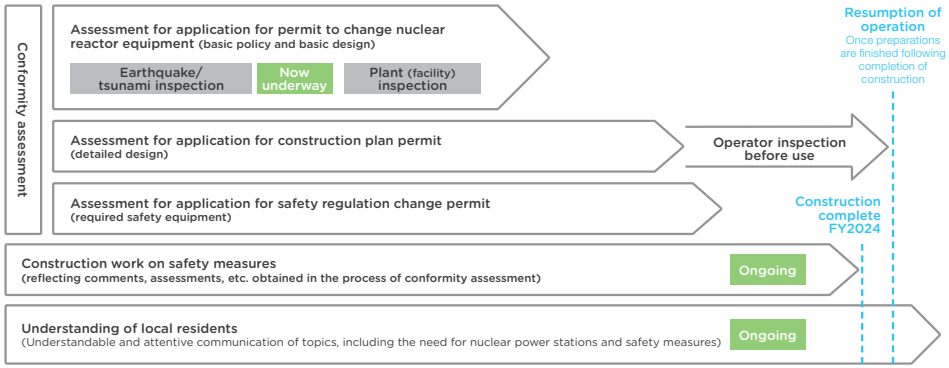
Unit No. 2 at the Onagawa Nuclear Power Station

In February 2020, we received a permit from the Nuclear Regulatory Commission to change the reactor equipment. In November of the same year, we obtained the consent of local governments at the site for preliminary discussions based on safety agreements.
Inspections related to construction plan permits are now underway.
We will continue to respond appropriately to inspections related to construction plan permits and other matters such as safety regulations, while working toward the goal of completing safety-related construction during FY2022.



Unit No. 1 at the Higashidori Nuclear Power Station

We've finished responding to inspections related to seismic fault assessments. An inspection is currently underway to assess base seismic vibrations and base tsunami resistance. We will continue to make every effort to complete these inspections at the earliest possible date while working toward our goal of completing safety construction in FY2024.



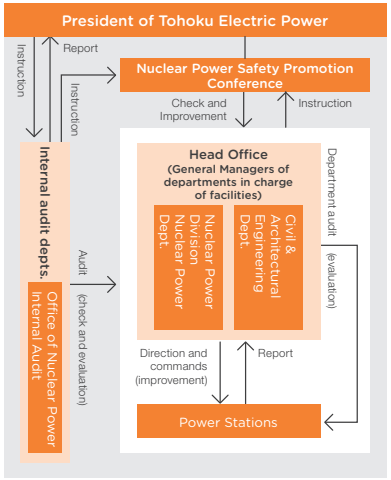
Operation of nuclear power generation without compromising safety

Establishing and strengthening systematic risk management

Tohoku Electric Power recognizes the need to establish and strengthen its risk management systems to further improve nuclear safety. We are currently working to develop and strengthen these internal systems.

Establishing the Nuclear Risk Investigation Commission

In July 2014, given the importance of nuclear risk management, we set up the Nuclear Risk Investigation Commission chaired by the President to ensure more direct engagement with nuclear risk management among senior executives. Among other duties, this commission is tasked with analyzing and evaluating nuclear risks and deliberating on measures to mitigate risks, approaches to establishing dialogue with local communities, and the overall direction and management of nuclear risk management.



Enhancing risk communication

We're working to strengthen nuclear risk communication. This means engaging local communities in dialogue concerning the basis of the risks posed by nuclear power generation, an approach that seeks to share risk information while carefully attending to community concerns and opinions on nuclear energy to help forge mutual understanding and build trust. On these occasions, we continue to provide detailed presentations on and measures to reduce nuclear risk as part of efforts to maintain two-way dialogue with local communities. Furthermore, we also proactively communicate information via social media to help people to understand our initiatives to reduce the risks of nuclear power. We will also reflect the opinions of outside experts and other stakeholders in our nuclear risk management. We plan to reorganize risk information into various categories to improve clarity and to develop the personnel who will be responsible for risk communication. In these and other ways, we plan to continue enhancing risk communication.

Visiting all local households to reflect community feedback in power station operations

It is vital for nuclear power station operators to gather community feedback based on two-way dialogue. Twice each year, as part of the continuing Konnichiwa Visit (Onagawa) and All-household Visit (Higashidori) programs, plant personnel from the Onagawa and Higashidori nuclear power stations visit each household within local communities.
These in-person activities provide residents with more information on power stations and help gather valuable feedback for subsequent reflection into station operations.
To help stop the spread of COVID-19, we replaced personal visits and person to person interviews with information provided through resident mailboxes.
In December 2020, we visited some 3,800 households around the Onagawa Nuclear Power Station (in the town of Onagawa and the Oshika Peninsula area of the city of Ishinomaki) and 2,300 households around the Higashidori Nuclear Power Station.
We stations to continue these efforts to ensure these power stations are trusted by and have firm roots in their communities.


A Konnichiwa Visit at the Onagawa Nuclear Power Station

Providing information on nuclear power via social media

We use our official Twitter and YouTube accounts to communicate to the broadest possible audience information on our nuclear power stations and efforts to improve plant safety. We also continually strive to enhance and improve the nuclear power information provided on our website. To expand public understanding of nuclear power, we've added a Q&A page with questions and answers on nuclear power. We're committed to continuing to advance communication activities that will inform and reassure community residents and the general public by providing timely information and making effective use of social media.

Communicating information via Twitter

An introduction to safety measures on YouTube

Power Supply Business: Nuclear Power

Decommissioning of Unit No. 1 at the Onagawa Nuclear Power Station

Decommissioning plans for Unit No. 1 at the Onagawa Nuclear Power Station were approved by the Nuclear Regulatory Commission in March 2020. In May 2020, Miyagi Prefecture, the town of Onagawa, and the city of Ishinomaki also granted preliminary approval for the plans in accordance with our safety agreements. In addition to putting safety first in the decommissioning process, we will share information on the status of decommissioning with local residents and other parties through our website and other means.

Background of this decommissioning

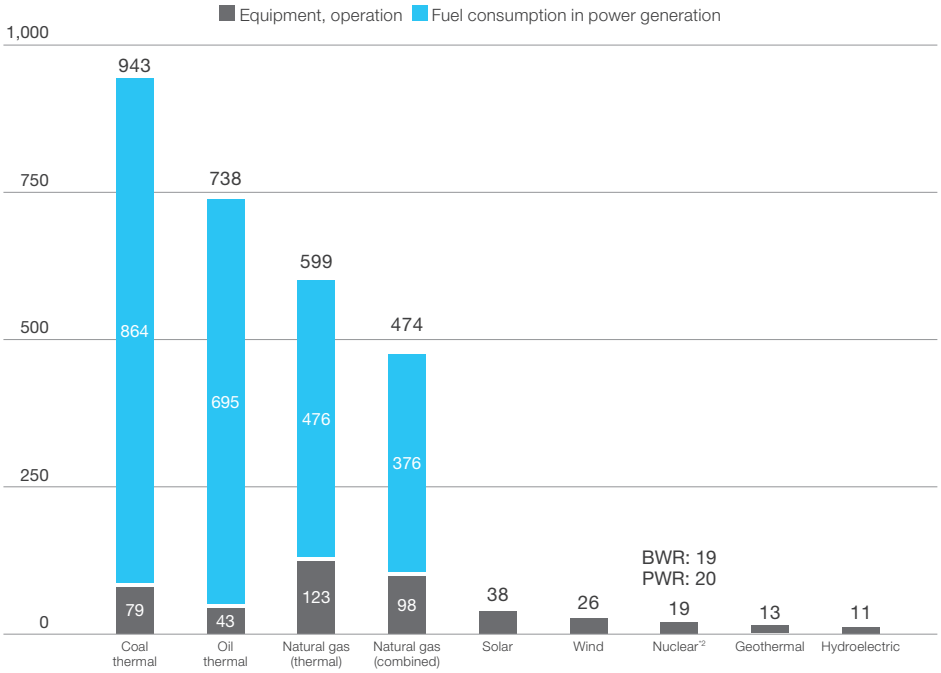
Date	Details
October 25, 2018	Decision made on decommissioning
December 21, 2018	Operation terminated
July 26, 2019	Requested advance discussions with Miyagi Prefecture, the town of Onagawa, and the city of Ishinomaki on application for approval of the decommissioning plan
July 29, 2019	Applied for approval for the decommissioning plan
March 18, 2020	Decommissioning plan approved
May 22, 2020	Received answers to advance discussions with Miyagi Prefecture, the town of Onagawa, and the city of Ishinomaki on application for approval of the decommissioning plan (approval)
July 28, 2020	Decommissioning work begins.

	Stage 1	Stage 2	Stage 3	Stage 4
Category of work in each stage	Preparatory period for demolition work	Demolition and removal period for equipment near the reactor zone	Demolition and removal period for equipment in the reactor zone	Demolition and removal period for buildings and structures
	8 years (FY2020–2027)	**7 years** (through FY2034)	**9 years** (through FY2043)	**10 years** (through FY2053)
	Nuclear reactor building, Turbine building			
Main tasks	Fuel removal Contamination inspection Safe storage	Demolition and removal of equipment inside the radiation management zone (outside nuclear reactor zone)	Demolition and removal in the reactor zone	Demolition and removal of buildings and structures
	Removal of contamination			
	Demolition and removal of equipment outside the radiation management zone			
	Treatment and disposal of radioactive waste			

Why nuclear power?

As a nation with limited energy resources, Japan relies on imports for most fossil fuels such as oil, coal, and natural gas. Its energy self-sufficiency is quite low compared to other industrialized nations (11.8% in FY2018). This makes it especially important to target a balanced energy mix that can achieve, at the same time, the S+3E objectives while securing safety (S) as a major consideration: stable energy supply (energy security) (E), environmental safeguards (E), and economic performance (E). From a 3E perspective, we view nuclear power as a key power source. We're making every effort to advance compliance with new regulatory standards and integrate safety measures to permit the rapid resumption of nuclear power station operations.

CO_2 emissions of various power sources*1 (g-CO_2 /kWh)



*1 CO_2 emissions are calculated for all energy consumed, from extraction of raw materials to the construction of power generating and other facilities, fuel transport, refining, operations, and maintenance, in addition to fuel consumed for power generation.

*2 For nuclear power, results for BWR (19g-CO_2/kWh) and PWR (20g-CO_2/kWh), calculated including factors such as domestic reprocessing and plutonium thermal project use of spent fuel now being planned (assuming recycling once), treatment of highly radioactive wastes, and plant decommissioning, have been averaged based on facility capacity.

Power Supply Business: Wholesaling

Business environment

Our volume of retail electricity sales is declining for various reasons, including a shrinking and aging society resulting from low birth rates in the six Tohoku prefectures and in Niigata Prefecture and intensifying competition for sales with new energy suppliers. For this reason, in addition to continuing to grow electricity sales volume outside our main service area through expanding both wholesale and retail sales, it is vital to leverage trading functions based on electricity market reforms to maximize the value of our electricity and grow our revenues.

Courses of action

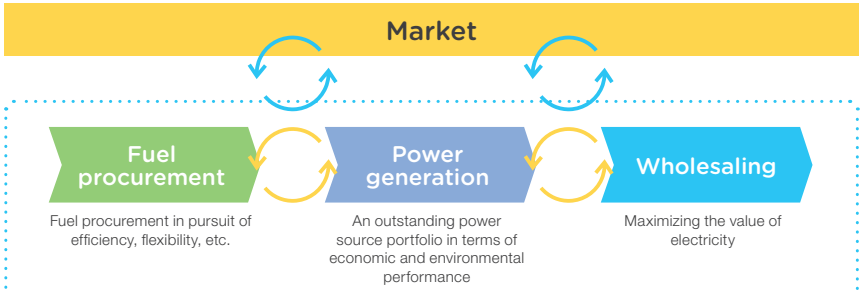
To maximize the value of electricity generated and grow our revenues amid market reforms such as the establishment of new electricity markets, we will promote the following initiatives:

- Making maximum use of trading functions and optimizing our business structure to achieve revenue growth based on an overview of the entire market from fuel procurement through power generation and wholesaling
- Strategic sales that draw on our diverse portfolio of power sources

Maximizing use of trading functions

Seeing electricity market reforms as business opportunities, our strategic subsidiary Tohoku EPCO Energy Trading Co., Inc. engages in integrated trading including trading in the electricity market and fuel futures. It will continue to increase revenues by proposing solutions that deliver added value in aspects such as price levels tailored to the market's perspective and flexible contractual terms and conditions while making the most of its trading functions. We manage a range of risks surrounding the company, including market risk, by building a multilayered system involving the parent company.

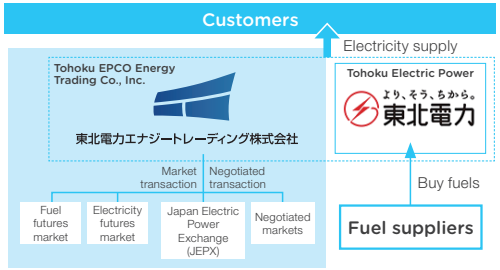
Illustration of initiatives to optimize the value chain from fuel procurement to power generation and wholesaling



Amid electricity market reforms, advancing optimization to grow revenues by making maximum use of trading functions, based on an overview of the entire market from fuel procurement through power generation and wholesaling.

Tohoku EPCO Energy Trading Co., Inc.

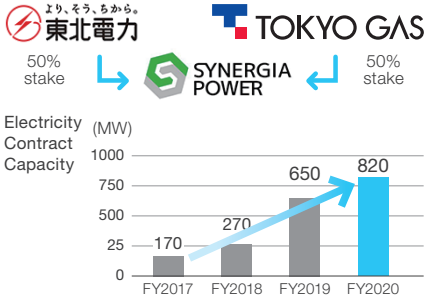
Since it started operating in April 2018, Tohoku EPCO Energy Trading has engaged mainly in the business of trading in wholesale electricity in the electricity market to boost revenues while also utilizing fuel futures and other means to control the impact of fluctuations in fuel prices.



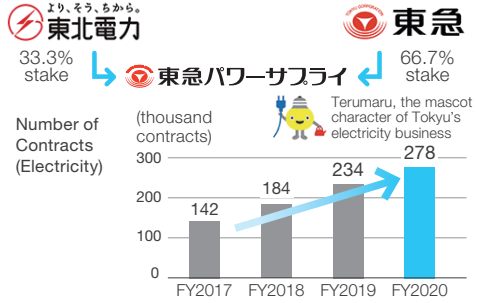
Advancing sales outside of our service area through alliances

Since April 2016, Synergia Power Co., Ltd. has offered electricity for customers who use high- or extra-high voltage power in the Kanto region, steadily acquiring customers in a harsh competitive environment. We collaborate with Tokyu Power Supply Co., Ltd., in which we invested in March 2018, primarily as a wholesale supplier of electricity to our partner. Tokyu Power Supply has various strengths, including a wealth of sales channels and solid branding skills. We combine these with our own stable, competitive power sources and our know-how and experience to offer services that appeal to customers.

Synergia Power



Tokyu Power Supply



Power Supply Business: Power Transmission and Distribution

We plan to fulfill our mission to deliver a stable supply of electricity while steadily adapting to the dramatically changing business environment based on relationships of trust with the local community

Representative Director & President
Tohoku Electric Power Network Co., Inc.
Mitsuhiro Sakamoto

より、そう、ちから。
東北電力ネットワーク

Company name	Tohoku Electric Power Network Co., Inc.
Established	April 1, 2019
Representative	Mitsuhiro Sakamoto, Representative Director & President
Capital:	24 billion yen
Employees	7,289 (as of March 31, 2021)

A year and a half has already passed since we took over the general power transmission and distribution business from Tohoku Electric Power in April 2020. Ever since our spinoff as an independent company, our entire organization has continued to act as one to fulfill our mission to deliver a stable supply of electricity while steadily adapting to a changing business environment. Natural disasters have intensified in recent years. The Tohoku and Niigata region confronted the threat of numerous natural disasters, including wind and snow damage centered on the Japan Sea side of the region in January 2021, as well as an earthquake with a maximum seismic intensity of a high six centered off the Fukushima coast in February of the same year. By putting to full use the knowledge and experience accumulated to date and working jointly with Tohoku Electric Power, we were able to swiftly respond and assist in the recovery from these natural disasters. In addition, even when power demand and supply conditions were tight nationwide at the start of 2021, we maintained a stable supply of electricity by establishing an Electricity Demand-Supply Emergency Task Force with Tohoku Electric Power to secure the electricity supply capacity needed by the six Tohoku prefectures and Niigata Prefecture and even to supply electricity to other areas amid the nationwide shortage.

At the same time, our business environment is undergoing dramatic change, including falling demand for electricity due to shrinking populations and other factors, changes in the wheeling charges system, the establishment of the Act for Establishing Energy Supply Resilience, and the government's announcement of a policy to achieve carbon neutrality by 2050.
In light of the abundant potential for renewable energy in the Tohoku and Niigata area, we recognize our important role in the area of carbon neutrality. The Tohoku Electric Power Group announced the Carbon Neutral Challenge 2050 in March 2021. As each Group member company advances various initiatives toward meeting this challenge, we believe, as the operator of the general power transmission and distribution business, that we can contribute to making renewables a main power source through grid development and stabilization. Specifically, in cooperation with the Organization for Cross-regional Coordination of Transmission Operators (OCCTO), an organization authorized by the Japanese government, we are working toward development of large-scale grid infrastructure through means including development and execution of the transmission grid connecting the Tohoku and Tokyo areas as well as implementing a process of seeking bids for connection of power sources in the northern Tohoku area. We will also continue initiatives in areas such as advancing technologies for predicting and maintaining output of renewable energy and studying grid stabilization methods using hydrogen energy.
In addition, toward achievement of the Tohoku Electric Power Group's Medium- to Long-Term Vision "Working alongside next," while putting our technologies, know-how, and assets to maximum use and exploring and implementing services to contribute to solutions to community issues, we will continue to help realize a smart society. Furthermore, we are striving to balance supply stability vs. cost savings and efficiency by making proactive use of AI, IoT, drones, and other new technologies. In addition to developing and using a system to diagnose corrosive wear to power poles through AI analysis of image data, we are testing a system that will apply remote sensing technologies to remotely detect substation irregularities.
We are in the midst of dramatic reforms affecting the electricity system. There is wide-ranging debate in Japan about future changes affecting numerous systems. As an infrastructure platform, the form and role of our power transmission and distribution network may change. But no matter what changes take place, we will remain committed to fulfilling our mission through impartial and fair business operations premised on safety, based on a Group management philosophy that calls on us to Prosper with Local Communities.

Power Supply Business: Power Transmission and Distribution

Business environment

The six Tohoku prefectures and Niigata Prefecture were among the first regions of Japan to experience the effects of depopulation, and there is a high likelihood that progress in decarbonization will lead to structural changes in electricity demand and supply in the region. These and other factors could have a major impact on wheeling charges, a major source of revenues.
At the same time, we need to continue to fulfill our missions of securing stable supplies of electricity in the Tohoku and Niigata region in the face of changes such as increasingly severe natural disasters and increasing adoption of renewable energy.
Furthermore, to realize the Japanese government's target of carbon neutrality by 2050 it will be essential to make steady progress on planning for grid expansion toward making renewables the main source of electricity while also putting the existing grid to effective use and addressing technological challenges such as the need for progress in areas such as demand, supply, and grid operation.

Courses of action

We will advance the following initiatives to fulfill our mission of delivering a stable supply of electricity, while contributing to solutions to the issues faced by customers and the community.

- Realizing stable supplies in terms of both tangibles and intangibles, through means including systematic renovation of aged facilities and drills and other efforts to enhance abilities to respond to disasters
- Further efficiency improvements through building efficient facilities and utilizing new technologies
- Enhancing resilience, expanding adoption of renewables, and promoting advances in the power network to help realize a smart society

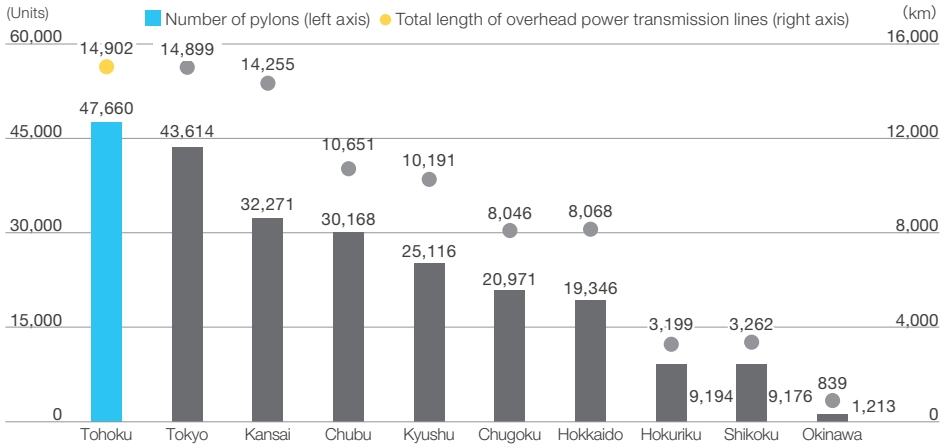
Initiatives to ensure stable supply and enhanced resilience

The area to which the Company supplies electricity—the six Tohoku prefectures and Niigata Prefecture—accounts for about 20% of Japan's land mass and includes the largestscale facility infrastructure of any general power transmission and distribution business in Japan, both in terms of total length of overhead power transmission lines and number of pylons. In addition, the Tohoku and Niigata area poses challenging topographic and climatic conditions, including a long coastline, numerous mountainous areas, and Japan's heaviest snow belts. Given these conditions, in addition to striving to maintain and develop facilities in response to an aging infrastructure through new technologies and other means, we will endeavor to enhance our ability to respond to increasingly frequent and severe natural disasters, based on the lessons of numerous past disasters, including the Great East Japan Earthquake.
Since the Tohoku and Niigata area has numerous locations ideally suited to the generation of wind power and other renewable energy, the number of requests to connect to our grid is growing. Given that renewable energy output varies with weather conditions, we're doing our utmost to maintain the balance between electrical demand and supply through flexible use of thermal power and pumped-storage hydroelectricity. We've also installed large-scale storage cells at the Nishi-Sendai and Minami-Soma substations to smooth out fluctuations in grid frequency and voltage. Accordingly, together with measures intended to put existing power transmission facilities to maximum use, we are working with the Organization for Cross-regional Coordination of Transmission Operators, Japan (OCCTO), an agency certified by the Japanese government, to improve and expand the grid connecting Tohoku with Tokyo and other areas, as well as implementing a bidding process for connecting to the grid in the northern Tohoku area and other efforts as we strive to expand ways to connect renewable energy to the grid.

See >> Enhancing Resilience p. 65

An exterior view of the large-capacity storage battery system at the Minami-Soma Substation

Volume of power transmission facilities of individual general power transmission & distribution business



* Facility volume as of March 2021 (source: Electricity Statistics [Federation of Electric Power Companies of Japan])

Enhancing partnerships with local governments and related agencies

To enable swift cooperation with local governments and related agencies in recovery initiatives in the event of a natural disaster, we strive to enhance partnerships on an everyday basis through means such as joint training and conclusion of cooperative agreements, with the goal of enhancing abilities to respond to natural disasters.

See >> Corporate Governance p. 84

A generator truck transport drill with the Japan Self-Defense Forces

Power Supply Business: Power Transmission and Distribution

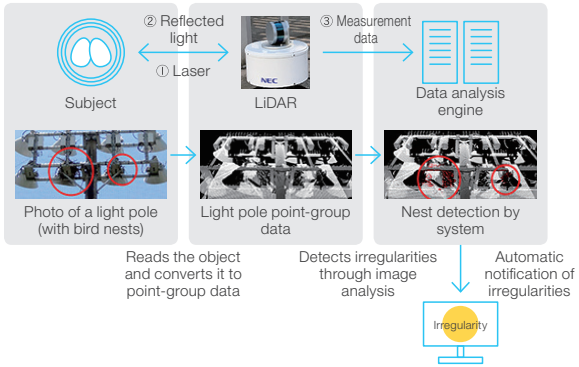
Efficiency improvement initiatives

We're proactively making progress on adoption of new technologies to maintain and reliably manage power transmission and distribution facilities extending across a wide service area. Specifically, we're promoting improvements in efficiency through adoption of a business process management (BPM) system and research in areas such as adoption of a substation inspection patrol system utilizing LiDAR* remote sensing technology.

* Light detection and ranging (LiDAR) is a remote sensing technology that emits laser and other light on an object to read its coordinates, brightness, and other data.

Substation inspection patrol system utilizing LiDAR

① Laser light emitted periodically from LiDAR equipment installed inside the substation
② Light reflected from objects is used to measure point-group data indicating the coordinate values of the objects and brightness, which indicates the strength of the light
③ The patrol inspection system detects external irregularities through analysis of positions and forms from point-group data and surface state from brightness data



Kaizen activities

Initiatives to improve efficiency are based on kaizen activities and the identification and study of solutions for improving efficiency from multifaceted perspectives, including reduction, centralization, and outsourcing of operations. Through 5S and small-group activities, centered on Distribution Engineering Dept. and Power System Engineering Dept., we strive to use the time generated by efficiency improvements for purposes such as further improvements in business quality.

"Five S" activities

Sharing positive case studies on kaizen within the Company via the intranet

*1 Kaizen activities in the workplace: *seiri* (sorting), *seiton* (straightening), *seiso* (systematic cleaning), *seiketsu* (standardizing), and *shitsuke* (sustaining)
*2 A method of forming small groups to work on solutions to issues in the workplace, with goals including improvements in efficiency, quality, and safety

Power network advancement

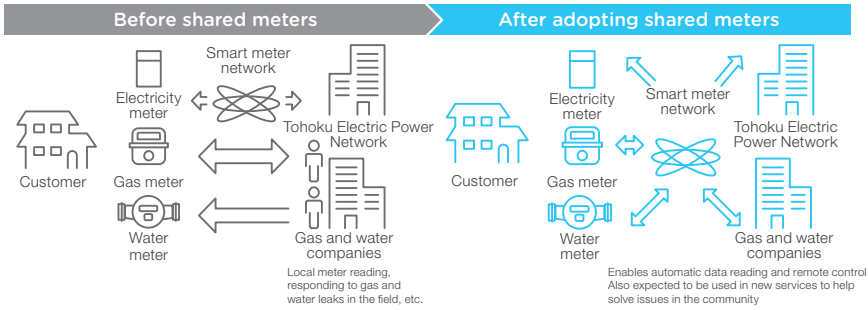
We're striving to advance the power network to enhance resilience, expand adoption of distributed power sources including renewable energy, and help realize a smart society. Specific examples of expected initiatives in this area include those in areas such as efficient forms of equipment for increasing adoption of distributed power sources, grid operation adapted to changes in supply and demand, and development of a platform for advanced use of smart meter data and telecommunications networks.

Developing efficient configuration of power transmission & distribution facilities suited to growing use of EVs
Developing next generation power networks suited to new methods of using the grid, including VPPs and peer-to-peer (P2P)
Developing efficient configurations of power transmission and distribution facilities suited to growing use of renewable energy and advancing grid operation through use of voltage and power flow controls employing information and telecommunications technologies
Developing and operating microgrids and other power networks independent of the grid
Developing a platform for advanced use of smart meter data and telecommunications networks

Feasibility testing of shared electricity, gas, and water meters using smart meter telecommunications networks

In August 2020, we began feasibility testing of shared electricity, gas, and water meters using our smart meter telecommunications network in partnership with Hachinohe Gas Co., Ltd. and the Hachinohe Regional Water Supply Authority. Similar testing began in partnership with the Koriyama City Waterworks and Sewer Bureau in August 2021. These tests are intended to accelerate study of services related to shared meter reading, to contribute to solutions to issues faced by the community and by customers, and to continue progress toward a smart society utilizing IoT technologies.

- Installation of a wireless telecommunication device capable of connecting to smart meter telecommunications network on gas and water meters and verifying use of the smart meter telecommunications network for automated remote collection of gas and water meter data, and collection of safety information on matters such as gas and water leaks, and remote opening and closing gas valves
- Assessing the environmental durability and wireless propagation properties of wireless devices under the harsh natural conditions of the Tohoku and Niigata region and studying the development of a system suited to the region



Smart Society Building Business

In the six Tohoku prefectures and in Niigata Prefecture, where the Tohoku Electric Power Group's businesses are based, shrinking populations and an aging society resulting from low birth rates is proceeding at a faster pace than in other regions. As a result, wide-ranging social issues are expected to emerge in the future, including transportation, education, and welfare. Among related issues, the Group considers the following issues as important: effective utilization of energy in the community, consideration for the environment, advancement of digitization, securing safety and peace of mind, making optimal use of diverse human resources, realizing a sharing economy, expanding flows of non-resident people, rebuilding social infrastructures, and building a transportation infrastructure for the new era.
Smart society building business refers to those businesses that can identify and create solutions to the abovementioned social issues through next generation digital technologies and innovations, to enable residents to live in comfort and safety, and with peace of mind without conscious concern over each of the individual services used.

Illustration of smart society building business

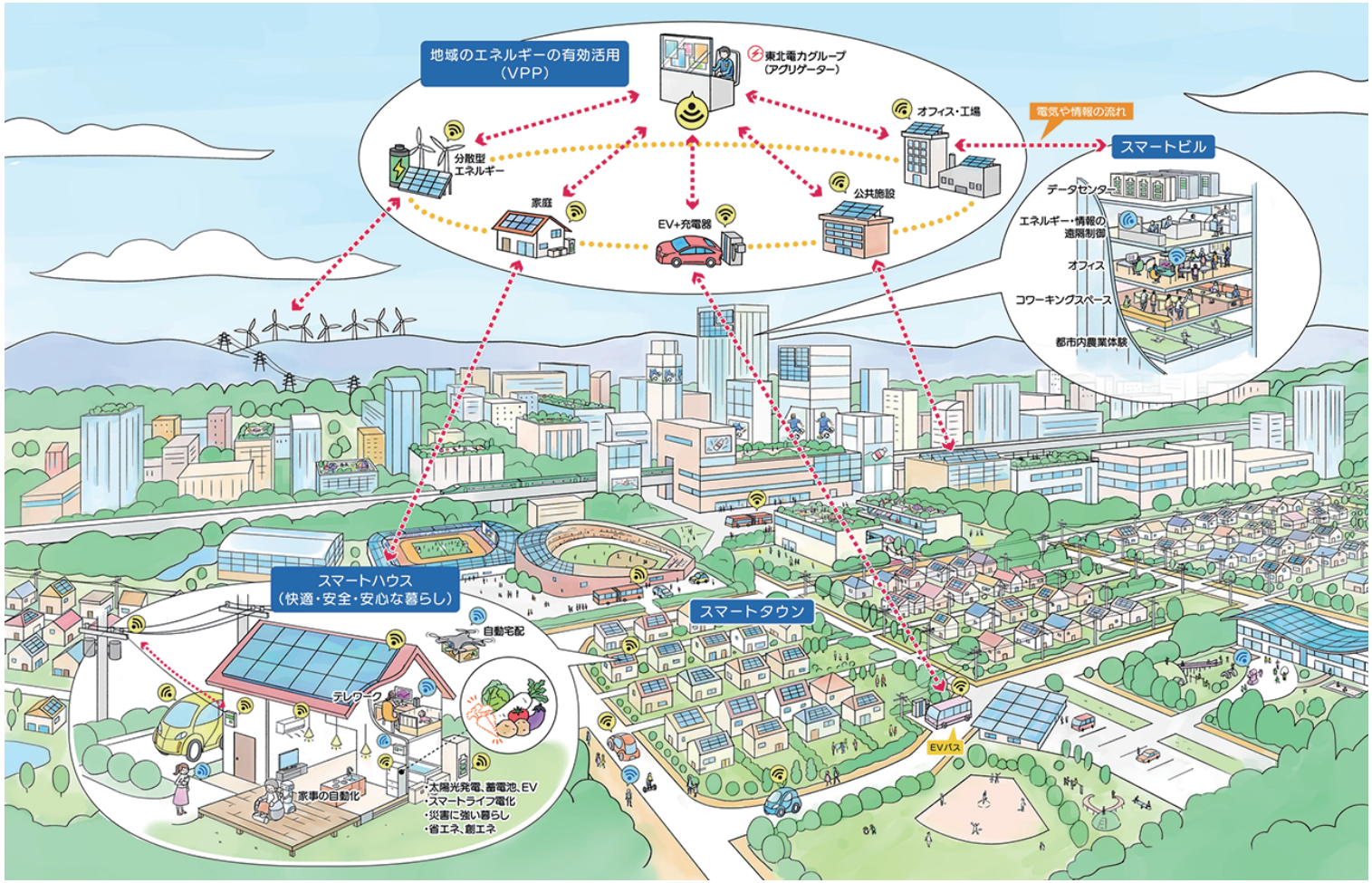
A vision of the region's future reflecting Tohoku's natural abundance: Comfort, safety, and convenience for adults and children alike

Smart Society Building Business

By providing services like VPP* that make effective use of decentralized energy resources in the community and various electricity-related services that improve quality and satisfaction in commerce and the lives of residents, the Tohoku Electric Power Group will help realize a smart society and create value only the Group can provide as a utility based in the six Tohoku prefectures and Niigata Prefecture.
The COVID-19 pandemic has brought with it a society characterized by new modes of daily life and working through utilization of digital technologies. Our smart society building business also helps realize such new ways of living. We will invest in this business strategically as one of growth businesses for the Group.

