



Tohoku Electric Power Group

Tohoku Electric Power Group

INTEGRATED REPORT 2019



Message from the Chairman and the President

Thank you very much for your continued support.

The Tohoku Electric Power Group has been working as one to develop together with local communities, with its sense of mission as a public utility and its commitment to local communities always kept in mind, ever since its foundation in 1951. The circumstances surrounding the electric power business have changed significantly at different times. However, we have always worked hard to address a range of business challenges and create new value for offering stable and high quality electricity.

At the moment, our Group is experiencing the most extreme changes ever in the business environment. As an electric utility serving Tohoku and Niigata, we should respond appropriately and promptly to intensifying competition in the fully deregulated retail electric supply market and the legal unbundling of the transmission and distribution sectors due to take place in April 2020 while supporting the reconstruction following the 2011 Great East Japan Earthquake. For this purpose, we formulated the Tohoku Electric Power Group Mid-Term Management Policies (FY2017 to FY2020), and accordingly, we have been steadily carrying out different measures.

For 2019, in particular, we have defined four focal points for ensuring the achievement of the target set in the Mid-Term Management Policies. Specifically, they are thoroughly enhancing ability to produce profits, improving further productivity and efficiency, endeavoring to seize new business opportunities and establishing robust business foundations. By working on these points, we will take actions toward continuous growth, including those for maximizing profitability through making use of the integrated operation of power generation and sales, promoting work style reform, expanding renewable energy business and promoting CSR management, with the aim of increasing corporate value.

This report will clearly present our growth strategies and different actions as mentioned above. We greatly appreciate your further support and cooperation in the future.

September 2019

Corporate Slogan: *Yori, Sou, Chikara* (The Strength to Work Alongside)

We, Tohoku Electric Power, adopted the corporate slogan of *Yori, Sou, Chikara* (The Strength to Work Alongside) in October 2015. This slogan demonstrates our corporate stance of reliably responding to expectations of customers and local communities for mutual continuous growth and development. This slogan embodies our two aspirations. One is to offer services that satisfy all customers. The other is to continue our actions that support local communities based on our principles that have not changed since our foundation.

Two aspirations behind the Group Slogan of *Yori, Sou, Chikara* (The Strength to Work Alongside)

Yori, Sou, Chikara

Customer Satisfaction

We will offer services
that meet customer
demand.

Working Alongside

We will carry out
activities that firmly
support the growth and
development of Tohoku
and Niigata.

Including the full deregulation of the retail electric supply market, there are dramatic changes surrounding the electric power business. The spin off from power transmission and distribution operations is scheduled for April 2020, which will intensify the changes in the business environment. To attain continuous growth under these circumstances, individual companies in the Group must carry out activities to satisfy customers and work alongside them. We therefore determined the Tohoku Electric Power Group's corporate slogan to be *Yori, Sou, Chikara* for the period commencing in April 2019. Under this slogan, all employees will consider and carry out what is best for customers and local communities.

Tohoku Electric Power has the ability to satisfy customers by paying attention to each one and by proposing pleasant lifestyles that match customer preferences.

Tohoku Electric Power also has the strength to work alongside local communities. This will allow us to continue our actions that support local communities based on our principles that have not changed since our foundation.

With sincere gratitude and great ambitions, we will serve all customers and local communities.

We will endeavor to help everyone.

Tohoku Electric Power Group Integrated Report 2019

Editorial Policy

The Tohoku Electric Power Group has been taking many different actions aimed at achieving steady growth even under increasingly harsh business circumstances, including intensifying competition in the fully deregulated retail power supply market and changes in the power demand-supply structure following the shrinkage of the population and the widespread introduction of renewable energy. For the purpose of securing an understanding of the Group's medium- and long-term value creation through these measures from both financial and non-financial perspectives, we have been publishing integrated reports since fiscal 2018.

This fiscal 2019 edition covers carefully selected information that is to be made known to shareholders and investors on the basis of comments and requests from our stakeholders on the previous edition. The information includes our value creation model, our growth strategies, our contribution to the Sustainable Development Goals (SDGs) and our foundations that support continuous growth. Its production process pays attention to stories on value creation. Introducing a new composition and a new look, this edition is designed to provide clear, reader-friendly accounts.

For the purpose of ensuring that our Group is better understood by shareholders, investors and other readers, we will continue our efforts to enhance the content of the report.

Scope of Report	Tohoku Electric Power Co., Inc. and its corporate group
Report Period	This report basically covers our activities in fiscal 2018, specifically from April 1, 2018 to March 31, 2019. It may also include some activities from past fiscal years and fiscal 2019.
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Tohoku Electric Power's media for information disclosure

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

Website: <http://www.tohoku-epco.co.jp/>

Financial information

Non-financial information

Tohoku Electric Power Group Integrated Report	
Financial report, management outline, Hotline (business outline), Notice of Convocation of the Ordinary General Meeting of Shareholders, materials for financial results briefings	
Fact Book	Corporate Governance Report
	Tohoku Electric Power Group Environmental Action Report
Flash earnings report	Tohoku Electric Power Group NOW
	R&D Report

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*

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 some assumptions. They involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance and achievements to differ materially from expectations.

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About Tohoku Electric Power

Management Philosophy

Prosper with local communities *Use creativity in business management*

In the post-war reconstruction period, Tohoku Electric Power was established with the beliefs that Tohoku should lead Japan's reconstruction and electric power should lead development in Tohoku. It has continued to supply electric power as a foundation for life and economic activities in Tohoku and Niigata for nearly 70 years. Formulated in 2009, Vision 2020 for the Tohoku Electric Power Group determined our management philosophy composed of two phrases. One is "Prosper with local communities." This reflects our will to realize mutual growth and continuously offer the value that we have jointly created with local communities to society. The other is "Use creativity in business management." This means that we will voluntarily upgrade our business management to adapt to changes in the business environment. From the formulation of this vision to today, the business circumstances surrounding the Group have changed considerably because of the 2011 Great East Japan Earthquake and the full deregulation of the retail electric supply market. Facing changes, we believe that we should always think more about what we can do in the region where our Group is based and how to behave actively.

Tohoku Electric Power Group Mid-Term Management Policies (FY2017 to FY2020)

Basic Stance

We see new opportunities ahead to meet challenges and seek further growth.

Focal points of the Mid-Term Management Policies

Focal point 1

Solutions to satisfy the needs of the customers and communities we serve

Focal point 2

Seeking new business opportunities for growth

Focal point 3

Establishing solid business foundations with renovation

After the full deregulation of the retail electric supply market in April 2016 and of the retail gas supply market in April 2017, the competition in the energy market is intensifying. Meanwhile, the recovery and reconstruction in local communities from the Great East Japan Earthquake made progress, but they are still half finished. The long-standing issue on the decline and aging of the population overshadows them. The Tohoku Electric Power Group formulated its Mid-Term Management Policies for fiscal 2017 to fiscal 2020 as a signpost for implementing the slogan of Yori, Sou, Chikara, for meeting expectations of customers and local communities and attaining continuous growth with local communities at this time of significant change in the business environment. With the basic stance expressed in the sentence: "We see new opportunities ahead to meet challenges and seek further growth." We will steadily take actions to address the three focal points. From April 2020 onwards, Tohoku Electric Power Network Co., Inc. will engage in business operation for power transmission and distribution. With the period of further changes ahead, we will continue our untiring endeavors towards growth.

Commitment to S+3E

We will seek S+3E to fulfill our responsibility to supply electric power.

Japan has so few energy resources that it imports oil, coal, natural gas and other fossil fuels to meet a large portion of its demand. Its energy self-sufficiency was around 9.6% in 2017, the lowest level among developed countries.

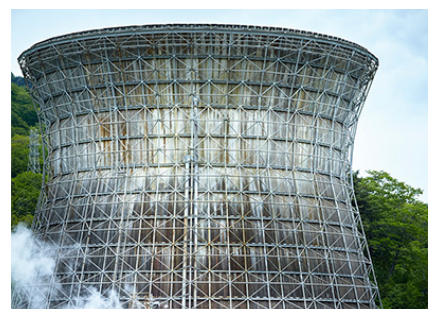
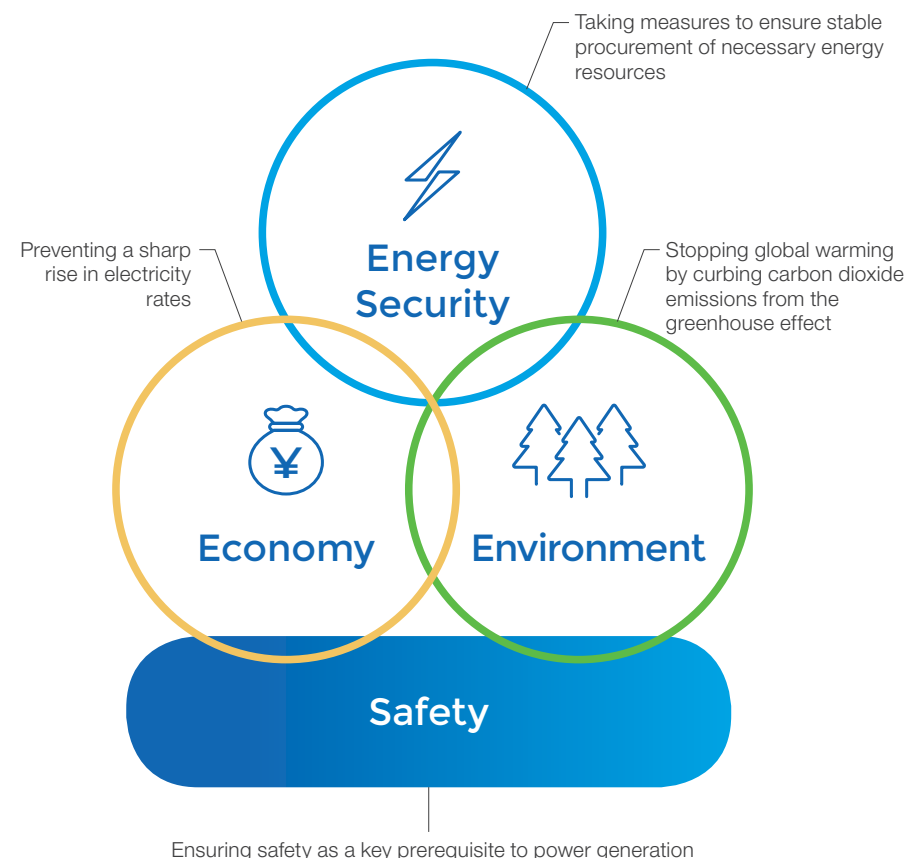
With the duty of supplying electric power as a foundation for life and economic activities, the Tohoku Electric Power Group understands that it has the significant mission of running its business in consideration of S+3E factors based on the unique energy conditions of Japan. S+3E stands for safety, energy security, environment and economy. Among these factors, safety is the top priority. Including our power source portfolio based on the mutual complementation of thermal, nuclear and renewable energy sources, diversification of fuel procurement sources, daily inspection of power generation facilities and transmission and distribution facilities, and support for customers' energy conservation, all business activities conducted by our Group lead to S+3E.

Implementation of ESG management

We will implement ESG management to meet our social responsibility in consideration of ESG factors.

In the Tohoku and Niigata areas, where the Tohoku Electric Power Group is based, social issues arising from the population shrinkage are expected to emerge earlier than in other regions. For carrying out continuous business operation, it is necessary to pay attention not only to regional challenges, but also to global ones, such as the United Nation's Sustainable Development Goals (SDGs).

In view of today's trends towards ESG investment, it is essential to enhance efforts in the Environment, Social and Governance areas. The Group will implement ESG management in the form of actions to meet its social responsibilities, including the development of renewable energy, ensuring workplace diversity and the continued enhancement of the governance structure.



Matsukawa Geothermal Power Station



Participation in a local festival

Our History of Value Creation

Tohoku Electric Power was founded in 1951, at a time when Japan was still recovering from the turmoil created by the Second World War. Since then, we have faced difficult challenges in each era, including power shortages during the post-war period of reconstruction, oil crises, numerous natural disasters, and the deregulation of the electric power market. On each occasion, the Group has worked together as one to fulfill its mission of delivering a stable, high-quality supply of electricity. Moving forward, we will continue working together with local communities, contributing to the growth and development of the six prefectures of the Tohoku region and Niigata, while at the same time working constantly to create new corporate value.

1950s —

1970s —

Developments
in society

- Growing demand for electric power due to postwar reconstruction and rapid economic growth

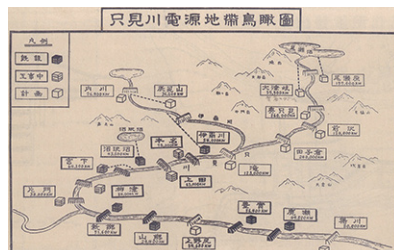
- Electricity shortages caused by the global oil crisis

Value provided by Tohoku
Electric Power

Contributing to the postwar recovery and development of Tohoku and Niigata through the development of power sources catering to the growing increase in demand for electric power

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

Amidst electricity shortages during the post-war period of recovery, Tohoku Electric Power pushed ahead with the development of energy sources in the Tadami River water system, which is its largest hydroelectric power zone, working under the motto of "Rebuilding Japan starting with Tohoku, and developing Tohoku through electric power." Later, in order to meet the growing demand for electric power, we began the construction and expansion of state-of-the-art thermal power plants, beginning with the Hachinohe Thermal Power Station, and have supported local economic growth and the lives of people living in local communities ever since.



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

Motivated by the global oil crisis, Tohoku Electric Power approached various issues including research on diverse power sources and surveys of development sites, with the aim of breaking away from dependency on oil-fired power. The diversification of power sources progressed significantly during this period, with the large-scale pumped-type Numazawa Power Plant No.2 and Onagawa Nuclear Power Station Unit 1 both commencing operation.



Scene from the construction of Numazawa Power Plant No.2

1958

Our first large-scale thermal power plant, Hachinohe Thermal Power Station Unit 1 (75MW) begins operation

We made the decision to construct our first large-scale thermal power plant because our hydroelectric power sources were unevenly distributed in the southern part of the Tohoku region, and there was an urgent need to bolster power supplies in the northern part of the region. From a geographical standpoint, it was decided that the plant would be built in the city of Hachinohe, in Aomori Prefecture, where it would be easy to procure coal produced in Hokkaido. We assembled a team of excellent engineers from both within and outside the company to begin construction work. Unit 1 commenced operation in June 1958, and Unit 2 (75MW) commenced operation in October of the same year.



Group photograph at the Hachinohe Thermal Power Station construction office

1984

Our first nuclear power plant, Onagawa Nuclear Power Station Unit 1 (524MW) begins operation

From the initial planning stages in the construction of Onagawa Nuclear Power Station, we recognized that countermeasures against tsunamis were an important issue. An in-house committee including external academic experts was established, and it was determined that the height of the site should be 14.8m, a number obtained through considerations based on data from tsunamis in past eras, such as the Jogan (869) and Keicho (1611) tsunamis. The height of the tsunami in the Great East Japan Earthquake was 13m in this area and did not exceed the height of the site.



Onagawa Nuclear Power Station at the time of commencing operation

Business Topics

1990s —

2010s —

Developments
in society

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

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

Value provided by Tohoku
Electric Power

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

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

In the 1990s, partial deregulation of the electric power retail market was carried out, targeting extra high-voltage customers. In response to this partial deregulation, Tohoku Electric Power made efforts to achieve a corporate transformation and ensure competitiveness of pricing. We also endeavored to conserve the global environment and make more effective use of energy; worked to develop renewable energy technologies such as wind power generation, solar power generation and geothermal power generation, and improve the thermal efficiency of thermal power plants.



Higashi Niigata Thermal Power Station series 4-1 achieved thermal efficiency of over 55%, which was a world-class level at the time

We are currently tackling various management issues, such as intensifying competition and the legal unbundling of the power transmission and distribution sectors, while at the same time supporting local communities working to recover in the wake of the earthquake. To this end, we are engaged in new initiatives that include offering new pricing plans and services, supplying electricity outside of our operating region, and expanding our use of renewable energy; and aiming to further increase our corporate value.



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

2000 Rates lowered for the first time after partial deregulation

Following the partial deregulation implemented in March 2000, we worked to improve management efficiency in order to achieve price levels that would enable us to compete with competitors while at the same time maintaining the quality of our electricity supply. These efforts included large-scale organizational improvements. Beginning in October 2000, with the first rate reduction after partial deregulation, we achieved a total of four rate reductions over a period of six years.



Call centers were established in Sendai and Niigata to consolidate handling of phone calls from customers

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

Power plants, steel towers, utility poles and many other pieces of equipment and infrastructure were damaged by the Great East Japan Earthquake and ensuing tsunami, resulting in a state of emergency in which almost the entire Tohoku region was left without power. Despite this situation, and with the combined strength of the Tohoku Electric Power group, we were able to resolve around 80% of power outages within three days after the disaster. These efforts were driven by our employees' strong sense of duty, of wanting to deliver electricity to customers as soon as possible. Moving forward, we will pass on the experiences and memories of this difficult time to the next generation of Tohoku Electric Power employees in order to prepare for other unforeseeable disasters that could occur at any time; and continue to engage in activities to support the recovery of the Tohoku region.