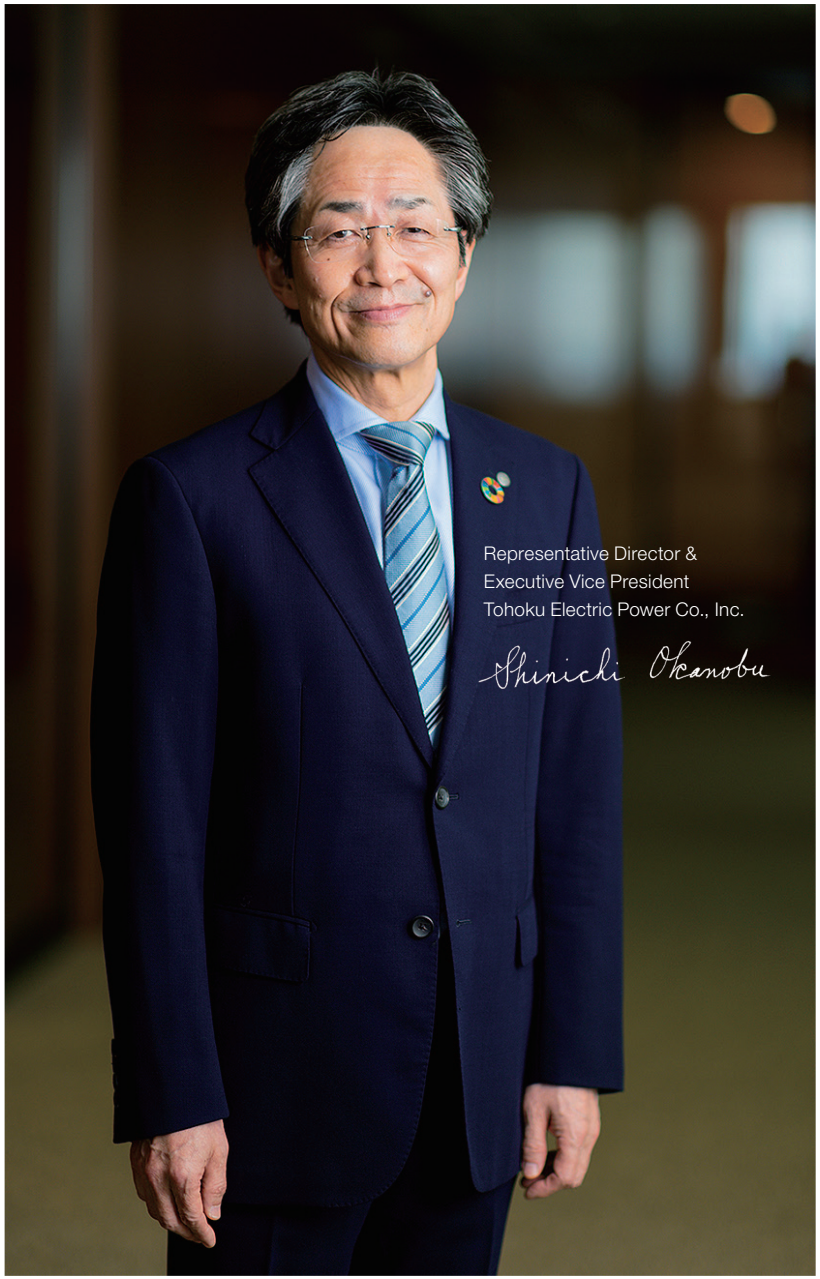
Illustration of smart society building business

A future vision for urban and suburban communities Convenient, comfortable urban functions inspired by resident needs and a true vision of inviting modes of life



* Virtual power plants realized through IoT and other new information technologies in the remote control and integration of power generating facilities, storage cells, EVs, and other decentralized energy resources owned by municipalities, firms, and residents across the community.

Smart Society Building Business



Establishing a firm position to realize a smart society

In its Medium- to Long-Term Vision “Working alongside next,” which describes the Group’s vision for the 2030s, the Tohoku Electric Power Group identifies the goal of being “a group of companies growing in step with sustained societal progress by helping to establish a smart society for a new age, starting in Tohoku.”
A smart society refers to the society of the future envisioned in the Japanese government’s “Society 5.0” vision—one in which community residents can secure comfortable, safe, and secure living spaces without the need to be conscious of various individual services.
Future deployment of AI and other technologies will likely make it possible to automatically receive the services we need when we need them in ways tailored to individual lifestyles. Making effective use of energy will help achieve carbon neutrality and advance eco-friendly and disaster resilient developments in individual communities. State-of-the-art virtual power plants (VPPs) and mobility technologies will expand services that help customers conserve energy and cut costs.
Through integration of energy and digital technologies, the Tohoku Electric Power Group strives to realize a smart society in which customers can live their lives in comfort, safety, and peace of mind.

Established in April 2021, Tohoku EPCO Frontier will play a central role in this approach, releasing new customer experiences by bundling various additional services together with electricity services. Specifically, the company provides, at fixed cost, various services directly useful in people’s lives, including energy management and entertainment services. Its first offering bundles solar power and storage-cell installation provided by Tohoku EPCO Solar e Charge with electricity supply at no initial cost. Naturally, Tohoku EPCO Frontier plans to release a succession of additional new services in the future.
To date, to generate in this way a succession of products and services based on new perspectives, the Tohoku Electric Power Group has organized ideathons and other activities to seek ideas from university students, younger employees, and others. We plan to refine these ideas, examine related business models, and add new services to our lineup.
We must also work with various partners through activities such as open innovation and alliances with startups. The Tohoku Electric Power Group is developing various services in partnerships and other joint efforts with not only group member companies but also various other business partners.
Our plans to develop smart society building business is based on the area of the six Tohoku prefectures and Niigata Prefecture. In the years leading to 2030, we will deliver bundled services based on electricity to millions of customers to achieve solutions to community challenges and to enrich the lives of our customers.

Smart Society Building Business

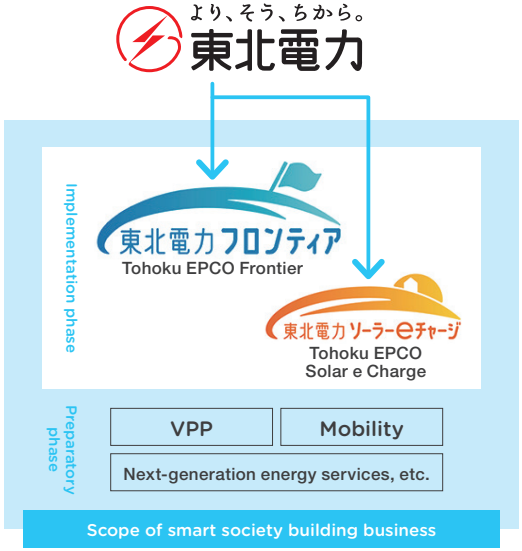
Tohoku EPCO Frontier and Tohoku EPCO Solar e Charge

On April 1, 2021, we established two companies: Tohoku EPCO Frontier and Tohoku EPCO Solar e Charge, forming the foundations of our smart society building business in partnership with Tohoku Electric Power.
As a core company in our smart society building business, Tohoku EPCO Frontier will offer a lineup of comprehensive services to enrich customer lifestyles, to help power the realization of a smart society—all based on energy management including management of electricity (for example, energy conservation, creation, and storage through optimal device controls) achieved through means such as use of next-generation digital technologies and innovation activities.
Tohoku EPCO Solar e Charge provides services to supply and install solar power generating equipment and storage cells installed on rooftops or in other locations, primarily for new detached homes. These services make clean, eco-friendly electricity easy to access without any initial cost at customers. The company bears costs of the installation of the solar power equipment and storage cells, and handles their maintenance thereafter. In the event of an emergency, the residents can use solar power generated in their home as well as using electricity stored in the storage cells installed there. We will continue to offer more attractive services to help provide customers with comfort, safety, and peace of mind.

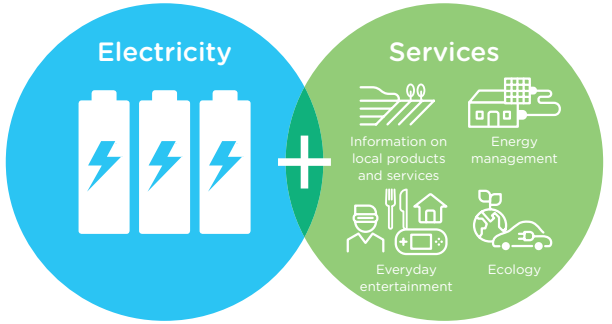
Comprehensive services to enrich customer lifestyles (Tohoku EPCO Frontier)

Tohoku EPCO Frontier
https://www.tohoku-frontier.co.jp

Structure of smart society building business



Tohoku EPCO Frontier's services



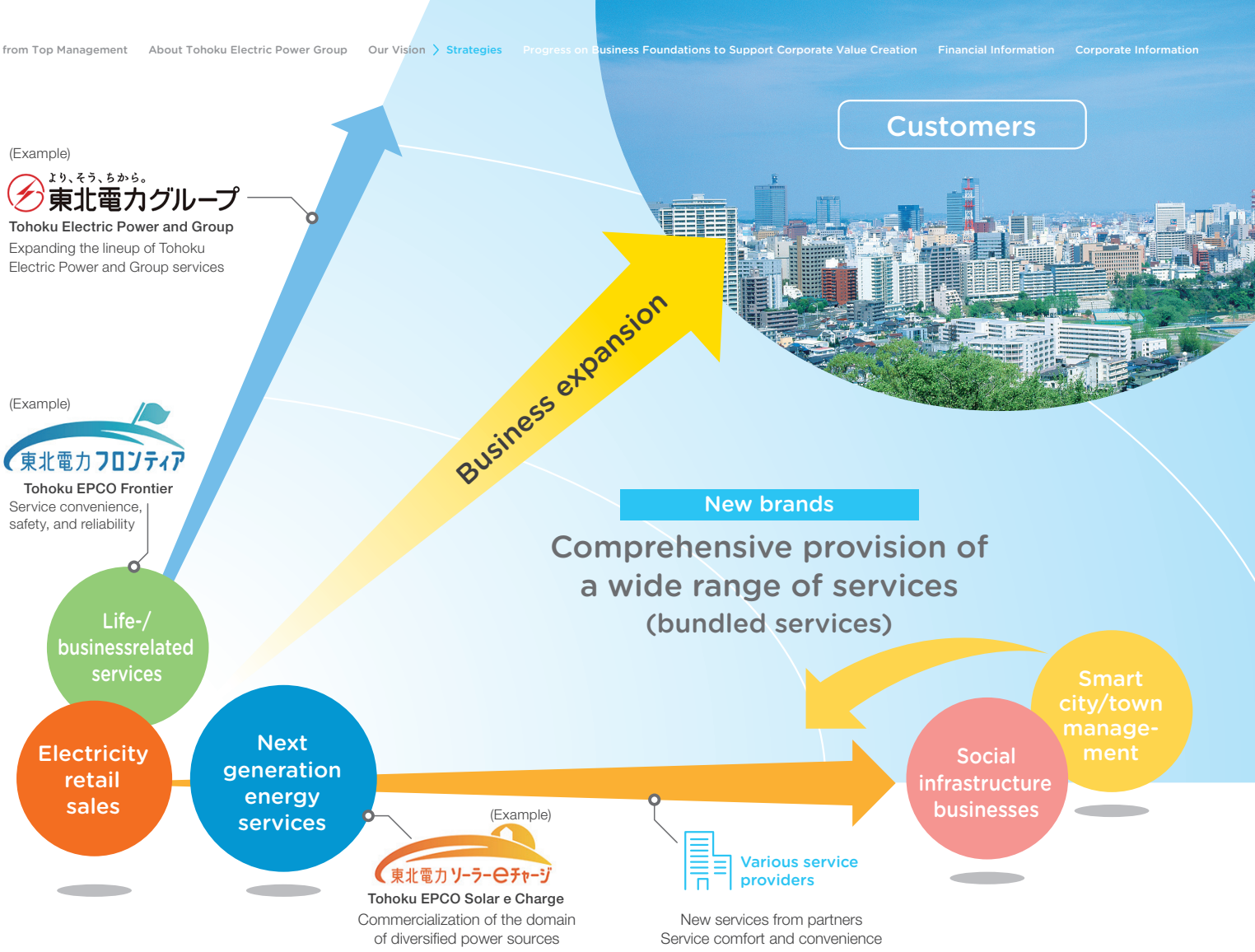
Smart Society Building Business

How we develop smart society building business

We regard the post-COVID-19 digital shift as a business opportunity; our smart society building business will deliver a diverse range of services to achieve solutions to social issues and to help community residents live in comfort, safety, and peace of mind, based on comprehensive service packages starting from electricity supply.
On April 1, Tohoku EPCO Frontier Co., Inc. was established as the core company in this business. Its activities include providing services related to electricity and living. We will also seek to develop platforms capable of delivering one-stop services to customers, through acceleration of studies toward business implementation in domains such as next-generation energy and social infrastructure as well as data integration among multiple businesses and services.
In addition, to broaden the base of the smart society building business, we are seeking business ideas from within the Group and forming alliances with startups. These are some of the activities intended to enhance our open innovation capabilities. We plan to generate new services through business incubation based on these and similar measures.

Our outlook on investment

We expect to invest tens of billions of yen in establishing the smart society building business through the 2030s. We will consider each potential investment fully to ensure (for example) that the internal rate of return satisfies certain standards.



Examples of initiatives

Life-/business-related services	Yori, Sou, Chikara + ONe services (living support), energy solutions, business solutions
Next generation energy services	VPP and decentralized power supply equipment business, mobility services
Social infrastructure businesses	Natural gas business
Smart city/town management	Participation in the Council on Advanced Initiatives in Izumi Ward, Sendai and Super City Projects in Sendai and Aizuwakamatsu

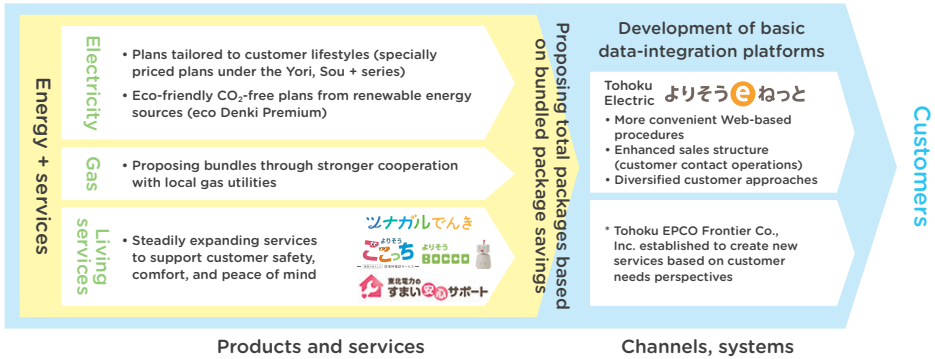
Smart Society Building Business

Life-/business-related services

Positioning of services, value provided	We will expand our lineup of services with a focus on customer life stages and business needs, offering comprehensive solutions that bundle energy with services. These efforts will be based on the utilization of next-generation digital technologies and innovations to contribute to comfort, safety, and peace of mind and the enrichment of customer lives, all based on the starting point of retail electricity sales.
Progress on initiatives	In life-related services, based on the Yori, Sou, Chikara + One approach, we have begun offering rental services and various other services. In business-related services as well, we're deploying energy and solutions built around the core of our exEMS proprietary energy management system. We also offer business solutions such as services to support adoption of information and communication technologies (ICT).
Future issues and courses of action	While responding to lower revenues associated with intensifying competition in the retail sector and social issues resulting from shrinking populations, we will accelerate efforts in areas such as the deployment of various services to meet customer expectations in the new age of coexistence with COVID-19. In life-related services, we will accelerate implementation of services to support living under the Yori, Sou, Chikara + ONe brand. In business-related services, we will propose solution services tailored to meet customer needs in alliance with partners both in and outside the Group.

Life-related services

Under the Yori, Sou, Chikara + ONe brand, we will accelerate service expansion to support customer lives based on their needs in the age of coexistence with COVID-19.
We will also propose more comfortable living through eco-friendly, smart electrification.



Alice.style, a rental service for more convenient living

Alice.style is a rental service that meets a wide range of customer needs, including those for trying out new products before buying them, living simply free of excessive material belongings, and using devices only for special events. With this service, members of our Web-based membership program Yori, Sou eNet can use multiple popular products together through exclusive bundle plans. These plans make it possible to rent at low cost products ranging from ones useful for housekeeping and personal care to home electronics and other items popular today for the stay-at-home lifestyle.

Business-related services

We propose a wide range of solutions and optimal energy services (electricity, gas, and renewable energy) to meet customer needs, including environmental needs.
We are enhancing and actively proposing energy solutions tailored to customer equipment, including our proprietary exEMS energy management system, contracting services centered on air conditioning equipment, and solar power generation services for private use.
Alongside partners both inside and outside the Tohoku Electric Power Group, we propose business solutions to facilitate customer business operations, including services to support the adoption of information and communication technologies (ICT) in light of business operations in the age of coexistence with COVID-19 and support services related to business continuity planning (BCP) in preparation for increasingly frequent natural disasters.

ICT adoption support services

Despite its growing role in curbing the spread of COVID-19, teleworking has raised various issues, including concerns about information security and essential documents that have yet to be digitized.
The services we offer to support the adoption of information and communication technologies (ICT) provide not just services that support teleworking—for example, digitizing document control and teleconferencing—but a high-security information systems environment and reliable, easy to use telecommunications services. These services will help resolve the various challenges customers face while supporting progress on the development of business continuity plans (BCPs) and workstyle reforms.

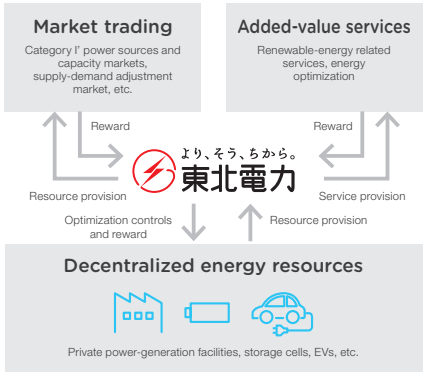
Smart Society Building Business

Next generation energy services

Positioning of services, value provided	In addition to promoting adoption of renewable energy in the region and optimal energy usage and developing solutions to issues such as the need for greater resilience to disasters, we also contribute to improving customer convenience and realizing energy and cost savings.
Progress on initiatives	In the VPP business, in addition to practical implementation of Category I' adjustable power sources* based on public bidding, we will accelerate our study of commercialization, including trading on the supply-demand adjustment market established in April 2021. In April 2021, we established Tohoku EPCO Solar e Charge to offer solar power and storage cell services for residential users.
Future issues and courses of action	We will establish our business foundations in the VPP business by implementing renewable energy aggregation in cooperation with various partners both in Japan and around the world, as well as by securing gains from market trading. Tohoku EPCO Solar e Charge will contribute to customer comfort, safety, and security by providing solar power and storage cell services.

* Mainly includes power sources that can be used to balance demand and supply during peak times, such as fierce heat and cold weather.

Virtual power plant (VPP)



Through integration and effective use of regional energy resources, we plan to create win-win relationships in which both customers in the community and we benefit via market trading in electricity on the supply-demand adjustment market opened in April 2021, capacity markets slated to open in 2024, and other markets, as well as through direct transactions. We will return a portion of these gains to customers in the communities providing the resources.

Strategic alliance with Next Kraftwerke (Germany)

- We concluded a basic agreement on a strategic alliance in VPP feasibility studies with Next Kraftwerke, among the world's largest VPP operators. These efforts to verify the control of our own and customer energy resources using Next Kraftwerke's technologies have made it possible to acquire knowledge and technologies essential to the VPP business. In the future we seek to implement new energy services based on the knowledge and expertise attained through these initiatives.

Renewable energy aggregation business

- In the field of renewable energy, where future growth is expected, demand will grow for the aggregation of renewable energy generation facilities and operational efficiency. These trends respond to developments such as the step-by-step discontinuation of the feed-in tariff program and Japan's goal of carbon neutrality by 2050. We will examine the feasibility of these renewable energy aggregation businesses.

Efforts to raise awareness of VPPs through our website

- We have launched a VPP business informational website to expand awareness of our VPP business. In addition to information on topics such as VPP feasibility study initiatives and customer case studies, the site offers easy to understand videos explaining various VPP topics, including demand response (DR) technologies and adjustment capabilities.

VPP business introductory website
https://vpp.tohoku-epco.co.jp/

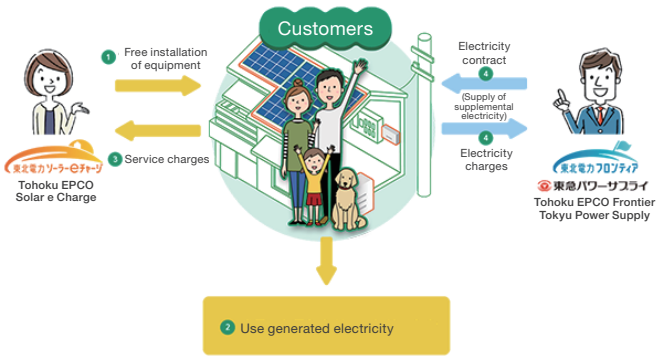
Residential solar power generation and storage cell services

Tohoku EPCO Solar e Charge established (April 2021)

Together with Tokyu Power Supply, we established Tohoku EPCO Solar e Charge to provide energy services based on solar power equipment and storage cells.
This service installs solar power equipment and storage cells primarily in new detached home construction, with no initial cost charged to the customer.* For a fixed monthly fee, customers can use eco-friendly clean energy and secure the availability of power generated and stored as an emergency power supply in the event of a disaster or other emergency. This service will be rolled out in the Tohoku, Niigata, and Kanto regions.
We will offer various services to help customers live in comfort and safety and with peace of mind by generating synergies with Tohoku EPCO Frontier, our core smart society building company.

* Separate construction and other costs may apply to installation at existing homes.

Structure of Aozora Charge Service by Tohoku EPCO Solar e Charge

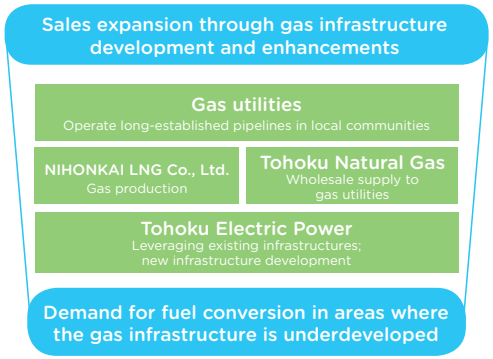


Smart Society Building Business

Social infrastructure business (gas business)

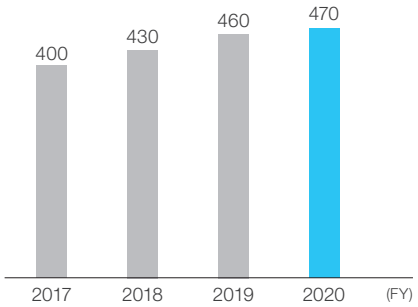
Positioning of services, value provided	Delivering total energy solutions through optimal combinations of electricity and natural gas while reducing environmental impact by shifting from fuels such as heavy oil to LNG.
Progress on initiatives	In addition to existing supplies of gasified LNG using the pipelines from NIHONKAI LNG's Niigata facility and LNG supplied by truck, using the LNG shipping facilities for the Shin-Sendai Thermal Power Station (which began commercial operation in August 2018) and other efforts to expand natural gas sales volumes.
Future issues and courses of action	To meet fuel conversion needs centered on industrial uses in regions where the gas infrastructure is underdeveloped, we will enhance partnerships with regional gas utilities purchasing gas materials from Group member companies NIHONKAI LNG Co., Ltd. and Tohoku Natural Gas. We will work jointly with these Group member companies with the goal of increasing sales through improvements and enhancements of the gas infrastructure and other aspects.

Alliances with regional natural gas companies



Business partner	Contract concluded	Summary
Nikaho Gas (Nikaho, Akita Prefecture)	March 2020	We've concluded an agreement involving a business alliance in bundled sales of electricity and gas. In May 2020, we began offering bundled electricity and gas solutions in the Nikaho Gas service area. Bundled sales of electricity and LP gas began in April 2021.
Tobu Gas (Chuo-ku, Tokyo)	March 2021	We've concluded an agreement involving a business intermediation involving bundled sales of electricity and gas. In June 2021, we began offering bundled electricity and gas solutions to customers in the Tobu Gas service area in the Tohoku region.

Trend in natural gas sales volume (thousand tons)



LNG shipping facilities for the Shin-Sendai Thermal Power Station

Smart city and town management

Positioning of services, value provided	Drawing on our knowledge and experience as a comprehensive energy company centered on electricity, we provide value to help find solutions to social challenges and further sustained progress within local communities.
Progress on initiatives	We're participating in a council seeking to promote the adoption of advanced initiatives in Izumi Park Town (Izumi Ward, Sendai) and in the super city programs* of the cities of Sendai and Aizuwakamatsu. The goal is to help establish a smart society, starting in Tohoku, through various initiatives, including the development of state-of-the-art services centered on the energy field.
Future issues and courses of action	We seek to apply the knowledge attained through supporting the council's activities in other locations as well.

Participation in smart city and Super City Projects

Region	Summary
Sendai (Izumi Park Town)	■ We're participating in an advanced council in Izumi Ward, Sendai to promote the adoption of advanced technologies and systems, thereby contributing to sustainable town management in Izumi Park Town. ■ In cooperation with the phase-six residential community east zone development project currently underway (planned to open in FY2022), we're examining solutions and services to help realize a low carbon recycling-oriented society (e.g., VPP, solar power, and storage cells).
Aizuwakamatsu Super City Project	■ The city of Aizuwakamatsu is moving forward with studies to realize a super city vision in the AiCT Consortium, centered on companies occupying the AiCT ICT office complex. We are participating in this project through studies centered on the energy field. ■ We will contribute to realization of the city's Aizu 100% Renewable Energy vision through VPP technologies.
Sendai/ Tohoku University Super City Project	■ Together with Tohoku University, the city of Sendai is moving forward with studies to realize the super city vision for the university's new Aobayama Campus zone. Plans call for the construction of a next-generation synchrotron radiation facility. We are participating in this project in the area of studies focusing on energy. ■ We are also examining the creation of new services based on data integration with other businesses, including deployment of solar power, storage cells, and energy management services in the new campus area. This will help realize the Sendai city vision of a showcase city of the future.

* Super City Project
Cabinet Office project targeting the development of a completely new city of the future through modes of life based on advanced technologies such as AI and Big Data and based on the national strategic special zones approach Municipalities designated as special zones by the Cabinet Office can request, from multiple government ministries and agencies, measures such as legal amendments and special exemptions in these zones from regulations that would impede the realization of advanced services.

Smart Society Building Business

Alliances with diverse business partners

In giving concrete form to smart society building business, we're allying with a diverse range of businesses capable of sharing our vision for establishing a smart society, including startups offering innovative technologies or business models and other companies with their own unique strengths.
In January 2020, we invested in the GB-VII Growth Fund Investment Limited Partnership operated by Global Brain Corporation. We will continue efforts to strengthen alliances and joint efforts through investment in startups. The goals of these efforts include creating new businesses and services through open innovation. In October of the same year, as part of efforts to strengthen alliances and joint efforts by investing in startups, we invested in Tohoku University Venture Partners Investment Limited Partnership II, which is operated by Tohoku University Venture Partners.

GB-VII Growth Fund Investment Limited Partnership

Operator	Global Brain Corporation
Investment domains	IoT, AI, energy, etc.
Investment areas	Centered on Japan, Europe, Asia, and the US
Investment period	10 years

Tohoku University Venture Partners Investment Limited Partnership II

Operator	Tohoku University Venture Partners Co., Ltd.
Investment domains	Robotics, healthcare, IoT, AI, etc.
Investment areas	Mainly the six Tohoku prefectures and Niigata Prefecture (with a planned coverage expansion to include Northern Kanto and Hokkaido)
Investment period	10 years

70th anniversary commemorative project Tohoku EPCO Business Build

In May 2021, we launched Tohoku EPCO Business Build, an open innovation program intended both to commemorate our 70th anniversary and to help establish a smart society. The goal of this project is to create new businesses and services based on alliances and co-creation efforts with partners by seeking out ideas from a wide range of participants on the three themes identified below, which concern social challenges and other issues facing communities.
The business ideas submitted and judged to be highly feasible will be refined in joint efforts with the firms submitting the ideas, then subjected to a final screening process, followed by efforts toward verification and commercialization.

Entry themes

① Convenient living services for residents aged in their 20s and 30s
② Preventive medicine and health promotion through behavioral changes
③ Sustainable agriculture

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TOHOKU EPCO BUSINESS BUILD
https://eiicon.net/about/tohoku-epco-businessbuild2021/

R&D Strategy

R&D vision

We have identified this five-year period (FY2020–2024) as a time in which we will transform our business model to achieve what we want to be in the 2030s identified in Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision. To this end, we are moving forward with business activities based on the three focal points. In FY2020, we selected the four priority domains of Group R&D derived from the three focal points—all based on the principle of R&D that contributes to the safe and stable supply of electricity. We are moving forward with R&D in these domains alongside Group companies. As part of these efforts, our R&D is focusing on research projects selected in light of anticipated profitability and potential and expected to result in structural reforms in the power supply business and swift achievement of profitability of the smart society building business.

Point 1 Change
Enhancing competitive strengths through comprehensive reforms in the power supply business

Point 2 Challenge
Taking on the challenge of swiftly achieving profitability in smart society building business

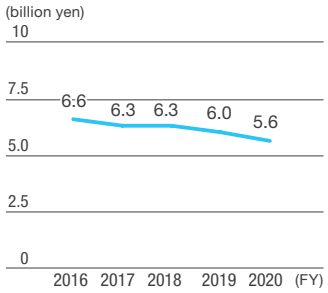
Point 3 Create
Evolving the management foundations to support corporate value creation

Priority R&D domains

- R&D supporting a safe and stable supply of electricity in response to structural reforms in the power supply business
- R&D contributing to enhanced cost competitiveness throughout our businesses in the construction, operation, and maintenance of electricity facilities and in other areas
- R&D contributing to reduced environmental impact of our businesses
- R&D contributing to future growth and new value creation

In addition, given the emphasis placed on decarbonization efforts by the Japanese government's announced national goal of achieving carbon neutrality by 2050, we will strive to establish a technological advantage in this field through initiatives both inside and outside the Group alongside activities to realize the Tohoku Electric Power Group Carbon Neutral Challenge 2050. These initiatives will include alliances and partnerships with startups, participation in consortia, and joint research.

Trend in R&D costs



Intellectual Property Strategy

Intellectual property

We see intellectual property s a key management resource in enhancing our competitive advantages. Our R&D activities also comply with the obligation to respect intellectual property rights specified in the Tohoku Electric Power Group Code of Conduct.

Code of Conduct: 3 (1) Protecting intellectual property rights

We protect and utilize the Group's intellectual property rights while respecting those belonging to others.

Policy on intellectual property

We advance strategic intellectual property initiatives throughout the Tohoku Electric Power Group to allow effective use of intellectual property in business activities through its creation, protection, and application.

Initiatives under the intellectual property strategy

Our branding initiatives and other activities have led to a significant increase in the number of trademark applications over recent years. In FY2020, we applied for 16 trademarks, including trademarks for Tohoku EPCO Frontier and Tohoku EPCO Solar e Charge.

Educational initiatives	To promote efficient R&D and to secure and make proactive use of intellectual property, we provide general employees with introductory and applied training on IP operations. We also provide seminars on searching for patent and trademark information and more specialized training for our IP staff. We have also set up three IP courses in our distance learning program for employees to offer a broad range of opportunities for acquiring knowledge in this area.
Setting up a hotline for patents and other IP rights	We have set up a hotline for the handling of industrial property (IP) rights by a team in the Research and Development Center to help oversee activities involving filing of patent applications and maintaining and managing IP rights.
Supporting the IP activities of Group companies	In addition to introducing the current state of Company IP activities through the Research and Development Center's publicity bulletins, we accept trainees from Group companies for IP training programs and seminars. The goal is to strengthen IP knowledge Groupwide.

Patents and other IP rights applied for and registered (end of FY2020)

	Applications	Registrations
Patents	16	285
Utility models	0	5
Designs	0	13
Trademarks	16	84

Example of protected IP rights

Natural cyclical vegetable oil transformer production method (patent)

* Developed jointly with Kitashiba Electric (https://www.kitashiba.co.jp/power-system/transformer/ https://www.tohoku-epco.co.jp/pastnews/normal/1190971_1049.html)

R&D Case Studies

Smart society building business

Research on responding to fluctuations in the output of renewable energy using hydrogen production technologies

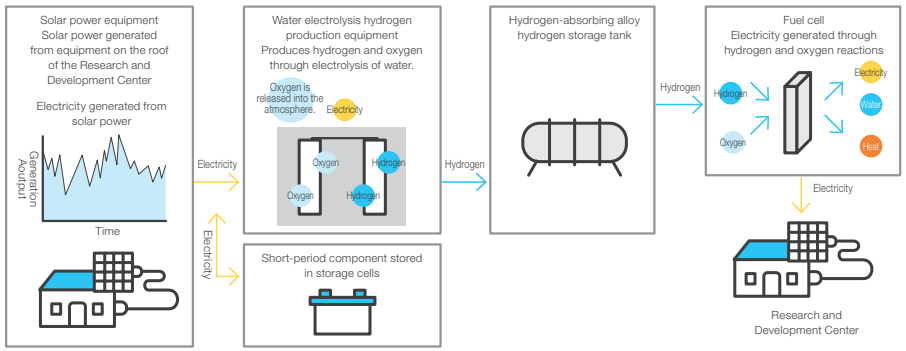
● Background and objectives

Accompanying the expanding adoption of renewable energy is the need for adjustments in response to fluctuations in output resulting from weather conditions. To date, we have sought to respond to fluctuating output through storage cell technologies. This research project will verify whether we can use electricity from renewable energy to produce hydrogen, which would then be used to adjust for fluctuations in output; this would achieve utility comparable to storage cells. Expectations are high for the potential use of hydrogen energy as an important energy source in Japan in aspects such as energy conservation, enhanced energy security, and reduced environmental impact. This research is expected to enhance our understanding of various aspects of hydrogen energy.

● Research overview

This research project involves setting up a system to produce hydrogen from solar power equipment, water electrolysis equipment, and other facilities at the Research and Development Center located in Aoba-ku, Sendai. This would allow use of electricity from solar power to produce and store hydrogen for use as fuel in generating electricity for the Research and Development Center. The illustration below gives an overview of the hydrogen generating system.
The project confirmed that a combination of water electrolysis and storage cell equipment is capable of absorbing sudden fluctuations in solar power and securing a stable supply of electricity. Additionally, the project confirmed that electricity can be obtained from fuel cells using hydrogen stored in tanks. One issue is the inefficiency resulting from energy losses due to converting electricity to hydrogen and then back to electricity.
Future plans call for testing the durability of the primary devices used, as well as quantitatively ascertaining energy conversion efficiency.
The project's future goals are to establish technologies for evaluating water electrolysis equipment and to examine how to establish hydrogen businesses, including ways of using hydrolysis equipment to address fluctuations in energy obtained from renewables.

Overview of hydrogen generating system



Decarbonization

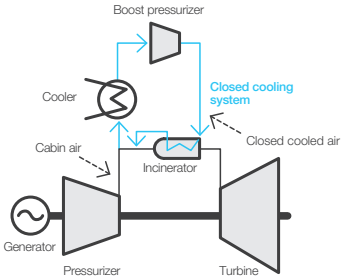
Developing next generation high efficiency gas turbines

● Background and objectives

Since 1984, when we became the first in Japan to adopt a high capacity gas turbine combined cycle system for commercial use in Higashi Niigata Thermal Power Station series 3 (Seiro, Niigata Prefecture), we have been a leader in gas turbine development as part of efforts to help reduce energy consumption and pollution.
Applying the knowledge and expertise accumulated to date, we have launched efforts to develop next generation gas turbines, targeting more efficient gas turbine combined cycle power systems. One way to improve gas turbine efficiency is to raise the temperatures at the turbine intake. The highest gas turbine intake temperature in the world is around 1,600 °C. Such turbine is among the most efficient in the world (61% LHV or higher), significantly reducing CO_2 emissions.

● Research overview

A gas turbine with an intake temperature of about 1,600 °C uses a steam cooling method to cool the incinerator. Since conversion to air cooling while maintaining the high gas turbine intake temperature would lead to even more efficient gas turbine combined cycle equipment that's even easier to use, we have devised a cooling method called "closed air-cooling." Based on this system, we are working with a plant builder to develop a next generation gas turbine operating at temperatures of about 1,650 °C. We expect to achieve generation efficiencies of 63% (LHV) or higher at Unit 1 of the Joetsu Thermal Power Station, where use of this gas turbine is planned.



Closed air-cooling system

Other major R&D case studies

Enhancing competitive strengths in power supply business	Developing technologies for diagnosing useful lives of thermal power station equipment
	Advancing operations monitoring technologies for thermal power stations using digital technologies
Smart society building business	Research on development of PV services for self-consumption
	Research on estimating power load by device, using smart meter data
Decarbonization	Research on reducing CO_2 and improving efficiency
	Research on efficient use of home and commercial heat pumps

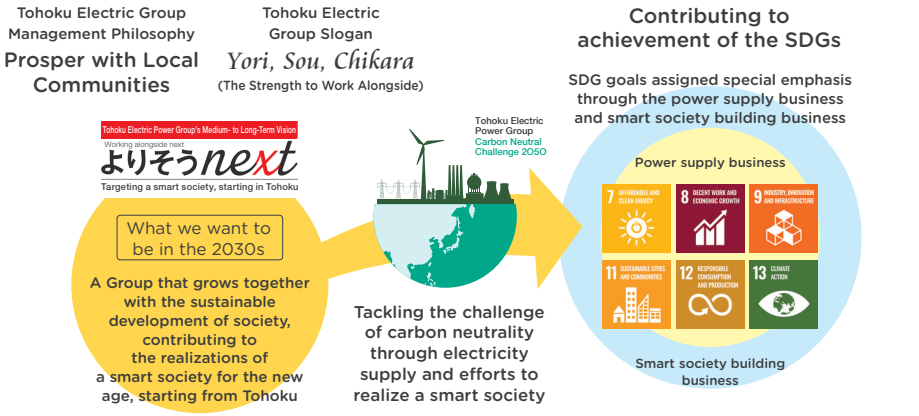
Management Foundation

Sustainability Initiatives

Seeing the various issues related to the sustainability of society not only as risks but also as opportunities for the sustained growth of both the Group and society as a whole, the Tohoku Electric Power Group is taking on the challenges of realizing Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision and of the Tohoku Electric Power Group Carbon Neutral Challenge 2050.
The Tohoku Electric Power Group Sustainability Policy has been established, and its promotion structure enhanced, in order both to identify sustainability initiatives as core elements of management and to improve our efforts further, through communication with stakeholders.

Tohoku Electric Power Group Sustainability Policy (Excerpt)

The Tohoku Electric Power Group proactively promotes sustainability through means including realization of Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision and taking on our Carbon Neutral Challenge 2050.
Drawing on our Management Philosophy of Prospering with Local Communities and the Group Slogan Yori, Sou, Chikara (The Strength to Work Alongside), the Tohoku Electric Power Group's concept of sustainability calls for the Group to work as a cohesive, united team alongside customers and communities to realize a smart society. The Group will provide energy-related services that contribute to growing corporate value over the medium to long term and to the sustainable progress of society as a whole.
To realize these goals, the Tohoku Electric Power Group will demonstrate its overall strengths through sincere and fair business activities in accordance with the Tohoku Electric Power Group Code of Conduct while drawing on the unique characteristics of individual group companies, thereby providing powerful support for the value chain of business activities and meeting the expectations of its valuable stakeholders.

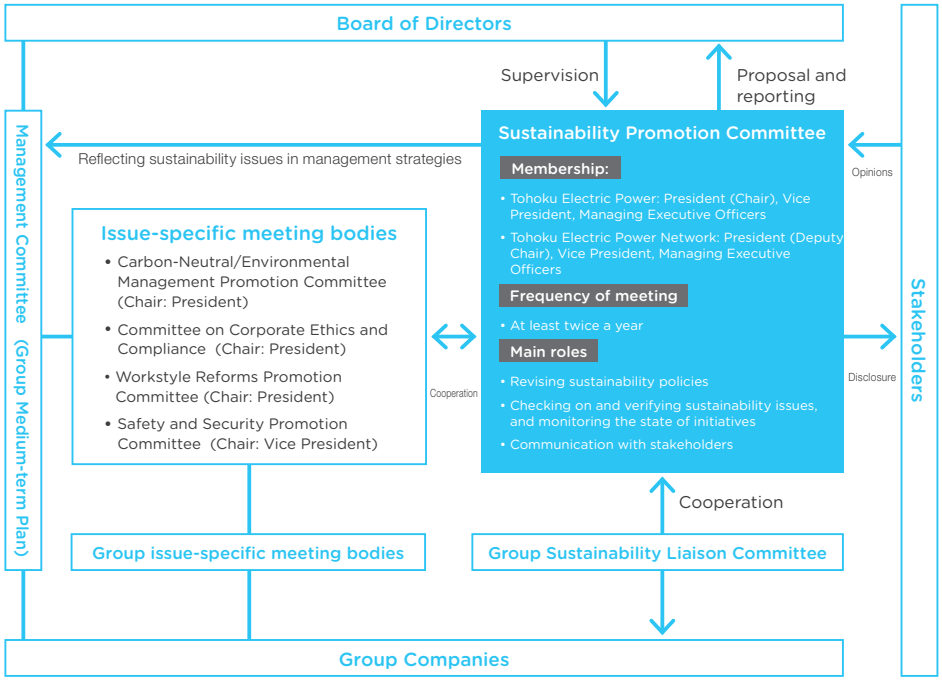


See >> Tohoku Electric Power Group Sustainability Policy
Sustainability Data Book 2021, p. 2

Sustainability promotion structure

The Sustainability Promotion Committee, whose members comprise representatives from both Tohoku Electric Power and Tohoku Electric Power Network, comprehensively checks on various initiatives (see next page) based on stakeholder views regarding sustainability. It reflects courses of action for the future in the Group Medium-term Plan, reports its findings to the Board of Directors for appropriate oversight. In addition, the Tohoku Electric Power Group Sustainability Liaison Committee coordinates joint efforts among Group Companies.

Sustainability promotion structural diagram



Sustainability Initiatives

Major initiatives in the fields of ESG

Category	Item	Related SDGs	Major initiatives and goals	Major management indicators/ quantitative targets*1	FY2020 results (Results vs. targets and indicators at left and qualitative results of initiatives)
E	Promoting decarbonization initiatives		■ Proactively assuming the challenge of achieving carbon neutrality by 2050 based on the major prerequisite of securing S+3E ● Maximum use of renewable energy, including hydroelectric, wind, biomass, geothermal, and solar power ● Swift resumption and increased operation rate of nuclear power based on the essential prerequisite of safety ● Decarbonizing thermal power through mixed burning with biomass, hydrogen, and ammonia ● Developing businesses to help establish a smart society by promoting electrification, implementation of VPP services, and related initiatives. ● Advances in the electricity network to expand adoption of renewables	■ [G] Renewable energy development: Target of 2,000 MW soon after 2030 ■ [TD] CO_2 emissions coefficient: Electric Power Council for a Low Carbon Society target of approx. 0.37 kg-CO_2/kWh in FY2030 ■ [TD] CO_2 emissions: Seeking to halve FY2030 CO_2 emissions from actual FY2013 figures	■ Renewable energy development: 26 projects underway with total output of approx. 600 MW (end of September 2021) ■ CO_2 emissions coefficient*2: 0.457 kg-CO_2/kWh (FY2020) ■ CO_2 emissions*2: 30.12 million t-CO_2 (FY2020)
	Establishing a recycling-oriented society		■ In addition to the appropriate management and disposal of waste in accordance with laws and regulations, contributing to a sustainable recycling-oriented society through efforts in the area of the three Rs (reduce, reuse, and recycle)	■ [TD/TN] Increasing effective use of total industrial waste: target of 90% or better	■ Rate of effective use of total industrial waste: 91.9% (FY2020)
S	Employee safety		■ Striving to achieve further improvements in employee safety consciousness through comprehensive implementation of the Tohoku Electric Power Group Safety and Security Policy in everyday activities	■ [TD/TN] Fatal accidents and those causing serious injury: target of 0 (including commuting accidents)	■ Fatal accidents: 0 ■ Accidents causing serious injury: 6
	Enhancing resilience		■ Responding to increasingly severe natural disasters by enhancing disaster resilience in both tangibles and intangibles and communicating information swiftly to customers, thereby continuing to fulfill our mission of providing a stable supply of electricity	■ [TN] Annual power failure time/instances per customer household	■ Power failure hours: 21 minutes, instances: 0.14 ■ Maintaining and enhancing the capacity to respond to disasters through continual training, systematic renovation of aged equipment, and enhanced communication of information to customers through smartphone app for power failure information
	Finding solutions to social challenges alongside the community		■ Helping to establish a smart society based on the Tohoku and Niigata Revitalization Support Program, Machizukuri Genki Juku®, and other initiatives through efforts to identify solutions to social challenges and community revitalization alongside community residents	■ [TD] Number of organizations receiving subsidies under the Tohoku-Niigata Revitalization Support Program ■ [TD] Number of times support provided under the Machizukuri Genki Juku® program	■ Tohoku-Niigata Revitalization Support Program: 7 organizations receiving subsidies ■ Machizukuri Genki Juku® program: support provided 6 times
	Establishing new work styles and putting work-style reforms into practice		■ Realizing a company where all can work with vitality through a virtuous cycle of reduced workload and improved efficiency, work-life balance, and improved business quality ■ Making it possible for each employee to play a role in realizing a smart society through awareness and behavior changes and post-COVID work-style reforms based on digital and online technologies	■ [TD/TN] Percentage of paid leave actually taken by employees: 80% or better by end of March 2025	■ Percentage of paid leave actually taken by employees: 72% at TD, 78% at TN
	Respect for human rights, promoting diversity		■ Supporting individual success by establishing workplaces in which diverse human resources can demonstrate their abilities to the fullest and through fair and equitable treatment ■ Supporting career development for women employees based on support for networking through group discussions for employees of childrearing years and ICT and promoting women managers	■ [TD/TN] Number of women managers: target of at least 1.5 times number at start of FY2019 by end of March 2025 ■ [TD] Kurumin and Eruboshi certification status ■ [TD/TN/TFP] Achieving the target percentage of employees with disabilities (statutory rate: 2.3%)	■ Number of women managers (department manager class and above): 38 at TD, 11 at TN ■ Kurumin (third time) and Eruboshi (Level 2) certification received in FY2020 ■ Percentage of employees with disabilities: 2.32% (as of June 1, 2020)
	Promoting health improvements		■ Promoting good mental and physical health for every employee; seeking to improve productivity and corporate value through mental and physical health improvements	■ [TD/TN] Recognition as an outstanding health management firm ■ [TD/TN] Smoking rate	■ Recognition as a White 500 firm named for outstanding health management (in the large firms category) in FY2021 ■ Smoking rate: 23.1%
	Identifying and training human resources to support business model transformations		■ Making progress on productivity improvements in core businesses and deployment of human resources capable of playing active roles in achieving profitability for growth businesses; uncovering and training diverse human resources from both inside and outside the Group ■ Advancing efforts such as fostering an innovative mindset of taking on challenges, learning the techniques and methods of digital innovation, and accelerating exchange of human resources within the Group to train leaders and specialists capable of promoting reforms Groupwide	■ [TD/TN] Training time, percentage of employees undergoing training (e.g., training for personal transformation, new managerial staff training, business creativity training, section training)	■ Annual training time per employee: 136.5 hours ■ Percentage of employees undergoing training (total number undergoing training vs. total number of employees): 123.6%
G	Realizing "Yori, Sou, Chikara (The Strength to Work Alongside)" among all Group employees		■ Ensuring understanding among all Tohoku Electric Power Group employees of the ideas embodied in the Group slogan "Yori, Sou, Chikara (The Strength to Work Alongside)" as a basis of our corporate ideal; putting into practice activities alongside customers and communities in daily activities	■ [TD/TN] Percentage of employee actions related to realizing the Group slogan	■ Percentage of employee actions: 63.9%
	Ensuring thorough compliance		■ Based on the Tohoku Electric Power Group Corporate Ethics and Compliance Activity Policy, further enhancing effective compliance efforts by each and every employee through initiatives deployed autonomously by each Group company	■ [G] Number of internal whistleblowing hotline consultations	■ Number of internal whistleblowing hotline consultations: 112
	Enhancing corporate governance		■ Establishing a solid governance structure and increasing effectiveness still further based on a solid understanding of social trends and demands related to corporate governance	■ [TD] Percentage of outside directors	■ Percentage of outside directors: 44% (as of June 2021) ■ Continual monitoring of Board of Directors effectiveness

*1 Abbreviations in brackets indicate subject scope. G: Tohoku Electric Power Group; TD: Tohoku Electric Power; TN: Tohoku Electric Power Network; TFP: Tohoku Electric Power Friendly Partners.
*2 CO_2 emissions factors and CO_2 emissions figures reflect adjustments under the feed-in tariff (FIT) program for renewables and other adjustments.

Environmental Management

Climate change mitigation an adaptation initiatives

Our understanding of climate change

Having long recognized climate change risks and opportunities as important management issues, we've moved forward with measures to reduce emissions of CO_2 and other greenhouse gases in terms of both supply and demand. In addition, since announcing our support for the TCFD recommendations in April 2019 we have redoubled efforts to promote environmental management in aspects such as strengthening our responses to climate change and continually enhancing information disclosure in accordance with the framework of the recommendations.
We believe it is important not merely to disclose information but to reflect in our management strategies the risks and opportunities posed by climate change. In doing so, we also rely on engagement with various stakeholders including institutional investors.
Amid expectations for growing risk related to physical changes such as increasingly severe weather events due to climate change, the Japanese government has announced a national goal of achieving carbon neutrality by 2050 and increased the level of target greenhouse gas emissions reductions for FY2030. We expect risks and opportunities related to climate change to grow in both scale and frequency in the future. Amid such changes, we believe it will be essential to enhance initiatives toward climate change mitigation and adaptation based on ascertaining risks and opportunities to secure sustained growth for the Company and to help achieve the national targets.
For these reasons, in March we announced the Tohoku Electric Power Group Carbon Neutral Challenge 2050. As part of activities to achieve this goal, we will accelerate reductions in our CO_2 emissions and strive to reduce customer CO_2 emissions in the Tohoku and Niigata regions and elsewhere through efforts to establish a smart society. In so doing, we will help decarbonize local communities.

CDP assessment

In 2020, we earned an assessment of A-, the second highest grade, on the climate change questionnaire carried out by CDP, an international NGO that promotes and assesses corporate information disclosure.
We will pursue efforts to maintain and improve on this assessment.

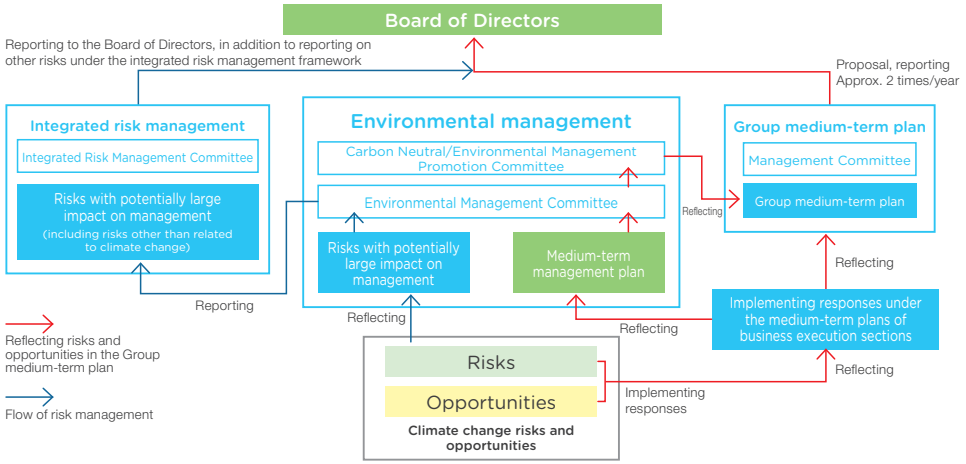
Disclosure under the TCFD* recommendations

The Board of Directors enhances our responses to climate change and makes decisions on their incorporation into management strategy based on a recognition of the risks and opportunities posed by climate change and studies of various response measures.
In the process of formulating the medium-term management plan under the environmental management framework, the Company collects and lists risks and opportunities related to climate change companywide, based on assessments of the financial impact of items submitted by individual business execution sections. It also ascertains priorities for responding to individual risks based on the degree of financial impact.
In studies of medium-term environmental management plans, including responses to climate change, the results of deliberations in the Environmental Management Committee and the Carbon Neutral/Environmental Management Promotion Committee consisting of management on the business execution side are proposed and reported to the Board of Directors for oversight. Each business execution section also submits proposals and reports to the Board of Directors as necessary in formulating and implementing its business plans.
In addition, a structure has been established for reporting climate change risks with potentially dramatic impact on management and other risks to the Board of Directors under the integrated risk management framework.

* Task Force on Climate-related Financial Disclosures, established by the Financial Stability Board (FSB) to reflect the aims announced by G20 finance ministers and central bank governors

See >> Business and other risks
Securities Report for the 97th Fiscal Period, p. 14

Governance, risk management



Carbon Neutral/ Environmental Management Promotion Committee

Roles Receiving proposals and reports from the Environmental Management Committee, issuing/conveying requests to this committee, and coordinating environmental activities and promoting environmental management

Structure Chair: President
Members: Vice Presidents, Managing Executive Officers

Environmental Management Committee

Roles Cross-functional decision-making on and execution of concrete environmental management measures and evaluation of results

Structure Chair: Executive responsible for environmental matters
Members: Managers from the level of business execution section general manager, etc.

Environmental Management

Strategy

Scenario analysis

We perform ongoing scenario analyses to ascertain the financial impact of future climate change risks and opportunities.
We chose two scenarios: a 4 °C scenario under which the shift to a low carbon society fails to advance and countermeasures against climate change prove unfruitful, and a 2 °C scenario under which the necessary measures are taken to limit the global temperature increase to no more than 2 °C. Our scenario analysis is based on a medium- to long-term timeline based on the period starting in 2050. In FY2020, we began analyzing a third, 1.5 °C scenario, under which carbon neutrality would be achieved by 2050, to analyze the impact on the Company and reflect response measures.*

In our scenario analyses, we selected the risks and opportunities identified under the environmental management framework deemed likely to have an outsize impact on the Company's businesses and ascertained in particular which risks and opportunities are likely to grow within the scenarios envisioned.
To ensure that we can maintain our business activities under any scenario, including the 1.5 °C scenario, we will continue to analyze climate change risks and opportunities, seeking to minimize the impact of risks on management and swiftly reflecting opportunities in management strategies, to assure sustained growth.

* We're improving our scenario analysis in stages, based on multiple climate change scenarios identified by the International Energy Agency (IEA), Intergovernmental Panel on Climate Change (IPCC), and other bodies. This scenario analysis is intended to consider impacts that may arise under certain assumptions and feasible responses, based on a long-term perspective. No guarantees are made regarding results.

2 °C scenario

Temperature rises by 0.9–2.3 °C from the Industrial Revolution due to rigorous countermeasures.

1.5 °C scenario

Temperature rises by less than 1.5 °C from the time of the Industrial Revolution thanks to stronger responses than under the 2 °C scenario

Anticipated risks to the Company

Transition risks

1. Enhanced restrictions on CO_2 emissions
2. Systems related to adoption of renewable energy
3. Energy prices, market prices
4. Changing evaluations by stakeholders
5. Progress of decarbonization technologies (including electrification and distributed power sources)

4 °C scenario

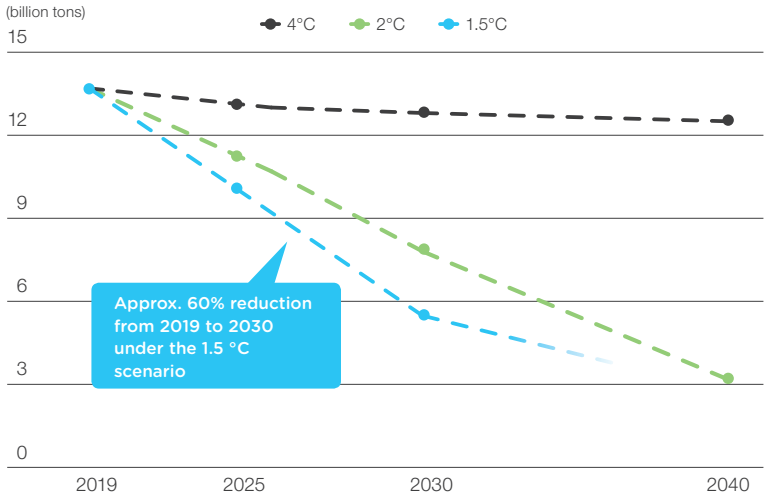
Temperature rises by 3.2–5.4 °C from the Industrial Revolution due to failure to take additional countermeasures.

Anticipated risks to the Company

Physical risks

6. Increasingly severe climate disasters
7. Changes in precipitation patterns

CO_2 emissions in the global electricity sector under each scenario



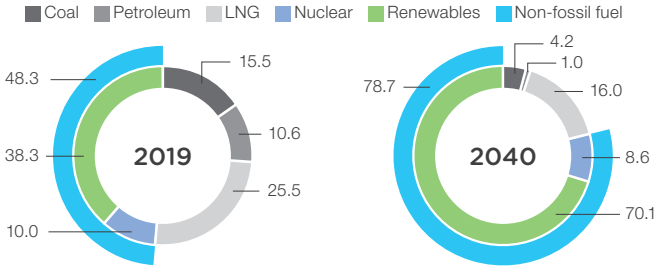
Source: Based on IEA World Energy Outlook 2020 Table A.2 and other sources

Environmental Management

Results of analysis of climate change risks (transition risks)

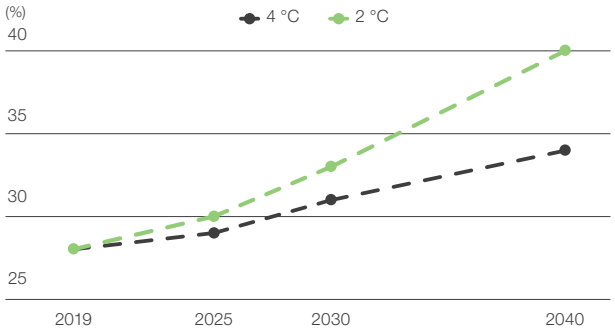
Under the 1.5 °C and 2 °C scenarios, which anticipate growing transition risks, we assume that considerable progress will be made on decarbonizing electricity sources and decreasing the percentage of power from thermal power generation using coal and other fossil fuels due to progress on measures to achieve a carbon-free society. We also assume progress with electrification thanks to advancement in decarbonization technologies that enables improved thermal efficiency and lower costs for the fuel cells used in electric vehicles.
Under the 1.5 °C scenario in particular, there is a possibility of greater progress in electrification, as well as increased cost of carbon emissions following the adoption of carbon pricing.

Comparison of capacity of power production facilities in Japan under the 2 °C scenario (%)



* Comparison of power production capacity (GW)
* Renewables refers to total power production capacity of hydroelectric (not including pumped storage hydropower facilities), biomass, wind, geothermal, solar, and tide and wave power plants

Electrification in Japan under the 4 °C and 2 °C scenarios



Source: Based on IEA World Energy Outlook 2020 Table A.3

Transition risks (particularly pronounced under the 1.5 °C and 2 °C scenarios)

Category	Climate change risk	Anticipated business risks to the Company *1	Impact	Timing of occurrence *2	Anticipated business opportunities for the Company
Politics (policies)	1 Enhanced restrictions on CO_2 emissions	Increased costs due to adoption of carbon pricing, etc.	Significant	Short/ medium/ long term	Growth in market share of low carbon and carbon-free products (including power source from renewable energy) and services
	2 Systems related to renewable energy adoption	Decreased recoverability of investment in renewables due to changes to the FIT program, intensifying competition in the renewables business, etc.	Significant	Short/ medium/ long term	
Economy (markets)	3 Energy prices, market prices	Decreased market prices of existing power sources due to expansion of distributed power sources	Significant	Short/ medium/ long term	
Society (reputation)	4 Changing evaluations by stakeholders	Accelerating divestment from thermal power sources for which decarbonization has not been implemented, rising fundraising costs, falling stock prices	Significant	Short/ medium/ long term	
Technology	5 Progress of decarbonization technologies (including electrification and distributed power sources)	Increase in new capital investment involving decarbonization technologies Decreased demand for electricity due to progress on energy-saving technologies	Significant	Medium/ long term	Growing demand for electricity due to rising electrification rates, including EVs Lower cost of renewable energy facilities Development and penetration of technologies related to storage cells, CCUS

*1 Business risks that would have pronounced impact on the Company have been identified under certain assumptions.
*2 Short term: through 2025; medium term: through c. 2030; long-term: through c. 2050

Our response

Proactively assuming the challenge of carbon neutrality by accelerating CO_2 emissions reductions in the Tohoku Electric Power Group under the Tohoku Electric Power Group Carbon Neutral Challenge 2050

- Decarbonizing thermal power
- Maximum use of renewables and nuclear power
- Developing smart society building business
- Promoting electrification among individual corporate and residential customers centered on heat pumps

Promoting technological development

- Technological development toward utilization of hydrogen and ammonia
- Technological development in grid and storage systems toward increased use of renewables
- Technological development related to offshore wind power
- Technological development in carbon recycling

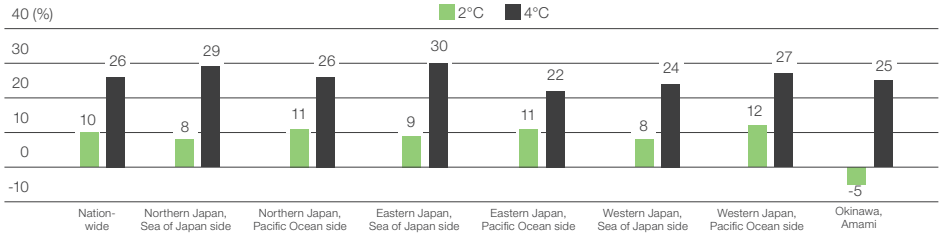
See >> The Tohoku Electric Power Group Carbon Neutral Challenge 2050 pp. 04-08

Environmental Management

Results of analysis of climate change risks (physical risks)

Under the 4 °C scenario, which poses acute risks due to the pronounced impact of climate change and involves high levels of physical risks, power system resilience will be increasingly important due to anticipated damage to Company facilities and supply impediments resulting from increasingly frequent and severe climate disasters. In addition, changes in precipitation patterns are expected to be an ongoing risk affecting hydroelectric power generation and other activities.
We will strive to increase power system resilience through being ready for frequent and severer climate disasters and enhancing the resilience and recoverability of facilities.