Pillar erection work being carried out immediately after the earthquake

Overall Description of Tohoku Electric Power Group's Business Activities



Fuel procurement



Power stations

Fuel procurement

In fuel procurement, it is important to procure fuels to be consumed at thermal and nuclear power stations reliably, economically and flexibly. We are taking different approaches to doing so, including paying close attention to the circumstances inside and outside the country and the diversification of procurement sources and price systems from a medium- and long-term perspective.

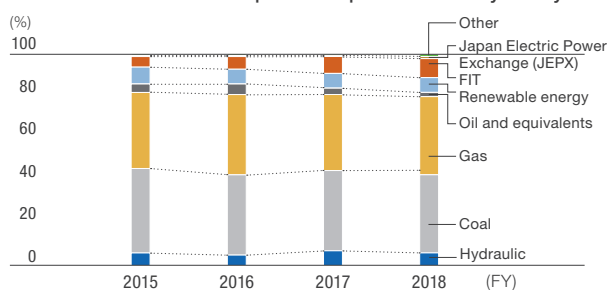
Tohoku Electric Power's main supplier of energy resources



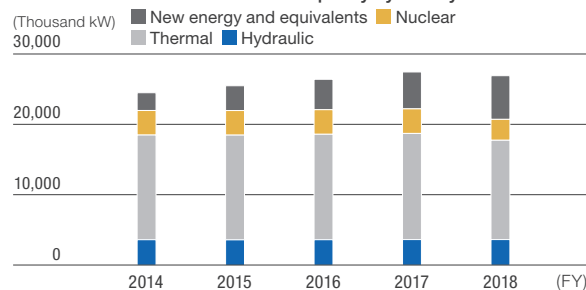
Power generation

While placing the top priority on safety, we combine different power generation methods including thermal, hydraulic, nuclear, geothermal, and photovoltaic power generation in a well-balanced manner in an effort to ensure a stable supply of high quality electricity at low rates and to achieve a competitive composition of power sources.

Tohoku Electric Power's composition of power sources by fiscal year



Tohoku Electric Power's installed capacity by fiscal year



* Figures for new energy and equivalents represent the generated and purchased power capacity of the existing power interconnection including wind power generation, solar power generation, biomass power generation, waste power generation and geothermal power generation.

Group companies

Construction and maintenance of facilities related to the electric power business

- Yurtec Corporation
- Tohoku Electric Power Engineering & Construction Co., Inc.
- Tohoku Port Service.co.,inc.
- Tohoku Power Transmission and Distribution Service Co., Inc.
- Tohoku development consultant CO., LTD
- TOHOKU AIR SERVICE, INC.
- Higashi Nihon Techno Survey Corporation
- YUTOS Corporation
- YURTEC SERVICE Corporation
- TECS FUKUSHIMA Corporation
- YURTEC HAIDEN TECHNO Corporation
- YURTEC KANTO SERVICE Corporation
- YURTEC MIYAGI SERVICE Corporation

Manufacture of equipment related to the electric power business

- Kitanihon Electric Cable Co., Ltd.
- AIZU-GAISI Co.,inc.
- Tohoku Pole Corporation
- Tsuken Electric Ind Co., Ltd.
- TOHOKU ELECTRIC MANUFACTURING Co., Ltd.
- Tohoku Electric Meter Industry Co., Inc.
- Kitanihon Electric Cable Co., Ltd.
- Tohoku Pole Transport Corporation

Power generation

- Tohoku Sustainable & Renewable Energy Co., Inc.
- SAKATA KYODO POWER COMPANY. LTD.
- Aqua Power Tohoku Co., Ltd.
- Solar Power Kuji Corporation
- Solar Power Ajigasawa Corporation
- Solar Power Shiroyoshi Corporation
- Solar Power Kujieda-narisawa Corporation
- Solar Power Ishinomaki-ogatsu Corporation
- Solar Power Miyagi Corporation
- Yur Solar Tomiya Co., Ltd.
- Yur Solar Co., Ltd.
- Yur Solar Zao Co., Ltd.
- JOBAN JOINT POWER Co., Ltd.
- Arakawa Hydro-Electric Power Co., Ltd.
- Soma Kyodo Power Company,Ltd.
- Fukushima Electric Power Corporation
- Abukuma South Wind Power LLC
- Akita Yurihonjo Offshore Wind Power LLC



Transmission facilities



Transformation facilities



Power distribution facilities



Customers

Transmission and distribution

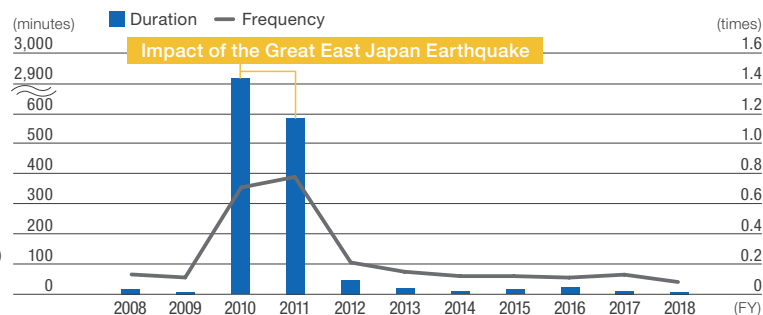
For the purpose of ensuring that customers can use electric power without concern, we construct, maintain and operate transmission and distribution facilities. We conduct earthquake and typhoon drills in order to build up our response capabilities in the event of a large-scale disaster.

Overview of Tohoku Electric Power's transmission and distribution facilities (as of the end of March 2019)

Transmission lines	Route distance	15,330km
	Steel towers	58,457 units
Distribution lines	Route distance	147,934km
	Utility poles	3,126,235 units (including distribution towers)

* Route distance: Total of horizontal distances between steel towers, utility poles and other supports

Average Frequency and Duration of Power Outage per Household Served

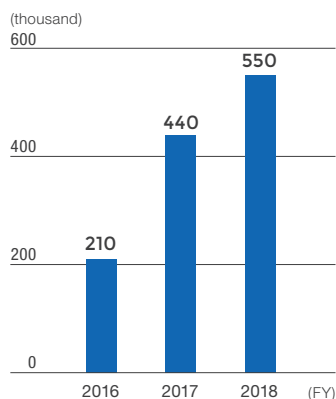


Customers

As an energy supplier serving six Tohoku prefectures and Niigata Prefecture, we are working to rapidly increase and propose a wide variety of rate plans and inventive services according to customers' needs so that we will be selected by customers in the region.



Yoriso e Net subscriptions



Service lineup

exEMS
experience Energy Management Systems

exEMS	<ul style="list-style-type: none"> Visualization of power consumption and demand monitoring Power saving support Advice for and report on energy saving Comparison with performance at other exEMS users
exEMS with A	<ul style="list-style-type: none"> Automatic control of air conditioning facilities
exEMS Advance	<ul style="list-style-type: none"> Visualization of power consumption of separate facilities Automatic control of several facilities including air conditioning facilities Compatibility with virtual power plants

Group companies

Gas supply business and energy solutions

- Tohoku Natural Gas Co., Inc.
- Tohoku Energy Service Co., Inc.
- NIHONKAI LNG CO., LTD.

Information and telecommunications

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

Life and business support

- HNK Co., Inc.
- ELTAS TOHOKU Inc.
- TDG Business Support Corporation
- Tohoku-Electric Power Friendly Partners Co., Inc.
- E life Partners Co., Ltd.
- TOHCS CORPORATION
- NEW LEASE CORPORATION
- AQUACLARA TOHOKU Corporation
- Niigata Nishiko Joint Security Corporation

Environmental conservation and recycling

- Tohoku Ryokka Kankyohosen Co., Ltd.
- GREENRECYCLE Corporation
- NOSHIO YOSHINO GYPSUM CO., LTD.
- Tohoku Eco Techno Corporation

Overseas business

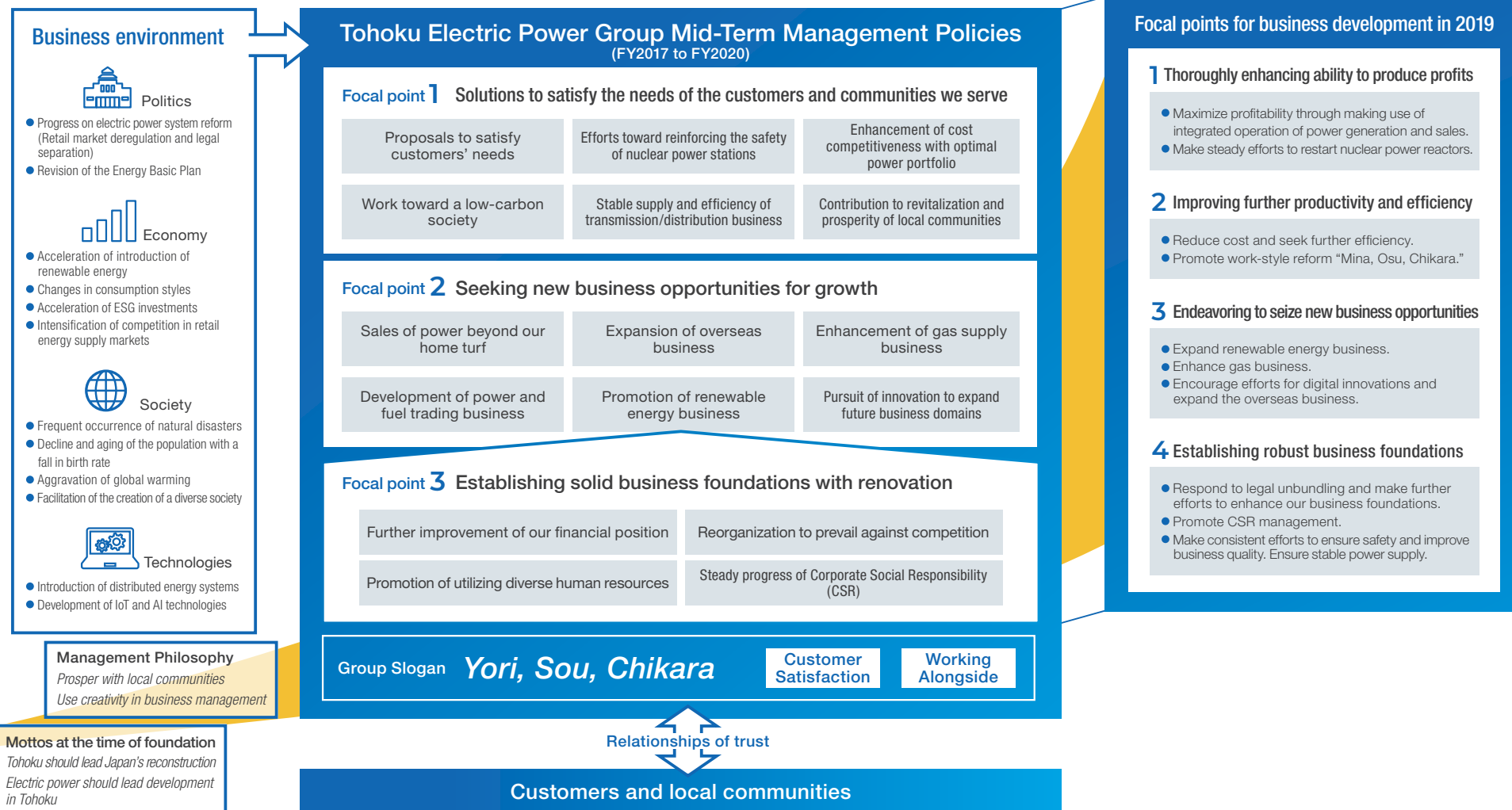
- Tohoku Power Investment Company B.V.
- YURTEC VIETNAM Co., Ltd.
- Kyushu Tohoku Enrichment Investing SAS
- Merit Power Holdings

Electric power business

- Tohoku Electric Power Co., Inc.
- Tohoku Electric Power Network Company, Incorporated
- Tohoku EPCO Energy Trading Co., Inc.
- Synergia Power Co., Ltd.
- Tokyu Power Supply Co., Ltd.

Value Creation Model

The Tohoku Electric Power Group will adopt reforms from the perspective of fulfilling the Mid-Term Management Policies, while focusing on its commitment to local communities and its sense of mission, which have remained unchanged since its founding, as well as on the trust with customers and local communities built by practicing its slogan of Yori, Sou, Chikara (The Strength to Work Alongside). We will contribute to fulfillment in life, economic development and solving local issues, thereby increasing our corporate value.



Contribution to the SDGs

The United Nations summit in September 2015 adopted the Sustainable Development Goals (SDGs) that individual countries in the world should work to attain by 2030. The Tohoku Electric Power Group thinks that it must contribute to the achievement of these goals as a responsible business entity. The measures that are being taken in 2019 in accordance with the Mid-Term Management Policies will also help achieve the SDGs. We will pay attention to them when devising future management strategies and different plans.



Focal points for business development in 2019 and related SDGs

Focal points		Examples of specific actions	Principal related SDGs
① Thoroughly enhancing ability to produce profits	Maximize profitability through making use of integrated operation of power generation and sales.	<ul style="list-style-type: none"> ● Implement Yori, Sou, Chikara + One. ● Provide the exEMS. ● Conduct sales through Synergia Power Co., Ltd. and wholesale supply to Tokyu Power Supply Co., Ltd. ● Build Unit 3 for the Noshiro Thermal Power Station and commence construction of Unit 1 for the Joetsu Thermal Power Station. 	
	Make steady efforts to restart nuclear power reactors.	<ul style="list-style-type: none"> ● Implement steady safety works for Reactor 2 of the Onagawa Nuclear Power Station and for Reactor 1 of the Higashidori Nuclear Power Station. 	
② Improving further productivity and efficiency	Reduce cost and seek further efficiency.	<ul style="list-style-type: none"> ● Introduce IoT, AI, big data, drones and other new technologies to cut maintenance costs. 	
	Promote work-style reform "Mina, Osu, Chikara."	<ul style="list-style-type: none"> ● Effectively use the flexible working hours program and others to attain a work-life balance. ● Utilize RPA and AI to heighten business efficiency and quality. 	
③ Endeavoring to seize new business opportunities	Expand renewable energy business.	<ul style="list-style-type: none"> ● Strive towards the development of and participation in 2 million kW renewable energy power generation centering on wind power. 	
	Enhance gas business.	<ul style="list-style-type: none"> ● Form a business tie-up with Ishinomaki Gas Co., Ltd. for electricity and gas sales. ● Effectively use LNG shipping facilities at the New Sendai Thermal Power Station. 	
	Encourage efforts for digital innovations.	<ul style="list-style-type: none"> ● Virtual Power Plant (VPP) Verification Project ● Yori Sou Smart Project 	
	Expand the overseas business.	<ul style="list-style-type: none"> ● Actions with a focus on North and Central America and on Southeast Asia 	
④ Establishing robust business foundations	Respond to legal unbundling and make further efforts to enhance our business foundations.	<ul style="list-style-type: none"> ● Make different preparations for the start of operation of Tohoku Electric Power Network Co., Inc. in April 2020. 	
	Promote CSR management.	<ul style="list-style-type: none"> ● Upgrade CSR activities from an ESG perspective. 	
	Make consistent efforts to ensure safety and improve business quality.	<ul style="list-style-type: none"> ● Enhance the corporate culture of putting safety first. 	
	Ensure stable power supply.	<ul style="list-style-type: none"> ● Ensure stable power supply to the Tohoku and Niigata areas. 	

Strategies





Hiroya Harada

Representative Director and President

Interview with the President

First, please describe the corporate vision pursued by the Tohoku Electric Power Group.

When our Company was established in 1951, Japan was making nationwide efforts to recover from the devastation of World War II. In the context of rebuilding the Japanese economy at that time, the effective use of domestic resources was a key policy. In the Tohoku region, there was a call for the development of hydraulic resources and businesses utilizing electric power in addition to increased food production based on general river development. Under these circumstances, Ungoro Uchigasaki, our first president, announced his determination to positively respond to prevailing demand, following the motto of “Tohoku leading Japan’s reconstruction and electric power leading Tohoku’s development.” This motto reflects our goal to support life and the economy in Tohoku and Niigata by supplying electric power. For about 70 years, this has been at the heart of our managerial decisions, based on the idea that our company cannot grow without the prosperity of Tohoku. It is also reflected in the behavior of our Group’s employees. In March 2011, the Great East Japan Earthquake hit our power transmission and distribution facilities so severely that it led to power outages on an unprecedented scale, leaving 4.86 million households, mainly on the Pacific side,

without power. Our personnel worked day and night to restore it. Around 80% of our affected customers regained access to electric power after three days of restoration work, and nearly 94% after the eighth day of work. We formulated the corporate slogan of Yori, Sou, Chikara in 2015, and adopted it as the slogan of the Group in April 2019. This also reflects our corporate stance of attaining growth even during fierce competition by offering proposals that satisfy customers and by working alongside local communities.



Meanwhile, we must be aware that circumstances are constantly changing. We have inherited a strong sense of mission and pride as a public utility business operator as well as the great aim for local contribution. It is vital to also have features that meet current needs. In anticipation of intensifying competition in the deregulated retail power market, we must not only respond to apparent needs, but also to latent needs of customers to offer extra value that enriches their lives and stimulates economic activity. The contraction and aging of the population and the decline in the birth rate are accelerating in the six Tohoku prefectures and in Niigata Prefecture, where our Group is

based, making it difficult to maintain the levels of traffic, education, welfare and other services as well as business succession. Therefore, social issues will increase. We will take a broad look at these diverse social issues and explore what we can do as a business operator. Based on our unwavering aspiration since our foundation, we will respond to changes with a view to achieve the growth of society and our corporate group.