Future increases in precipitation from torrential downpours



* The graph above shows rates of increase in precipitation from torrential downpours in the future (2080–2100 average) under the 2 °C and 4 °C scenarios based on current levels (1984–2004 average). Precipitation from torrential downpours is defined as the average of the top 5% daily precipitation figures on days of rainfall over the course of the year.

Source: Based on Ministry of the Environment, Japan Meteorological Agency, Japan's Climate at the End of the 21st Century, p. 14

Physical risks (particularly pronounced under the 4 °C scenario)

Category	Climate change risk	Anticipated business risks to the Company	Impact*1	Timing of occurrence*2
Acute	6 Increasingly severe climate disasters	Damage to Company facilities and supply impediments resulting from frequent occurrence of increasingly severe strong winds, torrential downpours, etc.	Significant	Short/medium/long term
Chronic	7 Changes in precipitation patterns	Reduced hydroelectric power production capacity	Medium	Long term

Our response

Increasing power system resilience
- Enhancing resilience of power sources and supply equipment
- Increasing recoverability

*1 Business risks that would have pronounced impact on the Company have been identified under certain assumptions. *2 Short term: through 2025; medium term: through c. 2030; long-term: through c. 2050

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Indicators and targets

Declaration of carbon neutrality by 2050

We will proactively assume the challenge of carbon neutrality by 2050, based on the major prerequisite of securing S+3E.
Based on the Tohoku Electric Power Group Carbon Neutral Challenge 2050 announced in March 2021, we will accelerate CO_2 emissions reductions across the Tohoku Electric Power Group through decarbonization of thermal power, maximum use of renewable energy and nuclear power, and electrification and realization of a smart society.

See » The Tohoku Electric Power Group Carbon Neutral Challenge 2050 pp. 04–08

CO_2 reduction targets for FY2030

As we strive to achieve carbon neutrality by 2050, the Group has set the target of halving FY2030 CO_2 emissions from actual FY2013 figures.

See » Scope 1, Scope 2, and Scope 3 (Category 3) greenhouse gas emissions Sustainability Data Book 2021, p. 08

1. Maximum use of renewable energy and nuclear power

- Seeking to develop 2,000 MW of renewable energy soon after 2030
- Swift operation resumption and increased operation rate of nuclear power based on the essential prerequisite of safety

2. Decarbonization of thermal power

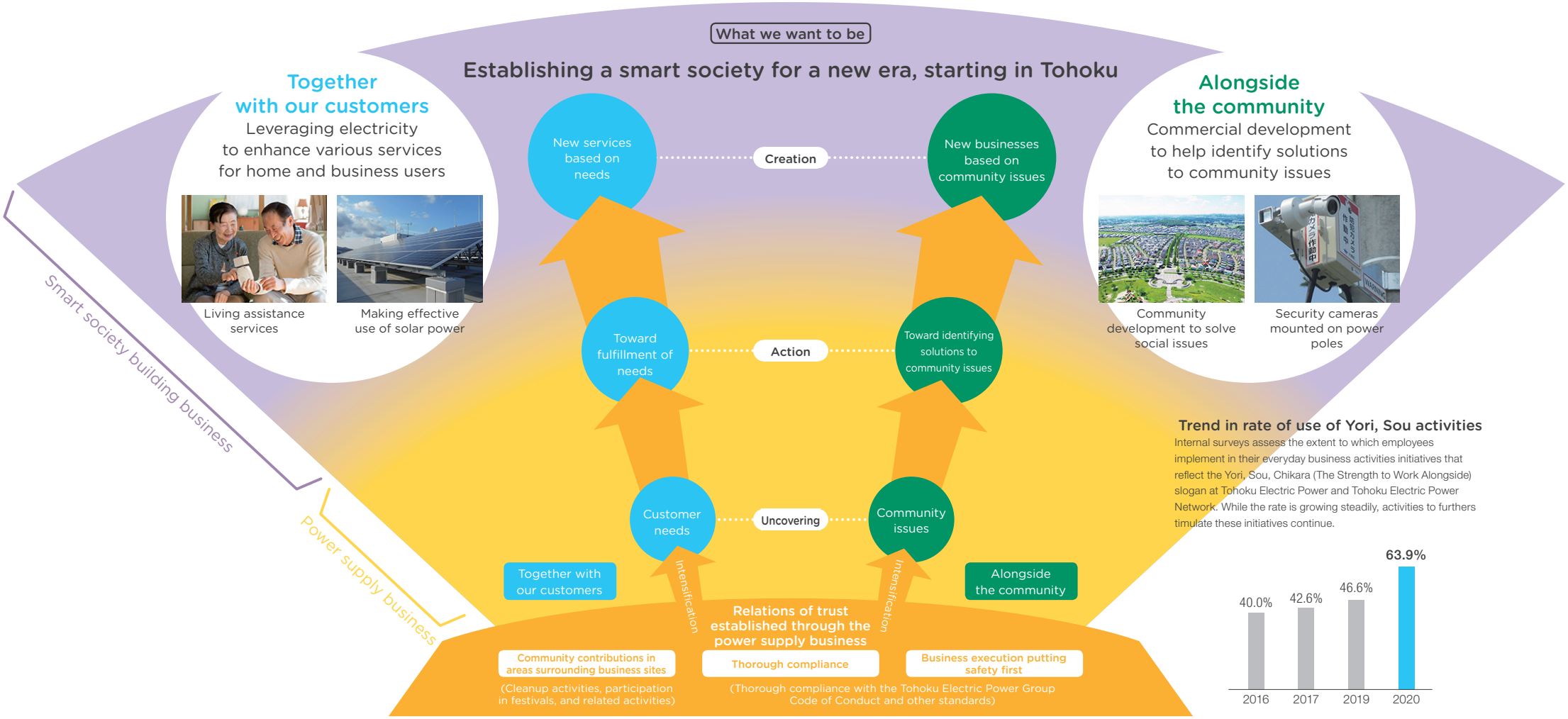
- Expanding mixed burning of biomass in coal thermal power generation
- Testing mixed burning of hydrogen and ammonia at thermal power stations

3. Electrification and realization of a smart society

- Proposing optimal electrification and energy efficiency centered on heat pumps
- Expanding promotion of distributed energy services
- Promoting the renewable-energy aggregation business

Branding

To ensure that the Tohoku Electric Power Group continues to be chosen by customers in a business environment undergoing intensifying competition, the Group must propose and deliver value that only the Tohoku Electric Power Group can offer. The Group must continue to work alongside our customers and communities in efforts grounded in customer needs and community issues, all based on the “Yori, Sou, Chikara (The Strength to Work Alongside)” approach. This is the root of the Tohoku Electric Power Group brand.
To ensure each and every Group employee embodies the Yori, Sou, Chikara (The Strength to Work Alongside) slogan in his or her everyday business activities and to inspire specific actions and initiatives, Tohoku Electric Power and major Group companies are incorporating this vision as a perspective in their medium-term plans. Tohoku Electric Power and Tohoku Electric Power Network are assigning supporters to promote this vision at each section and site.
Based on the relations of trust with customers and communities established through the power supply business, we will seek to achieve a smart society for a new era, starting in Tohoku, as called for in the “Working alongside next” vision. To do this, we will build on the efforts implemented to date, create new services to work alongside customers based on their requests, and work together with communities to resolve their challenges and support their growth and progress.



Trend in rate of use of Yori, Sou activities

Internal surveys assess the extent to which employees implement in their everyday business activities initiatives that reflect the Yori, Sou, Chikara (The Strength to Work Alongside) slogan at Tohoku Electric Power and Tohoku Electric Power Network. While the rate is growing steadily, activities to furthers timulate these initiatives continue.

Human Resources (Our Employees Are Valuable Assets)

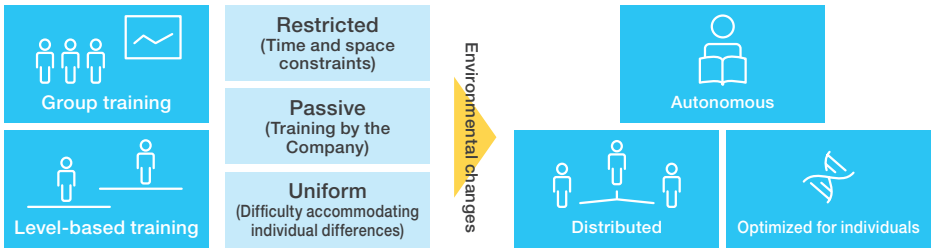
Human Resource Strategy

The capacity to respond flexibly to a changing business environment is founded on making the most of the capabilities and qualities of Tohoku Electric Power Group employees, who bring a diverse range of perspectives and values, and linking these capabilities and qualities to the creation of new value.
For this purpose, we will seek to create opportunities for our diverse human resources to thrive and to link human resources strategies to business strategies. In these ways, we seek to demonstrate the Group's comprehensive capabilities and to draw on these capabilities to increase corporate value.

Human Resource Development

In FY2021, we launched the new AI-based T-next training platform to train our human resources to learn, think, and act on their own and to encourage the skills needed to adapt to a changing business environment, new technologies, and other developments. In addition to providing learning suited to each individual employee and encouraging autonomous learning through T-next, we have modified our traditional group training programs into an online training program that offers training free of constraints of time and place. The result is an environment in which each individual employee can improve his or her skills independently while working to achieve an ideal work-life balance. T-next incorporates the latest training content in IT and other fields from external online learning platforms to accelerate the process of training in knowledge and skills in new domains, centered on digital technologies.

The T-next vision for training/education



See >> Developing human resource to drive growth
Sustainability Data Book 2021, pp. 29-30

Workstyle Reforms

Workstyle reforms implemented through now included adoption of new work programs and expansion of existing ones (including working from home and flextime) and a business-casual companywide dress code. From now on, we will advance fundamental improvements mainly in areas such as human resource training and improvements to the information and communications technology (ICT) environment, returning to the basics of our workstyle reform slogans: "A healthy company where everyone works energetically" and "Our employees are valuable assets."
Through these infrastructure improvements, we will advance efforts to make more time available through means such as reviewing operations, reducing long working hours, and encouraging employees to take leave. At the same time, we will move forward with human resource development and workplace improvements to encourage career development and to create workplaces in which a diverse staff can thrive in an atmosphere of mutual respect for individual values.
As an organization that plays a key role in establishing the smart society, we will implement workstyle reforms based on digital and online technologies with the aim of creating our own innovations and added value.

Measure 01

Work from home has expanded in response to COVID-19. We have made progress in raising awareness of rules on work from home and related environmental improvements while taking advantage of telework procedures to migrate to paperless and online work in our internal operations. Some 70% of all Company employees currently use flextime. This has helped raise engagement and strengthened our identity as a healthy company where everyone works energetically.

Measure 02

We have launched new initiatives to ensure more flexibility in safety assurance by allowing facility maintenance staff to go directly from home to facilities requiring maintenance without visiting the office first.

Measure 03

In principle, internal training and meetings have migrated online, as we strive to train our human resources in the modern era of digital and IT technologies.

Human Resources (Our Employees Are Valuable Assets)

Diversity and Inclusion

Message on diversity from top management

Yori, Sou, Chikara (The Strength to Work Alongside) each other as diverse individuals

Representative Director & President

Kojiro Higuchi

Drawing on our Management Philosophy of Prospering with Local Communities, we strive to contribute to a sustainable society in which each customer and community member can live in comfort, safety, and peace of mind. We do this through our smart society building business, seeking growth and development with local communities as their chosen partner.
Important issues in these initiatives include respect for human rights and the need to promote diversity. To accommodate the diverse lifestyles and needs of our customers, our employees must be able to work in good health and with vitality, capitalizing on their diverse backgrounds, unique perspectives, and individual experiences. This is why we believe diversity and inclusion will drive innovation.
We will maintain our proactive stance on developing and enhancing systems that allow diverse human resource to thrive. At the same time, we will promote awareness of and seek to develop our organizational culture, striving to be an enterprise in which all workers can thrive with vitality, without regard for gender, age, disability status, form of employment, nationality, ethnicity, religion, creed, culture, sexual orientation, or sexual identity.
Through these initiatives, we will work alongside our customers and communities as a strong partner who enables them to live in better comfort, safety, and peace of mind.

Our perspective on promoting diversity and inclusion

To enhance our ability to meet increasingly diverse customer needs and to continue growing as a company amid dramatic changes in the business environment, we believe we must build workplaces in which diverse human resources are free to demonstrate their capabilities to the fullest—regardless of gender, age, disability status, form of employment, nationality, ethnicity, religion, creed, culture, sexual orientation, or sexual identity. To implement our Top Management Commitment to Diversity, we're actively promoting diversity on various themes, including promoting women in the workplace and employing those with disabilities.

Creating workplaces where diverse human resources can thrive

In order to respond flexibly to changes in the business environment, Tohoku Electric Power believes it is important to draw out the abilities and qualities of individual employees, including their diverse sensitivities and values, in order to lead to the creation of new value. In appointing managers and other core human resources, we strive to achieve diversity in gender, experience, and mode of employment and to achieve conditions in which they can demonstrate their abilities to the fullest. Moreover, in order for the company to be chosen by customers and to be trusted by local communities, we believe that it is important for our employees— who are the key people in our electric power business—to engage in their jobs with a sense of duty. For this reason, we are working to create workplaces that offer each employee a sense of job satisfaction.
Pursuant to the Act on Advancement of Measures to Support Raising Next-Generation Children and the Act on Promotion of Women's Participation and Advancement in the Workplace, in April 2020 we formulated a new general employer action plan that identifies several goals, including achieving a rate of at least 80% of paid leave actually taken by employees by the end of March 2025 (companywide average) and boosting the numbers of women in managerial positions by at least 50% (compared to the start of FY2019) by the end of March 2025. By enhancing initiatives that support a work-life balance, family, and career formation and success, we will help build workplaces where diverse human resources can thrive, regardless of factors such as gender or age.
Further, we have adopted various new working systems and expanded existing systems in aspects such as work from home and flextime. We provide training and organize other activities to help foster awareness of career development and to promote a balance that accounts for both work and family. Intended to support employee success by building working environments in which diverse human resource can demonstrate their abilities to the fullest, these initiatives, based on the above laws, earned Kurumin certification from the Miyagi Labour Bureau (for the third time) as a company supporting childcare and Eruboshi (Level Two) certification as a company promoting women's participation and advancement in the workplace in 2020.

Tohoku Electric Power general employer action plan
https://www.tohoku-epco.co.jp/information/1214339_2521.html

Human Resources (Our Employees Are Valuable Assets)

Groupwide initiatives to support women's careers

Within the Group, female managers take part in Groupwide meetings to meet and exchange information. This helps create workplace environments in which all employees can demonstrate their abilities, regardless of gender, and also strengthens motivation and networking among female managers.
These information exchange meetings have included lectures by Outside Director Ikuko Miyahara, as well as presentations by Group representatives on the theme of "Work and Me" and lively exchanges of opinions on their personal goals and aspirations for the Tohoku Electric Power Group. We will continue to implement various initiatives throughout the Group to build workplace environments in which diverse human resources can succeed.

Online meeting for information exchange among women managers in the Group (Outside Director Ikuko Miyahara is at the top left)

Promoting diversity management

Manager training teaches the importance of promoting diversity and imparts the skills and concepts needed to provide appropriate support and encouragement based on an understanding of individual values and perspectives, regardless of gender or age. Under action plans targeting "a healthy company where everyone works energetically," we are implementing proactive initiatives in individual workplaces based on dialogue and other activities.

Initiatives to support a balance of work and family

We provide male and female employees who return from childcare leave with training intended to foster an awareness of career development and boost motivation in preparation for future life events. In each workplace, we strive to support a balance between work and family and to promote career development through dialogue with superiors, based on information sharing with employees on their concerns and issues related to their childrearing years.
Other efforts in support of work and family include the distribution to managers of the Manual for Managers on Support for Balancing a Career and Childcare, intended to provide career development support for women employees in their childrearing years.

See >> Promoting diversity
Sustainability Data Book 2021, p. 27

Raising awareness of human rights

We established an internal Human Rights Education Promotion Committee under the leadership of the director responsible to promote awareness of human rights, and have made progress on raising employee awareness of human rights and building an environment in which discrimination is not tolerated. Since FY1994, we have organized lectures, training programs, and other events with goals that include promoting awareness of human rights, to build workplaces in which diverse employees can thrive. In December 2020, we implemented activities to ensure a thorough understanding and raise awareness of human rights among all employees, including those of Group companies, through making the content of lectures on human rights available on the Company and Group intranet. We will continue striving to raise the awareness of every Group employee on human rights issues.

See >> Respect for Human Rights
Sustainability Data Book 2021, pp. 25-26

Initiatives involving the employment of people with disabilities

To make it possible for people with disabilities to participate in society and to create motivation and increased opportunities, we proactively employ people with disabilities and strive to develop working environments in which they can work in safety and peace of mind.

See >> Actions for disability employment
Sustainability Data Book 2021, p. 27

Health management

Implementing Health and Productivity Management to Build the Mental and Physical Health of Each Employee

The Tohoku Electric Power Group is engaged in health and productivity management, with the aim of becoming a healthy company where everyone works energetically, by seeking to improve and enhance early response capabilities for preventing illness and improving health. Specifically, we formulate a Basic Policy for Health Promotion on an annual basis. Based on this policy, our head office, branch offices, and front-line business locations cooperate and seek to ensure good communication between management personnel, industrial physicians, health promotion staff and employees; and work to promote and build both the mental and physical health of each individual employee.
In FY2020 , to implement systematic initiatives to maintain employee health, we added to the basic health promotion policy numerical targets related to (i) countermeasures against lifestyle-related conditions; (ii) smoking cessation programs; and (iii) mental health measures. In recognition of our use of the Plan-Do-Check-Act (PDCA) cycle in health promotion and other initiatives, we earned recognition in 2021 as a White 500 firm named for outstanding health management (in the large firms category), a joint initiative of the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi. We will maintain sound health management to strengthen employee vitality and increase productivity.

2021 健康経営優良法人 Health and productivity ホワイト500

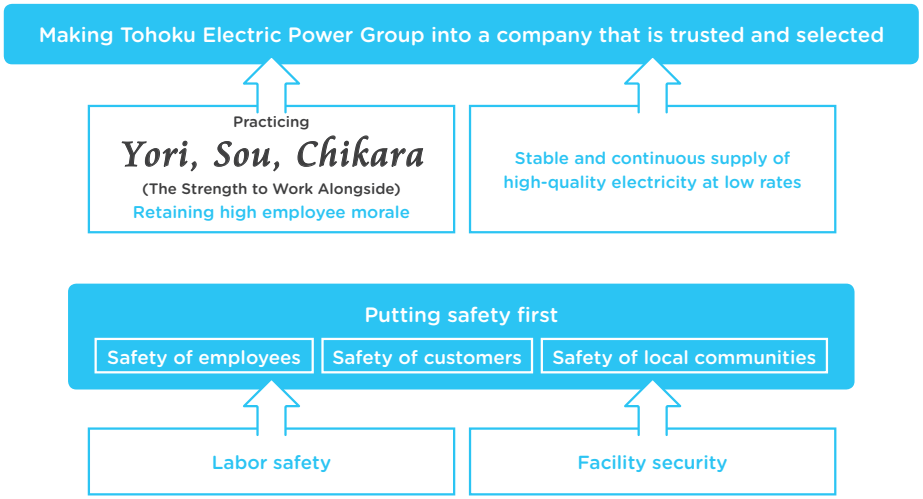
See >> Health Management
Sustainability Data Book 2021, p. 31

Safety

Actions for safety that lead to continuous growth and to a medium- and long-term improvement in corporate value

Occupational safety and equipment security are the foundations of the Tohoku Electric Power Group's business activities. We consider securing the safety of our customers and our communities to be the first steps in earning trust in order to fulfill our unchanging mission to deliver stable supplies of low-cost, high-quality electricity to customers.
We will create an environment that allows employees, as our driving force, to fully display their strengths without risk and practice our slogan of Yori, Sou, Chikara (The Strength to Work Alongside) in a bid to become a company that is trusted and selected.
In accordance with our safety-related policies, we will continue our efforts to build a corporate culture that puts safety first and to increase corporate value.

Relationship between actions for safety and corporate value enhancement



Building a corporate culture that puts safety first

Initiatives to ensure thorough safety and improving business quality

Aiming to firmly establish a corporate culture that ensures thorough safety and boosts business quality, we're striving to improve safety and security groupwide and the quality management system for nuclear power.
Based on our recognition that securing safety is the top priority in all business activities, a key goal is to build a corporate culture that puts safety first through even greater coordination groupwide. In April 2020 we established the Tohoku Electric Power Group Safety and Security Policy, under which we strive to enhance initiatives related to occupational safety and equipment security.

Actions on safety management towards the achievement of zero accidents

For the purpose of reducing industrial accidents, we have introduced the safety and health management system to independently and continuously improve safety management.
It is an international standard method of safety and health management. Each office will independently perform management and remove and reduce latent risks and harmful factors in advance to prevent industrial accidents.
If any industrial accident occurs, we will probe into the fundamental cause and background to develop effective measures for the prevention of recurrence and share information within the Company to prevent any similar accident from happening.

Initiatives to ensure equipment security

To avoid the recurrence of improprieties that have occurred before, the status of autonomous security activities in each section is reported to the Safety and Security Promotion Conference, the Nuclear Safety Promotion Conference, and the Committee on Corporate Ethics and Compliance, thereby confirming that they are being implemented according to plan; that systems are in place for identifying and correcting any issues ourselves; and that active communication occurs through dialogue and other measures. In these and other ways, we seek to ensure that autonomous security activities are even more firmly established within the organization.
In addition, through autonomous security activities, we strive to ensure the safety of customers and our communities by ensuring the security of equipment.

See » Actions for entrenching voluntary security activities
Sustainability Data Book 2021, p. 34

Resilience

Enhancing resilience based on the lessons learned and experience gained in responding to disasters

The Tohoku Electric Power Network does business based on the recognition that its most important mission is to deliver a stable supply of low-cost electricity to customers amid the broad geographical area and challenging natural conditions within its service area—the six Tohoku prefectures and Niigata Prefecture, which account for about 20% of Japan's land mass. The Tohoku Electric Power Network has accumulated significant expertise and technological competence through its experience with numerous natural disasters, including the Great East Japan Earthquake. Based on the lessons learned it has enhanced various structures to ensure preparedness for ever more frequent and severe natural disasters.
In addition to securing stable supply of electricity, the Tohoku Electric Power Network will continue to develop facilities efficiently while maintaining and managing them appropriately by reflecting on the lessons learned from past natural disasters in both tangible and intangible measures.

Everyday inspections and repairs and drills to maintain and increase response capabilities

Through everyday inspections and repairs as well as systematic upgrades of aged facilities, we strive to maintain and manage the equipment needed to deliver electricity to our customers.
We organize various drills to pass on skills and to improve technical capabilities and disaster resilience.

Drills on restoring external power supply in the event of a disaster affecting a nuclear power station

Drills simulating the restoration of external power supplies while wearing safety gear, to ensure preparedness for a disaster at a nuclear power station, are carried out to strengthen skills for restoring external power supplies at a nuclear power station in assumed scenarios.

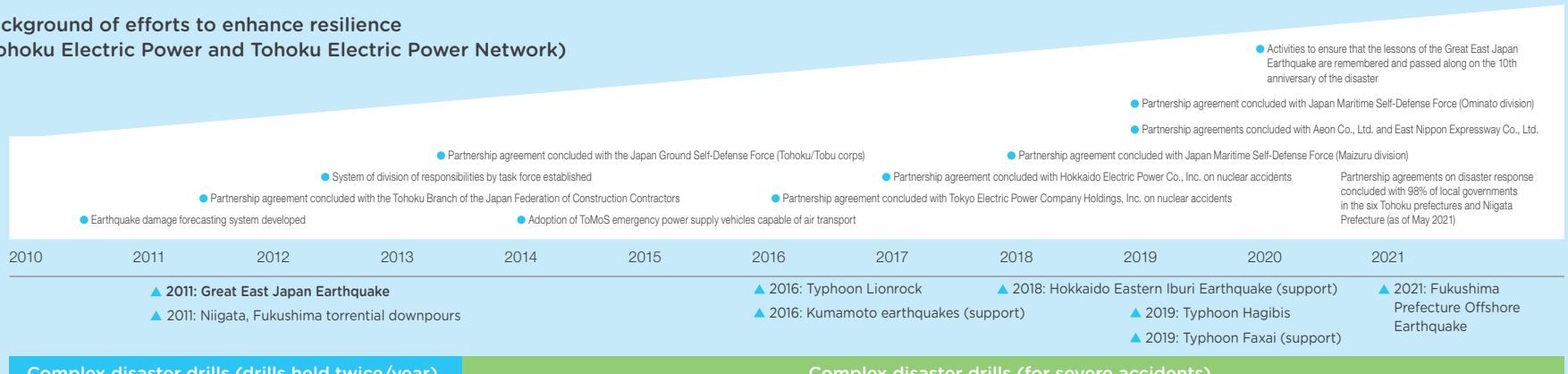
Efficient facility maintenance and operations based on digital and other new technologies

We strive to enable more effective and efficient maintenance management of facilities based on digital and other new technologies such as drones and IoT devices. In particular, we are carrying out feasibility testing of drone navigation apps to ascertain power pole locations and feasibility testing of autopilot apps to enable stable flight even along steep slopes and uneven terrain, thereby enabling efficient inspections of equipment in mountainous and other remote locations.

Quickly informing customers of power failures

In April 2020, the Tohoku Electric Power Network launched its official Twitter account as a tool for quickly informing customers of any power failures. This account communicates information on power failures in response to disasters, as well as information on the status of recovery efforts. In October 2020, the Tohoku Electric Power Network released an informational smartphone app as a further means of relaying urgent information on power failures.

Background of efforts to enhance resilience (Tohoku Electric Power and Tohoku Electric Power Network)



See >> Governance structure for disasters p. 84

Contributing to Communities

Community Contribution Activities that Contribute to Sustainable Growth and Improve Corporate Value in the Medium to Long-Term

Deploying groupwide measures alongside the community

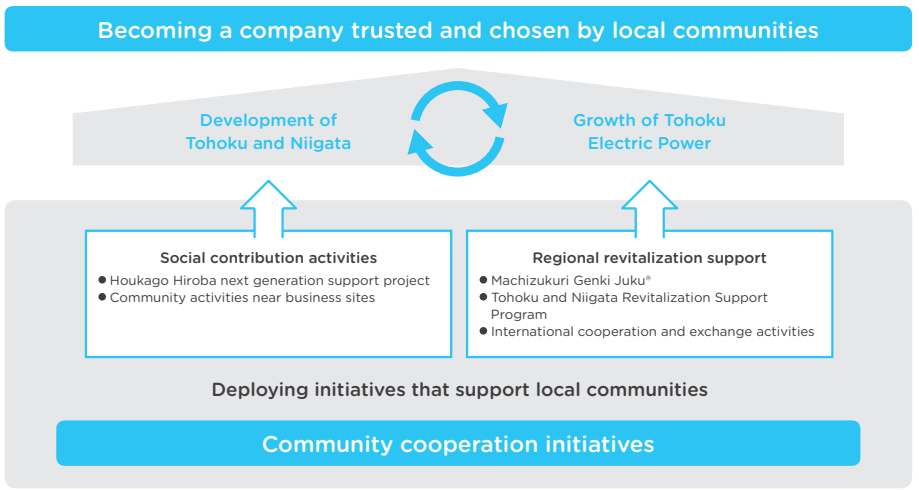
Based on our management philosophy of prospering with local communities and Yori, Sou, Chikara (The Strength to Work Alongside), our Group slogan, the entire Tohoku Electric Power Group strives to establish a smart society by providing services based on energy and to advance initiatives that deliver solutions to challenges facing our communities and society. In this way, we hope to contribute to the sustained growth and progress of society.
Based on this outlook, the Company implements various social contribution activities, including Machizukuri Genki Juku® training courses designed to help identify solutions to community challenges and the Tohoku-Niigata support program to support community vitality. Through these and other measures, we strive to play a role as a member of the community in its sustained progress and to build relations of trust with local communities based on ongoing dialogues in which individual employees take part.

TOPICS

Tohoku Electric Power Okuaizu Suiryokukan Miori® museum opens

Based on the conviction that renewable energy will play an important role as a power source in our future power portfolio, the Tohoku Electric Power Group is pursuing development initiatives and participating in various projects related to renewables.
In July 2020, the Tohoku Electric Power Okuaizu Suiryokukan Miori® museum opened in the town of Kaneyama, Fukushima Prefecture. This is our first full-scale facility designed to promote hydroelectric power. In addition to providing information on hydroelectric power systems and the power development project implemented in the Tadamigawa River watershed, in which our first Chairman, Jiro Shirasu, took part, this facility includes an art gallery, an exhibition space available for use by local residents, and a lounge where visitors can enjoy the changing views of the water surface with the seasons. The facility is also intended to help revitalize the Okuaizu area.

Tohoku Electric Power Okuaizu Suiryokukan Miori®
https://okuaizu-suiryokukan.jp/



Examples of results achieved in these initiatives

Social contribution activities

FY2020 social contribution activities

Actions implemented:
593

Number of participants (external):
around 53,000

Regional revitalization support

Machizukuri Genki Juku® support organizations
Between FY2006 and FY2020:
41 organizations

Tohoku and Niigata Revitalization Support Program aid organizations
Between FY2017 and FY2019:
28 organizations

Contributing to Communities

Supporting solutions to community challenges and community revitalization

Through Machizukuri Genki Juku® training courses, the Tohoku and Niigata Revitalization Support Program, and other activities, we strive to find solutions to community challenges and community revitalization. These efforts help make the six Tohoku prefectures and Niigata Prefecture a more attractive region and help establish a smart society starting in Tohoku, in accordance with Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision.

Machizukuri Genki Juku®

Tohoku Electric Power supports individual community-led urban planning activities by dispatching urban planning experts to meet the needs of organizations working to resolve various issues, based on the ultimate goal of revitalizing communities and enabling greater autonomy and independence in the six Tohoku prefectures and Niigata Prefecture.
In FY2021, based on the Community Issues × Digital Innovation program, this program provided support for the adoption and use of digital technologies to help revitalize local communities. In addition to verifying the results of these efforts, assessing the issues involved, and other tasks, we will work with experts within each field to intensify studies of new ways to support and implement community vitality.

Machizukuri Genki Juku®
https://www.tohoku-epco.co.jp/genki/

Tohoku and Niigata Revitalization Support Program

The subsidies granted under this program support organizations engaged in voluntary activities to resolve issues in local communities across the six Tohoku prefectures and Niigata Prefecture: local industry promotion, local community restoration and revitalization, and expanding the numbers of visiting non-residents.
In FY2021, as a part of our 70th anniversary commemoration, we provided a new 700 thousand yen subsidy to one newly added organization (the 70th anniversary commemorative subsidy) in addition to the existing seven organizations (one receiving a 1 million yen subsidy and six receiving 300 thousand yen subsidies). The newly established subsidy requires the use of digital technologies to help establish a smart society and other efforts in addition to current criteria for qualification.

Tohoku and Niigata Revitalization Support Program
https://www.tohoku-epco.co.jp/sprogram/

Social Contribution Activities

Tohoku Electric Power engages in numerous initiatives intended to build even stronger relationships with local communities, including activities that promote the growth of children, who will play key roles in the future of the region and activities in the vicinity of business sites.