What do you think of the business circumstances surrounding the Tohoku Electric Power Group?

Briefly speaking about today's business conditions, we are in the greatest period of changes since our foundation and I believe that this offers great potential.

When explaining business conditions, it is impossible to ignore the power supply system reform. The full deregulation of the electricity retail market began in April 2016. That significantly changed the competitive environment and has put our Group in a difficult position because we must defend our market, namely the Tohoku and Niigata area, from competitors. We see it as an opportunity to improve our products and services for customers to select them, thereby achieving growth. When we are in a difficult situation, we will refine our products and services and improve our employees' work quality. The full deregulation of the energy retail market also means that we now have more opportunities to do business outside the Tohoku region. We are currently expanding electric power sales outside the Tohoku and Niigata area through Synergia Power Co., Ltd., a company jointly set up with Tokyo Gas Co., Ltd. and through Tokyu Power Supply Co., Ltd., in which we have a more than 30% stake. In the context of the power supply system reform, the

full deregulation of the retail market will be followed by the legal unbundling of transmission and distribution in April 2020. We are set to spin off our transmission and distribution sectors into Tohoku Electric Power Network Co., Inc. Last year, we introduced an in-house company system in preparation for this move. To facilitate this unprecedented major organizational change, we must sufficiently prepare in the meantime. We think that all the companies in our Group, including Tohoku Electric Power and Tohoku Electric Power Network, must exhibit their respective strengths to boost the Group's overall strength and improve the brand that unites the Group even after the spin-off.

Expansion of the introduction of renewable energy amid global warming and climate change significantly impacts our Group's business environment. As an operator that supports the power supply network, we should accept as many renewable energy power sources as possible. We should also work more actively to develop such power sources for the effective use of renewable energy as valuable domestic resources that are environmentally



friendly. In the overall development of power sources, we focus on what we call S+3E. This means pursuing energy security, the economy and the environment based on safety. We will continue to retain this stance. Meanwhile, the trend towards ESG investments is gathering momentum. I think that customers who use our electric power as well as ourselves must think about renewable energy while keeping in mind that it is necessary to be firmly aware of this trend.

In addition, we also need to keep an eye on the development trend for storage batteries and similar technologies. This is because storage battery technologies may disrupt the order in the electricity business. If anyone can install storage batteries and solar panels at home and at plants, electric utilities as they exist today will have a smaller presence. These days, the focus of consumption is shifting from goods to experience, especially among young people, and there is a trend towards the sharing economy. I think it is important to take action anyway to quickly find an answer to the question about what we can do if these changes accelerate and take tangible actions for growth. Our related activities include the Virtual Power Plant (VPP) project under verification since last year and a joint study on peer-to-peer (P2P) energy trading using distributed power sources. We hope to develop these initiatives into a footing for the future.

This is how changes in the business environment will lead to the transformation of our business models. I believe that it is important to voluntarily push ahead with business model reforms instead of passively changing after being urged to do so. This stance will drive us to seize an opportunity in a period of volatility. We will carry out the reform without apprehension or hesitation.

What is the progress towards the Tohoku Electric Power Group Mid-Term Management Policies? What are the financial results for fiscal 2018?

Our Group formulated and announced new Mid-Term Management Policies for four years from fiscal 2017 to fiscal 2020 as a signpost for the Group's continuous growth with local communities by pursuing the Yori, Sou, Chikara slogan and by meeting expectations of customers and local communities amid dramatic changes in business circumstances, including the full deregulation of the electricity retail market. The Policies have three focal points. The first one is solutions to satisfy the needs of the customers and communities we serve. The second is seeking new business opportunities for growth. The third one is establishing solid business foundations through renovation. We are conducting activities in accordance with these policies.

For example, we announced Yori, Sou, Chikara + One as a general brand of services for households in November 2018. Subsequently, we have been launching new rate plans and services, including a new rate plan for households with snow melting facilities, named Yori Sou Choice Snow & Home (nicknamed Kurashi Rakuraku Snow Plan), and a GPS BoT location identification service under the Yorisou Kokocchi brand name. We are also conducting efforts towards continuous growth in the future, including the enlargement of the renewable energy business aimed at the development of a power source with an approximate capacity of 2 million kW in January 2019 and a tie-up with Ishinomaki Gas Co., Ltd. for expanding gas sales to corporate customers. We are increasing wholesale sales to Synergia Power, Tokyu Power Supply and other alliance partners.

The Mid-Term Management Policies set goals to be met by fiscal 2020, such as an increase in electricity sales volume by 3.5 billion kWh, ownership capacity in the overseas power generating business of 600,000 kW and gas sales volume of 450,000 tons. As a result of our past efforts, actual figures for these indicators for fiscal 2018 were 5.3 billion kWh 350,000 kW and 430,000 tons, respectively, showing steady progress.

On the other hand, we are currently facing severe financial conditions. Because competition is intensifying with power producers and suppliers (PPS) and former general electric utilities, the power supply and demand structure and the revenue and expense structure have changed since the developed of the policies. In response, our Group is working to increase the electric sales volume inside and outside its business area while boosting earning power by continuously enriching services and increasing cost competitiveness by establishing an optimal portfolio of



power plants. In addition, we will pursue structural cost reduction that produces an effect for a medium or long period of time in an effort to increase profit. Therefore, we will examine the businesses in which we should invest. We will achieve growth through investments for the long-term improvement of shareholder value. In the overall consideration of financial results and a medium- and long-term earnings outlook, we will return a certain portion of our business results to our shareholders as dividends.

What will be your management focus in 2019?

In 2019, we are managing business to create a roadmap for meeting the targets of the Mid-Term Management Policies. There are four focal points for the current year. The first one is to thoroughly enhance ability to produce profits, the second is to improve further productivity and efficiency, the third is to endeavor to seize new business opportunities, and the fourth is to establish robust business foundations. All of these points are necessary for our growth. Now, I will explain the second and third focal points among others. First, for improving further productivity and efficiency, we are making companywide efforts through work-style reform. To address changes in business models, we need to make positive attempts without being constrained by the conventional framework. In light of limited management resources, we need to fundamentally review our methods of working and to thoroughly streamline our operations for allocating resources generated from the review to new areas. After our operational streamlining eventually improves work-life balance, employees can spend time on self-improvement, childcare and activities in their local communities. Working hours account for a large proportion of everyday life. In consideration of lives of all employees, it is unacceptable to tie them to work



and nothing else. Work-style reform is needed to allow employees with different values to lead fulfilling lives, and develop their skills and new values. I hope that the reform will foster a corporate culture that encourages new attempts across the company.

As for endeavoring to seize new business opportunities, we established the Office of Digital Innovation Promotion in July 2019. It will accelerate our positive introduction of AI, IoT and other digital technologies and help us create new businesses and services, reduce costs and boost profits of the conventional electric power business. It is collaboration and co-creation with partners that are significant in this process. Working hand in hand with knowledgeable partners is a key to our success in our attempts to step into new areas. In May 2019, we signed a

basic agreement with Next Kraftwerke, headquartered in Germany. It is one of the world's largest virtual power plant (VPP) operators. We are working to build a close strategic tie-up with it. A VPP consists of power generation facilities, storage batteries, electric vehicles and other energy resources owned by customers and dispersed in a region. They are remotely controlled and integrated to function as single power plant. We are aiming to commercialize it and develop new services. For these purposes, it is important to continuously expand knowledge and technologies on VPPs, including those for controlling energy resources with high precision. In addition, Kraftwerke boasts abundant knowledge and technologies in this area. We hope that this alliance will improve the possibility of commercialization and other goals.

How are you addressing the challenge of implementing ESG management?

For the continued growth of our Group, contributions to building a sustainable society are very important. As I mentioned at the outset, our Group has been managed in accordance with the idea that it cannot grow without the prosperity of Tohoku. Regional CSR implementation is indispensable to the Group. However, as local communities face more and more issues, the roles of business operators may change. We should make effective use of our limited management resources and strengthen our attitude towards solving social issues while running a business that will achieve both growth and the resolution of those issues.

During this process, we need to pay attention to the Sustainable Development Goals (SDGs) adopted by the United Nations summit, because contributing to them will lead to the construction of a sustainable society. Offering services to customers, making community cooperation efforts, increasing the efficiency of thermal power generation and introducing more renewable energy are helpful to achieve the SDGs. Keeping these in mind, our Group will do what is necessary.

These days, we must pay particular attention to the rise of environmental, social and governance (ESG) investments. From the perspective of responding to social demand, our Group will implement ESG management, which focuses on the environment, society and governance, aiming to fulfill our corporate social responsibility (CSR).

For example, we began to supply electric power generated solely from renewable energy, namely hydraulic and geothermal energy, to Tokyu Corporation's Setagaya Line

at the end of this March. We foresee a rise in customer needs for renewable energy. In the future, we will explore the applications of renewable energy.

From an ESG perspective, there is a global trend of withdrawal from investments in fossil fuel projects, particularly coal-related projects. However, to fulfill our mission as a public utility business operator, we must seek a balanced power mix from the perspective of S+3E. It is important to operate a certain amount of coal-fired thermal power generation while working to increase its thermal efficiency and more. I think it is tremendously significant for me to directly communicate with investors on all occasions to explain our views. As a matter of course, we will take steps towards reducing global warming.

We think it is vital to actively disclose information. In April 2019, we signed a commitment to implement the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). They suggest desirable

methods of information disclosure for companies, including risk and opportunities associated with climate change and the financial impact. We will continue to improve the quality of our information disclosure.

I already talked about the environment in relation to the three elements of the ESG, and now I will discuss our efforts from the perspective of society and governance. In terms of society, we will continue to meet our essential duties of stably supplying energy and conducting community cooperation activities. In particular, we will continue to support the recovery from the Great East Japan Earthquake as a long-term activity. Kamaishi, Iwate Prefecture, which was afflicted by the earthquake, is one of the venues of the Rugby World Cup 2019. While the Tokyo Olympic and Paralympic Games next year are defined as events that symbolize the recovery, we can still find many people living in evacuation shelters. We must remember this as we continue to engage in activities that lead to assistance.



Also, we must work to build a workplace that advocates diversity. Society is gradually changing to accept LGBT people and other diverse values. Our Group has 25,000 employees, which means that it has 25,000 different ways of thinking. We must provide an environment where all employees are respected and can fully showcase their abilities. I think this will help our Group to leverage its overall strengths.

Regarding governance, we have successively revised and improved our management system. Last year, we introduced a system for appointing executive officers to clarify the division between management and execution, and for ensuring swiftness and flexibility in business execution. In addition, while attaching importance to key decision-making at the Board of Directors, we shifted part of the business execution from the Board of Directors to directors. We became a company with an audit and supervisory committee to increase the speed and flexibility of decision-making and business execution. In view of business circumstances and changes in social demand, we will continuously endeavor to enhance management quality.

Finally, what message do you have for stakeholders?

With intensifying competition, the spinning-off of the transmission and distribution business, and changes in business models, we are now in a period of dramatic change. It is not an exaggeration to call it a second post-foundation period. Conventional ideas may no longer work and we may be in denial. The electric power industry has been protected by regulations. We must admit that we lacked the perseverance or spirit to generate profits.

To attain future growth in a competitive situation, our employees must be more aware of steadily maintaining a cycle with three phases. First, we should provide services that satisfy customers and take appropriate actions to tackle local issues. Second, we should boost our corporate value by earning compensation for the services. Third, based on these actions, we should respond to new demand and issues. While retaining a sense of mission and pride as a public utility business operator, we must instill our personnel with a new attitude. That is easy to say but difficult to do. However, after all 25,000 employees in our Group practice this with sincerity based on thorough awareness, we will reach a new stage in which our slogan

of Yori, Sou, Chikara has become a reality and we will be ready for continued growth. I am convinced that this will happen.

The Tohoku Electric Power Group has overcome several difficulties, for example, by recovering from the war devastation, reconstruction following the Great East Japan Earthquake and many other disasters. I believe that based on this experience, the Group will surmount the current challenges. As a top executive, I am ready to fulfill my heavy responsibility by following this belief. I would appreciate if you as stakeholders would understand our positions above and provide your continued support.



Tohoku Electric Power Group's businesses and related SDGs



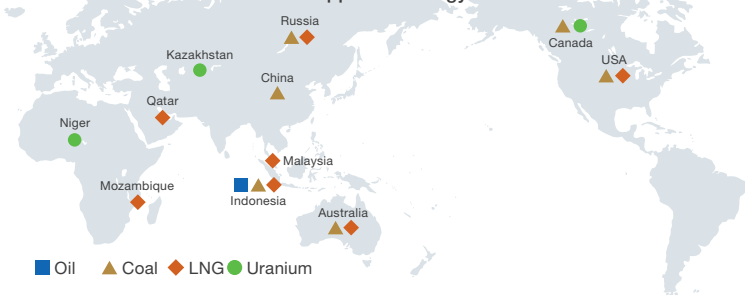
Fuel Procurement



Fuel Procurement with Emphasis on Stability, Economic Efficiency, and Flexibility

To ensure energy security, we are taking comprehensive measures to continue stable operation of power plants and ensure safe, reliable operation of nuclear power plants, while also paying attention to global environmental issues, such as the need to reduce CO₂ emissions. We depend mostly on overseas markets for fuels needed to generate electricity for a steady supply. The future remains uncertain, due in part to the effects of the coordinated production cut by OPEC member countries and non-member oil-producing countries, which has continued since January 2017, the growing global demand for energy, primarily in emerging countries, and concerns over rising market prices, which partly reflects geopolitical risks in the Middle East, while we also see moves to increase shale oil production in the United States. In Japan, we are seeing dramatic changes in the situation surrounding fuel procurement, including the increase in demand for LNG as a fuel for thermal power generation and the full-scale import and introduction of shale gas, which were triggered by shutdowns of nuclear power plants, as well as progress in the reform of electricity systems and the spread and expansion of renewable energy, which have made it necessary to respond appropriately to fluctuations in fuel requirements. In this environment, we are striving to improve our sensitivity to domestic and overseas situations, such as demand and market trends, and are pursuing an array of initiatives to procure fuels with emphasis on stability, economic efficiency, and flexibility, such as diversification of supply sources and price systems and acceptance of fuels via large specialized carriers and regular-route carriers.

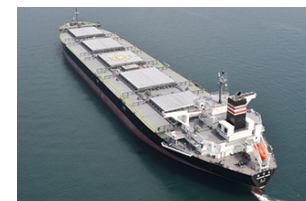
Tohoku Electric Power's main supplier of energy resources



Coal

Coal-fired electric power generation is a base energy source. We are striving to diversify procurement sources to disperse risk while mainly procuring coal produced in Australia, a highly reliable source. In pursuit of economic efficiency, we are also taking cost-cutting initiatives, such as increasing more accessible procurement sources, including Indonesia, Russia, and China, and reducing ash-handling cost by procuring subbituminous coal, which is low-ash coal.

In addition, for the ocean transport of coal, we use multiple shipping ports in Australia and Indonesia, respectively, to prevent port congestion and alleviate the risk of natural disaster. We also use large specialized carriers and regular-route carriers in our efforts to ensure economic efficiency and stability.



Noshiro Maru III, a coal carrier
(Photo courtesy of Nippon Yusen Kabushiki Kaisha [NYK Line])

LNG

In addition to procuring LNG from dispersed sources, we are working to acquire flexible contract terms and conditions, including diversification of LNG price systems and abolishment of destination restrictions, in our efforts to ensure stable, economical, and flexible procurement of LNG.

Specifically, in the contract with Cameron LNG of the United States, from which we began procuring LNG in FY2018, we introduced our first price system that uses the market price of natural gas in the United States as the indicator. In addition, in the early 2020s, we will begin to procure LNG from Mozambique LNG project, which will be our first purchase of LNG from continental Africa, to further diversify procurement sources. These contracts permit change of destination for supply-demand control and other purposes.



The Malaysia-flagged carrier Puteri Mutiara Satu enters the port of the Shin-Sendai Thermal Power Station.

Nuclear Fuel

Supply and demand for uranium are expected to remain steady, reflecting the view that nuclear power development will make progress, mainly in emerging countries, over the medium to long term. We have studied and instituted measures for stable, economical, flexible procurement of uranium fuel. As a result, we have already secured the volume of uranium fuel that is required for now.

In addition, we have invested in a uranium mine development and production project in Kazakhstan, reflecting our view that long-term stable procurement of uranium is important. We have acquired the priority rights to purchase uranium produced in this project.