Essay contest for middle school students

A community activity in the vicinity of a business site (Yamagata Hanagasa Festival)

After School Plaza
https://www.tohoku-epco.co.jp/kids/after_school/

Promoting International Cooperation and Exchange Activities

To help boost the development of local communities through international exchange, we promote various international cooperation and exchange activities. These activities include accepting technical trainees from various ASEAN countries, helping to operate the Tohoku Canada-Japan Society, and working with various other organizations to promote international exchange in the Tohoku region.

Cooperation in the Japan Electric Power Information Center's training of technical trainees from various ASEAN countries

Support for the Tohoku Canada-Japan Society

Contributing to Communities

Companies in the Tohoku Electric Power Group take part in numerous social contribution activities as members of their local communities.

Tohoku Information Systems Co., Inc.

Food drive

Tohoku Information Systems holds a companywide food drive in which employees bring unused food from home to collection boxes set out in their workplaces. In addition to replacing emergency meal supplies in preparation for potential disasters (1260 meals), the food collected (39.3 kg) is distributed to organizations assisting the impoverished and to welfare facilities through the City of Sendai's food drive project.

Tohoku Electric Manufacturing Co., Ltd.

Donating a disaster recovery memorial tree

In April 2021, to mark the 10th anniversary of recovery efforts instituted after the Great East Japan Earthquake, Tohoku Electric Manufacturing donated a bigleaf magnolia memorial tree to the city of Tagajo, with which it has worked toward recovery since the disaster. This tree embodies the company's best wishes for the recovery and future progress of the city, which was seriously damaged by the tsunami following the earthquake.

Tohoku Natural Gas Co, Inc.

Landscape beautification activities along gas pipeline routes

From spring through summer every year, in addition to walking patrols along gas pipelines totaling approximately 50 km in length, through which it supplies natural gas to city gas utilities and major customers in the three prefectures of Miyagi, Yamagata, and Fukushima, Tohoku Natural Gas engages in cleanup initiatives along the pipelines as a part of environmental beautification activities.

Tohoku Intelligent Telecommunication Co., Inc.

Securing naming rights

Since FY2017, Tohoku Intelligent Telecommunication has owned the naming rights to the Sendai community hall, known by local residents as TOHKnet Hall Sendai. The company has also added various conveniences to the hall, such as free public Wi-Fi for visitors, and in February 2021 it sponsored a concert held there.

Tohoku Sustainable & Renewable Energy Co. Inc.

Participation in Global Wind Day in Noshiro

Since 2014, Tohoku Sustainable & Renewable Energy has participated in Global Wind Day in Noshiro, which is home to wind power facilities, to increase understanding of and interest in renewable energy and familiarity with wind power among residents. This event is held together with other wind power businesses in the city, the City of Noshiro, and other partners.

Yurtec Corporation

Cooperation in setting up a giant Christmas tree

Yurtec cooperated in setting up the giant Christmas tree at the Christmas Market in the ASPAM 2020 event (December 11-25, 2020) held in the city of Aomori. Six staff members from the power lines section of the Aomori Office used two elevated work platforms and one pile driver to safely set up the 10-meter tree and install the lights.

Sakata Kyodo Power Co., Ltd.

Illumination of smokestacks and other facilities

Since FY2017, to celebrate local events and holidays, Sakata Kyodo Power has used energy-saving LED lights to illuminate smokestacks and other facilities on the power station site. The facilities were illuminated in blue during the period April 29 to May 6, 2020, to express gratitude for the efforts of health care workers in stopping the spread of COVID-19 and in treating the disease.

Joban Joint Power Co., Ltd.

Nakoso Dream illumination activities

In cooperation with local government and related organizations, Joban Joint Power helps make possible the Nakoso Dream illumination activities, involving illuminating a group of smoke stacks. A wide range of illumination designs were created by local high school students. Special illumination themes in FY2020, changed monthly, included activities to support traffic safety and fire prevention and to mark the Tokyo 2020 Olympic torch relay.

Tohoku Development Consultant Co., Ltd.

Activities under disaster support agreements

Under disaster support agreements concluded with local governments through the Miyagi Prefectural Survey and Design Industry Association and other parties, Tohoku Development Consultant helps in surveying the state of damage of waterways, roads, and other public infrastructure to promote rapid recovery. In recent years the company has surveyed damage in response to Typhoon Hagibis in 2019 and the Fukushima Prefecture Offshore Earthquake in 2021.

HNK Co., Inc.

EcoCap Activities

Since June 2018, with the cooperation of Group member companies and other tenants in the Denryoku Building, HNK Co. has helped deliver vaccines to children in developing countries through proceeds generated from collecting and selling plastic bottle caps. This initiative also promotes cap recycling and environmental protection, and supports the employment of those with disabilities by subcontracting cap washing and other activities. HNK plans to continue the activity.

Tohoku Electric Power Engineering & Construction Co., Inc.

Supporting art by people with disabilities

To express support for the goals of Art to You, a local nonprofit motivating those with disabilities by publicizing and promoting their artistic activities, Tohoku Electric Power Engineering & Construction donates to the organization as part of its social contribution activities. The sixth Art to You! National Disability Arts Exhibition in Tohoku was held November 5-8, 2020 at Sendai Mediatheque in the city of Sendai.

Kitanihon Electric Cable Co., Ltd.

Kitanihon Electric Cable School Concerts

Each year, Kitanihon Electric Cable sponsors concerts by the Sendai Philharmonic Orchestra. Scheduled each year for two of the six elementary schools in the town of Shibata, Miyagi Prefecture, where Kitanihon Electric Cable operates two manufacturing facilities, this roving concert visits all six schools every three years. During FY2020, some 200 students attended these recitals, held amid COVID-19 restrictions.

Corporate Governance

Message from the Chairman of the Board

1. Greetings from the Chairman of the Board

Our management philosophy calls for us to prosper with local communities, and the Tohoku Electric Power Group seeks to grow while promoting sustainable progress in society. We strive to achieve not just our own growth but to find solutions to the challenges facing our communities and society. We do so by seeking to realize the smart society called for in Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision. This reflects our understanding that our service area—the six Tohoku prefectures and Niigata Prefecture—has experienced the impacts of societal trends such as depopulation and aging society resulting from low birth rates earlier than other regions. In pursing the smart society building business in addition to the power supply business, in which we have built up a strong track record over the years, we recognize that the evolution of our management foundations with an emphasis on the environment, society, and governance (ESG)—and particularly governance initiatives—is important as a basis of these efforts. My goal as Chairman of the Board is to enhance corporate governance by improving the effectiveness of the Board of Directors.

Representative Director &
Chairman of the Board

Jun'ichi Masuko

2. Improving the effectiveness of our governance structure and the Board of Directors

In June 2018, we shifted to the status of a company with an audit and supervisory committee. This move was intended both to enhance our management oversight functions and to speed up decision making through progress, in stages, on delegating management authority from the Board to individual Directors. We have established the Nomination and Compensation Advisory Committee to secure objectivity and transparency in director nomination and compensation and adopted a compensation program linked to business performance, intended to enhance motivation to achieve medium- to long-term improvements in business results and boost our corporate value. We believe these and other measures have contributed to steady progress in corporate governance.

In addition to such enhancements through structural reforms, we consider it important, from a corporate governance perspective, to focus on effective deliberations within the Board of Directors itself. I believe our Board of Directors is characterized by lively discussion and the free and constructive expression of opinions by seven Outside Directors with diverse backgrounds. As Chairman of the Board, I will continue to preside over Board of Directors meetings based on a keen awareness of the importance of encouraging free debate between Internal Directors and Outside Directors, while working to manage our meetings still more effectively by clarifying the issues being debated and presenting clear explanations of the topics to be discussed in advance.

Each year, to increase the overall effectiveness of the Board of Directors, we survey Directors on various matters, including the items discussed in Board meetings, its methods of operation, and structures for supporting Directors. I believe it is important to run through the plan-do-check-act (PDCA) cycle when making efforts to improve effectiveness. I would like to continue these initiatives into the future.

3. Message to stakeholders

In May of this year, Tohoku Electric Power marked the 70th anniversary of its founding. I have spent a large part of my career in the nuclear power segment. The lessons I have learned in that segment through daily contact with the customers and local residents who use our electricity and through my experiences as a branch office general manager and in other posts, have taught me that our business activities are based not just on specialized technological capabilities, but on the strong and trusting relationships with the stakeholders who support Tohoku Electric Power.

To continue to meet the expectations of our stakeholders, we will continue to enhance corporate governance with the dynamism, soundness, and transparency of management in mind. In doing so, we will work to ensure the sustained growth of the Tohoku Electric Power Group and to boost our corporate value over the medium to long term.

We appreciate the continuing guidance and support of all of our stakeholders.

Corporate Governance

Corporate Governance
https://www.tohoku-epco.co.jp/ir/policy/governance/index.html

Basic concepts of corporate governance

The Tohoku Electric Power Board of Directors establishes basic corporate governance policies to clarify our basic corporate governance concepts and related practical initiatives. Under our management philosophy of prosperity in partnership with the community, as identified in Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision and the Group slogan Yori, Sou, Chikara (The Strength to Work Alongside), we seek to grow in step with sustained progress within society by helping to establish a smart society in various ways: providing services centered on energy, working alongside customers, and engaging in sustained dialogue with stakeholders.
To ensure appropriate management consistent with this heading, the Company implements initiatives that enhance corporate governance, including those that ensure exhaustive compliance with corporate ethical standards and laws and regulations, promoting fair, honest, and transparent business administration, and improving internal control and risk management. The Company sees strengthening and improving corporate governance as one of its priority management issues. Based on this perspective, the Company will advance initiatives to ensure sustained growth and enhanced corporate value on a medium- and long-term basis to meet the expectations of its stakeholders. Company initiatives will include activities that make management more flexible, sound, and transparent.

❶ Guarantee of shareholder rights and equitable standing

The Company handles all matters based on laws and regulations, thereby guaranteeing shareholder rights and equality in real terms. At the same time, the Company advances efforts to prepare conditions that permit shareholders to exercise their rights, with due regard for minority and foreign shareholders.

❷ Appropriate joint efforts with stakeholders beyond shareholders

Based on safety, consideration for the environment, and compliance with corporate ethical standards, laws, and regulations, we stress activities based on two-way dialogue with a diverse array of stakeholders. The Company targets sustained growth and medium- to long-term growth in corporate value.

❸ Appropriate information disclosure and transparency

(1) In addition to the appropriate disclosure of information pursuant to laws and regulations, we engage in the timely disclosure of accurate and highly useful information through our website and various other media, in addition to press conferences and, as necessary, briefings, held by the representative director.
(2) We disclose financial, non-financial, and other information through fair, detailed, and simple methods, in accordance with the Companies Act, the Financial Instruments and Exchange Act, and other laws and regulations, as well as our own Disclosure Policy and other policies.
(3) To the extent feasible, we also strive to disclose this information in English.

❹ Responsibilities of the Board of Directors

(1) The roles and responsibilities of the Board of Directors include measures to achieve the sustained growth of the Company and increasing corporate value over the medium to long term while soliciting diverse neutral and objective opinions from independent outside Directors, in light of the duties entrusted to them by shareholders and associated accountability and responsibilities. The Board of Directors also strives to foster a culture that encourages free and constructive debate and exchange of opinions and welcomes issues raised by outside Directors.
(2) In addition to its important role as a Company supervisory body, the Audit and Supervisory Committee serves as a statutory independent body charged with auditing the discharge of management responsibilities on behalf of shareholders by the Representative Director and other Executive Directors. By fulfilling these responsibilities, it contributes to a sound corporate governance structure commensurate with society's trust in the Company and promotes sound, sustained growth and medium- to long-term value creation.
(See p. 71 for more information on the management structure.)

❺ Shareholder dialogue

To further sustained growth and medium- to long-term growth in corporate value, the Company establishes opportunities for dialogue with shareholders beyond the General Meetings of Shareholders, while Directors and other members of top management strive to explain clearly in management policies and elsewhere matters such as the Company business environment and initiatives. The ultimate goal is to ensure understanding, and to promote constructive dialogue with shareholders.

Corporate Governance

Internal Control and Corporate Governance Diagram (Tohoku Electric Power)

1 Board of Directors

The Board of Directors consists of 16 Directors, including seven independent outside Directors unimpeded by potential conflicts of interest that may arise with general shareholders.
In principle, the Board meets once a month to decide on important matters related to management and matters and essential for Company operations. The Directors also report on the status of business execution to the meetings of the Board of Directors and monitor these reports and business implementation carried out by other Directors. The Board of Directors delegates certain important decisions on business execution to the Directors through a system whereby the Representative Director & President, Representative Directors & Executive Vice Presidents, and Managing Executive Officers (collectively referred to as "Executive Officers with titles") take charge of business execution.

2 Nomination and Compensation Advisory Committee

The Company has established a Nomination and Compensation Advisory Committee (chaired by Tsutomu Kamijo) comprised of two internal Directors (Representative Director & Chairman of the Board Jiro Masuko and Representative Director & President Kojiro Higuchi) and four independent outside Directors (Directors Shiro Kondo, Tsutomu Kamijo, and Osamu Kawanobe who do not sit on the Audit and Supervisory Committee, and Director Ikuko Miyahara, a Committee member). This body advises the Board of Directors on matters related to securing objectivity, timeliness, and transparency. The Nomination and Compensation Advisory Committee fulfills the functions of both a voluntary committee equivalent in function to a nomination committee and a voluntary committee equivalent in function to a compensation committee.

3 Management Committee

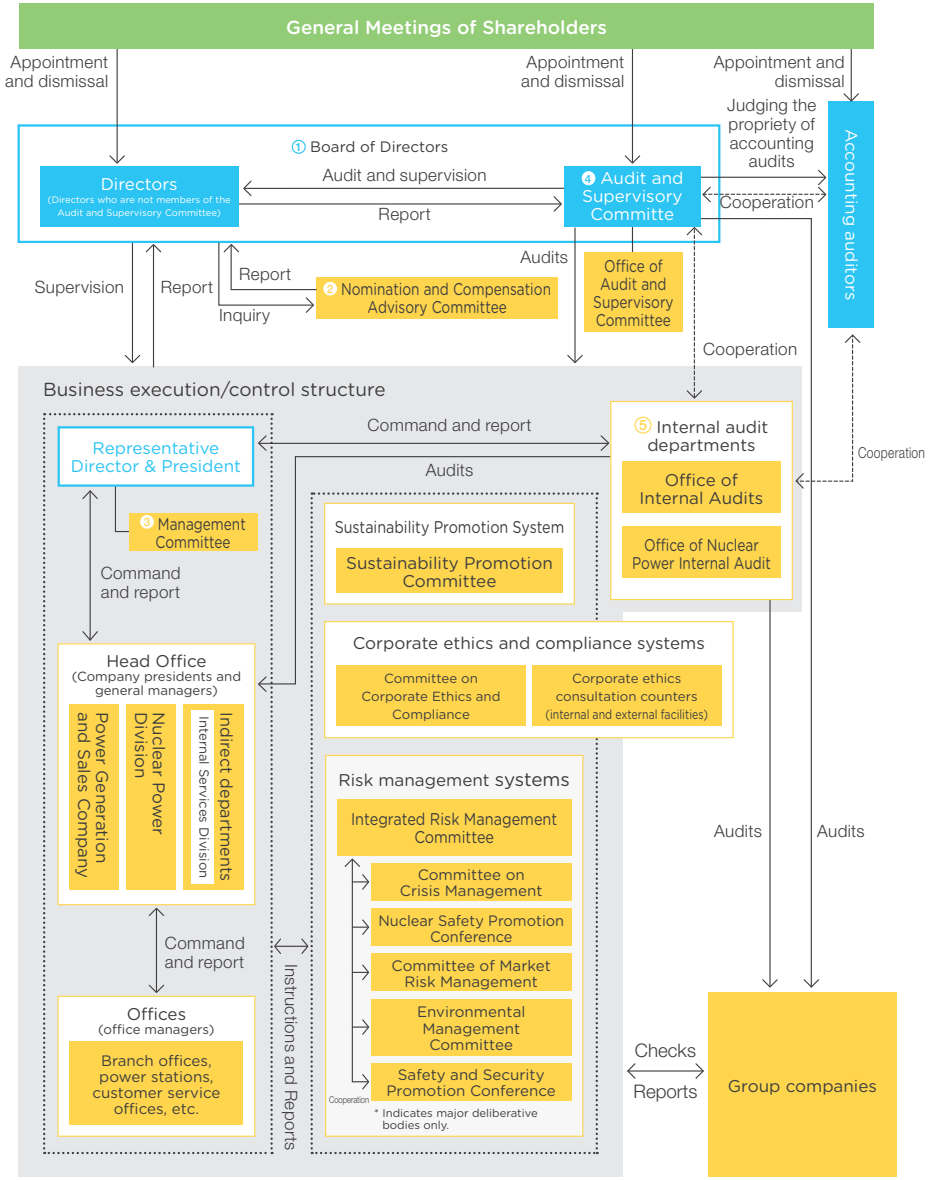
Consisting of Executive Officers with titles, the Management Committee meets weekly to discuss overall business administration policies and plans and the execution of important business based on basic management policies set by the Board of Directors. The Management Committee also promotes the development of effective, efficient business processes through an in-house company system, in which the Power Generation and Sales Company, the Nuclear Power Division and the Internal Services Division independently explore autonomous business expansion.

4 Audit and Supervisory Committee

To ensure objectivity and neutrality in management supervision functions, three of the four members of the Audit and Supervisory Committee are outside members. One full-time member of the Committee is appointed to carry out, on a daily basis, activities such as attending important meetings of the Executive Committee and other bodies, inquiring with business execution sections concerning the state of business execution, inspecting sites, and joint efforts with internal audit sections, thereby making auditing and supervisory functions more effective. In addition to meeting monthly, the Audit and Supervisory Committee meets at other times when necessary to deliberate and report on matters relevant to its functions as an auditing and supervisory body.
In addition to attending meetings of the Board of Directors, the Executive Committee, and other important meetings, the full-time member also inquires with business execution sections concerning the state of business execution, reviews important documents, inspects the state of business and finances at business sites, and otherwise strives to ensure that auditing of matters such as the performance of Directors' duties and the maintenance and operation of internal control systems is fully addressed. He or she also strives to improve audit results by attending discussions with the Representative Director and engaging in the periodic exchange of viewpoints with the internal audit sections and the accounting auditors, as well as enhancing cooperation with the statutory auditors of affiliate companies. In particular, in the area of enhancing cooperation with internal audit sections and accounting auditors, tripartite auditing meetings are held among the full-time member, the Director with responsibility for internal auditing, and the accounting auditors. By providing information obtained through auditing activities and other activities, the full-time member helps ensure full and effective cooperation with outside members. The outside members of the Audit and Supervisory Committee attend discussions of the Board of Directors and Representative Directors, asking questions and presenting views based on a wide range of perspectives and drawing on their wealth of personal experience, as well as touring facilities to inspect the state of operations. Member Miyahara attends the voluntary Nomination and Remuneration Advisory Committee as a member.
In addition to the assignment of specially appointed auditing officers responsible for assisting in the duties of the Audit and Supervisory Committee, the Audit and Supervisory Committee Office functions as an organization charged with supporting the Committee in its duties.

5 Internal audit departments

At the Company, the Office of Internal Audits conducts internal audits on businesses from various perspectives, including the effectiveness and appropriateness of organizations and management systems, the economy and efficiency of business administration, and the effectiveness and efficiency of facility preservation activities. The Office of Nuclear Power Internal Audit performs internal audits associated with safety guarantees and reliability enhancements for nuclear power generation within the Company. These internal audit departments perform internal audits through interviews with the individuals concerned at the Company, its subsidiaries, and principal affiliates, documentary research, and on-site confirmation. The internal audit departments report their internal audit findings to the Representative Director & President, the Management Committee, the Board of Directors, and the Audit and Supervisory Committee. In addition, the departments urge the divisions concerned to resolve problems and issues that require improvement or correction. The departments also seek to raise the effectiveness of internal audits in cooperation with the Audit and Supervisory Committee and accounting auditors. The internal audit departments are independent from the respective executive bodies. The Office of Internal Audits and the Office of Nuclear Power Internal Audit fall under the direct control of the Representative Director & President.



Corporate Governance

Changes in corporate governance systems

Commencement of initiatives to strengthen governance and achieve flexible business administration
- Reducing the numbers of Directors and terms of office
- Introducing the Executive Officer system
- Introducing the system of stock options for stock-based compensation

Promoting governance reforms based on corporate governance codes
- Appointing two or more outside Directors
- Initiating assessments of the Board of Directors' effectiveness
- Establishing the voluntary Nomination and Compensation Advisory Committee

Strengthening governance to account for rapidly changing management environment
- Establishing Executive Officers with titles
- Changes in status to a company with an audit and supervisory committee
- Appointment of female Directors
- Adopting a stock-based compensation program linked to business performance

	April 2005 to March 2015	April 2015 to March 2018	April 2018 to the present
Governance system	● Company with an audit and supervisory board	● Company with an audit and supervisory board	**June 2018** ● Changes in status to company with an audit and supervisory committee
Committee		**January 2017** ● Establishing the voluntary Nomination and Compensation Advisory Committee (consisting of two members from the Company and two additional members from outside the Company)	**June 2018** ● Increase in the number of Nomination and Compensation Advisory Committee members from outside the Company (to change the numbers of members from the Company and those from outside the Company to two and four, respectively) **January 2020** ● Outside Director chosen as Chair of the Nomination and Compensation Advisory Committee
Chairman of the Board of Directors	● Representative Director & Chairman of the Board	● Representative Director & Chairman of the Board	● Representative Director & Chairman of the Board
Separation of supervision and execution	**June 2005** ● Introducing the Executive Officer system ● Decrease in the number of Directors specified in the Articles of Incorporation from 25 or fewer to 18 or fewer		**April 2018** ● Establishing Executive Officers with titles **June 2018** ● Delegation of a portion of the Board of Directors' authorities to Directors **April 2020** ● Expanding the authority delegated by the Board of Directors to Directors
Nomination of Directors	**June 2007** ● Reducing the term of office for Directors from two years to one year	**November 2015** ● Establishing criteria for judging the independence of outside Directors ● Establishing policies for nominating Directors	**November 2020** ● Clearly defining the abilities and qualities demanded of Directors
Compensation for Directors	**June 2007** ● Abolishing Retirement Benefits for Directors **June 2010** ● Introducing the system of stock options for stock-based compensation	**November 2015** ● Establishing policies for determining compensation for Directors	**June 2020** ● Adopting stock-based compensation program linked to business performance ● Stock option compensation program abolished
Assessment of the Board of Directors' effectiveness		**February 2016** ● Start of the assessment of the Board of Directors' effectiveness (using a questionnaire survey)	
Basic policies regarding corporate governance		**November 2015** ● Establishment	**March 2020** ● Basic Policy on Corporate Governance established
Outside Directors * Figures in ☐ are the ratios of outside Directors to total number of Directors.	From June 2013 1 outside Director 6%	From June 2016 2 outside Directors 13%	From June 2018 6 outside Directors 35% Including three outside Directors serving as members of the Audit and Supervisory Committee From June 2019 6 outside Directors 35% Including three outside Directors (one female Outside Director) serving as members of the Audit and Supervisory Committee Since June 2020 6 outside Directors 40% Including three outside Directors (one female outside Director) serving as members of the Audit and Supervisory Committee Since June 2021 7 outside Directors 44% Including three outside Directors (two female outside Directors) serving as members of the Audit and Supervisory Committee
Outside Statutory Auditors	3 Outside Statutory Auditors		

Corporate Governance

Policies and procedures for appointing and dismissing executive team members and nominating candidates for Directors by the Board of Directors

The Company seeks to administer businesses to reshape their value alongside local communities by adapting to anticipated changes in the management environment and engaging in sustained dialogue with stakeholders, thereby maintaining the role of Tohoku Electric Power Group a group of companies that grow alongside and provide essential functions within communities. The Company has adopted the following policies and procedures for nominating and dismissing Directors to administer its businesses appropriately.

Policies

- The Board of Directors shall have members whose numbers are necessary and appropriate for building effective management systems in a company active in the electricity business and for monitoring substantive discussions and business execution. The Board of Directors shall consist of an appropriate number of members, totaling 18 or fewer, as specified in the Articles of Incorporation.
- In selecting and dismissing Directors, the Nomination and Compensation Advisory Committee, including two or more independent outside Directors, shall convene discussions to secure the objectivity, timeliness, and transparency of their selection and dismissal.
- Candidates for internal Directors (excluding candidates for Directors serving as members of the Audit and Supervisory Committee) are chosen from individuals with a wealth of experience in each field, based on a consideration of a sound balance of specialties, technical expertise and business experience in particular in the electric power industry, which involves high specialization and a broad range of business domains, knowledge concerning the electricity business in general, and new business fields, among others, thereby helping to achieve Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision. The desired traits are:
  - **The imagination needed to envision a forward-looking vision and creative business models and to lead the organization**
  - **The decisiveness needed to take personal responsibility for decision-making based on knowledge, experience, and principles**
  - **The tenacity needed to achieve goals without giving up, tackling challenges boldly, while bringing together wisdom and resources from inside and outside the organization**
  - **The sensitivity needed to identify business opportunities without overlooking signs indicating risk**
  - **The character needed to combine a strong sense of mission with lofty ethics as leaders of a business serving the public interest**
- Candidates for outside Directors (excluding candidates serving as members of the Audit and Supervisory Committee) shall be selected by evaluating whether candidates can work to realize proper decisionmaking and management supervision by the Board of Directors, based on practical experience grounded in corporate management and other factors and insights into social, economic, and other trends.
- Candidates for Directors serving as members of the Audit and Supervisory Committee shall be selected by evaluating whether the candidates can apply their respective experience and insights to the proper execution of their duties as Audit and Supervisory Committee members and to the audit and supervision of job execution by Directors. Candidates for outside Directors serving as members of the Audit and Supervisory Committee shall be selected by evaluating whether the candidates can perform audits and supervision from an objective and neutral perspective.
- Whether candidates for outside Directors are independent or not shall be judged on the basis of the Independence Criteria for Outside Directors set by the Company.

Procedures

- Based on the above policies, to enable more objective, timely, and transparent decision-making, the Nomination and Remuneration Advisory Committee, whose members include multiple independent outside Directors, including the chair, deliberates on the appointment. A decision is made by the Board of Directors. For candidates for Directors serving as members of the Audit and Supervisory Committee, the consent of that Committee is obtained before submission to the Board of Directors. The Audit and Supervisory Committee may also present opinions on candidate Directors (not including candidates for Directors serving as members of the Audit and Supervisory Committee) and submit them to the General Meeting of Shareholders

Policies and procedures for determining compensation for Directors

Policies and procedures for determining compensation for Directors (excluding Directors serving as members of the Audit and Supervisory Committee) are as follows:

Policies

To help realize Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision, decisions are made on the remuneration of Directors (not including Directors serving as members of the Audit and Supervisory Committee) in accordance with the following policy, intended to strengthen motivation among Directors to improve business performance and contribute to improvements in business performance over the medium to long term, by clarifying the relationship between remuneration and business performance and stock prices.

- The remuneration structure consists of fixed remuneration, remuneration linked to short-term performance, and remuneration linked to medium-/long-term performance. Remuneration amounts are determined for each position based on a consideration of Company business results, the business environment, and other factors, while also referring to remuneration at other publicly traded firms.
- To incentivize improved business results, the percentages of total compensation accounted for by fixed remuneration, remuneration linked to short-term performance, and remuneration linked to medium-/long-term performance are set to roughly 70%, 10%, and 20%, respectively, at the time the goals are achieved.
- Fixed remuneration is paid monthly as monetary remuneration in annual amounts determined so as not to exceed the total approved by the General Meeting of Shareholders.
- Remuneration linked to short-term performance is paid as annual remuneration that varies with the degree to which business performance objectives are achieved, so as not to exceed the total approved by the General Meeting of Shareholders.
- Remuneration linked to medium-/long-term performance is paid by awarding one share of Company common stock per point based on the total points earned annually during the time of service, at the time of retirement or resignation through an investment-trust- based remuneration system. This, too, is not to exceed the total approved by the General Meeting of Shareholders. Points are awarded as fixed points and variable performance-linked points awarded in accordance with the extent to which business performance objectives are achieved. If a recipient becomes ineligible to receive this remuneration, for example by having committed any of the acts prohibited under the Rules on Issue of Shares, and such fact has been discovered prior to the date of finalization of beneficiary rights, then the shares of common stock will not be issued. If the violation has been discovered after the date of finalization of beneficiary rights, then the Company may demand return of the amount corresponding to the remuneration paid.
- The indicator used in the portion corresponding to variable performance-linked points in remuneration linked to short-term and medium-/long-term performance is the financial target of consolidated cash income (excluding factors such as time lag effects of the fuel-cost adjustment system, an external variable factor) identified in Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision. The target is set to 320 billion yen for each fiscal year. Amounts paid and other matters vary with the extent of achievement of this target and other factors.
- Remuneration of outside Directors, whose perspectives are independent of business execution, consists of fixed remuneration only.
- Allotments for the respective Directors shall be decided in accordance with the sizes of the roles assigned to the respective title holders, the details of deskwork and duties assigned to the respective Directors and their respective scopes of responsibility.

Procedures

- Overseeing the business as a whole, the President makes decisions each year regarding the amounts paid to each individual and other matters, through a Board of Directors resolution delegating full authority to him or her. To ensure its objectivity and transparency, the resolution on delegation of authority to the President is deliberated on by the Nomination and Remuneration Advisory Committee, whose members include multiple independent outside Directors, including the chair. The amounts paid to each individual and other matters, decisions related to which are delegated to the President as described above, cannot exceed the total payment amounts and other amounts for Directors (excluding Directors serving as members of the Audit and Supervisory Committee) as specified in advance through deliberation by the Nomination and Remuneration Advisory Committee. The actual amounts paid are reported to the Nomination and Remuneration Advisory Committee.
- The Audit and Supervisory Committee may state its decided opinion on compensation for Directors (excluding Directors serving as members of the Audit and Supervisory Committee) at a General Meeting of Shareholders.

Policies and procedures for determining compensation for Directors serving as members of the Audit and Supervisory Committee are as follows:

- Remuneration for Directors serving as members of the Audit and Supervisory Committee, whose positions are independent of business execution, consists of fixed remuneration only, paid monthly so as not to exceed the total approved by the General Meeting of Shareholders. The amount paid to each Director is determined through negotiation among the Directors serving as members of the Audit and Supervisory Committee.

Corporate Governance

Compensation for Directors, etc.

(FY2020)

Classifications for Directors	Monetary remuneration				Nonmonetary remuneration	
	Fixed remuneration		Remuneration linked to short-term performance		Remuneration linked to medium-/long-term performance	
	Number of compensation recipients	Amount paid (millions of yen)	Number of compensation recipients	Amount paid (millions of yen)	Number of compensation recipients	Amount paid (millions of yen)
Directors (excluding Directors serving as members of the Audit and Supervisory Committee and Outside Directors)	13	337	8	39	8	75
Members of the Audit and Supervisory Committee	5	70	—	—	—	—

(Notes) 1. As of March 31, 2021, there were 11 Directors (including three outside Directors), excluding those serving as members of the Audit and Supervisory Committee. The Company has four additional Directors serving as members of the Audit and Supervisory Committee, including three outside Directors. Compensation for the Directors specified above includes compensation for two Directors not serving as members of the Audit and Supervisory Committee and for one Director serving as a member of the Audit and Supervisory Committee, who stepped down at the end of the 96th Ordinary General Meeting of Shareholders held June 25, 2020.
2. The total compensation paid to the eight outside Directors above was 72 million yen, all paid as fixed remuneration.
3. The limits on compensation and related matters determined through resolutions of the General Meeting of Shareholders are shown below.

Fixed remuneration, remuneration linked to short-term performance

Directors (excluding Directors serving as members of the Audit and Supervisory Committee): **Up to 516 million yen/year** (including up to 60 million yen/year for outside Directors)

(Based on resolution passed at the 96th Ordinary General Meeting of Shareholders held June 25, 2020. The resolution affects 11 Directors.)