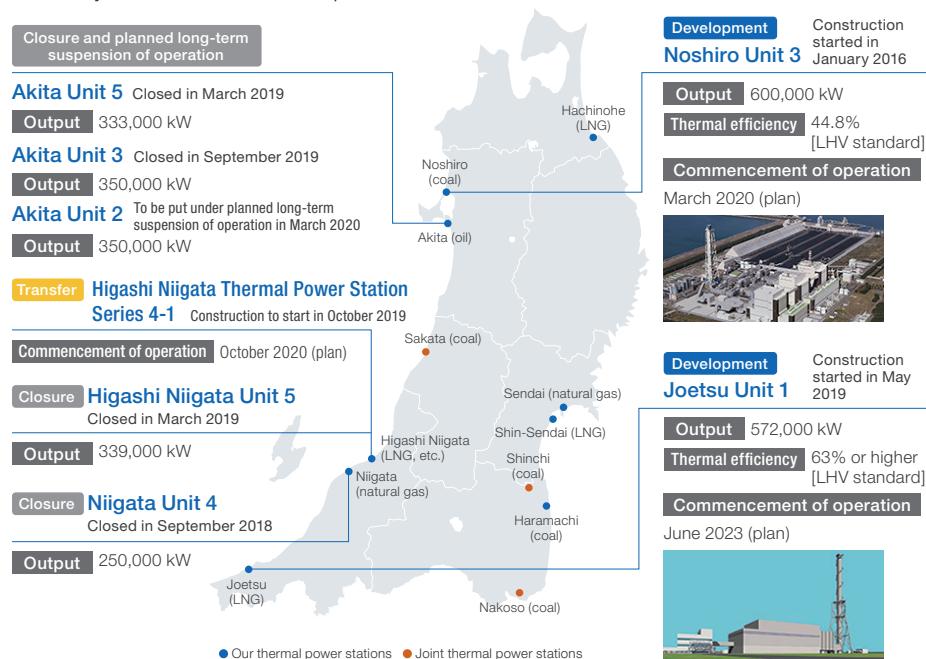
Thermal Power Generation



Efforts to Achieve an Optimal Power Portfolio

We aim to ensure a stable and affordable electricity supply to achieve a competitive advantage and support the reconstruction and development of the communities we serve. For this purpose, we are working to build an optimal power portfolio that combines different energy sources in a well-balanced manner.

In the area of thermal power generation, the construction of the Noshiro Thermal Power Station Unit 3 and the Joetsu Thermal Power Station Unit 1 is underway. These are part of our efforts to develop cutting-edge thermal power sources that are economical and environmentally friendly. On the other hand, we have decided to close aging thermal power sources with low economic efficiency, partly reflecting future demand, the need to replace them with new power sources and our intention to streamline existing power generation facilities to improve efficiency. We have therefore closed the Akita Thermal Power Station Unit 3 in September 2019 and are scheduled to put the Akita Thermal Power Station Unit 2 under the planned long-term suspension of operation in March 2020. The Akita Thermal Power Station Unit 5 and the Higashi Niigata Thermal Power Station Unit 5 (emergency power sources introduced to supply electricity after the Great East Japan Earthquake) were closed in March 2019. As planned, gas turbines from these facilities will be moved to the Higashi Niigata Thermal Power Station Series 4-1. We will thus effectively reuse the equipment from the closed facilities while improving the operating efficiency and thermal efficiency to reduce fuel consumption and CO₂ emissions.



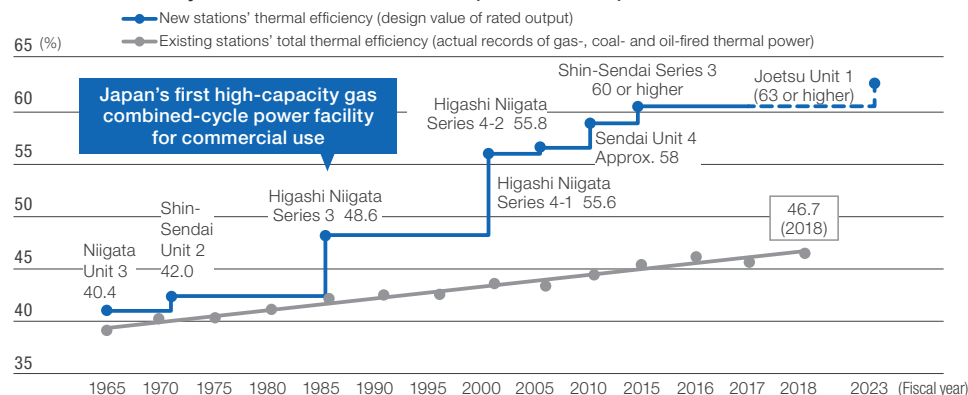
Efforts to Enhance Thermal Efficiency

Enhanced thermal efficiency for thermal power generation reduces the use of fossil fuels and contributes to the effective use of energy resources. Above all, it helps control CO₂ emissions. Hence, we actively use thermal power technologies that enable high thermal efficiency. The Higashi Niigata Power Station Series 3, which went into operation in 1985, is Japan's first commercial-use, high-capacity gas combined-cycle power facility. It achieved thermal efficiency of about 48%—the highest efficiency possible at the time. The Higashi Niigata Power Station Series 4 and the Sendai Thermal Power Station Unit 4 later achieved even higher efficiency. In July 2016, the Shin-Sendai Thermal Power Station Series 3 went into full operation and accomplished thermal efficiency of over 60%, which was the world's highest at that time. Furthermore, we have steadily been working on the construction of the Noshiro Thermal Power Station Unit 3 and the plan to build the Joetsu Thermal Power Station Unit 1. These initiatives aim to achieve high economic efficiency and reduce environmental burdens while ensuring a steady supply of electricity.

The Noshiro Thermal Power Station Unit 3 has adopted ultra-super critical pressure (USC) to achieve higher thermal efficiency than in Units 1 and 2. The Joetsu Thermal Power Station Unit 1, which is a combined-cycle power facility with thermal efficiency of 63% or higher (the highest we have ever achieved), aims to achieve high economic efficiency and reduce our impact on the environment.

We will remain committed to further enhancing economic efficiency and conserving the environment with safety as our top priority.

Thermal Efficiency at Thermal Power Stations (LHV standard)



*LHV standard: Based on the heating value without the condensing heat of moisture. Condensing heat is generated from moisture contained in fuels by combustion.

Thermal Power Generation

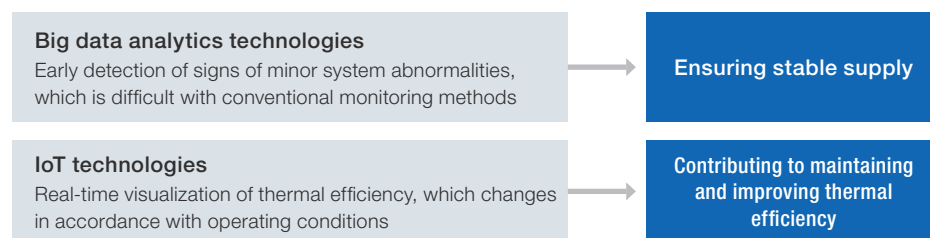


Efforts Related to Digital Innovations

We are working on digital innovations by using cutting-edge digital technologies. These efforts are aimed at ensuring the stable operation of our thermal power stations, improving their thermal efficiency and further enhancing our competitiveness.

Use of IoT and Big Data

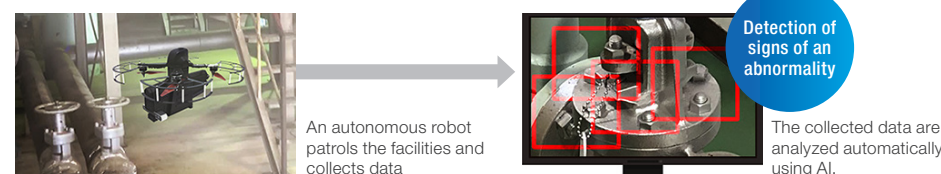
In FY2017, Tohoku Electric Power and Toshiba began to collaborate on exploring the use of IoT, big data analytics and other technologies to further improve the operating efficiency of our thermal power stations. Exploration has been completed with some success, and further achievements are expected in the future. Accordingly, in FY2019, we began to fully implement a project to apply those technologies to all of our thermal power stations.



Use of Robots and Artificial Intelligence (AI)

In FY2019, we commenced a joint project with Nihon Unisys, Ltd. to develop a full-fledged system that uses robots (such as drones) and AI technologies to enable unmanned facility patrols of thermal power stations. This project aims to apply robots and AI technologies to support the daily facility patrols of thermal power stations, which were previously done by humans. We began the planning and basic verification of the project with Nihon Unisys, Ltd. in FY2018 and found it to be reasonably feasible. We will proceed with development and full-scale verification tests to enhance the drone and AI functions, aiming to apply the system to the Joetsu Thermal Power Station Unit 1, which is under construction, and our existing thermal power stations. We also aim to make it into a highly versatile system that can also be applied in other equipment industries.

Illustration of Automated Patrols



Improving the efficiency of patrols, in which a lot of time and labor was used for the meticulous, one-by-one inspection of many facilities

Securing a stable supply by ensuring the early detection of signs of an abnormality with facility patrols that take advantage of robots

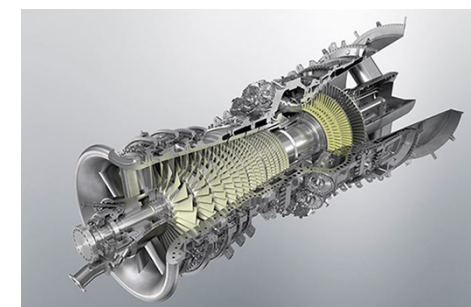
TOPIC

Next-Generation Gas Turbine Adopting Forced Air-Cooled Combustor System, Developed Jointly with Mitsubishi Hitachi Power Systems, Ltd., Receives the Minister of Economy, Trade and Industry Award in the 2018 Energy-Efficient Machinery Award

A next-generation gas turbine adopting a forced air-cooled combustor system, which we developed jointly with Mitsubishi Hitachi Power Systems, Ltd., has won the Minister of Economy, Trade and Industry Award, the highest award in the Energy-Efficient Machinery Award for 2018 hosted by the Japan Machinery Federation.

We developed the gas turbine to improve the efficiency and operability of thermal power generation facilities, which is an important issue in Japan, with its scarce energy resources. It is also aimed at reducing CO₂ and NO_x emissions.

We will introduce this next-generation gas turbine to the Joetsu Thermal Power Station Unit 1, which is scheduled to start operation in June 2023. We aim to achieve 63% or higher thermal efficiency, which is the world's highest level among gas combined-cycle power facilities.



A next-generation gas turbine adopting a forced air-cooled combustor system, which won the Minister of Economy, Trade and Industry Award



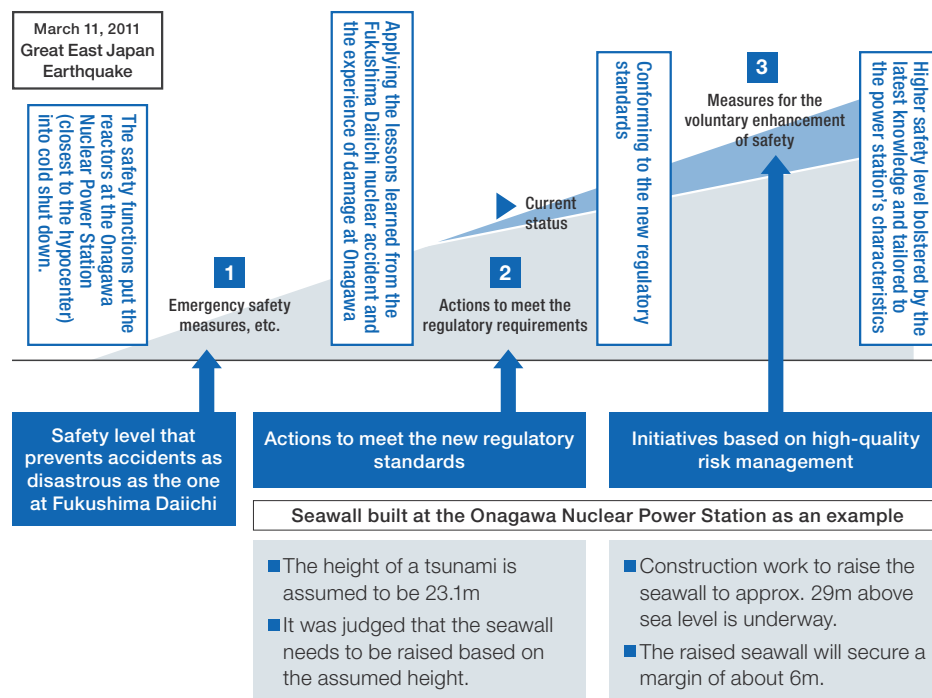
Nuclear Power Generation

The necessity of nuclear power generation and our efforts to enhance its safety

Nuclear power generation does not emit CO₂. In addition, there is a steady supply of uranium as the fuel, which is expected to reduce the cost of fuel for thermal power generation. Due to these advantages, we believe that we need to continue using nuclear power to a certain extent by ensuring safety as the primary requirement.

We will continue to further enhance the safety of nuclear power generation by going beyond the framework of the new regulatory standards that took effect in July 2013 and continuing to implement voluntary initiatives that reflect the characteristics of our power stations and our latest knowledge.

Efforts to Enhance Safety



Steady efforts to resume the operation of our nuclear power stations

We will continue to respond to the assessment on conformity to the new regulatory standards with the aim of resuming the operation of Onagawa Nuclear Power Station and Higashidori Nuclear Power Station. We will also proceed steadily with safety enhancement work for these nuclear power stations by applying our latest knowledge, with the aim of securing an even higher level of safety, instead of simply complying with the new regulatory standards. We will steadily implement works for safety measures from the perspective of completion in fiscal 2020 for Unit 2 of the Onagawa Nuclear Power Station and fiscal 2021 for Unit 1 of the Higashidori Nuclear Power Station.

Further, we believe that the understanding of the local residents is extremely important for resuming the operation of the nuclear power station. We will therefore continue to carry out a wide range of activities to gain the understanding of as many people as possible.



The Onagawa Nuclear Power Station, where safety enhancement work is in progress



Visits to all households in Higashidori Village

Closedown of the Onagawa Nuclear Power Station Unit 1

On October 25, 2018, we decided to close down the Onagawa Nuclear Power Station Unit 1. On July 29, 2019, we submitted an application for the approval of the closedown plan, which shows specific details including the closedown processes, to the Nuclear Regulation Authority. The details of the application are currently being reviewed by the Nuclear Regulation Authority. When the application has been approved, we will spend 34 years closing down the unit, giving the top priority to safety.

Nuclear Power Generation



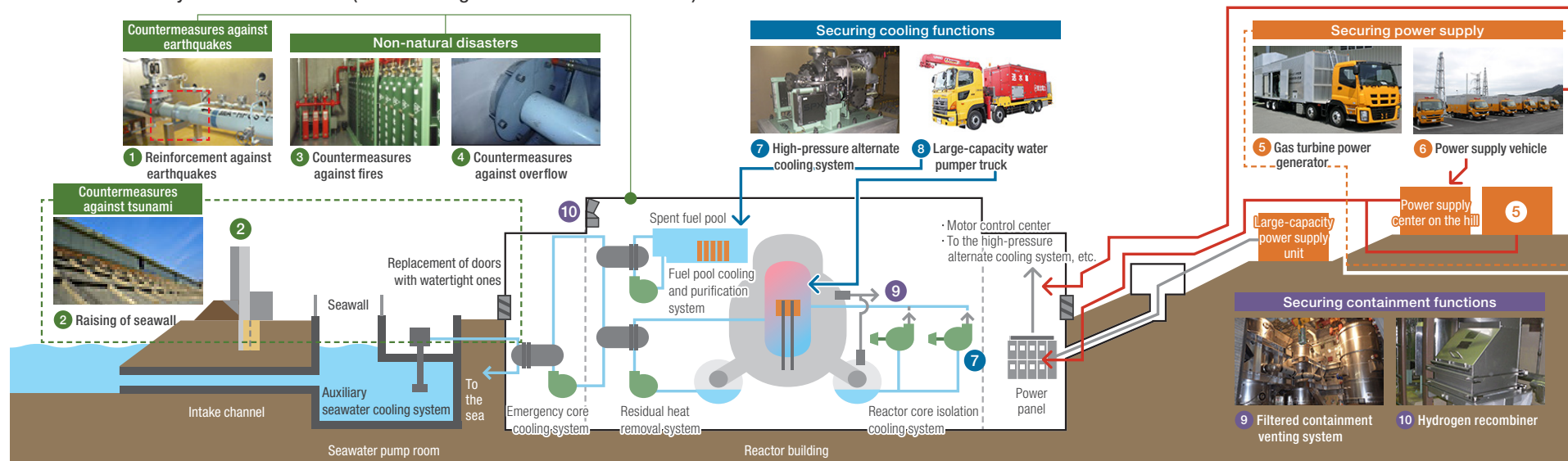
Enhancing Safety Measures in Both Tangible and Intangible Aspects with Safety Enhancement Work and Constant Training

Initiatives for facilities (tangible aspects)

At the Onagawa Nuclear Power Station, construction work to raise the seawall (up to about 29 meters above sea level and about 800 meters in length) is in progress to protect the station from tsunami. Also in progress at the power station is installation work, including the installation of a filtered containment venting system. This system prevents radioactive materials from being discharged during venting, which is conducted to prevent reactor containers from being damaged

by overpressure. At the Higashidori Nuclear Power Station, the installation of three freshwater tanks (with a storage capacity of approx. 3,600m³ each), which are used to secure the amount of cooling water needed in the event of an accident, has almost been completed, and operational procedures are currently being studied. We are also working on the maintenance of both power stations' facilities, including safety inspections during shutdowns and various other inspections.

Overall view of safety enhancement work (Case of Onagawa Nuclear Power Station)



Multiple countermeasures prepared for each stage of progress [Range of countermeasures]

Preparing countermeasures against the progress of accident [Defense in depth]	Protecting the facility	Countermeasures against earthquakes and tsunami	① Reinforcement against earthquakes, ② Raising of seawall and other measures	Non-natural disasters	③ Countermeasures against fires, ④ Countermeasures against overflow	
	Preventing fuel failure	Securing power supply	⑤ Installation of gas turbine power generators, ⑥ Additional deployment of power supply vehicles and other measures	Improvement of infrastructure for responding to an accident	■ Enhancing heavy machinery for removing debris, monitoring equipment, etc. ■ Construction of an emergency response building and other measures	Countermeasures against terrorism
	Containing radioactive materials	Securing cooling functions	⑦ Installation of high-pressure alternate cooling system, ⑧ Deployment of large-capacity water pumper trucks and other measures			
		Securing containment functions	⑨ Filtered containment venting system, ⑩ Hydrogen recombiner and other measures			■ Facilities for responding to specific severe accidents: Facilities for responding to an intentional aircraft crash (terrorism) shall be established within five years following the receipt of permission for the construction plan related to the main facilities (such as a reactor) (separate application required).

Nuclear Power Generation



Initiatives in the aspect of operations (intangible aspects)

To ensure safety measures in order for facilities to function properly, we have established operating procedures of equipment and provide comprehensive training. Based on the operating procedures, we continue to provide training on the operation of emergency headquarters at power stations, alerting and communication, water injection into reactors, the securing of a power supply, and other aspects, in our efforts to improve our capability of handling emergencies.

Training on hose connection to a vehicle for alternate water injection



Training to pump cooling water into a vehicle for alternate water injection in emergencies, which can inject water from a water storage tank or similar equipment directly into a reactor or a spent fuel pool (Onagawa Nuclear Power Station)

Training with a simulator assuming an accident



Operation training provided using a simulator and assuming an accident in which all AC sources are unusable (Nuclear Power Operation and Maintenance Training Center)

Training to remove debris with heavy machinery



Training to remove debris with heavy machinery such as a wheel loader, which is given by assuming a disaster that generates debris, such as a tsunami (Higashidori Nuclear Power Station)

TOPIC

Pages Providing Nuclear Power Information on Our Official Website

The nuclear power information (genshiryoku joho) pages (in Japanese) on our official website provide detailed information about safety measures taken at our nuclear power stations, the conformity assessment of the stations, and the closedown of Onagawa Nuclear Power Station Unit 1. In addition, pages for virtual tours (Virtual Kengaku) provide explanations of safety measures taken at Onagawa and Higashidori nuclear power stations with videos, photos, and computer graphics, enabling virtual tours around the power stations. We will continue to take these initiatives in our efforts to provide information in an easy-to-understand manner.

Virtual tour of Onagawa Nuclear Power Station



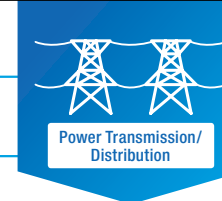
<http://www.tohoku-epco.co.jp/electr/genshi/safety/virtual/onagawa/index.html>

Virtual tour of Higashidori Nuclear Power Station



<http://www.tohoku-epco.co.jp/electr/genshi/safety/virtual/higashidori/index.html>

Power Transmission/Distribution



Efforts to Maintain a Steady Supply

Efforts to Maintain a Steady Supply

To ensure a steady supply of electricity to our customers, we prevent malfunctions and power outages by undertaking the meticulous maintenance of power transmission and distribution facilities, including daily patrols and inspections as well as repair construction work. We hold a variety of training programs that are designed to improve our employees' skills for responding to a major disaster, such as an earthquake or typhoon. These programs aim to ensure that the electricity supply will be quickly restored in the event of a power outage.

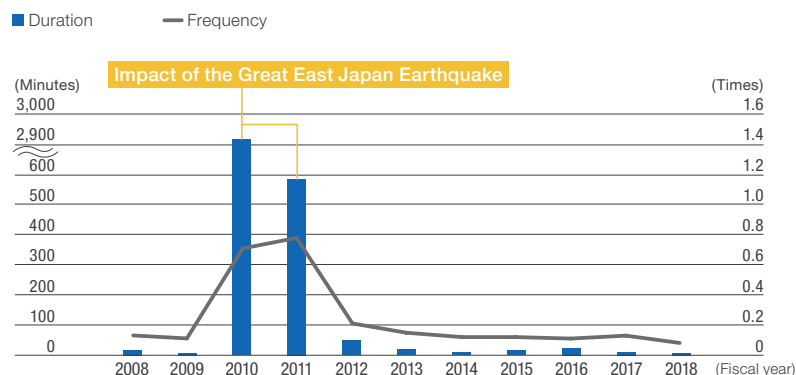


Crow nest removal to prevent power outages



Transmission line inspection

Average Frequency and Duration of Power Outage per Household Served



Efforts to Use More Renewable Energy Sources

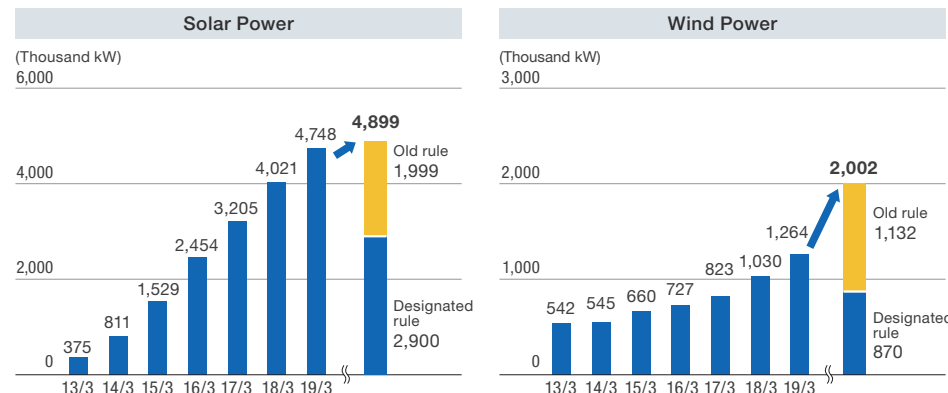
The use of renewable energy involves a technical issue where the output fluctuates depending on the weather. We flexibly operate thermal power generation facilities and pumped storage power stations to maintain the supply and demand balance. We have also installed large storage batteries at the Nishi-Sendai Substation and the Minami-Soma Substation to control fluctuations in frequency and system voltage.

The Tohoku and Niigata areas have many features that are ideal for renewable energy generation, such as wind power generation. Therefore, we have seen an increase in customer requests for connections to our power lines. However, there are capacity constraints for the connection of renewable energy generation to our power lines. We handle those requests appropriately by applying a special rule (dengen setsuzoku anken boshu process)* established by the Organization for Cross-regional Coordination of Transmission Operators, Japan (OCCTO), in areas including northern Tohoku.

We will continue our efforts to spread the use of renewable energy, including an appropriate response to institutional changes, while maintaining the quality of the electricity we supply.

*There are cases in which the enhancement of the special high-voltage system is required to connect power generation facilities to a power grid, with high cost associated with the enhancement. As a solution to this problem, the program solicits bids from power generation operators in the same or nearby area and has them share the cost for enhancing the system and jointly connecting their facilities to our power lines via the enhanced system

Status of Interconnections of Solar Power and Wind Power Generation Facilities in our Service Area and Expected Interconnection Capacity (as of March 31, 2019)



Power Transmission/Distribution

Efforts to Improve Efficiency

Efforts to Improve Efficiency

Our mission is to simultaneously ensure safety, a steady supply, and economic efficiency. We therefore strive to improve management efficiency by responding to changes in the environment surrounding our transmission/distribution business.

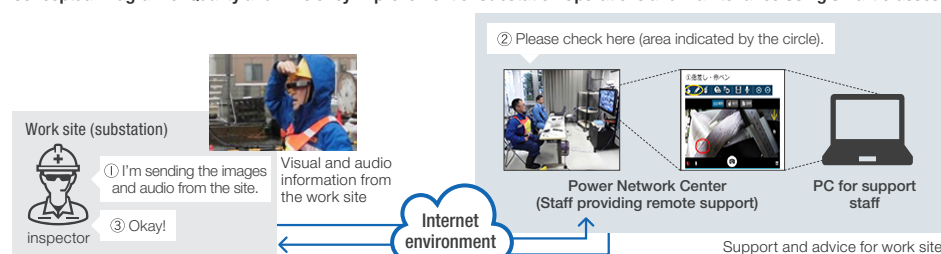
We take initiatives to fulfill the mission for our facility construction and maintenance, which is aimed at maintaining a stable supply while ensuring customer safety. Those initiatives include the streamlining of construction specifications and methods with new technologies, as well as efficiency improvement by identifying the optimal time to replace equipment based on deterioration surveys. They also include cost reduction, such as cutting costs of purchasing materials and services by changing the method of placing orders.

We also work on research and technology development by using AI, IoT and other technologies. We will apply such cutting-edge information and technologies to advance our maintenance and inspection technologies in our efforts to cut cost.

Specific Initiatives for Power Transmission/Distribution

	Item	Representative examples
Streamline procurement	Enhance the efficiency of order placement	<ul style="list-style-type: none"> Jointly place orders with external parties to make purchases at lower rates Adopt the Value Engineering (VE) approach to make purchases at lower rates
	Generalize/standardize designs and specifications	<ul style="list-style-type: none"> Standardize the specifications of system protective relays to enhance the efficiency of design and jointly place orders
Review what construction does	Use new materials and/or methods	<ul style="list-style-type: none"> Improve the shape of clamp covers to reduce the cost of materials Reduce the cost by using plastic lumber for embankment materials at temporary roads for power transmission work Cut the cost to procure new, automatic voltage regulators by repairing and remodeling existing ones
	Enhance the efficiency of equipment that comprises systems	<ul style="list-style-type: none"> Change the routes of distribution lines across mountainous areas to hold down lumbering expenses in later years
Enhance the efficiency of facility maintenance	Enhance the efficiency by extending the time between inspections	<ul style="list-style-type: none"> Extend the time between inspections to detect faulty suspension-type insulators, reducing inspection expenses Review the time between inspections of special high-voltage measuring systems
	Enhance the efficiency by extending the time between the replacement of equipment	<ul style="list-style-type: none"> Increase reuse of transformers to reduce costs of materials
Others	Enhance the efficiency by taking other initiatives	<ul style="list-style-type: none"> Reduce costs with remote operations and maintenance of switchboards via the internal telecommunication network Enhance the efficiency of on-site work by using smart devices

Conceptual Diagram of Quality and Efficiency Improvement of Substation Operations and Maintenance Using Smart Glasses



Kaizen Activities

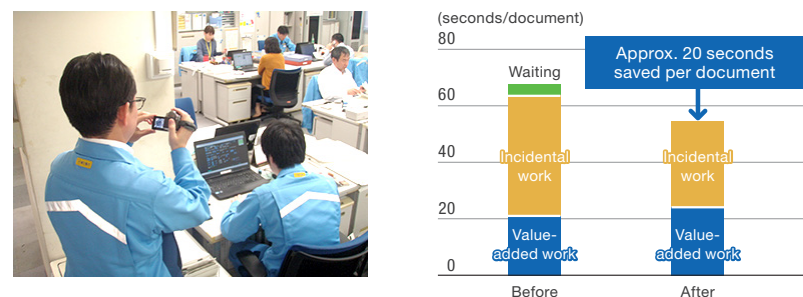
We carry out our kaizen (improvement) activities as a key measure for workstyle reform, aiming to improve productivity by uncompromisingly eliminating waste and working quickly, easily and accurately.

We have shifted from 2S (**Seiri** for sorting things out and **Seiton** for putting things in order) to 5S (**Seiri** and **Seiton** + **Seiso** for cleaning up, **Seiketsu** for keeping things clean and tidy, and **Shitsuke** for discipline). We also take initiatives to eliminate waste in operations. For example, we conduct video analysis to discover problems in the workplace and unnecessary actions. The kaizen activities aim for each employee to enjoy working energetically with awareness of voluntary, continuous work improvement taking root among employees.

Outline of the 5S Activities

	Item	Representative examples
2S	Seiri (sorting things out)	Sorting necessary and unnecessary things and disposing of the latter immediately
	Seiton (keeping things in order)	Keeping necessary things in their designated places and clearly indicating such places to save the trouble of looking for them
5S	Seiso (cleaning up)	Making cleaning into a daily habit to maintain a tidy workplace
	Seiketsu (keeping things clean and tidy)	Keeping things sorted, orderly and clean through appropriate checks
	Shitsuke (discipline)	Making it a habit to follow the rules

Identifying Problems and Waste in Power Distribution Services with Video Analysis (Processing of Design Specifications as an Example)





Services for Business Users

Commencement of Full-Scale Services of exEMS, Our Unique Energy Management System

In November 2018, we began to provide full-scale services of exEMS, an energy management system that supports the optimal use of electricity, for high-voltage customers (including office buildings, commercial facilities, and plants).

We began providing pilot services of exEMS to some customers in June 2016. We decided to begin providing full-scale services because we had completed system development based on the effectiveness and problems with the services that were confirmed through the provision of the pilot services.

We developed exEMS to enable customers to save even more energy and costs in response to their needs to reduce costs and rising environmental awareness. This system uses the internet of things (IoT) and artificial intelligence (AI) to visualize the status of the use of electricity such as changes in the maximum electricity demand and power consumption. It also enables an accurate prediction of changes in the maximum electricity demand based on the ambient temperature and other factors. In addition to these functions of visualizing the status of the use of electricity, monitoring the maximum electricity demand, and comparing the current power consumption with past data, exEMS has a function of predicting the

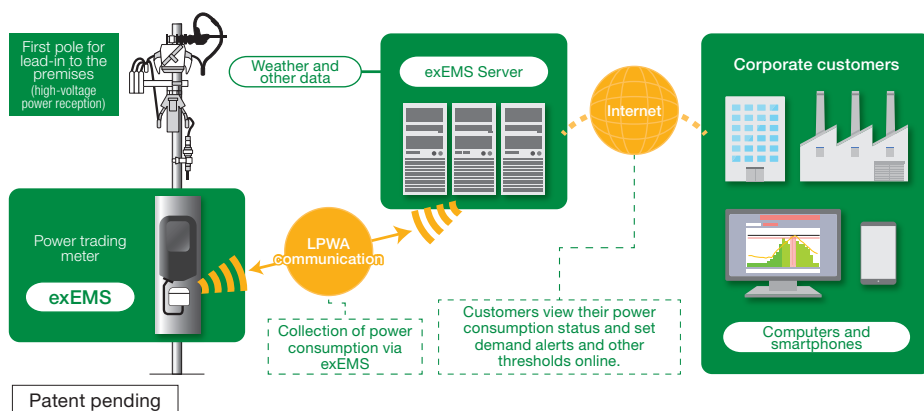
maximum electricity demand in detail in the coming 24 hours by using big data and a support function for energy saving that shows the effects of power conservation numerically to ensure the economical use of electricity.

The system uses the Low Power, Wide Area (LPWA) network, a power-saving communication method that enables long-range communications with low power consumption. It also features a patent-pending system structure with small measuring devices, which permits easy installation. We are planning to enhance the functions of exEMS further. We are scheduled to release exEMS with A, which automatically controls air-conditioning equipment, and exEMS Advance, which automatically controls multiple pieces of equipment including air-conditioning equipment. These functions are scheduled to be released one by one in the summer of 2019 or later.