Directors serving as members of the Audit and Supervisory Committee: **Up to 12 million yen/month**

(Based on resolution passed at the 94th Ordinary General Meeting of Shareholders held June 27, 2018. The resolution affects four Directors.)

Remuneration linked to medium-/long-term performance

Directors excluding outside Directors (excluding Directors serving on the Audit and Supervisory Committee)

Under the investment-trust- based remuneration system, Company stock and monetary amounts equivalent to the convertible value of Company stock are issued/granted at the time of resignation. The trust contribution amount per three fiscal years is not to exceed 540 million yen in total; the total number of points awarded to Directors per fiscal year is not to exceed 400 thousand points (equivalent to 400 thousand shares of stock).

(Based on resolution passed at the 96th Ordinary General Meeting of Shareholders held June 25, 2020. The resolution affects eight Directors.)

CEO (President) succession plan

The Board of Directors overseas the development of successors to the position of Chief Executive Officer (President) to ensure this occurs systematically and with an adequate investment of time and resources. The Nomination and Remuneration Advisory Committee, whose members include multiple independent outside Directors, including the chair, deliberates on the development of successors in a systematic and continuous manner, to ensure its objectivity and transparency, while taking into consideration matters such as the Company's changing business conditions.

Message from the chair of the Nomination and Remuneration Advisory Committee

1 Initiatives as chair taken to date

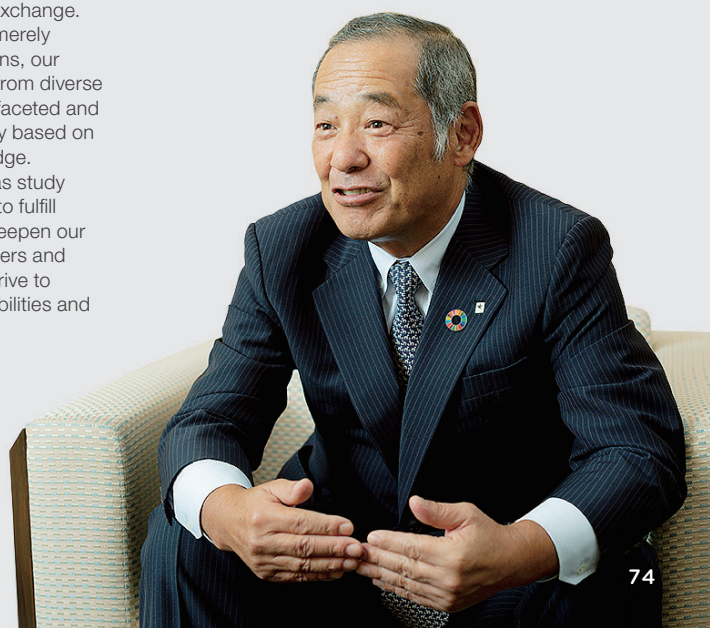
Our Nomination and Remuneration Advisory Committee was established in 2016. This is its sixth year. The committee's membership currently stands at four outside Directors, including myself, and two internal Directors.
A recent development has been the adoption of a stock-based compensation program linked to business performance, an incentive toward achieving medium- to long-term performance on the way toward Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision goals. We have identified as the abilities and qualities demanded of Directors imagination, decisiveness, tenacity, sensitivity, and high character. We have also clarified the skills required of the Board of Directors through a skills matrix and formulated standards to enable objective and transparent nomination of Directors.
In these ways, our governance structure is steadily evolving to meet stakeholder expectations.

2 Particular efforts made in deliberations as chair

In committee operations, I make an effort to foster lively and open-minded exchange. I strive to ensure that rather than merely following internal Company opinions, our committee members, who come from diverse backgrounds, will engage in multifaceted and effective debate by speaking freely based on their own experience and knowledge.
In addition, through means such as study meetings and site tours, we seek to fulfill the mission entrusted to us and deepen our understanding of specialized matters and topics in various fields. We also strive to ascertain information on the capabilities and character of candidates for future executive positions through Board of Directors meetings, dialogue, and other opportunities.

3 Future initiatives and aspirations as chair

Efforts such as structural reforms to the power supply business and tackling the challenges to launch the smart society building business as called for in "Working alongside next" vision have only just begun. We must also boldly confront various new challenges demanded by society, including sustainability management and carbon neutrality.
In the committee, we are currently deliberating on successor development plans and executive training initiatives, among other matters.
As chair, based on appropriate governance, I will continue to help our executives make responsible, bold decisions that increase corporate value over the medium to long term. I hope to contribute to these goals in the aspects of nomination and remuneration while remaining in close communication and building strong and trusting relationships with our executives.



Tsutomu Kamijo
Director
(Independent Outside Director)
Chairperson, Nomination and Remuneration Advisory Committee

Corporate Governance

Assessment of the Board of Directors' effectiveness

The Company undertakes a questionnaire survey of Directors to assess the Board of Directors' effectiveness and reports the findings of the survey to the Board of Directors annually. Based on the survey findings, the Board of Directors shares its understanding of the existing conditions and opinions for bettering the conditions and the like, assesses the effectiveness of the Board of Directors as a whole, and confirms initiatives for improving the Board's effectiveness, among other things.

Survey topics

The survey questions are grouped into the following main categories. Directors are asked to choose one of five answers for each question. A space is provided in each category for freeform comments.

I. **Number of members and composition of the Board of Directors**
II. **Scope of matters submitted to the Board of Directors**
III. **Decision-making and oversight at the Board of Directors**
IV. **Operation of the Board of Directors, etc.**
V. **Support structures for Directors and members of the Audit and Supervisory Committee, provision of information to them, etc.**
VI. **Priority initiatives for FY2020**

FY2020 initiatives

In FY2020, we sought to share an understanding among Directors of the conditions in which the Company operates and enhance deliberations toward the practical implementation of Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision, based on discussion meetings that included outside Directors, in addition to Board of Directors meetings. This year, we launched efforts to expand the scope of authority delegated from the Board to individual Directors and to operate a system for monitoring Group member companies, including the power transmission and distribution company spun off in April 2020 (Tohoku Electric Power Network). (Each of these measures began in April 2020.) In these ways, we have made progress on enhancing the oversight structure for the Board of Directors of the Tohoku Electric Power Group as a whole.

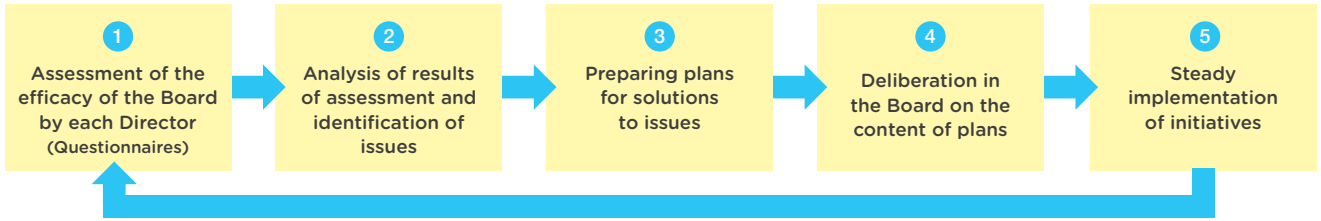
Overview of results of evaluation

The results of the survey carried out in February 2021 showed improvements from the two previous surveys in terms of average scores, as well as high results in all evaluation categories. Based on deliberations on these survey results in the April 28, 2021 Board of Directors meeting, the Board reached the conclusion that the Board had demonstrated satisfactory performance in FY2020. At the same time, it recognized the need for initiatives on the following matters:

① Progress on efforts to deepen deliberations at the Board of Directors by providing outside Directors with overviews of discussions in the Management Committee, whose membership consists of internal Directors
② Progress on efforts to achieve a shared understanding among internal and outside Directors by setting up meetings to explain Company management topics and other issues by inside Directors to outside Directors, apart from the Board of Directors

The Company Board of Directors will continue to strive to maintain and improve the efficacy of the Board of Directors on these and other points, thereby ensuring appropriate management oversight by the Board and to realize sustained growth in corporate value.

Process of assessing the efficacy of the Board



Corporate Governance

Directors (as of July 2021)

* Actual attendance is shown for FY2020. Attendance for Isao Kato, Kazuhiro Ishiyama, and Hiromitsu Takano is for meetings of the Board held since June 25, 2021.

Representative Director & Chairman of the Board

Jiro Masuko

State of attendance Board of Directors ····· 11/11 (100%)

Reasons for appointment

Since joining the Company, Masuko has worked in businesses centered on those assigned to the nuclear power divisions. He is familiar with the Company's businesses in general, as demonstrated by past service as an Executive Officer and the General Manager of the Aomori Branch Office, and as Executive Officer and General Manager of the Nuclear Power Department. Masuko has served as Managing Director since June 2015, as a Representative Director and Executive Vice President since April 2018, and as a Representative Director and Chairman of the Board since April 2021. The Company reappointed him as Director in light of his extensive business experience within the Company and general knowledge of electricity business management.

Representative Director & President

Kojiro Higuchi

State of attendance Board of Directors ····· 11/11 (100%)

Reasons for appointment

Since joining the Company, Higuchi has worked in businesses centered on those assigned to the thermal power divisions. He is familiar with the Company's businesses in general, as demonstrated by past service as the General Manager of the Haramachi Thermal Power Station and as an Executive Officer and General Manager of the Thermal Power Department. He has served as Managing Director from June 2016, as a Director and Managing Executive Officer from April 2018, as a Representative Director and Executive Vice President from June 2019, and as a Representative Director and President since April 2020, in light of his extensive business experience within the Company and general knowledge of electricity business management.

Representative Director & Executive Vice President

Shinichi Okanobu

State of attendance Board of Directors ····· 11/11 (100%)

Reasons for appointment

Since joining the Company, Okanobu has worked in businesses centered on those assigned to the planning divisions. He is familiar with the Company's businesses in general, as demonstrated by past service as the General Manager of the Group Business Department and as Executive Officer and General Manager of the Corporate Planning Department. Okanobu served as Managing Director from June 2013, as an Executive Vice President from June 2015 and as a Representative Director and Executive Vice President from April 2018. The Company reappointed him as Director in light of his extensive business experience within the Company and general knowledge of electricity business management.

Representative Director & Executive Vice President

Shunji Yamamoto

State of attendance Board of Directors ····· 11/11 (100%)

Reasons for appointment

Since joining the Company, Yamamoto has worked in businesses centered on those assigned to the accounting and finance divisions. He is familiar with the Company's businesses in general, as demonstrated by past service as Executive Officer and General Manager of the Accounting and Finance Department and as Executive Officer and General Manager of the Yamagata Branch Office. Yamamoto served as Managing Director from June 2013, as Director and a Managing Executive Officer from April 2018, and as a Representative Director and Executive Vice President from April 2020. The Company reappointed him as Director based on his extensive business experience within the Company and general knowledge of electricity business management.

Representative Director & Executive Vice President

Toshinori Abe

State of attendance Board of Directors ····· 11/11 (100%)

Reasons for appointment

Since joining the Company, Abe has worked in businesses centered on those assigned to the human resources divisions. He is familiar with the Company's businesses in general, as demonstrated by past service as General Manager of the Human Capital Department and as Executive Officer and General Manager of the Tokyo Branch Office. Abe served as Managing Director from June 2017, as Director and a Managing Executive Officer from April 2018, and as a Representative Director and Executive Vice President from April 2021. The Company reappointed him as Director based on his extensive business experience within the Company and general knowledge of electricity business management.

Director & Managing Executive Officer

Isao Kato

State of attendance Board of Directors ····· –/– (–%)

Reasons for appointment

Since joining the Company, Kato has worked in businesses centered on those assigned to the nuclear power divisions. He is familiar with the Company's businesses in general, as demonstrated by past service as Executive Officer and General Manager of the Nuclear Power Department and Managing Executive Officer. The Company appointed him as Director based on his extensive business experience within the Company and general knowledge of electricity business management.

Director & Managing Executive Officer

Kazuhiro Ishiyama

State of attendance Board of Directors ····· –/– (–%)

Reasons for appointment

Since joining the Company, Ishiyama has worked in businesses centered on those assigned to the planning divisions. He is familiar with the Company's businesses in general, as demonstrated by past service as Executive Officer and General Manager of the Corporate Planning Department and Managing Executive Officer. The Company appointed him as Director based on his extensive business experience within the Company and general knowledge of electricity business management.

Director & Managing Executive Officer

Hiromitsu Takano

State of attendance Board of Directors ····· –/– (–%)

Reasons for appointment

Since joining the Company, Takano has worked in businesses centered on those assigned to the general-affairs divisions. He is familiar with the Company's businesses in general, as demonstrated by past service as General Manager of the General Affairs Department, Senior Executive Officer and General Manager of the Niigata Branch Office, and Managing Executive Officer. The Company appointed him as Director based on his extensive business experience within the Company and general knowledge of electricity business management.

Corporate Governance

Directors (as of July 2021)

* Actual attendance is shown for FY2020. Mikito Nagai and Akiko Ide were appointed on June 25, 2021.
* Attendance for Osamu Kawanobe and Kazuo Kobayashi is for meetings of the Board held since June 25, 2020.
* Attendance for Kazuo Kobayashi is for meetings of the Audit and Supervisory Committee held since June 25, 2020.
* The independence of independent Directors is judged based on the standards for independence established by the financial instruments exchange on which Company shares are listed.

Director (Outside Director) (Independent Director)

Shiro Kondo

State of attendance Board of Directors ····· 11/11 (100%)

Reasons for appointment

Kondo has served in positions including that of Representative Director and Chairman of Ricoh Co., Ltd. and brings experience in managing a company that manufactures optical devices, office machines, and other products. The Company appointed Kondo as an Outside Director based on expectations that he will apply his extensive experience and rare insights to the management of the Company based on his past career and performance record.

Director (Outside Director) (Independent Director)

Tsutomu Kamijo

State of attendance Board of Directors ····· 11/11 (100%)

Reasons for appointment

Kamijo has served in positions including Chairman and Director of Sapporo Holdings Ltd. and brings experience in managing a company that manufactures and sells beverages, foods and other products. The Company appointed Kamijo as an Outside Director based on expectations that he will apply his extensive experience and rare insights to the management of the Company based on his past career and performance record.

Director (Outside Director) (Independent Director)

Osamu Kawanobe

State of attendance Board of Directors ····· 9/9 (100%)

Reasons for appointment

Kawanobe is Representative Director and President of JR East Mechatronics Co. Previously held positions include those of Representative Director and Vice President of the East Japan Railway Company. He brings a wealth of experience in managing public-interest businesses and in other areas. The Company appointed Kawanobe as an Outside Director based on expectations that he will apply his extensive experience and rare insights to the management of the Company based on his past career and performance record.

Director (Outside Director) (Independent Director)

Mikito Nagai

State of attendance Board of Directors ····· –/– (–%)

Reasons for appointment

Nagai's previous positions include Representative Director and President of Nippon Steel Kowa Real Estate. He has also served as a Director and Vice President of Mizuho Corporate Bank, Ltd. (now Mizuho Bank, Ltd.), and he brings a wealth of experience in managing the real estate and banking businesses and in other areas. The Company appointed Nagai as an Outside Director based on expectations that he will apply his extensive experience and rare insights to the management of the Company based on his past career and performance record.

Director & Audit and Supervisory Committee Member

Koki Kato

State of attendance Board of Directors ····· 11/11 (100%)
Audit and Supervisory Committee ····· 12/12 (100%)

Reasons for appointment

Since joining the Company, Kato has primarily been involved in activities assigned to the planning divisions. He is well-versed in the Company's overall activities, experience gained in service as Executive Officer and General Manager of the Aomori Branch Office and as Director and General Manager of the Corporate Planning Department. The Company appointed him Director and Audit and Supervisory Committee Member in June 2018 in light of his extensive business experience within the Company, where he served as a corporate auditor from June 2012, as well as his knowledge of electricity business management and audits.

Director & Audit and Supervisory Committee Member (Outside Director) (Independent Director)

Ikuko Miyahara

State of attendance Board of Directors ····· 11/11 (100%)
Audit and Supervisory Committee ····· 12/12 (100%)

Reasons for appointment

As university professor, Miyahara has experience in the real-world use of regional resources, research on support for reconstruction following major earthquakes, and joint industry, government, and academic projects. The Company appointed Miyahara as Outside Director and Audit and Supervisory Committee Member based on expectations she will apply her extensive experience and rare insights gained in her academic career toward the objective of providing impartial audits and supervision, drawing on her past career and performance record.

Director & Audit and Supervisory Committee Member (Outside Director) (Independent Director)

Kazuo Kobayashi

State of attendance Board of Directors ····· 8/9 (89%)
Audit and Supervisory Committee ····· 10/10 (100%)

Reasons for appointment

Kobayashi is a Standing Statutory Auditor of the Nippon Life Insurance Company. He has considerable knowledge of financial affairs and accounting. The Company appointed him as an Outside Director and an Audit and Supervisory Committee Member based on expectations that he will apply his extensive experience and rare insights toward the objective of providing impartial audits and supervision of the Company based on his past career and performance record.

Director & Audit and Supervisory Committee Member (Outside Director) (Independent Director)

Akiko Ide

State of attendance Board of Directors ····· –/– (–%)
Audit and Supervisory Committee ····· –/– (–%)

Reasons for appointment

Ide's previous positions include Standing Statutory Auditor of Nippon Telegraph and Telephone Corporation, Statutory Auditor of NTT, Inc., and Executive Officer of NTT Docomo, Inc. The Company appointed her as an Outside Director and an Audit and Supervisory Committee Member based on expectations that she will apply her extensive experience and rare insights toward the objective of providing impartial audits and supervision of the Company based on her past career and performance record.

Corporate Governance

Areas of specific expectations for skills individual Directors have (skills matrix)

Our outlook on areas of expectations for individual Directors

The seven items below have been identified as skills essential to Company Directors based on the policy on nomination of Director candidates, to realize Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision.

● Chair ○ Member | Male Female

Name	Title	Nomination and Remuneration Advisory Committee member?	Gender	Areas of particular expectations*1						
				Planning and management	Technology*2	Finance and accounting	Legal and risk management	Business development and marketing	Social communication*3	Personnel and human resource development
Jiro Masuko	Representative Director & Chairman of the Board	○	Male	●	●				●	
Kojiro Higuchi	Representative Director & President	○	Male	●	●		●			
Shinichi Okanobu	Representative Director & Executive Vice President		Male	●		●		●		
Shunji Yamamoto			Male	●		●				●
Toshinori Abe			Male					●	●	●
Isao Kato	Director & Managing Executive Officer		Male		●				●	
Kazuhiro Ishiyama			Male		●	●	●			
Hiromitsu Takano			Male				●		●	
Shiro Kondo	Director (Outside Director)	○	Male	●	●			●		
Tsutomu Kamijo		●	Male	●			●	●		
Osamu Kawanobe		○	Male	●	●		●			
Mikito Nagai			Male	●		●	●			
Koki Kato	Director & Audit and Supervisory Committee Member		Male		●	●	●			
Ikuko Miyahara	Director & Audit and Supervisory Committee Member (Outside Director)	○	Female					●	●	●
Kazuo Kobayashi			Male	●		●		●		
Akiko Ide			Female	●				●	●	

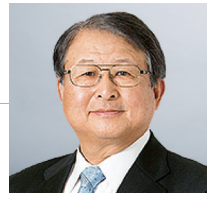
*1 The above list describes the top three areas of particular expectations based on the skills possessed by individual Directors. It does not indicate all areas of specialization and experience of each Director.
*2 Technology refers to capabilities related to electricity, machinery, and other technologies in general, including environmental knowledge, to contribute to carbon neutrality.
*3 Social communication refers to capabilities related to communication with local communities and other stakeholders.

Corporate Governance

Messages from outside Directors

Shiro Kondo

Director (Outside Director)



On the topic of corporate governance, the newspaper articles these days often focus on efforts to enhance governance through means such as growing numbers of outside Directors and women Directors. I have grave doubts that governance can be enhanced simply through such measures. I believe what is most important is what the company is attempting to achieve and how it strives to contribute to stakeholders. What is its vision? What are its aspirations? Simple formal improvements that neglect these aspects are certain to prove meaningless when it comes to matters such as enhancing governance.

As a company engaged in a public interest business, our key mission is to protect the livelihood of customers and businesses through the supply of power. Major general electric power companies continue to battle day and night against power failures, seeking to respond appropriately to demand pressure, disasters, and other threats. The essence of the power system is a structure that prevents power failures through coordinated operations involving power generation, transmission, and distribution. Today, when the businesses of power generation on the one hand and the transmission and distribution on the other are separated, we must continue asking ourselves how best to fulfill our mission and generate innovation for the future.

This is why we are taking on the challenge of smart society building business, as called for in Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision. This vision seeks to build a new future alongside our customers and communities. I believe it is a timely aspiration in light of the Sustainable Development Goals (SDGs) as well. Furthermore, we are in the process of migrating to a more practical and effective power source portfolio. I believe that we have made steady progress in this first year of our medium- to long-term strategy.

Osamu Kawanobe

Director (Outside Director)

In this my first year as an outside Director, I had the opportunity to exchange opinions with numbers of employees in various ways, including freeform discussions with Directors and officers and tours of the facilities of the Sendai Thermal Power Station and the Onagawa Nuclear Power Station. These provided an understanding of the various issues the Company faces and its good-faith efforts to address them. Discussions at the Board of Directors have addressed various themes from broad-ranging perspectives, including the views we outside Directors offer. Some internal Directors have made comments on topics beyond the areas of their own responsibility. I expect even more lively discussions in the future.

At times like the current era, in which business conditions are changing dramatically, it is vital for a company to be open to change and to make efforts to achieve change on its own, rather than being inward looking. I will continue to express my views as an outsider, even if they may be painful to hear.

The Company is currently undertaking various important measures for the future, including continued efforts to resume operations at the Onagawa Nuclear Power Station, striving toward carbon neutrality, and launching Tohoku EPCO Frontier as a new company engaging in the smart society building business. I hope to contribute as an outside Director to enhance communication between the Company and society and to give concrete form to the Group slogan, Yori, Sou, Chikara (The Strength to Work Alongside).

Mikito Nagai

Director (Outside Director)

As an outside Director, my goal is to advise management, with an emphasis on objectivity as an outsider, on the medium- to long-term perspectives of the Tohoku Electric Power Group's ideal future state, and its responsibilities to society.

During my career in banking, I worked hard with numerous companies by sharing with them their management strategies and business structural reform processes. In managing a real estate developer, I felt keenly the importance of community coexistence and of the need to face the challenges of creating new value. I will offer my insights obtained from these experiences.

The environment in which the Group operates has reached a major turning point, as exemplified by intensifying competition following deregulation of the electricity business, legal separation of the power generation and transmission/distribution businesses, accompanying changes in the demand structure, and the need for decarbonization. This business ultimately requires us to simultaneously achieve a stable supply of electricity, economic performance, and environmental performance. To achieve these goals, we must steer a management course with a sense of urgency while pursuing unceasing efforts across the organization, including on the front lines of business. As an outside Director, I will seek to contribute to responsive management decision-making through advice and support on risk-taking and on risk management. I will also support the creation of an environment in which people can work with even more creativity while maintaining the diversity, development, and high motivation of the human resources who will drive the Company through these difficult challenges.

Corporate Governance

Messages from outside Director/Audit and Supervisory Committee Members

Ikuko Miyahara

Director/Audit and Supervisory Committee Member (Outside Director)

Looking back over the past year, I see a year of significant change in the Tohoku Electric Power Group as a whole, starting with the formulation of Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision, and continuing with the launch of Tohoku Electric Power Network, through its spinoff as an independent company, and the establishment of Tohoku EPCO Frontier as a new company engaging in the smart society building business. The Board of Directors performed its duties during the year considering the governance following the spinoff of Tohoku Electric Power Network and requested the attendance of their representative as an observer at our Board meetings as necessary.
At the same time, the COVID-19 pandemic, which began in 2020, had a negative impact on the Company, with corporate and consumer economic activities coming to a halt. Other significant developments during the year included tight electricity demand and supply conditions during the winter, wide-area power failures caused by heavy snowfall, and the need to respond to various natural disasters, including earthquake damage in the early spring.
I believe there will be continuing need in the future for structures of mutual support that rely on the individual strengths of all Group constituents.
From the perspective of diversity, I took part in dialogues and seminars for women employees throughout the Group, including Group member companies. I was able to verify efforts by HR sections to recruit women from engineering backgrounds. My goal is to contribute, through my duties as a member of the Audit and Supervisory Committee, to the progress of the Tohoku Electric Power Group in taking its first steps under the new organization as a driver of change in the new era.

Kazuo Kobayashi

Director/Audit and Supervisory Committee Member (Outside Director)

Today, a decade after the Great East Japan Earthquake, Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision serves as a statement of the Company's determination to tackle the challenge of successive waves of changes in the business environment as it makes progress in establishing a smart society starting in Tohoku. All this occurs amid rapid advances in digital technologies and other areas. At the same time, we will see to gain the trust of local communities through our core power supply business. An aggressive spirit of confronting challenges requires protective governance. We in the Audit and Supervisory Committee carry out audits on important themes by asking whether decisions are made in accordance with a framework of appropriate risk evaluation and maintenance of internal controls systems and whether the Plan-Do-Check-Act (PDCA) cycle functions effectively.
In FY2020, due to the COVID-19 pandemic, we had to carry out planned audit activities using IT solutions such as web conferencing and dedicated devices. Other activities of the Audit and Supervisory Committee included timely and appropriate checking and advising on new developments, including the establishment of a new company to contribute to a smart society; participation in community project planning; and enhanced disclosure in various ways, including descriptions of risks related to businesses and important topics to be considered from an audit perspective.
In FY2021, we can expect to make progress on practical implementation of the "Working alongside next" vision. The operation and management of Group member companies, in addition to Tohoku Electric Power, will become an even more important topic in light of the goals of business diversification and advancement. Under these circumstances, I will seek to contribute to the Company based on my past experience and my perspective as an outside Director.

Akiko Ide

Director & Audit and Supervisory Committee Member (Outside Director)

Upon my appointment as an outside Director and member of the Audit and Supervisory Committee, I was provided a wide range of information. This information showed that today, 70 years from its foundation, Tohoku Electric Power is at a critical juncture, in which it must face the challenges of a business-model transformation that could be described as its second founding. It struck me that this situation has much in common with my own past experiences.
The NTT Group, where I worked until 2020, also sought to reform its businesses in the 36 years since the deregulation of the telecommunications business began. It did so by adapting to a new competitive environment, restructuring, and pursuing ceaseless technological innovations.
In addition, Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision calls for the Company to stretch above and beyond the framework of the electricity business to help establish a smart society. I believe these efforts share the same underlying aims as those of the telecommunications industry: to link various industries to information and communication technologies (ICT) for the purpose of delivering solutions to social challenges within the community.
I will draw on past business experiences and my experience as an auditor to address the Company's new business environment, including intensifying competition, frequent natural disasters, and the need to achieve a carbon-neutral society. I intend to do all I can to help increase the corporate value of the Tohoku Electric Power Group.

Corporate Governance

Risk Management Initiatives

In addition to establishing an Integrated Risk Management Policy, the Company periodically reviews business and financial risks to identify, analyze, and evaluate risks and to study and implement responses.
Particularly for factors that pose major risks to Company businesses, the integrated risk management departments cooperate with various committees and other organizations in accordance with risk characteristics, based on monitoring and risk management by the Integrated Risk Management Committee. Business execution departments such as in-house companies and divisions also identify and evaluate risks periodically and incorporate responses and other measures into their annual business plans to deploy risk management activities specific to their own organizations.
As an example of cooperation with individual committees, the Committee of Market Risk Management appropriately manages market risks in the Company's business activities, including those related to fluctuating fuel prices and wholesale electricity trading prices, in light of the growing importance of revenue management as the Company's business environment changes. It then studies and implements responses as necessary, including hedge transactions.

Risk management structural diagram

Integrated Risk Management Committee

Established this fiscal year, the General Risk Management Committee is a joint committee with Tohoku Electric Power Network chaired by the President of Tohoku Electric Power whose membership consists of all directors of both companies. Its purpose is to promote the Company's integrated risk management activities and to deliberate on and study responses to important business risks in the Group from a management perspective.
Specifically, it meets twice annually to evaluate the state of management of important business risks and to provide guidance and advice on deployment of risk management activities while striving to enhance risk management activities through feedback to individual business execution sections and related deliberative bodies. It also reports periodically to the Board of Directors and other parties on the state of risk management.

Basic outlook underlying integrated risk management

- We advance risk management activities in which the Integrated Risk Management Committee serves as the leading organization based on the Integrated Risk Management Policy.
- While the sections closest to where risks occur conduct autonomous risk management as our basic policy, we carry out management to keep measured value at risk within a range that the Company finds tolerable. Based on a recognition that securing stable revenues requires appropriate risk-taking, we also strive to keep value at risk within the amount of consolidated equity capital, thereby achieving management that strikes a healthy balance between soundness and profitability.
- For risks and other matters for which it is difficult to measure value at risk, we qualitatively analyze their nature and maintaining systems capable of withstanding them to minimize the impact of the actual emergence of risks.

See "Business and Other Risks" in the Securities Report for specific examples of important business risks.
https://www.tohoku-epco.co.jp/ir/report/security/

Corporate Governance

Crisis management standards

Based on prior anticipation of various crises with potential serious impacts on company management, Tohoku Electric Power and Tohoku Electric Power Network have each established crisis management standards intended to prevent crises from occurring and to minimize damage in the event that they arise.

Crisis Management Committees

We have also established individual Crisis Management Committees (chaired by the respective Vice Presidents) to promote crisis management activities and to run through the corresponding plan-do-check-act (PDCA) cycles. Meeting twice annually, these Crisis Management Committees carry out activities such as assessing activities during the fiscal year and sharing risk information, as well as deliberating on action plans for the next fiscal year. The results are reported to the Management Committee.
In light of the need for a crisis management structure under which both Tohoku Electric Power and Tohoku Electric Power Network can work together even after the statutory division into separate entities, the Crisis Management Committees will meet jointly for both companies.

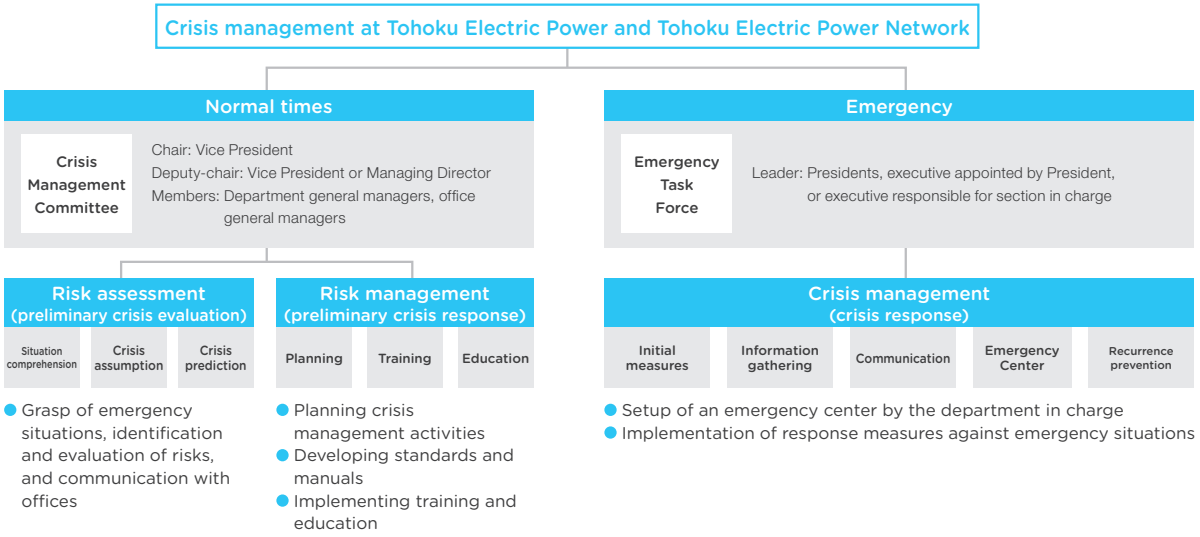
Preparedness during normal times

During normal times, each section and site strives autonomously to increase sensitivity to risks through awareness raising activities, drills, and other activities, including preventive measures such as equipment-related measures to prevent crises from occurring.
In addition, the Crisis Management Committee Secretariat follows up on the autonomous activities of each section and site through e-learning on crisis management and drills on communication of information in an emergency for all employees. Crisis risks are identified and assessed from multifaceted perspectives through considering the major risks inherent to the Company's business from the three perspectives of financial risks, business risks, and emergencies.
To promote awareness of risk management groupwide, activities seek to intensify cooperation through dialogue with individual Group member companies and drills on communicating information in the event of an emergency.