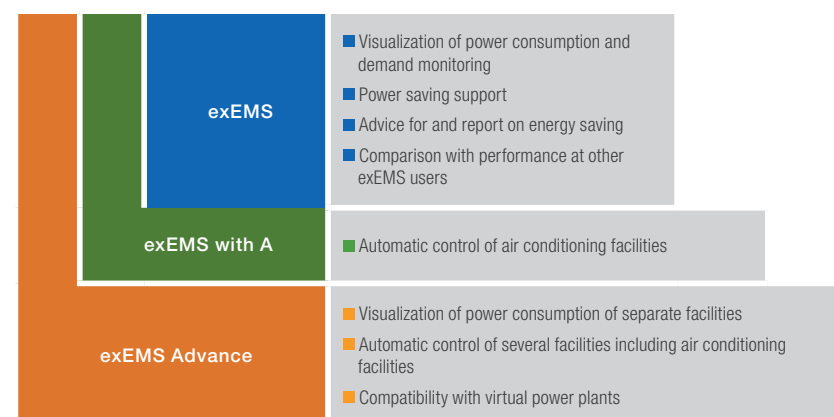
Further, exEMS Advance is used in the Virtual Power Plant Demonstration Project, which we are implementing at present, as the terminal for remote control (activating, controlling, and stopping) and the monitoring screen. Accordingly, exEMS is expected to be the core of our energy solution services.

exEMS
experience Energy Management Systems

Structure of exEMS



Service Lineup



Services for Family Users



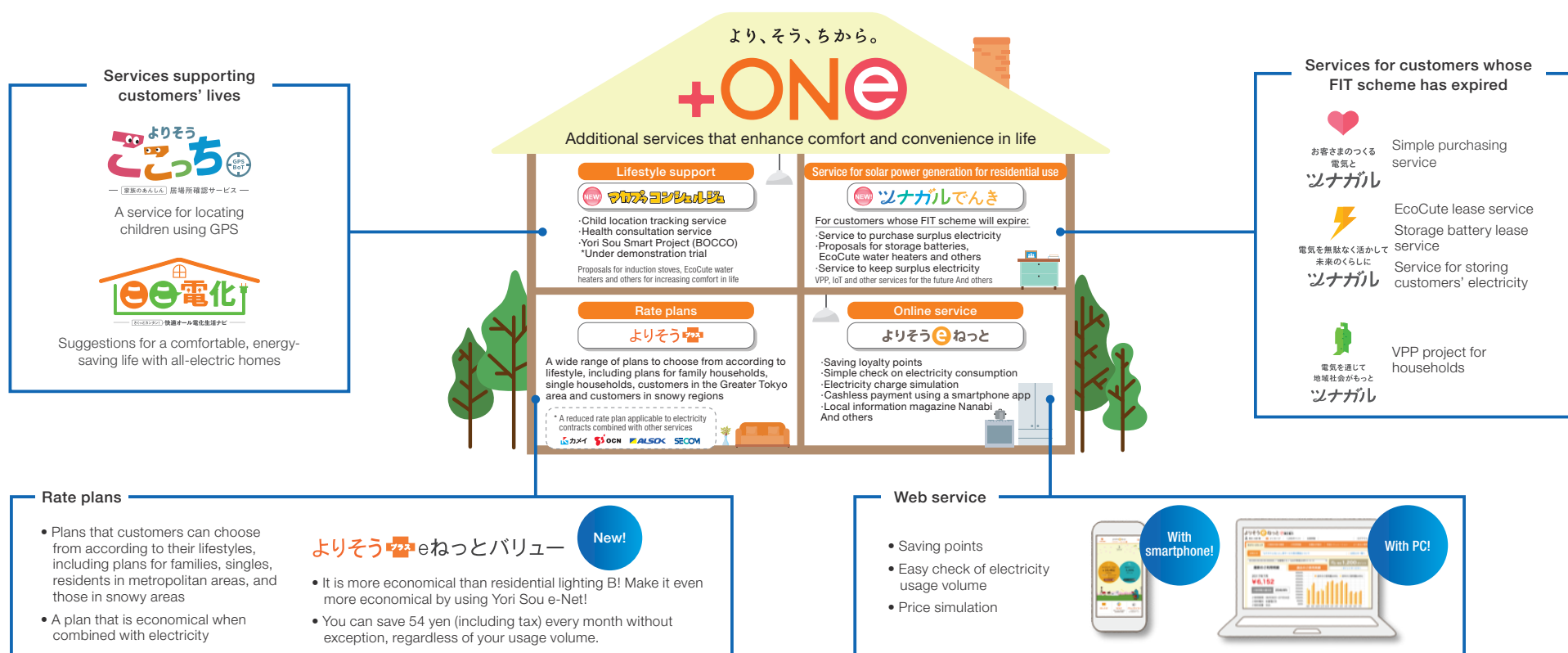
Provision of Yori, Sou, Chikara+ONE

In response to diverse customer needs, we offer Yori, Sou, Chikara+ONE, which are comprehensive life support services for making customers' lives richer, more comfortable, safe, and secure.

Yori, Sou, Chikara+ONE is the collective name for the services we offer to family users. It includes two new services in addition to the existing rate plans and Yori Sou e-Net, a membership-based web service. One is the Makapuu Concierge life support service. The

other is Tsunagaru Denki, a service for household solar power generation facilities whose FIT scheme has expired.

With Yori, Sou, Chikara+ONE comprehensive life support services, we will offer new services and value that will add extra value (+ONE) to customers' lives, even in the rapidly changing business environment. We will thereby meet customers' expectations better than ever.



Sales Beyond our Franchise Area and Trading Business



Promotion of Sales Beyond Our Franchise Area via Synergia Power and Tokyu Power Supply

We collaborate proactively with other companies in the Kanto region, aiming to increase the amount of electricity we sell outside the six prefectures in Tohoku and Niigata Prefecture. Synergia Power Co., Ltd., a company we established jointly with Tokyo Gas Co., Ltd., began to offer electricity for customers who use high- or extra-high voltage power in the Kanto region (mainly in the northern Kanto area) in April 2016. In the tough competitive environment, the company has acquired customers steadily, having won contracts for approx. 270,000 kW as of the end of FY2018.

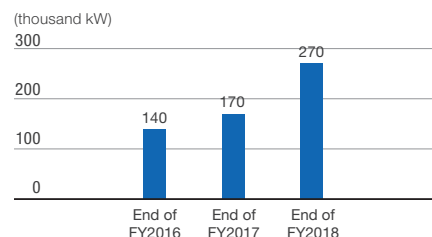
Tokyu Power Supply Co., Ltd., in which we invested in March 2018 (Tokyu Corporation has a 66.7% stake, Tohoku Electric Power 33.3%), sells electricity and gas mainly to customers living in areas along the Tokyu lines.

We collaborate with Tokyu Power Supply mainly as a wholesale supplier of electricity to the company. Tokyu Power Supply has a wealth of sales channels, solid branding skills and excellent marketing skills. We combine these strengths with ours, which are stable, competitive power sources and the know-how and experience gained in the electricity business, in our efforts to offer services that appeal to our customers. As of the end of FY2018, we had won approx. 180,000 electricity sales contracts (low-voltage sector).

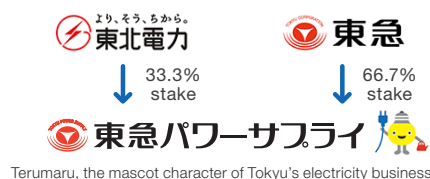
Synergia Power



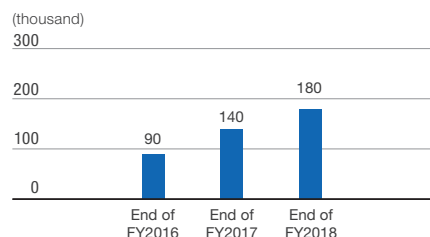
Electricity Contract Capacity



Tokyu Power Supply



Number of Contracts (Low-Voltage Sector)



Yorisou, Denki

In January 2018, we updated the rate plan for "Yorisou Denki" (electricity for support) intended to increase the number of customers in the Tokyo metropolitan area. The update includes new unit prices that offer better value for money. The updated plan has attracted many customers, including those who have moved from the Tohoku region to the Tokyo metropolitan area.



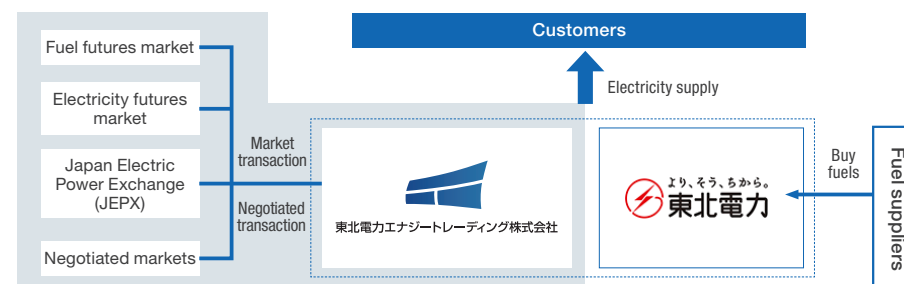
Electricity for support

Trading Business

Tohoku EPCO Energy Trading Co., Inc., which is our strategic subsidiary, engages in integrated trading, including trading in the electricity market and the use of fuel futures. Hence, the company prepares for increased market transactions, which are expected to result from the complete retail liberalization of electric power.

Since it started operating in April 2018, Tohoku EPCO Energy Trading has proactively explored new business areas while looking toward the future. It also acquires and accumulates the trading skills and know-how to continue to boost revenues.

We manage a range of risks surrounding the company, including market risk, by building a multilayered system involving the parent company.



Cultivating New Business Opportunities

1 Renewable Energy

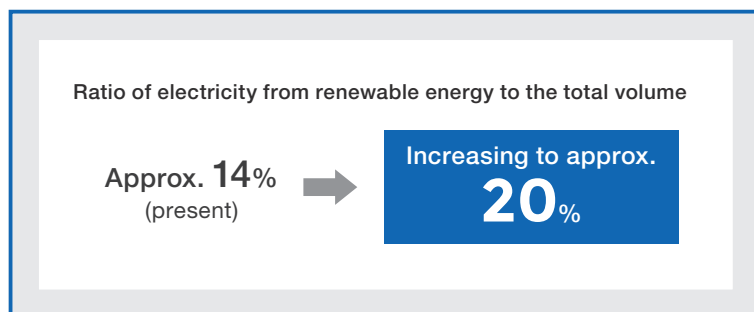
Expansion of the Renewable Energy Business

We prioritize safety and emphasize the importance of energy security, economic efficiency and environmental conservation (S+3Es). From this perspective, we strive to maximize the use of renewable energy sources, which are abundant in the Tohoku region and Niigata Prefecture as our franchise region, in addition to other energy, including nuclear power and thermal power, instead of using specific power sources or fuel sources disproportionately. Power generated from renewable energy sources, such as wind power and solar power, has shortcomings including output fluctuations due to weather conditions. However, it is important from the viewpoint of environmental protection and energy security. We believe that technological progress will make them into key energy sources in the future.

To be a responsible implementing body of renewable energy projects in the Tohoku region and Niigata Prefecture, we will work on new development and participate in projects concerning renewable energy, including solar power, hydroelectric power, geothermal power and biomass, with a focus on wind power generation. Throughout this process, we will take advantage of the expertise cultivated by us and our group companies. We will thus aim to develop renewable energy power generation facilities with a total output of 2.0 million kW, mainly in the Tohoku region and Niigata Prefecture.

We also aim to be involved in businesses related to the overall lifecycle of facilities, from development to operation and maintenance, closure and replacement, ensuring the long-term sustainable use of renewable energy. Therefore, we will also plan to expand to new businesses such as operation and maintenance (O&M*) and replacement of power sources.

*Operation management, maintenance and inspection of power generation facilities



At the Tohoku Electric Power Group, we have proactively developed hydroelectric power generation, in which we own 227 hydroelectric power station as of the end of FY2018. Currently, we are proceeding with the construction of the Tamagawa Daini Hydroelectric Power Station in Yamagata Prefecture. We are also working on the renovation of aging hydroelectric power stations. We extensively renovated the Kanose Hydroelectric Power Station (maximum output: 54,200 kW) in Niigata Prefecture. This facility began operation in 1928, which means it had continuously run for more than 80 years. It went into operation again in 2016.

Regarding geothermal power generation, we now own five geothermal power stations. In addition, we are conducting a geothermal resource survey in Kijiyama and Shimonotai in Akita Prefecture.

In the field of wind power generation, we have invested in Akita Yojo Furryoku Hatsuden K.K. and Abukuma Minami Furryoku Hatsuden LLC, and will participate in feasibility studies. In March 2019, we newly invested in Akita Yurihonjo Offshore Wind GK, and are participating in feasibility studies on one of the largest offshore wind power generation projects in Japan.

Principal locations of the Tohoku Electric Power Group's renewable energy generation development

● Wind power ● Hydroelectric power ● Geothermal power

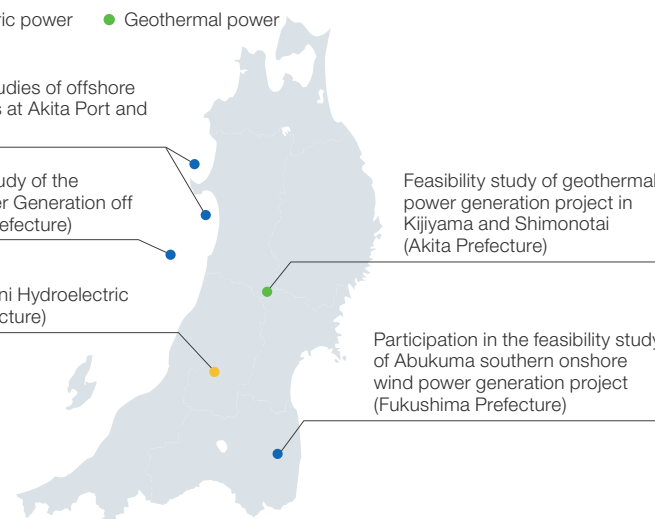
Participation in the feasibility studies of offshore wind power generation projects at Akita Port and Noshiro Port (Akita Prefecture)

Participation in the feasibility study of the Project for Offshore Wind Power Generation off the Coast of Yurihonjo (Akita Prefecture)

Development of Tamagawa Daini Hydroelectric Power Station (Yamagata Prefecture)

Feasibility study of geothermal power generation project in Kijiyama and Shimonotai (Akita Prefecture)

Participation in the feasibility study of Abukuma southern onshore wind power generation project (Fukushima Prefecture)



1 Renewable Energy

Hydroelectric Power Generation

Our group companies have proactively advanced hydroelectric power generation. We have developed power stations, including the Sankyozawa power plant building, which was the first recorded hydroelectric power plant in Japan. As of the end of FY2018, our group companies own 227 hydroelectric power plants (approx. 2.56 million kW). The total amount of electricity generated at our hydroelectric power plants in FY2018 was approx. 7,402 million kWh, which is equivalent to the annual amount consumed by 2.4 million typical households*.

*Estimated by assuming that a typical household consumes 260 kWh of electricity per month



Kanose Hydroelectric Power Station (Aga Town, Higashi Kanbara County, Niigata Prefecture)

Geothermal Power Generation

We have proactively introduced geothermal power generation since the Kakkonda Geothermal Power Station (Iwate Prefecture) began operation in 1978. As of the end of FY2018, the overall group had six geothermal power plants in five locations in the Tohoku area, with a total output of 212,300 kW, which is the largest in Japan (approx. 40% of the nationwide total). Approx. 919.7 million kWh of electricity was generated at the plants in FY2018, which is equivalent to the annual amount consumed by approx. 290,000 typical households*.

*Estimated by assuming that a typical household consumes 260 kWh of electricity per month



Matsukawa Geothermal Power Plant (Hachimantai City, Iwate Prefecture)

Biomass Power Generation

We reduce CO₂ emissions by using woodchip biomass fuel as a renewable energy source at our coal-fired thermal power stations.

Our Noshiro Thermal Power Station (Akita Prefecture) has utilized surplus regional lumber as woodchip biomass fuel since April 2012. We began to implement the same initiative at Haramachi Thermal Power Station (Fukushima Prefecture) in April 2015.



Woodchip biomass fuel

Solar Power Generation

We have four solar power stations (approx. 4,800 kW), otherwise known as mega-solar power stations*¹ in Hachinohe, Sendai and Haramachi as well as one solar power station in Ishinomaki Hebita.

We estimate that the operation of these four stations leads to the reduction of approx. 2,700 tons of CO₂ emissions per year. (Equivalent to the annual amount of CO₂ emitted due to electricity consumption by approx. 16 million typical households *²)

*1 A mega-solar power station is a large-scale solar power plant with an output of at least 1 megawatt (1,000kW).

*2 Estimated by assuming that a typical household consumes 260 kWh of electricity per month



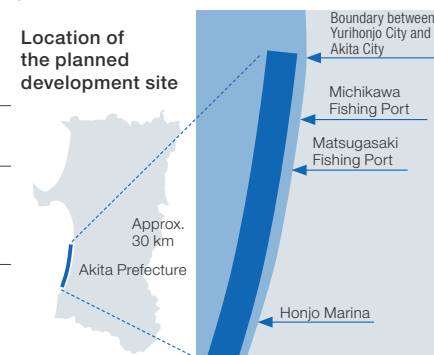
Ishinomaki Hebita Solar Power Station (Ishinomaki City, Miyagi Prefecture)

Wind Power Generation

Many wind power generation projects are underway in the Tohoku area, which boasts excellent conditions for wind power generation, especially in Aomori and Akita Prefectures. Tohoku Sustainable & Renewable Energy Co., Inc., our group company, generates electricity with 24 units of 600-kW wind turbines (total: 14,400 kW) at Noshiro Wind Power Plant (Akita Prefecture).

In addition, we participate in feasibility studies of the Project for Offshore Wind Power Generation off the Coast of Yurihonjo in Akita Prefecture, in which RENOVA Inc. plays the leading role in development. This project constructs offshore wind generation facilities with an output of approx. 700,000 kW, which is among the largest in Japan, off the coast of Yurihonjo City. We will proceed with feasibility studies of wind power generation, including an environmental impact assessment, by cooperating with other investor companies and using the knowledge on electric power business held by our group companies.

Project implementing body	Akita Yurihonjo Offshore Wind GK
Investor companies	RENOVA Inc., Cosmo Eco Power Co., Ltd., JR-East Energy Development Co., Ltd., Tohoku Electric Power Co., Inc.



1 Renewable Energy

TOPIC

A Year-Round Urban Train Service Fully Powered by 100% Renewable Energy-Derived Electricity for the First Time in Japan

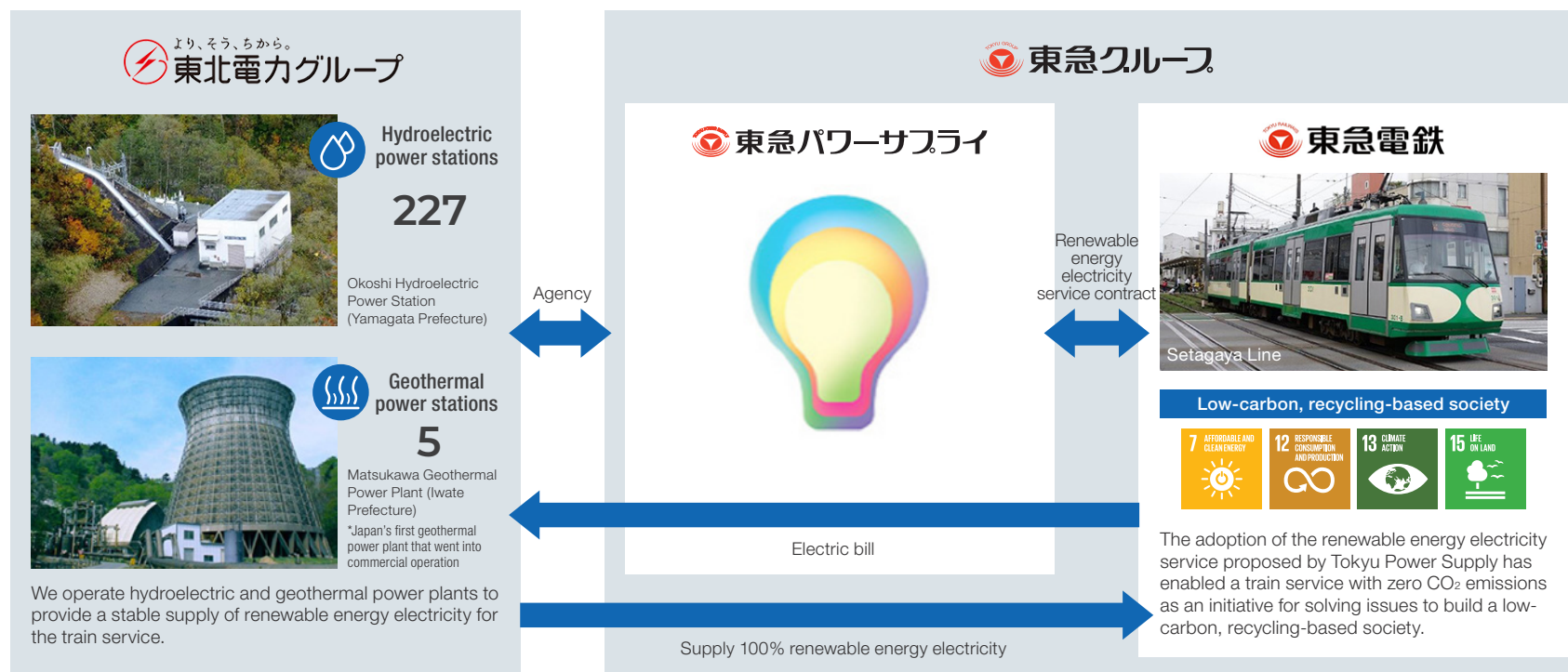
The Setagaya Line (a light rail line running north to south in eastern Setagaya, Tokyo) operated by Tokyu Corporation has begun to be powered fully by renewable energy. In collaboration with Tokyu Power Supply Co., Ltd., we began to supply 100% renewable energy-derived electricity to this rail line on March 25, 2019.

In this project, electricity generated at hydroelectric power plants and geothermal power plants owned by Tohoku Electric Power and Tohoku Sustainable & Renewable Energy Co., Inc., our group company, is supplied to the Setagaya Line via Tokyu Power Supply as the agency. As a result, all train cars on the Setagaya Line are powered by renewable energy-

derived electricity with zero CO₂ emissions all year round for the first time in Japan as an urban train service. We believe that this is an innovative initiative for building a low-carbon, recycling-based society, making railway trains fully powered by 100% renewable energy-derived electricity.

We aim to effectively use renewable energy sources, which are abundant in the Tohoku region and Niigata Prefecture, now and in the future. For this purpose, we will promote the expansion of our renewable energy business and continue to enhance services that cater to diverse customer needs.

System for Providing 100% Renewable Energy-Derived Electricity Services (“Renewable Energy Electricity” Hereinafter)



2 Overseas Business

Direction of Overseas Business Expansion

We position overseas business as a growth area to expand profits. We are working to achieve our quantitative targets (ownership capacity at 600,000 kW in FY2020 and 1.2 million kW in FY2030).

We will start to enter overseas markets in the fields of highly efficient thermal power, in which we can take advantage of our knowledge and experience cultivated in Japan as well as renewable energy, including geothermal power. We will work to increase profitability by positioning Southeast Asia and North and Central America as areas of focus.

*Actual ownership capacity as of the end of FY2018: 350,000 kW

New overseas IPP projects

Outline of the Nghi Son 2 Coal-Fired Thermal Power Project in Vietnam (investment planned)

Operating company	Nghi Son 2 Power Limited Liability Company
Plant location	Nghi Son, Thanh Hoa Province, Vietnam
Investment ratio	Korea Electric Power Corporation (50%), Marubeni Corporation (40%), Tohoku Electric Power Co., Inc. (10%)
Output	1,200,000 kW (600,000 kW × 2 units)

Outline of the Rantau Dedap Geothermal Power Project in Indonesia

Operating company	PT Supreme Energy Rantau Dedap
Plant location	Rantau Dedap, South Sumatra Province, Indonesia
Investment ratio	Engle (42%), Marubeni Corporation (32%), Supreme Energy (16%), Tohoku Electric Power Co., Inc. (10%)
Output	98,400 kW (49,200 kW × 2 units)

New Investments in Overseas IPP Projects

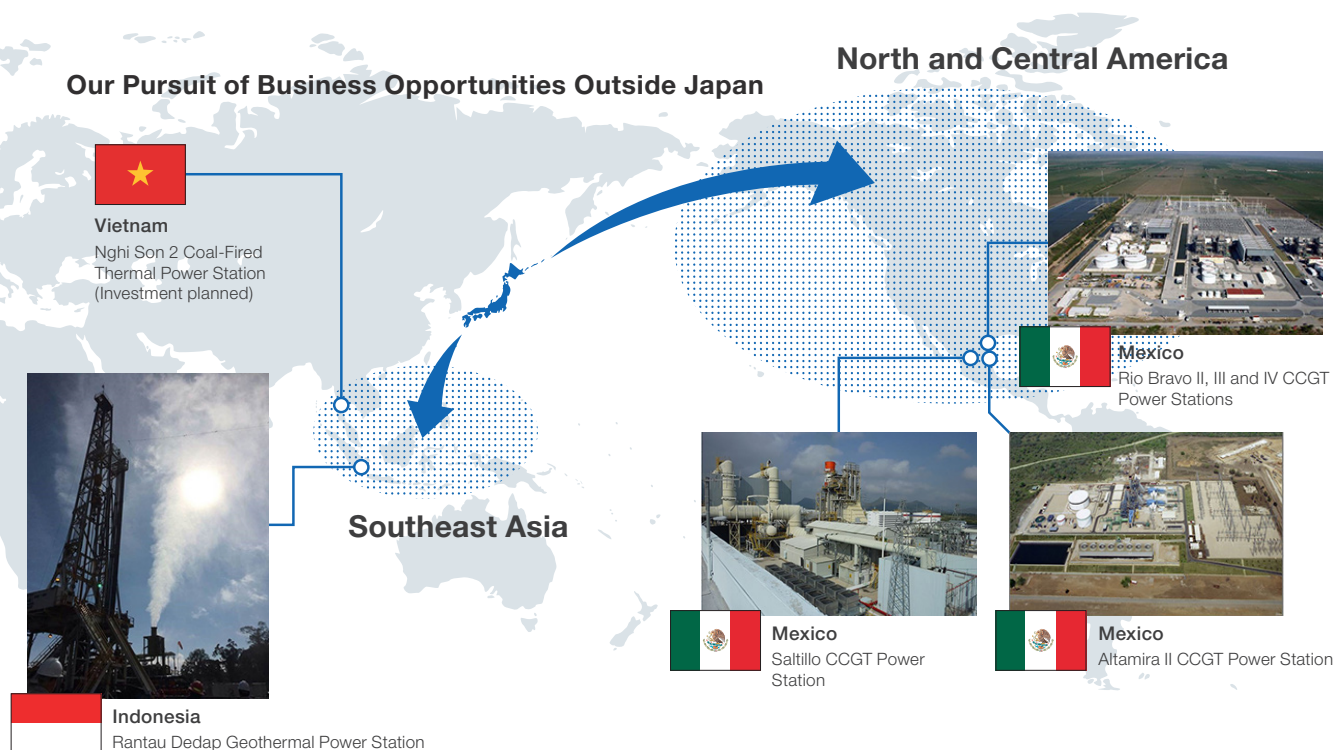
Rantau Dedap Geothermal Power Project in Indonesia and Nghi Son 2 Coal-Fired Thermal Power Project in Vietnam

In addition to the Falcon Gas Thermal IPP Project with five plants (total output of 2,233 MW) in northwestern Mexico, in which we invested in 2011, we are newly engaged in two other IPP projects in which power plants are currently under construction.

In March 2018, we invested in the Rantau Dedap Geothermal Power Project in South Sumatra in the Republic of Indonesia, our first overseas geothermal power project. Construction of the plant is underway toward the start of commercial operation planned in the second half of 2020.

In addition, we are planning to invest in the Nghi Son 2 Coal-Fired Thermal Power Project in Thanh Hoa Province in the Socialist Republic of Vietnam. This is a new, coal-fired thermal power project that uses cutting-edge technologies in Vietnam. The project aims to begin commercial operation of the plant in 2021 or 2022.

Our Pursuit of Business Opportunities Outside Japan



3 Gas Business

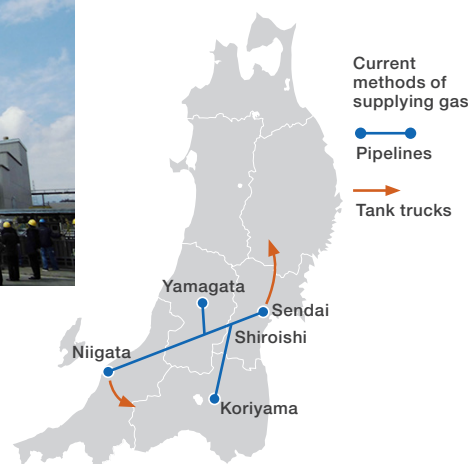
Direction of actions in the gas business

We have been striving to promote the spread of natural gas in the Tohoku region as a multi-service energy company that serves the area. Our initiatives include supplying natural gas to corporate customers and local municipal gas utilities via gas pipelines, tank trucks and others through group companies.

In 2017, we began to supply natural gas to the Iwate Plant of Toyota Motor East Japan, Inc. in Iwate Prefecture and its neighbor Denso Iwate Corporation. We have set the gas sales volume at 450,000 tons in 2020 and 600,000 tons in 2030 as our quantitative targets in the Tohoku Electric Power Group Medium-term Management Policy (FY2017 - FY2020). We are making group-wide efforts to increase the gas sales volume and we are enhancing initiatives to continue to cater to diverse customer needs, including the conversion of fuel from heavy oil to natural gas with a low environmental impact and total energy solutions with the optimal combination of electricity and gas.



LNG being supplied to Toyota Motor East Japan, Inc. via a tank truck



Strengthening Cooperation with Local Gas Utilities

In January 2019, we concluded a basic agreement on a business partnership for electricity and gas sales with Ishinomaki-Gas K.K. Under this partnership, we will jointly engage in a wide range of activities, including ones to increase sales of gas to corporate customers in the area served by Ishinomaki-Gas, as well as suggestions for electricity and gas packages for such customers. We will also study the possibility of partnerships with other municipal gas utilities from a broad perspective as we wholesale gas to many municipal gas utilities via Tohoku Natural Gas Co., Inc., which is our group company.

Overview of Ishinomaki-Gas K.K.

Established	May 18, 1959	Number of employees	31
Representative	Yashima Aoki, Representative Director and President	Number of consumers	Approx. 13,000 households in Ishinomaki City
Capital	90 million yen	Demand	Approx. 6,000 tons in LNG equivalent per year

Commencement of Operation of LNG Shipping Facilities at Shin-Sendai Thermal Power Station

The commencement of commercial operation of LNG shipping facilities at the Shin-Sendai Thermal Power Station (August 2018) has enabled LNG supply from the station, which is located on the Pacific Ocean side, in addition to supply from the Niigata Base of Nihonkai LNG Co., Ltd. We will effectively use the shipping facilities to discover potential demand for gas in the Tohoku region and Niigata Prefecture in our efforts to increase gas sales volume.



Shipping facilities for tank trucks at the Shin-Sendai Thermal Power Station

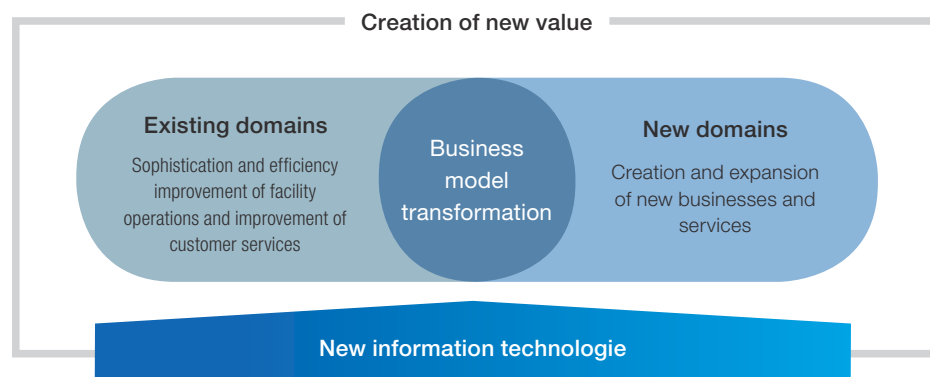
4 Digital Innovation

Digital Innovation Initiatives

The rapid progress of new information technologies (IoT, AI, big data and others), which is also called the fourth Industrial Revolution, is causing disruptive changes to the business models of companies worldwide.

We have formulated a basic policy on digital innovation to improve the sophistication and efficiency of facility operations and customer services in existing businesses and the creation and expansion of new businesses and services, while being aware of the need to address management risks. We will work on digital innovation under this policy to achieve future growth. In the basic policy, we define digital innovation as “creating new value by causing a wide array of changes, including the strengthening of existing businesses and the creation of novel ones, with new information technologies (which are nearly equal to digital technologies) to transform the business models of the electric power business.” We will spark a corporate transformation by proceeding with initiatives continuously, instead of simply introducing new technologies. Through these initiatives, we will create new value, including the development of new business models.

Digital Innovation Initiatives

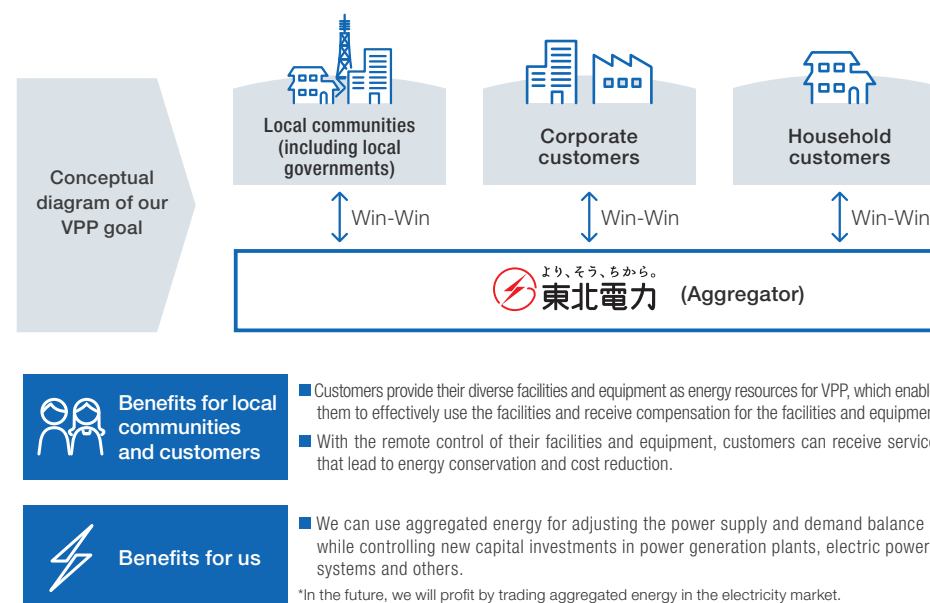


Virtual Power Plant (VPP) Demonstration Project

Since April 2018, we have been involved in the Virtual Power Plant (VPP) Demonstration Project, in which we remotely control and aggregate power generation facilities and storage batteries owned by the local community and customers and make them function as a single power plant by utilizing IoT, AI and other new information technologies.

The VPP Demonstration Project is designed to serve as a win-win initiative that creates benefits for the local community, corporate customers and household customers, as well as benefits such as the stabilization of electric power systems and future expansion of the business domains.

We intend to solve issues faced by local communities and improve customer convenience under the corporate slogan of “Yori, Sou, Chikara” (“The Strength to Work Alongside”). From this perspective, we will maximize the use of local energy resources, such as solar power generation facilities, storage batteries and electric vehicles to contribute to making local communities more disaster-resistant and provide services that help customers save energy and cost.

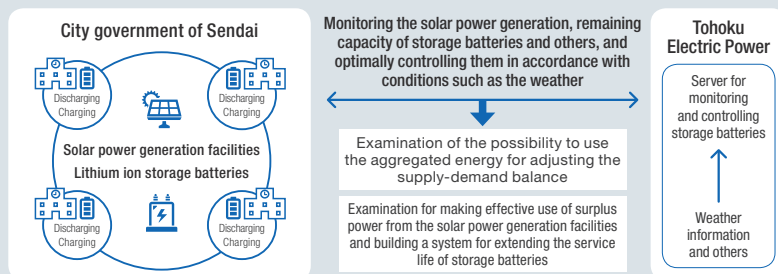


VPP Initiatives

① Making local communities more disaster-resistant by working with local governments

We are implementing initiatives for making local communities more disaster-resistant and reducing the environmental impact with VPP technologies in collaboration with the city governments of Sendai, Koriyama and Niigata. Specifically, we conduct remote monitoring and optimal control of solar power generation facilities and storage batteries owned by city governments using our VPP systems and expertise. Then we work with the city governments to use the aggregated energy for adjusting the power supply and demand balance, effectively using the surplus power from their solar power generation facilities and extend the service life of storage batteries.