Responding to emergencies

In the event of an emergency, in addition to performing the necessary initial actions, various actions based on swift and appropriate response are taken in cooperation with related parties to minimize damage.
In the event of an emergency requiring immediate judgement and decision-making by top management, an emergency task force is set up under the leadership of the president of the relevant company or director or other person appointed by the president.
As necessary, related executives or sections of the other company will also join the emergency task force, enabling the two companies to respond to the matter as a united team (except where doing so would violate restrictions on their behavior).

Crisis management structure



- Grasp of emergency situations, identification and evaluation of risks, and communication with offices
- Planning crisis management activities
- Developing standards and manuals
- Implementing training and education
- Setup of an emergency center by the department in charge
- Implementation of response measures against emergency situations

Response system and duties of offices and departments

Crisis managers (Division managers, and General Managers of offices and departments)
Overall control of crisis management operations, including crisis prediction and prevention
Crisis management reporters (deputy general managers of offices, departments, and others)
Overall control of reporting operations in the event of an emergency and implementation of activities to promote awareness of crisis management
Crisis management promotors (managers and equivalents)
Implementation of day-to-day crisis management operations

Corporate Governance

Our response to COVID-19

The Company has implemented a wide range of health management measures for both employees and their family members to counteract the spread of COVID-19. These include use of flextime and staggered working hours, working from home, decentralizing working areas, and reminding employees to wash their hands, gargle when possible, and to wear a mask at all times.
At institutions involved in ensuring the stable supply of electricity in particular, in addition to thorough preparations to ensure that substitute staff are available if a positive COVID-19 case is identified among employees, substitute facilities are secured for especially important facilities. These are part of thoroughgoing measures to eliminate any obstacles that might affect the stable supply of electricity.
Other measures include having employees commute by private vehicle and defining special walkway flows inside buildings to reduce personal contact with other employees. Through these and other measures, we've established systems that minimize infection and maintain the stable supply of electricity regardless of the pandemic.
We will continue striving both to protect employee health and safety and to ensure the stable supply of electricity.

Our roles as a designated public utility

As a designated public utility under the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response, we are required to prepare business plans for responding to pandemic influenza and new infectious diseases.
These plans seek to contribute to the swift and appropriate implementation of measures carried out by Tohoku Electric Power and Tohoku Electric Power Network in the event of a novel influenza outbreak or a rapid nationwide epidemic of a novel infectious disease, to ensure stable supply of electricity while putting safety first.
Based on these plans, we strive to maintain internal systems and implement thorough responses in order to reliably fulfill our roles in ensuring the sable supply of electricity even in the event of such infectious diseases.
Operations essential to business continuity are identified as priority operations. In addition to operations related to responding to an infectious disease, both are identified as important operations. Those that can be reduced or interrupted are grouped into the category of other operations. This is intended to ensure that we can fulfill our role as a key element of the social infrastructure by continuing to provide a stable supply of electricity with a priority on safety.

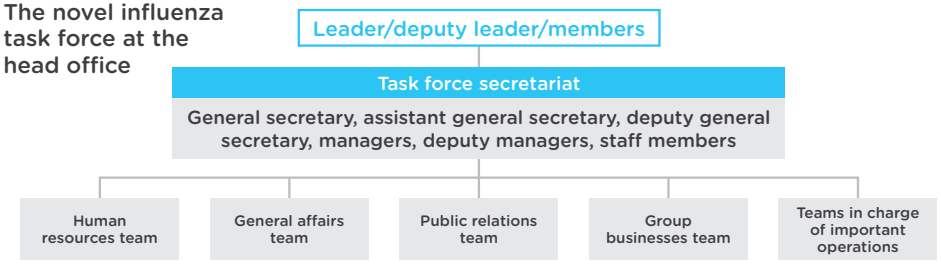
Work styles during and after COVID-19

As part of internal workstyle reforms and our efforts to stop the spread of COVID-19, we are striving to adopt more efficient work styles by adopting modes of work suited to the new normal, including efforts to promote teleworking and encourage use of online meetings and training.

Support for customers in response to the COVID-19 pandemic

For corporate customers, we have begun offering ICT adoption support services as we work alongside customers to meet their needs while realizing solutions to various challenges.
We have also introduced various special measures, including deferred payments of electricity charges for customers who meet certain criteria, such as those who have been placed on leave or lost their jobs due to COVID-19.

The novel influenza task force at the head office



Category of operations		Content of operations
Important operations (Those requiring continuation)	Operations in response to infectious diseases	■ Operations of the infectious disease response organization
		■ Power station and substation operations, monitoring, maintenance, inspections, and response to failures and impediments ■ Procurement and acceptance of fuel, materials, and supplies ■ Power transmission and distribution line maintenance, inspection, and responding to failures and impediments ■ Grid operation, monitoring, and responding to failures and impediments ■ Operation, monitoring, and responding to failures and impediments for information telecommunications systems and security telecommunications systems ■ Operations other than the above that need to be continued to account for societal conditions, such as those related to maintenance of stable supply of electricity and emergency responses
	Priority operations	■ External response operations other than the above (dealing with government, customers, the media, etc.) ■ Maintenance and security operations (patrols, inspections, etc.) for facilities as required by law ■ Other operations in response to social conditions or demands
Operations that can be reduced or suspended		Operations other than the above

Corporate Governance

Governance structure for disasters

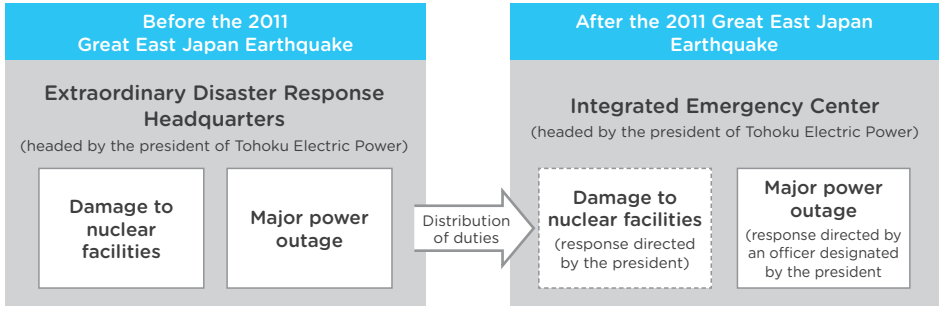
To deliver a stable supply of electricity to customers, Tohoku Electric Power and Tohoku Electric Power Network have developed a governance structure intended to enhance their abilities to respond to major disasters such as earthquakes and typhoons.
While Tohoku Electric Power Network has succeeded to the power transmission and distribution business since its statutory separation into a separate entity in April 2020, to account for the state of damage and social impact of an emergency, both companies respond together to disasters.

Periodic Large-Scale Disasters Countermeasure Meetings

Because we understand the importance of minimizing the impact of any large-scale disaster and achieving early restoration, we hold periodic Large-Scale Disasters Countermeasure Meetings to strengthen the involvement of top executives. Chaired by the President, the meetings engage in companywide studies on business continuity planning (BCP) and various measures to address issues identified from recent emergency disaster training sessions, actual disaster response actions, and discussions of disaster control and management. All these measures are intended to enhance PDCA activities.

Distribution of duties in the event of a complex disaster

Learning from the accident at the Fukushima Daiichi Nuclear Power Station following the Great East Japan Earthquake, Tohoku Electric Power and Tohoku Electric Power Network distribute emergency center duties to ensure an effective response at their head offices in the event of a complex disaster—for example, a nuclear disaster combined with a major power outage. Accordingly, the President of Tohoku Electric Power will prioritize actions to respond to the nuclear disaster, while officers assigned by the President will oversee measures to tackle other disasters. This system is intended to ensure the preparedness needed to respond effectively to multiple concurrent disasters.



Enhancing the capacity to respond to disasters in cooperation with outside organizations

Tohoku Electric Power and Tohoku Electric Power Network have concluded agreements on cooperation with outside organizations, including local governments, the Japan Self-Defense Forces, and the designated public utility East Nippon Expressway Co., Ltd. to facilitate mutual cooperation in the event of a disaster.
Under these agreements, practical drills are carried out to enhance cooperation. The drills carried out to date include drills on the air transport of Company vehicles using Japan Self-Defense Forces helicopters, drills on sea transport using convoy vessels, drills on recovery work in the event of blocked roadways, and drills on transporting emergency teams via expressways, undertaken with East Nippon Expressway Co., Ltd.
By continuing to establish and maintain personal contact with related parties through drills and other activities, we will enhance readiness for natural disasters of growing severity.


Recovery work drills assuming blocked roadways [Ground Self-Defense Force]


Drills on transporting emergency teams via expressways [East Nippon Expressway Co., Ltd.]

Corporate Governance

Enhancement of compliance

Tohoku Electric Power and Tohoku Electric Power Network have always done business while complying with business ethics, laws, and regulations as an important precondition of all business activities. As such, we established a Committee on Corporate Ethics and Compliance chaired by the President and run through the PDCA cycle diligently to ensure that our initiatives are adequate in light of social needs and to make any improvements found necessary.

The Group formulated the Tohoku Electric Power Group Corporate Ethics and Compliance Activity Policy to establish basic courses of action for corporate ethics and compliance activities. The Group is currently pursuing activities in which all Group member companies comply with three priorities: eliminating all violations; acting in ways acceptable to society; and autonomous activities at individual workplaces.

Under this policy, we are pursuing various initiatives, including training targeting specific tiers of staff. Related efforts include Tohoku Electric Power Group Corporate Ethics Month and Groupwide employee surveys on corporate ethics and compliance.

Following the discovery of a case involving executives and employees accepting money and gifts at another power company in September 2019, we established contact points for consultations and procedures for notifying the Company of compliance issues as a base of organizational response. We operate these systems to guide individuals who are unsure what to do or how to respond to other parties in cases involving the acceptance of money and gifts. In the future as well, we will continue efforts to ensure that each and every employee implements thorough compliance in accordance with the Tohoku Electric Power Group Code of Conduct, keeping firmly in mind at all times the need to do business in fair and appropriate ways, paying close attention to how our customers see us, to continue to be worthy of the trust of customers in our community.

See » Compliance
Sustainability Data Book 2021, pp. 32-34

The Tohoku Electric Power Group Code of Conduct

In 1999, the Tohoku Electric Power formulated the Tohoku Electric Power Code of Conduct as a code to guide employees in their duties. The code has been revised since then in light of the changing social environment and other factors. In 2017, by establishing the Tohoku Electric Power Group Code of Conduct, we expanded the scope to cover the entire Tohoku Electric Power Group. The document was revised once again in February 2020 to serve as a Code of Conduct suitable for those implementing Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision while reflecting societal understanding of recent trends and corporate ideals. In performing their duties in accordance with this Code and working together with and alongside our stakeholders, the Tohoku Electric Power Group and its employees will create and provide the value only we can create.

The Tohoku Electric Power Group Code of Conduct (excerpted from the Preamble and Principles of Conduct)

Based on the Management Philosophy of prospering with local communities and our Group Slogan, Yori, Sou, Chikara (The Strength to Work Alongside), we will achieve sustained growth in partnership with society by helping to build a smart society through services and activities based on energy.
Each and every employee will need to take on unprecedented challenges and advance innovations with a strong sense of our mission as a public utility.
Each and every employee must summon the resolve needed to play a role in creating a smart society.
In addition, based on the clear recognition that the trust of customers and society represents the foundations of our business, each and every employee must demonstrate and hold at heart an unwavering sense of ethics and a deep knowledge and understanding of corporate ethics, laws, and regulations. This means going beyond mere compliance, seeking to strengthen the Tohoku Electric Power Group's groupwide culture of eschewing improprieties, never allowing improprieties to pass unremarked, and disclosing information appropriately.
Based on this understanding, we will act in accordance with the following Principles of Conduct and Code of Conduct to build strong relationships of trust with customers, community members, shareholders and investors, business partners, employees, and other stakeholders to create alongside and in partnership with them value only the Tohoku Electric Power Group can deliver.

Principles of Conduct

① Providing products and services that bring us closer to a smart society

Putting safety first at all times, we deliver products and services that bring us closer to a smart society in which customers can create and count on comfortable, safe, reliable living spaces, based on a stable supply of low-cost energy, in support of fulfilling lives and commercial activities.

② In partnership with communities

By advancing initiatives that help identify and create solutions to local issues while working alongside communities, we will contribute to the sustained growth of our communities and work to achieve harmony as a valuable corporate citizen.

③ Thoroughgoing compliance with corporate ethics, laws, and regulations

In all our business activities, we go beyond mere compliance with the letter of applicable laws and regulations to meet the requirements of sound corporate ethical principles.

④ Consideration for the environment

Recognizing that the Group's business activities have deep connections to the formation of sustainable societies, we take proactive steps to address issues like global warming and the need to protect our environment.

⑤ Promoting transparent business activities

We promote highly transparent, open business activities through sensitive broadranging dialogue with society and full information disclosure.

⑥ Building a vital corporate culture based on respect for individuals and free and open communication

We strive to move ever closer to a vital, free, and open corporate culture characterized by free exchange of opinions, in which all employees can work together in mutual respect.

Background of the February 2020 revisions

The Code of Conduct was revised in February 2020 based on the following items:

- The need to identify employee preparedness based on the newly formulated Working alongside next, the Tohoku Electric Power Group's Medium- to Long-Term Vision
- Acceleration of activities toward the Society 5.0 vision, including amendment of the Keidanren (Japan Business Federation) Charter of Corporate Behavior (November 2017)
- The need for both mitigation of and adaptation to climate change in response to the growing scale of natural disasters

Our thinking on gifts and entertainment

The Tohoku Electric Power Group Code of Conduct includes the following provisions regarding the exchange of gifts and entertainment. We seek to verify that the exchange of gifts and entertainment by those affiliated with the Group is appropriate in accordance with this policy. We remain committed to ensuring future compliance as well.

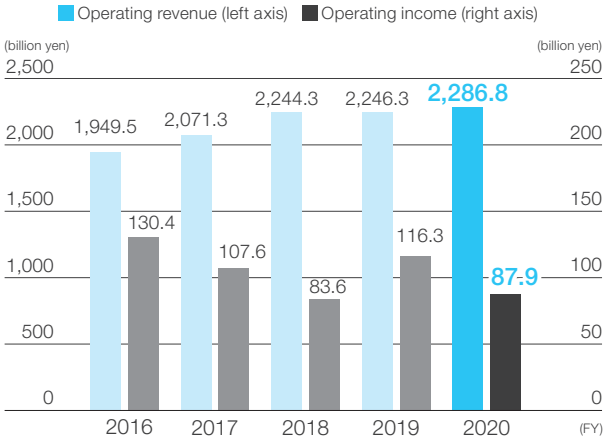
Code of Conduct 3-(2)
Gifts and entertainment
Executives and employees must reject gifts or entertainment from business partners beyond the scope commonly accepted in society. The same applies to the provision of gifts or entertainment.

The full text of the Tohoku Electric Power Group Code of Conduct is available below:
https://www.tohoku-epco.co.jp/csr/rinri/

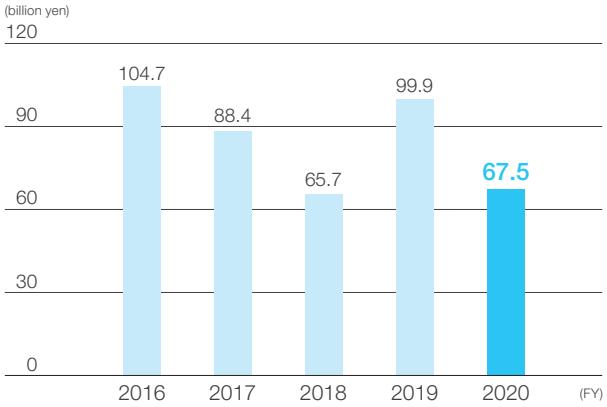
Financial Information

Financial/Non-Financial Indicators

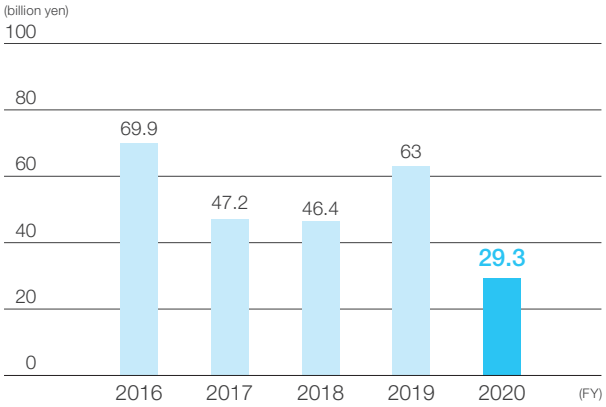
Operating revenue and operating income



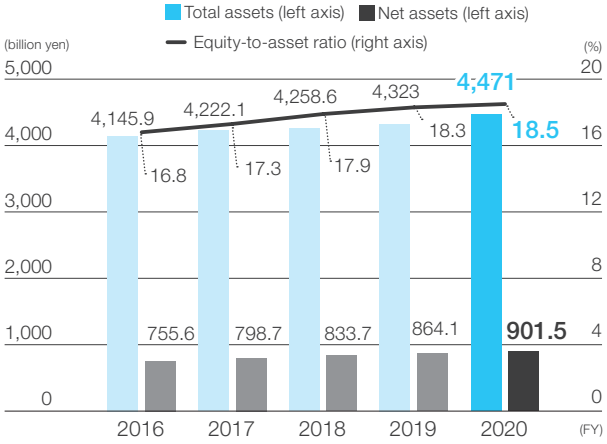
Ordinary income



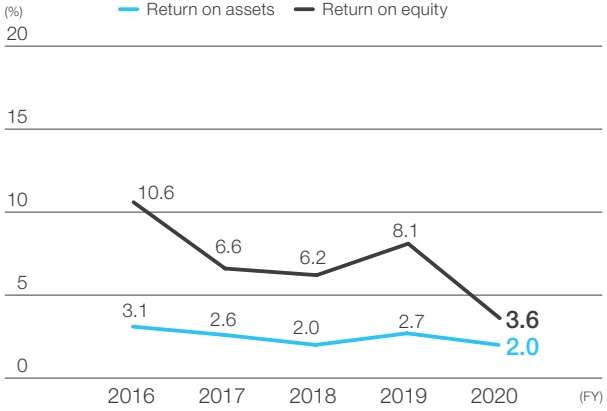
Net income attributable to owners of parent



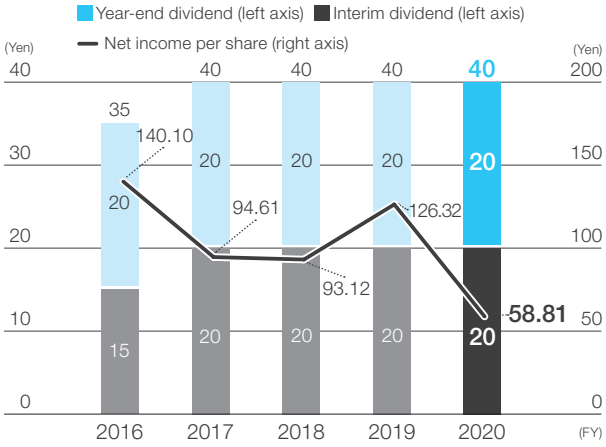
Total assets, net assets and equity-to-asset ratio



Return on assets (ROA) and return on equity (ROE)



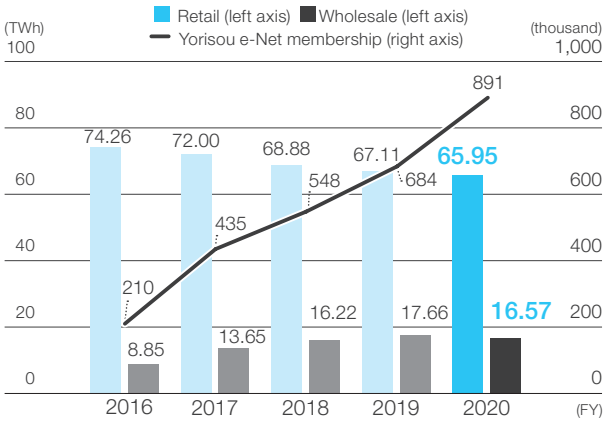
Dividends per share and net income per share



Financial/Non-Financial Indicators

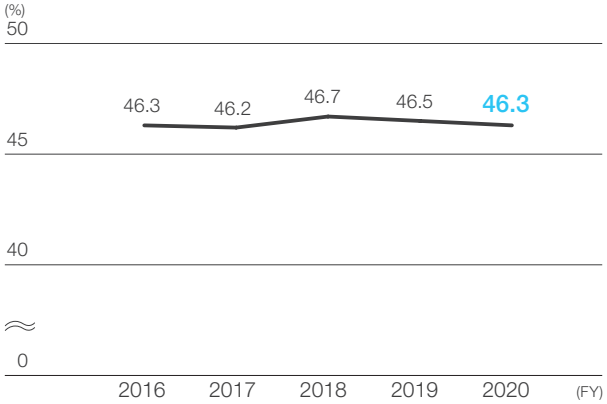
Business activities

Electric power sales and others

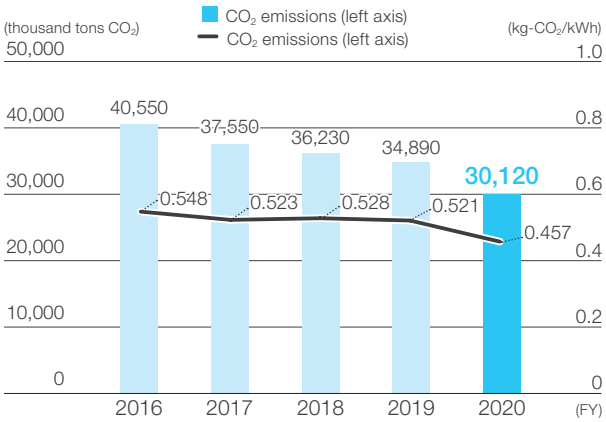


The environment

Thermal efficiency at thermal power stations
(low heating value basis)

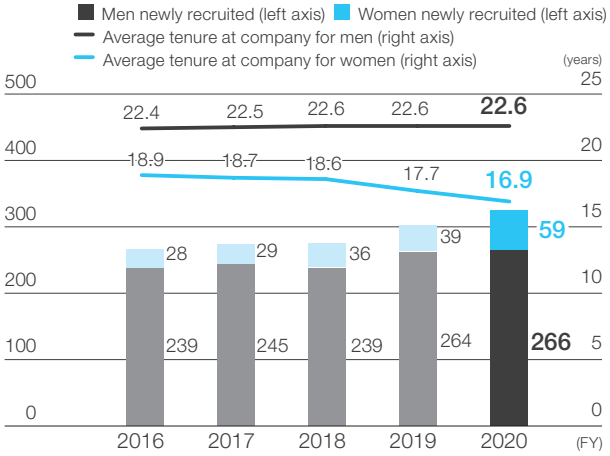


CO_2 emissions and CO_2 emission factors

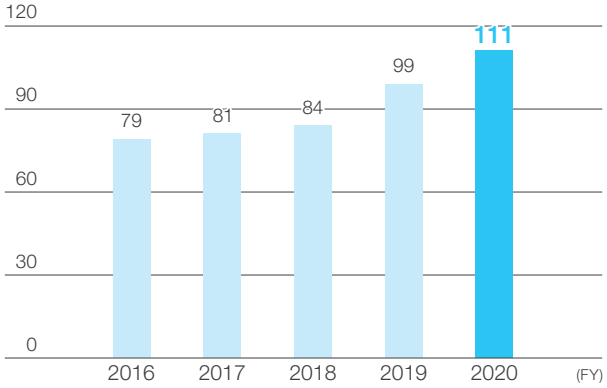


Society

Number of newly recruited personnel and average tenure at company

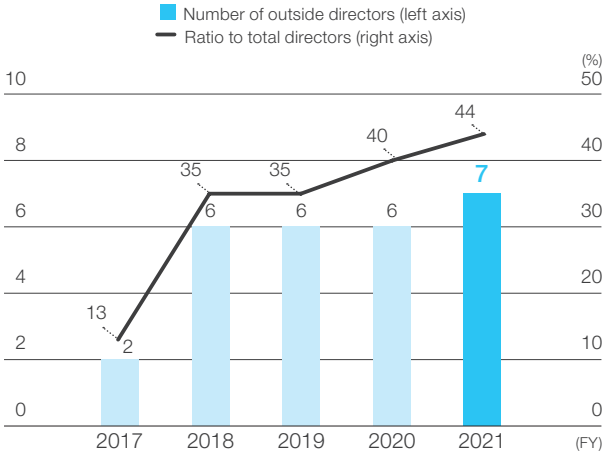


Number of women managers



Governance

Number and percentage of outside Directors
(as of the end of June 2021)



Consolidated Balance Sheets

Assets

(Millions of yen)	March 31, 2020	March 31, 2021
Property, plant, and equipment	3,679,082	3,731,366
Electric utility plant and equipment	2,504,659	2,492,694
Hydraulic power production facilities	187,035	177,880
Thermal power generation facilities	402,870	398,062
Nuclear power generation facilities	254,447	247,275
Transmission facilities	589,116	579,633
Transformation facilities	255,044	251,793
Distribution facilities	670,135	680,945
Operational facilities	118,187	129,929
Other electric utility plant and equipment	27,821	27,173
Other property, plant, and equipment	226,872	223,546
Construction in progress	403,472	449,526
Construction and retirement in progress	357,778	399,393
Special account related to nuclear power decommissioning	24,451	24,124
Special account related to reprocessing of spent nuclear fuel	21,243	26,009
Nuclear fuel	174,331	174,071
Loaded nuclear fuel	30,591	30,591
Nuclear fuel in processing	143,740	143,479
Investments and other assets	369,745	391,526
Long-term investments	99,462	109,699
Net retirement benefit asset	3,844	6,191
Deferred tax assets	159,568	159,536
Other	107,199	116,389
Allowance for doubtful accounts	(328)	(290)
Current assets	644,017	739,715
Cash and deposits	244,010	205,290
Notes and accounts receivable – trade	224,649	270,266
Inventories	67,374	65,255
Other current assets	108,450	199,679
Allowance for doubtful accounts	(466)	(777)
Assets	**4,323,099**	**4,471,081**

Liabilities and net assets

(Millions of yen)	March 31, 2020	March 31, 2021
Non-current liabilities	2,457,197	2,518,124
Bonds payable	865,000	1,025,000
Long-term loans payable	1,190,302	1,117,549
Reserve for restoration costs of natural disaster	5,061	6,614
Net retirement benefit liabilities	189,968	160,468
Asset retirement obligations	165,848	170,236
Deferred tax liabilities for land revaluation	1,330	1,323
Other	39,685	36,933
Current liabilities	1,001,724	1,051,422
Current position of non-current liabilities	372,388	269,587
Notes and accounts payable – trade	144,616	142,186
Accrued taxes	33,253	58,750
Other advances	205,984	323,575
Reserve for restoration costs of natural disaster	2,613	11,060
Other	242,869	246,262
Liabilities	**3,458,921**	**3,569,547**
Shareholders' equity	809,454	819,051
Capital stock	251,441	251,441
Capital surplus	22,390	22,369
Retained earnings	542,187	550,245
Treasury shares	(6,564)	(5,004)
Accumulated other comprehensive income	(18,332)	7,415
Valuation difference on available-for-sale securities	197	(124)
Deferred losses on hedges	(618)	171
Revaluation reserve for land	(895)	(902)
Foreign currency translation adjustments	(288)	666
Remeasurements of retirement benefit plans	(16,727)	7,604
Subscription rights to shares	1,120	–
Non-controlling interests	71,935	75,067
Net assets	**864,177**	**901,534**
Liabilities and net assets	**4,323,099**	**4,471,081**

Consolidated Statements of Income and Consolidated Statements of Comprehensive Income

Consolidated Statements of Income

(Millions of yen)	March 31, 2020	March 31, 2021
Operating revenue	2,246,369	2,286,803
Electric utility operating revenue	2,022,251	2,067,053
Other business operating revenue	224,117	219,749
Operating expenses	2,130,018	2,198,883
Electric utility operating expenses	1,916,492	1,995,653
Other business operating expenses	213,525	203,230
Operating income	116,350	87,919
Other expenses (income)	8,724	6,110
Dividend income	943	874
Interest income	224	240
Gain on sales of securities	3,249	2,674
Share of profit of entities accounted for by equity method	534	—
Other	3,773	2,320
Non-operating expenses	25,108	26,506
Interest expenses	17,331	15,453
Share of loss of entities accounted for using equity method	—	325
Other	7,777	10,728
Ordinary revenue	2,255,093	2,292,913
Ordinary expenses	2,155,127	2,225,390
Ordinary income	99,966	67,522
Extraordinary loss	6,198	13,027
Contingent loss on assets	550	4
Extraordinary loss on disaster	5,648	13,023
Income before income taxes	93,768	54,495
Income taxes – current	20,414	31,222
Income taxes – deferred	8,287	(9,678)
Income taxes	28,702	21,544
Net income	65,065	32,951
Net income attributable to non-controlling interests	1,991	3,570
Net income attributable to owners of parent	63,074	29,380

Consolidated Statements of Comprehensive Income

(Millions of yen)	March 31, 2020	March 31, 2021
Net income	65,065	32,951
Other comprehensive income		
Valuation difference on available-for-sale securities	(2,939)	(251)
Deferred gains or losses on hedges	290	790
Foreign currency translation adjustment	(470)	960
Remeasurements of retirement benefit plans	(11,019)	24,832
Share of other comprehensive income of entities accounted for by equity method	(2)	2
Other comprehensive income	(14,141)	26,333
Comprehensive income	50,924	59,284
Comprehensive income attributable to owners of parent	48,959	55,135
Comprehensive income attributable to non-controlling interests	1,965	4,148

Consolidated Statements of Changes in Equity

FY2019

(Millions of yen)

	Shareholders' equity					Accumulated other comprehensive income						Subscription rights to shares	Noncontrolling interests	Total net assets
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Remeasurements of retirement benefit plans	Total accumulated other comprehensive income			
Balance at the beginning of period	251,441	22,558	499,132	(6,788)	766,343	3,072	(908)	(854)	179	(5,666)	(4,176)	1,013	70,530	833,711
Changes of items during the period														
Changes in parent ownership interests arising from transactions with non-controlling interests		(168)			(168)									(168)
Dividends of surplus			(19,971)		(19,971)									(19,971)
Net income attributable to owners of parent			63,074		63,074									63,074
Purchase of treasury shares				(20)	(20)									(20)
Disposal of treasury shares			(88)	244	155									155
Reversal of revaluation reserve for land			41		41									41
Net changes of items other than shareholders' equity						(2,875)	290	(41)	(468)	(11,061)	(14,156)	107	1,404	(12,644)
Total changes in items during the period	—	(168)	43,055	223	43,110	(2,875)	290	(41)	(468)	(11,061)	(14,156)	107	1,404	30,465
Balance at the end of period	**251,441**	**22,390**	**542,187**	**(6,564)**	**809,454**	**197**	**(618)**	**(895)**	**(288)**	**(16,727)**	**(18,332)**	**1,120**	**71,935**	**864,177**

FY2020

(Millions of yen)

	Shareholders' equity					Accumulated other comprehensive income						Subscription rights to shares	Noncontrolling interests	Total net assets
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Remeasurements of retirement benefit plans	Total accumulated other comprehensive income			
Balance at the beginning of period	251,441	22,390	542,187	(6,564)	809,454	197	(618)	(895)	(288)	(16,727)	(18,332)	1,120	71,935	864,177
Changes of items during the period														
Changes in parent ownership interests arising from transactions with non-controlling interests		(21)			(21)									(21)
Dividends of surplus			(20,004)		(20,004)									(20,004)
Net income attributable to owners of parent			29,380		29,380									29,380
Purchase of treasury shares				(1,431)	(1,431)									(1,431)
Disposal of treasury shares			(1,325)	2,991	1,665									1,665
Reversal of revaluation reserve for land			7		7									7
Net changes of items other than shareholders' equity						(322)	790	(7)	954	24,332	25,748	(1,120)	3,132	27,760
Total changes in items during the period	—	(21)	8,057	1,560	9,596	(322)	790	(7)	954	24,332	25,748	(1,120)	3,132	37,356
Balance at the end of period	**251,441**	**22,369**	**550,245**	**(5,004)**	**819,051**	**(124)**	**171**	**(902)**	**666**	**7,604**	**7,415**	**—**	**75,067**	**901,534**

Consolidated Statements of Cash Flows

Cash flows from operating activities

(Millions of yen)	March 31, 2020	March 31, 2021
Income before income taxes	93,768	54,495
Depreciation	227,019	228,784
Decommissioning costs of nuclear power units	7,269	7,593
Amortization of special account related to nuclear power Decommissioning	63	327
Loss on retirement of property, plant, and equipment	13,577	10,164
Increase (decrease) in net retirement benefit liabilities	(6,465)	(6,211)
Interest and dividend income	(1,167)	(1,115)
Interest expenses	17,331	15,453
Decrease (increase) in notes and accounts receivable – trade	4,009	(47,795)
Decrease (increase) in inventories	11,022	2,134
Increase (decrease) in notes and accounts payable – trade	4,111	(2,453)
Increase (decrease) in deposits received	25,735	(45,647)
Other	4,322	33,771
Subtotal	400,597	249,501
Interest and dividend income received	1,168	1,115
Interest expenses paid	(17,448)	(15,791)
Income taxes paid	(12,791)	(17,207)
Net cash provided by (used in) operating activities	371,525	217,617

Cash flows from investing activities

(Millions of yen)	March 31, 2020	March 31, 2021
Purchase of property, plant, and equipment	(317,323)	(296,701)
Proceeds from contributions for construction	9,372	58,099
Payments of investment and loans receivable	(15,191)	(21,805)
Collection of investment and loans receivable	16,233	23,079
Other, net	(3,719)	(17,633)
Net cash provided by (used in) investing activities	(310,627)	(254,961)

Cash flows from financing activities

(Millions of yen)	March 31, 2020	March 31, 2021
Proceeds from issuance of bonds	234,278	229,340
Redemption of bonds	(95,000)	(185,000)
Proceeds from long-term loans payable	150,325	120,600
Repayments of long-term loans payable	(218,039)	(172,444)
Increase in short-term loans payable	15,856	3,400
Decrease in short-term loans payable	(15,800)	(3,400)
Proceeds from issuance of commercial papers	217,000	198,000
Redemption of commercial papers	(257,000)	(171,000)
Cash dividends paid	(19,918)	(19,966)
Dividends paid to non-controlling interests	(1,054)	(1,050)
Other, net	(3,927)	(4,252)
Net cash provided by (used in) financing activities	6,719	(5,774)

(Millions of yen)	March 31, 2020	March 31, 2021
Effect of exchange rate changes on cash and cash equivalents	(237)	389
Net increase (decrease) in cash and cash equivalents	67,379	(42,728)
Cash and cash equivalents at beginning of the period	184,942	252,322
Cash and cash equivalents at end of the period	252,322	209,593

Corporate Information

Corporate Information

Business Overview

Company Name
Tohoku Electric Power Co., Inc.

Head Office
1-7-1 Honcho, Aoba-ku, Sendai, Miyagi
980-8550, Japan

Date established
May 1, 1951

Capital
251.4 billion yen

Total Assets (as of the end of March 2021)
3,668.8 billion yen (consolidated: 4,471 billion yen)

Operating revenue (for FY2020)
1,734.9 billion yen (consolidated: 2,286.8 billion yen)

Ordinary income (for FY2020)
4.6 billion yen (consolidated. 67.5 billion yen)

Representatives (as of the end of July 2021)
Jiro Masuko, Representative Director & Chairman of the Board
Kojiro Higuchi, Representative Director & President

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

Number of Shareholders (as of the end of March 2021)
170,655

Service Areas
Aomori Prefecture, Iwate Prefecture, Akita Prefecture, Miyagi Prefecture, Yamagata Prefecture, Fukushima Prefecture, Niigata Prefecture and others

Number of Employees (as of the end of March 2021)
5,061 (consolidated: 24,717)

Electricity Sales (for FY2020)
Lighting: 21,969 GWh
Power: 43,983 GWh
Total: 65,952 GWh

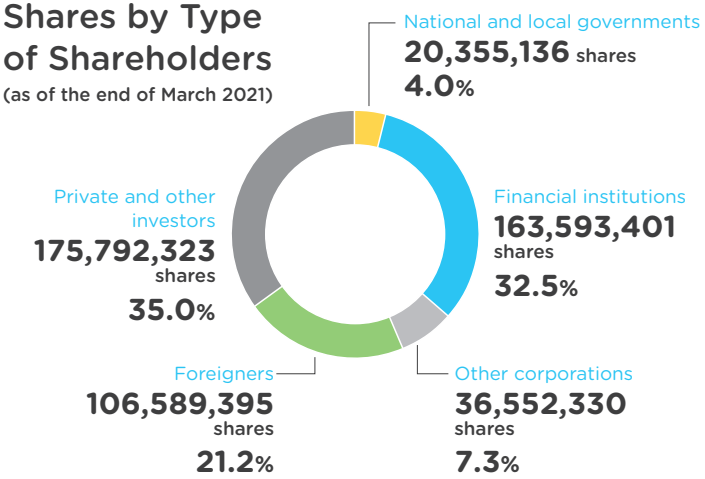
Total Number of Shares
(as of the end of March 2021)

Total Number of Issuable Shares	1,000,000,000
Total Number of Issued Shares	502,882,585

Major Shareholders
(as of the end of March 2021)

Name	Number of shares owned (thousand)	Ratio of shares owned to the total number of issued shares (%)
The Master Trust Bank of Japan, Ltd. (trust account)	38,740	7.73
Custody Bank of Japan, Ltd. (trust account)	28,592	5.71
Tohoku Electric Power Employee Shareholding Association	15,507	3.10
Nippon Life Insurance Company	13,727	2.74
Mizuho Bank, Ltd.	10,238	2.04
Kochi Shinkin Bank	9,077	1.81
Custody Bank of Japan, Ltd. (trust account 5)	7,181	1.43
STATE STREET BANK WEST CLIENT- TREATY 505234	6,631	1.32
The 77 Bank, Ltd.	6,468	1.29
Custody Bank of Japan, Ltd. (trust account 6)	6,366	1.27
Total	**142,527**	**28.44**

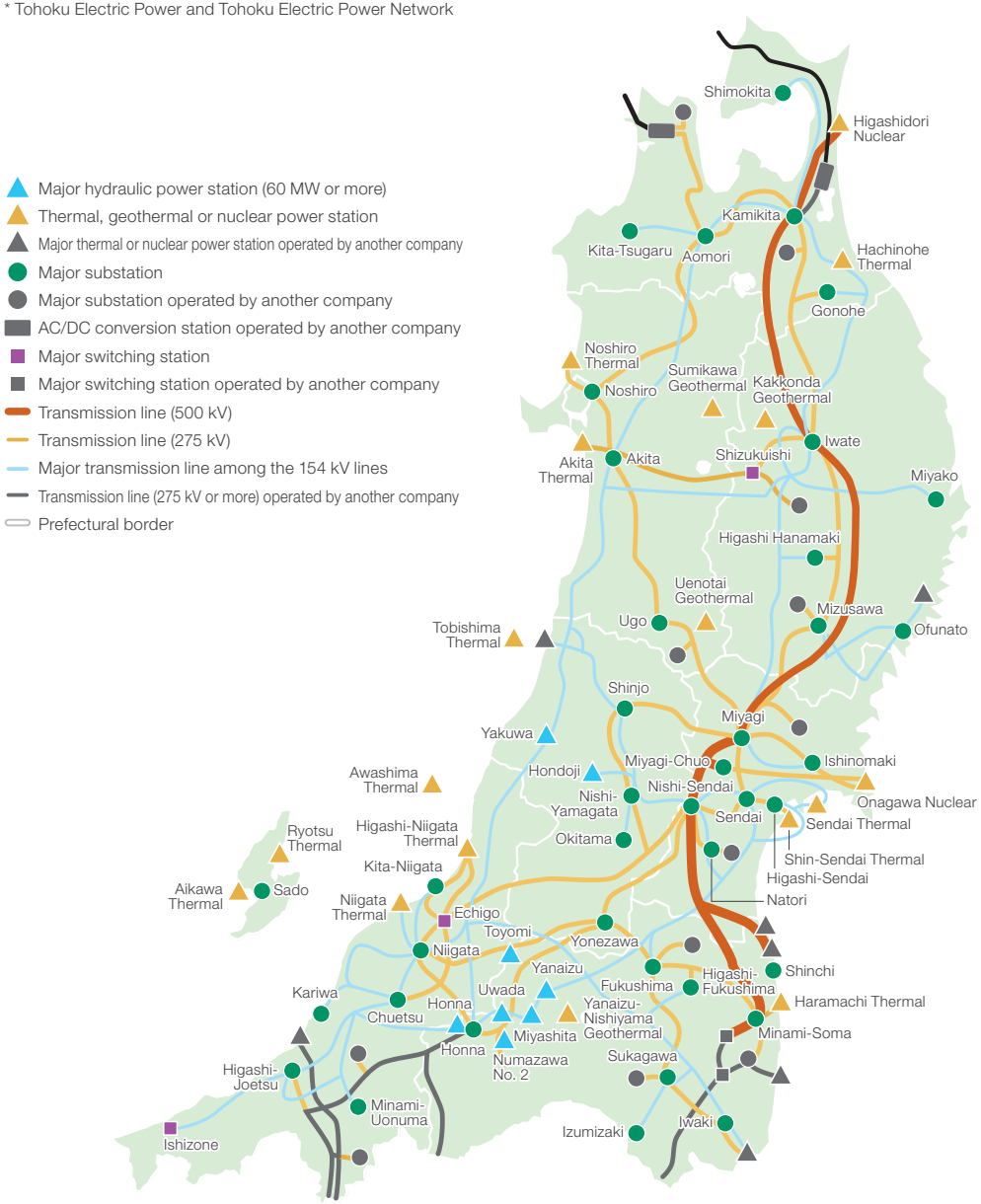
Distribution of Shares by Type of Shareholders
(as of the end of March 2021)



Corporate Information

Facility Overview* (as of the end of March 2021)

* Tohoku Electric Power and Tohoku Electric Power Network



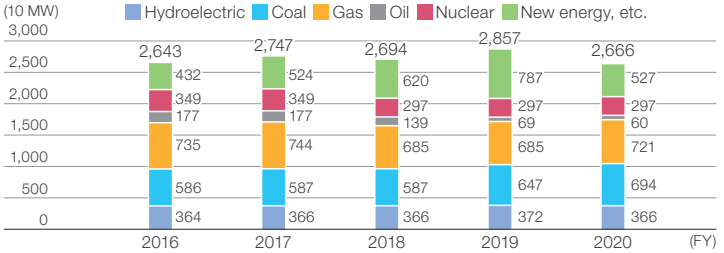
Facility Overview (as of the end of March 2021)

		Tohoku Electric Power Co., Inc.		Tohoku Electric Power Group (major facilities)	
Power Stations	Hydraulic	205	2,450 MW	227	2,560 MW
	Thermal	8	11,300 MW	13	12,070 MW
	Geothermal	4	190 MW	5	212 MW
	Solar	4	4.8 MW	13	17 MW
	Wind	—	—	1	14 MW
	Nuclear	2	2,750 MW	2	2,750 MW
	Total	223	**16,690 MW**		

		Tohoku Electric Power Network
Transmission Facilities	Route distance	15,385 km
	Circuit length	25,106 km
	Supports	58,511
Transformation Facilities	Number of facilities	634

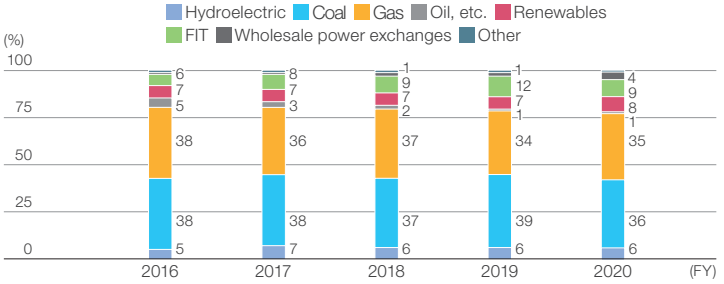
		Tohoku Electric Power Network
Power Distribution Facilities	Route distance	148,734 km
	Extended wire distance	590,566 km
	Supports	3,147,400

Annual power generation capacity*
(as of the end of March 2021)



* Includes power received from other companies

Annual shares of power sources*
(as of the end of March 2021)



* Includes power received from other companies

Corporate Information

Members of the Tohoku Electric Power Group

(As of July 31, 2021)

Seeking to realize the ideal form for the 2030s, the 73 companies that make up the Tohoku Electric Power Group will work as a united team to demonstrate their collective strengths.

A group of companies growing in step with sustained societal progress by helping to establish a smart society for a new age, starting in Tohoku

より、そう、ちから。
東北電力グループ

Tohoku Electric Power Co., Inc. | **Tohoku Electric Power Network Co., Inc.**

Power supply business

Power generation

Joban Joint Power Co., Ltd.
Tohoku Sustainable & Renewable Energy Co., Inc.
Arakawa Hydro-Electric Power Co., Ltd.
Sakata Kyodo Power Company Ltd.
Soma Kyodo Power Company, Ltd.
Aqua Power Tohoku Co., Ltd.
Yur Solar (Tomiya/Hobara/Zao) Co., Ltd.
Fukushima Electric Power Corporation
Chokai Minami Biomass Power Co., Ltd.
11 other companies

Overseas businesses

Tohoku Power Investment Company B.V.
Kyushu Tohoku Enrichment Investing SAS
Yurtec Vietnam Co., Ltd.
Merit Power Holdings

Investment and trading

Tohoku EPCO Energy Trading Co., Inc.
TDRI G.K.

Information and telecommunications

Tohoku Information Systems Company, Inc.
Tohoku Intelligent Telecommunication Co., Inc.

Gas and energy solutions

NIHONKAI LNG Co., Ltd.
Tohoku Natural Gas Co., Inc.
Tohoku Energy Service Co., Inc.
Tohoku EPCO Solar e Charge Co., Inc.

Tohoku EPCO Frontier Co., Inc.

Construction and maintenance of facilities related to the electric power business

Yurtec Corporation
Tohoku Electric Power Engineering & Construction Co., Inc.
Tohoku development consultant CO., LTD
Higashi Nihon Techno Survey Corporation
YUTOS Corporation
YURTEC SERVICE Corporation
TECS FUKUSHIMA Corporation
YURTEC MIYAGI SERVICE Corporation
YURTEC HAIDEN TECHNO Corporation
YURTEC KANTO SERVICE Corporation
Air Conditioning Enterprise Co., Ltd
Tohatsu Hydro Engineering Co., Inc.
Tohoku Port Service Co., Inc.
Tohoku Air Service, Inc.
Tohoku Electric Power Renewable Energy Services Co., Inc.
Tohoku Power Transmission and Distribution Service Co., Inc.
2 other companies

Manufacture of equipment related to the electric power business

Kitanihon Electric Cable Co., Ltd.
Tsuken Electric Ind Co., Ltd.
Tohoku Electric Manufacturing Co., Ltd.
Tohoku Electric Meter Industry Co., Inc.
Kitanihon Densen Service Co., Ltd.

Environmental preservation and recycling

Tohoku Ryokka Kankyohozen Co., Ltd.
GREENRECYCLE Corporation
Noshiro Yoshino Gypsum Co., Ltd.

Retail electricity

Synergia Power Co., Ltd.
Tokyu Power Supply Co., Ltd.

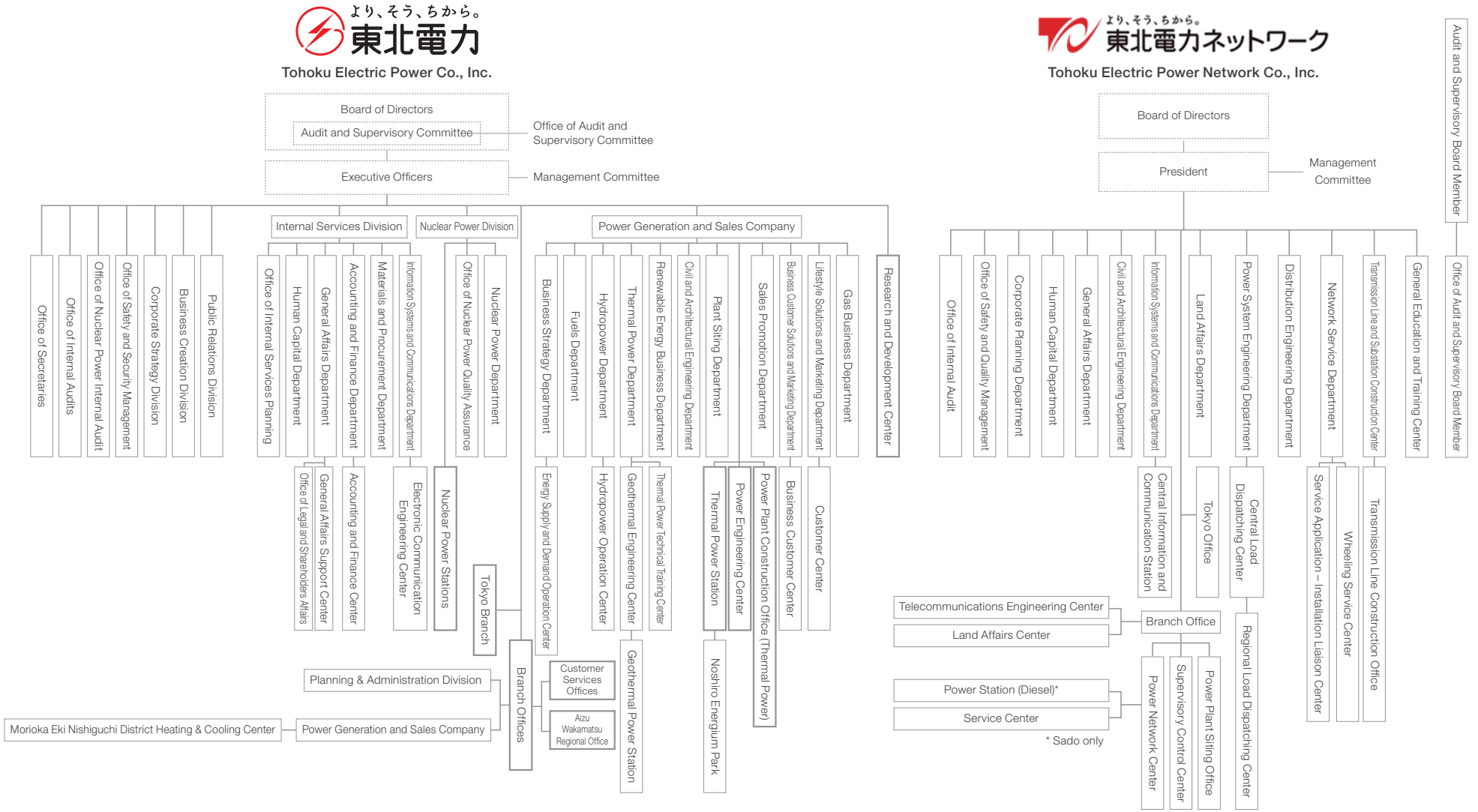
Life and business support

HNK Co., Inc.
Aquaclara Tohoku Corporation
Eltas Tohoku Inc.
TDG Business Support Corporation
Tohoku-Electric Power Friendly Partners Co., Inc.
E life Partners Co., Ltd.
Tohcs Corporation
New Lease Corporation

Smart society building business

Corporate Information

Organization chart (as of July 1, 2021)



SASB Standards Index

Summarized below are Tohoku Electric Power Group results related to the Electric Utilities and Power Generators industry standard provided by the Sustainability Accounting Standards Board (SASB) of the United States.
Since the SASB standards were prepared primarily for use by US firms and in US markets, they include accounting metrics that do not apply to the Group's business activities. Nevertheless, we strive to disclose information to the fullest extent possible in line with the spirit of these standards.

Disclosure topic	Accounting metrics	Category	Unit	Code	Performance
Environment					
Greenhouse Gas Emissions and Energy Resource Planning	(1) Gross global Scope 1 emissions (2) Gross global Scope 1 emissions, percentage covered under emissions limiting regulations (3) Gross global Scope 1 emissions, percentage covered under emissions reporting regulations	Quantitative	t-CO_2・%	IF-EU-110a.1	(1) 30,600,000t-CO_2 (2) 0% (because Japan lacks regulated markets) (3) 100%
	Greenhouse gas (GHG) emissions associated with power delivery	Quantitative	t-CO_2	IF-EU-110a.2	34,890,000t-CO_2 (34,710,000 t-CO_2) * Figure in parentheses () represents base CO_2 emissions not reflecting adjustments, etc. under the feed-in tariff (FIT) program for renewables.
	○ Long-term and short-term strategy or plans to manage Scope 1 emissions ○ Emissions reduction targets ○ Analysis of performance against these targets	Discussion and Analysis	—	IF-EU-110a.3	In March 2021, in the Tohoku Electric Power Group Carbon Neutral Challenge 2050, we summarized our long-term course of action to achieve carbon neutrality by 2050. Under the Tohoku Electric Power Group Carbon Neutral Challenge 2050, the Group will accelerate CO_2 emissions reductions primarily by maximizing use of renewable energy and nuclear power and development of smart society building business, in addition to decarbonizing thermal power sources. Specifically, we will seek to swiftly achieve and expand 2,000 MW in renewable power generating capacity, based primarily on wind power, to make effective use of the wealth of renewable energy sources in the six Tohoku prefectures and Niigata Prefecture. We will also enhance the power network and make progress in aspects such as the use of storage cells and hydrogen in preparation for growing use of renewables. We will strive to advance energy management and put distributed energy to effective use in the region, by developing smart society building business, including providing VPP services. Our Scope 1 emissions have declined over the past three years, from 32.8 million t-CO_2 in 2017 to 31.9 million t-CO_2 in 2018 and 30.6 million t-CO_2 in 2019. We will maintain this course through the above measures to achieve these goals.
	(1) Number of customers served in markets subject to renewable portfolio standards (RPS) (2) Percentage fulfillment of RPS target by market	Quantitative	Number, Percentage (%)	IF-EU-110a.4	The RPS system was abolished in Japan in 2012 when the nation migrated to a FIT program. We purchase electricity generated from renewables under the FIT program.
Air Quality	Atmospheric emissions of the following pollutants: (1) NOx (excluding N_2O) (2) SOx (3) Particulate matter (PM10) (4) Lead (Pb) (5) Mercury (Hg) Percentage of each in or near densely populated areas	Quantitative	t・%	IF-EU-120a.1	(1) 7,094 t, 100% (2) 11,169 t, 100% (3) Not disclosed (4) Not disclosed (5) Not disclosed * Although particulate matter, lead, and mercury are treated as part of the normal flow of powerplant operations, figures for these pollutants are undisclosed because their atmospheric emissions are not analyzed.
Water Management	(1) Total water withdrawn (2) Total water consumed Percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	1000m^3・%	IF-EU-140a.1	(1) 10,730,000 m^3, 0% (2) 282,000 m^3, 0%
	Number of incidents of noncompliance associated with water quantity and/or quality permits, standards, and regulations	Quantitative	Number	IF-EU-140a.2	0
	Water management risks and strategies and measures to mitigate such risks	Discussion and Analysis	—	IF-EU-140a.3	In use of river water and other water sources, we strive to manage water resources in various ways, including compliance with water intake volumes permitted under laws and regulations. Measures to confirm water stress in the Tohoku and Niigata regions using the WRI Aqueduct Water Risk Atlas tool to identify water risks resulted in a "low-medium" assessment at maximum. As such, the expected frequency of water-related risks, including drought, is low.
Coal Ash Management	Amount of coal combustion residuals (CCR) generated, percentage recycled	Quantitative	t・%	IF-EU-150a.1	878,000 t, 90.4%
	Total number of coal combustion residual (CCR) impoundments (broken down by EPA hazard potential classification and structural integrity assessment)	Quantitative	Number	IF-EU-150a.2	Three sites

SASB Standards Index

Disclosure topic	Accounting metrics	Category	Unit	Code	Performance
Social capital					
Energy Affordability	Average retail electric rate (per kWh) for: (1) residential (2) commercial (3) industrial customers	Quantitative	Yen	IF-EU-240a.1	(1) Residential: 25.81 yen (2) Commercial: 22.06 yen (3) Industrial: 20.20 yen
	Typical monthly electric bill for residential customers for (1) 500 kWh (2) 1,000 kWh of electricity delivered per month	Quantitative	Yen	IF-EU-240a.2	(1) 500 kWh: 12,865 yen (2) 1,000 kWh: 26,720 yen
	(1) Number of residential customer electric disconnections for nonpayment (2) Percentage reconnected within 30 days	Quantitative	Number, %	IF-EU-240a.3	(1) a. Disconnections under specific retail supply agreements: FY2018: 259,234 FY2019: 256,696 FY2020: 107,536 b. Cancellations of demand and supply contracts based on low voltage electricity standard agreements: FY2018: 2,599 FY2019: 3,449 FY2020: 1,938 (2) Not available a. Disconnections under specific retail supply agreements: No calculation made under the methods recommended by SASB standards. b. Cancellations of demand and supply contracts based on low voltage electricity standard agreements: Provisions of low voltage electricity standard agreements call for cancellation of demand and supply contracts if the amounts owed are not paid by the payment deadline.
	Discussion of the impact of external factors on affordability of electricity, including economic conditions within the territory served	Discussion and Analysis	—	IF-EU-240a.4	Japan's Electricity Business Act stipulates the following: "A General Electricity Utility shall not refuse to provide power transmission in its service area without due cause." In general, if an application is submitted for the supply of electricity in the Tohoku Electric Power Network service area, electricity is supplied to the subject location. We believe consumers should have equal opportunity to access affordable energy services. It is our understanding our service area lacks any areas not served by electricity. Factors affecting electricity rates include levies assessed by government policy to encourage use of renewables and amounts of fuel-cost adjustments on thermal power.
Human capital					
Employee Health and Safety	(1) Total recordable incident rate (TRIR: incidents/200,000 hours worked) (2) Fatality rate (incidents) (3) Near-miss frequency rate (NMFR: incidents/200,000 hours worked)	Quantitative	%	IF-EU-320a.1	(1) 0.06% (employees of Tohoku Electric Power and Tohoku Electric Power Network) (2) 0 (employees of Tohoku Electric Power and Tohoku Electric Power Network) (3) Not disclosed (not disclosed because we have no calculation made on a Groupwide basis)
Business-model innovation					
End-Use Efficiency and Demand	Percentage of electric utility revenues from rate structures that (1) are decoupled and (2) contain a lost revenue adjustment mechanism (LRAM)	Quantitative	%	IF-EU-420a.1	Not applicable (since there are no subject customers in Japan) * To make up for lost revenue from progress in energy conservation, we aim to increase revenues through means such as provision of various services to meet customer needs.
	Percentage of electric load (MWh) served by smart grid technology	Quantitative	%	IF-EU-420a.2	Penetration of smart meters at end of FY2020: 72.6%
	Customer electricity savings from efficiency measures	Quantitative	MWh	IF-EU-420a.3	We propose solutions to the various challenges facing our customers, centered on energy. Specific examples include energy conservation diagnostics; equipment upgrade proposals for energy-saving eco-friendly heat pumps; joint development of Head Edge air chillers, which offer improved capacity during severe cold and improved energy conservation performance; and the provision of exEMS services with demand control functions that visualize electricity usage. Other activities include the development of equipment and services intended to help conserve energy and reduce CO_2 emissions. We disclose the following quantitative data in place of customer electricity savings: ○ Number of energy solutions proposed (FY2020): 194 ○ Number of views of the Shou-ene Life service providing information on energy conservation (FY2020): 227,217 viewers (https://www.tohoku-epco.co.jp/suggestion3/)

SASB Standards Index

Disclosure topic	Accounting metrics	Category	Unit	Code	Performance
Leadership, governance					
Nuclear Safety and Emergency Management	Total number of nuclear power units, broken down by US Nuclear Regulatory Commission (NRC) Action Matrix Column	Quantitative	Number of units	IF-EU-540a.1	4 units (breakdown: 3 units at the Onagawa Nuclear Power Station, 1 unit at the Higashidori Nuclear Power Station) * Unit No. 1 at the Onagawa Nuclear Power Station is in the process of decommissioning and is currently not operational.
	Description of efforts to manage nuclear safety and emergency preparedness	Discussion and Analysis	—	IF-EU-540a.2	Quality policies for nuclear safety (excerpt) We have a duty to enhance nuclear safety and reduce risks based on the keen safety awareness inherited from our predecessors and the many lessons gained from the Great East Japan Earthquake and other disasters. For this objective, each employee has resolved to gain the understanding and trust of society by demonstrating a strong sense of responsibility, contributing to the safety culture, and continually conducting PDCA activities, based on the formulated policies set forth below. 1. Put safety first at all times. 2. Comply with laws, regulations, and rules. 3. Establish a habit of constant review. 4. Enhance information sharing. 5. Take a proactive approach to improvements. See the following link for more on our quality policies for nuclear safety: https://www.tohoku-epco.co.jp/electr/genshi/safety/quality/index.html
Grid Resiliency	Number of incidents of noncompliance with physical and/or cybersecurity standards or regulations	Quantitative	Number	IF-EU-550a.1	Cybersecurity incidents: not disclosed (in light of risks posed by such disclosure) Physical risk incidents: 0
	(1) System Average Interruption Duration Index (SAIDI) (2) System Average Interruption Frequency Index (SAIFI) (3) Customer Average Interruption Duration Index (CAIDI)* * Includes major event days.	Quantitative	Minutes, Number	IF-EU-550a.2	(1) 29 minutes (including interruptions for work purposes) (2) 0.18 times (including interruptions for work purposes) (3) 161.11 minutes (including interruptions for work purposes)

Activity Metrics	Unit	Code	Performance
Number of: (1) residential, (2) commercial, and (3) industrial customers served	Number	IF-EU-000.A	Left undisclosed for reasons involving competition
Total electricity delivered to: **(1) Residential customers** **(2) Commercial customers** **(3) Industrial customers** **(4) All other retail customers** **(5) Wholesale customers**	MWh	IF-EU-000.B	Retail: Lighting: 21,969,000 MWh Power: 43,983,000 MWh Wholesale: 16,571,000 MWh Wholesale and retail total: 82,523,000 MWh
Length of transmission and distribution lines	km	IF-EU-000.C	Transmission lines (circuit length) Aerial: 24,270 km Underground: 795 km Distribution lines (route length) Aerial: 181,268 km Underground: 3,893 km
Total electricity generated, percentage by major energy source, percentage in regulated markets	MWh, %	IF-EU-000.D	Total electricity generated: 59,513,414 MWh (volume at transmission destination) Incudes: 13.3% from hydroelectric power 85.5% from thermal power None from nuclear power 1.2% from renewables Percentage in regulated markets: Not applicable (because Japan lacks regulated markets)
Total wholesale electricity purchased	MWh	IF-EU-000.E	Left undisclosed for reasons involving competition