Joint Initiative with Sendai City (Example)



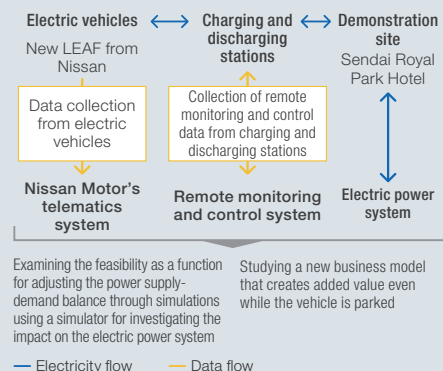
② Strategic partnership with Next Kraftwerke GmbH

In May 2019, we entered into a basic agreement on a VPP demonstration project with Next Kraftwerke GmbH, one of the largest VPP operators in the world that runs businesses throughout Europe, including Germany. We will proceed with the demonstration step-by-step, starting with the examination of basic functions of the company's VPP system and proceeding to the expansion of energy resources and examining business opportunities.



③ V2G Demonstration Project

We are working on a joint demonstration project for developing Vehicle-to-Grid (V2G) technology that connects the storage batteries of electric vehicles (EV) to the electrical power grid for charging and discharging, with Nissan Motor Co., Ltd., Mitsui & Co., Ltd and Mitsubishi Estate Company, Limited. In May 2018, this project was subsidized as part of the "FY2018 Subsidies for Virtual Power Plant Demonstration Project for Improvement of Energy Management in Demand Side" by the Agency for Natural Resources and Energy, Ministry of Economy, Trade, and Industry. We worked on the project as a part of the subsidized project. In FY2019, we will continue to participate in this project.



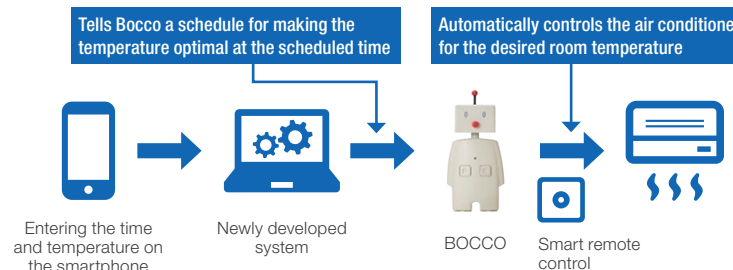
Implementation of Yori Sou Smart Project

During July 2018 to the end of August 2019, we implemented the Yori Sou Smart Project, in which we examined services that use information technologies such as IoT and AI, a communication robot and others, to develop new services for the comfortable, convenient life of customers. In this project, we examined two services. One is a life assistance service provided by Bocco*, a communication robot. The other helps save energy consumed by each home appliance using data from the smart meter. We will use our knowledge and expertise obtained from this project to develop new services aiming for the comfortable and convenient life of customers.

*A communication robot that was developed by Yukai Engineering Inc. In conjunction with a smartphone, Bocco permits users to exchange messages with families living far away and check the conditions of their homes (temperature, humidity and presence or absence of other family members).

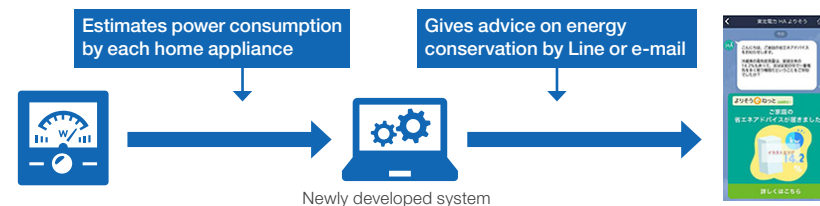
Life assistance services provided using Bocco

Multiple services provided using Bocco's basic functions designed to assist communication between family members in different everyday situations and to provide our newly developed services, including air-conditioner control assistance.



Service that helps save energy consumed by each home appliance by using data from the smart meter

A service using a system that estimates power consumption by each home appliance based on power consumption measured by the smart meter (every 30 minutes) and giving customers pieces of advice, including ones on how to use home appliances to save energy and cost



Foundations for Continued Growth



Strengthening Brand Power Through the Implementation of Our Corporate Slogan:

“Yori, Sou, Chikara”

Under the Tohoku Electric Power Group slogan “Yori, Sou, Chikara” (literally “The Strength to Work Alongside”) each of our employees considers what is best for customers and local communities, and works to do what they can to be useful, through the application of the three Actions. By offering rate levels, plans and services that truly match the needs of customers, and by creating contributory initiatives together with local people that truly assist in building communities, we are working to be chosen by customers in this competitive era by achieving growth together with local communities.

Action 1

We offer services that suit our customers’ needs (“Be Suitable”).

Offer services that suit customers’ needs

We offer a variety of services aimed at catering more finely to the needs of customers, and propose “plus one” services that are a perfect match for customer lifestyles; including diverse rate plans that enable customers to choose the perfect plan to match their lifestyle, our Yorisou Kokocchi service that enables parents to check their children’s whereabouts, our Kokodenka lifestyle info service for comfortable fully-electric living, and our Tsunagaru Denki residential solar power generation service.

より、そう、ちから。



Action 2

We make efforts that support the growth and evolution of Tohoku and Niigata (“Be Supportive”).

Support the growth and development of Tohoku and Niigata

“We grow while Tohoku prospers.” Working under this basic principle, which we have maintained since the time of our initial founding, we continue to engage in various activities as a member of the local community, designed to help us support and grow together with the region. These include our Tohoku & Niigata Revitalization Support Program, which supports voluntary activities for resolving issues such as promoting local industry, and regenerating and revitalizing local communities; and the Houkago Hiroba (literally, After School Plaza) program, which helps to create environments in which the talents and individuality of the children who will play key roles in the future of the region can grow and flourish.



Action 3

We develop talent and organizational structures to boost our “power” to make active proposals.

All employees work together to implement “Yori, Sou, Chikara”

Tohoku Electric Power has appointed “Yori, Sou, Chikara” Promotion Supporters to drive initiatives at each of its offices. These Supporters hold numerous discussions, think seriously about what can be done for customers and local communities, and work together with other employees in the workplace to implement those ideas. Our management team work to deepen their ideas with regard to its role in brand promotion through seminars and other activities, and lead by setting a good example themselves in activities to implement the “Yori, Sou, Chikara” philosophy.



Environmental Management

Tohoku Electric Power Group's environmental management structure and system

Environmental management structure

Tohoku Electric Power has been working on environmental management as part of its corporate group management. In accordance with the Tohoku Electric Power Group's Environmental Policy, group companies share common directions and important challenges. While respecting the autonomy of independent companies, they strive to maintain and strengthen governance throughout the entire group.

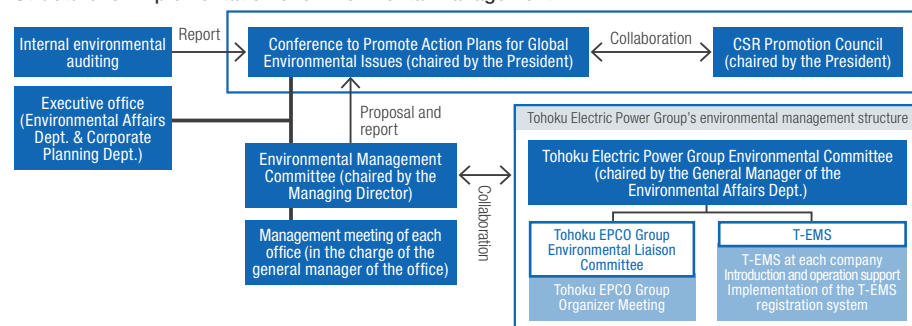
The Company's Board of Directors adopted a resolution for the Tohoku Electric Power Medium-Term Business Plan for fiscal 2017 to fiscal 2020, and each company in the Group practices its environmental management accordingly. Chaired by the President and comprising all deputy presidents and managing executive officers, the Conference to Promote Action Plans for Global Environmental Issues directs the implementation of environmental measures centered on addressing global environmental issues. The Environmental Management Committee, consisting of general managers of offices and departments, has been established as an organization subordinate to the aforementioned Conference. It carries out environmental measures under the command of the director in charge of the environment. In addition, we have the Tohoku Electric Power Group Environmental Committee, which consists of directors or general managers in charge of the environment from different Group companies. It works to continuously enhance group-wide environmental activities in collaboration with the Environmental Management Committee.

Environmental management system

We introduced an original environmental management system (T-EMS) that is compliant with ISO 14001. As of the end of March 2019, 26 group companies among the Company, 52 consolidated subsidiaries and five equity-method affiliates were certified*. They are subject to annual maintenance reviews as well as renewal examinations every three years. They thus strive to maintain and improve the quality of their environmental activities.

* Total net sales of the certified companies in the Group made up around 97% of the consolidated operating revenue for fiscal 2018

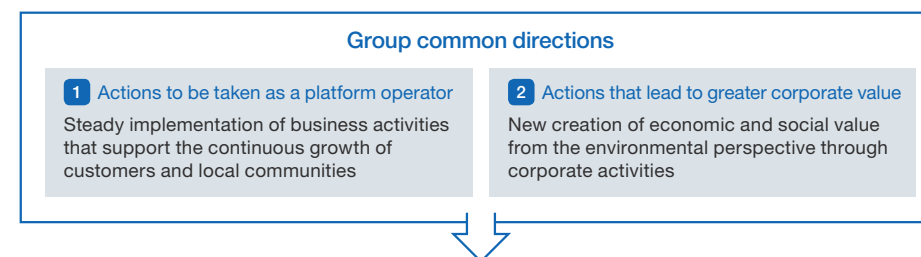
Structure for implementation of environmental management



Medium-Term Environmental Action Plan for Fiscal 2019 (from Fiscal 2019 to Fiscal 2021)

We have formulated the Medium-Term Environmental Action Plan after deliberations at the Environmental Management Committee and at the Conference to Promote Action Plans for Global Environmental Issues based on the directions and important challenges shared in the Group. The plan for fiscal 2019 is outlined as follows.

Outline of the Medium-Term Environmental Action Plan for Fiscal 2019 (from Fiscal 2019 to Fiscal 2021)



Important Challenge

I Implementation of measures against global warming

Following the Paris Agreement, the issue of global warming has been gaining importance as a management risk to us. While ensuring S+3E, namely safety, energy security, economy and the environment, we will expand the introduction of renewable energy, help customers with energy conservation through sales activities and take other countermeasures in all aspects of our business operations.

Important Challenge

II Compliance with environmental laws and regulations and conservation of the local environment

We will accurately grasp revisions to the law and policy trends, and strictly observe environmental laws and regulations in all businesses. Our power stations will follow pollution prevention agreements with local governments. Also, we will endeavor to reduce the environmental impact of our overall operations, for example, by implementing operations with the lowest possible environmental impact in a continuous effort to conserve the local environment.

Important Challenge

III Efforts for building a recycling society

We will work to maintain and increase the ratio of effective use of different kinds of waste generated from business activities and achieve proper management and disposal of waste. The Tohoku Electric Power Group as a whole will responsibly continue to practice the 3Rs (reduce, reuse and recycle).

Important Challenge

IV Pursuit of environmental management and environmental communication

We will continuously improve the environmental management of individual companies in our Group using the Tohoku Electric Power Group Environmental Management System (T-EMS) in an effort to slash risks and increase our brand value. In light of an international increase in ESG investments, we will publish our environmental information for outsiders in a bid to gain support from institutional investors and other stakeholders. In addition, we will carry out the Green Curtain Initiative and other interactive environmental communication for building and maintaining trust with local communities and customers.

Awareness of climate change and preventative actions

Awareness of climate change

Following the adoption of the Paris Agreement at COP21, the Japanese cabinet decided on the Global Warming Countermeasures Plan. It aims to cut greenhouse gas emissions in fiscal 2030 and 2050 by 26% and by 80%, respectively, from the fiscal 2013 level.

As a result, the Electric Power Council for a Low Carbon Society (ELCS) was launched as an independent initiative among the electric power suppliers for tackling global warming. It is intended to take actions to satisfy the Commitment to a Low Carbon Society, setting the goal of attaining CO₂ emissions factors of 0.37 kg-CO₂ per kWh for power generation across the entire electric power industry by fiscal 2030.

Based on the Japanese government's Long-Term Energy Supply and Demand Outlook, as a member of the ELCS, we will steadily implement different measures for both supply and demand with a view to seek the optimal energy mix from the perspective of the S+3E and contribute to the fulfillment of the Commitment to a Low-Carbon Society.

Specific actions

We will take specific actions to tackle climate change in accordance with the Medium-Term Environmental Action Plan for Fiscal 2019. Details are as follows.

- 1 Continued actions for expanding the introduction of renewable energy**
Expansion of the renewable energy business, for instance, by aiming to develop wind and other power sources of two million kW, and other actions
- 2 Construction of high-efficiency plants and efficient operation of thermal power stations**
Construction of Unit 1 in the Joetsu Thermal Power Station, designed with the world's highest thermal efficiency (63% or higher)
- 3 Stabilizing efforts towards resumption of operation of nuclear power stations**
Safety enhancement in terms of facilities and operation, such as cross-departmental actions related to examinations on conformity to the standards under new regulations and safety works in consideration of processes and costs and other actions
- 4 Support for customers in energy conservation and others through sales activities**
Offering of exEMS, the Company's original energy management system and other actions
- 5 Expansion of LNG sales and overseas business**
Stable operation of plants and technical assistance to reduce CO₂ emissions, accelerate the development and formation of and participation in overseas IPP projects with environmental considerations, and other actions
- 6 Actions that foresee policy trends and changes in business circumstances**
Appropriate actions based on the physical risks of climate change and its transitional risks and opportunities and other actions

Current status of environmental information disclosure and future challenges

Governance on the environment

Our Board of Directors makes decisions on important matters of business execution related to climate change. It regularly receives reports on the business execution status from directors to mutually check their performance of duties.

Expansion of levying of anti-global warming taxes on fossil fuels has a financial impact and other transitional risks. Climate change risks may have significant, adverse impacts on our management. We incorporate measures to address medium- and long-term risks, including those mentioned above, into business plans developed by separate departments for each fiscal year to ensure that risk management will be implemented in the management cycle. Evaluation of risks and the state of implementation of response measures are periodically reported to the Board of Directors and others.

Environmental information disclosure

The Tohoku Electric Power Group has been disclosing environment-related information appropriately. Recently, institutional investors and other stakeholders are increasingly demanding information disclosure. In response, we will more proactively disclose information. The Task Force on Climate-related Financial Disclosures (TCFD) final report and the Guidance for Climate-related Financial Disclosure (TCFD Guidance) published by the Japanese government outline the process of creating scenarios for analysis at the moment. However, given that as a business operator we need to study the details about the analytical approach and some institutional investors suggest that the TCFD should devise a related benchmark, we are considering the introduction of scenario analysis within the next two years.

CDP's Rating

We submitted a response to the 2018 climate change questionnaire* from CDP, an international non-governmental organization, formerly known as the Carbon Disclosure Project, which evaluates corporate information disclosure on climate change and suchlike, and was awarded a B rating, which is the third-highest rating. We will continue our efforts to retain and improve the rating.

* The questionnaire is answered by approximately 7,000 companies around the world. According to the content of their replies, the respondents are rated on an eight-step scale: A, A-, B, B-, C, C-, D and D-.



Support for TCFD Recommendations*

On April 25, 2019, we announced our support for the TCFD Recommendations which suggest information to be disclosed by companies, such as climate-related risks and opportunities and their financial impacts. We will work to further enrich communication with stakeholders to improve environmental management and environmental information disclosure, enhancing our environmental policies that also serve as growth strategies.

* The TCFD Recommendations refer to the final report published by the Task Force on Climate-related Financial Disclosures (TCFD), established by the Financial Stability Board (FSB) in response to the instruction of the G20 Finance Ministers and Central Bank Governors. They suggest information items to be disclosed by companies, such as climate-related risks, opportunities and their financial impacts.



Human Resources (People are Assets)

Creating Workplaces with Respect for Diversity

In order to respond flexibly to changes in the business environment, Tohoku Electric Power believes that it is important to draw out the abilities and qualities of individual employees with a diverse range of emotional sensibilities and values, and linking this to the creation of new value. 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.

Improving Awareness of Human Rights

Since FY1994, the company has conducted lecture and group educational activities to improve awareness of human rights, towards creating workplaces where a diverse range of human resources can play active roles. In December 2018, the company held a lecture on the theme of LGBT. The lecture was attended by around 350 participants, consisting primarily of management personnel from Tohoku Electric Power and affiliated companies, who deepened their understanding of sexual minorities. Moving forward, we will continue working to improve the awareness of individual employees with regard to human rights.

Promoting Diversity

The Tohoku Electric Power Group believes that in order to enhance its ability to respond to the diversifying needs of customers and continue to grow as a company, it is important to create a working environment in which diverse human resources can make maximum effective use of their abilities irrespective of their gender, age or job responsibilities.

Promoting More Active Roles for Female Employees

The company conducts training for female employees, to promote interpersonal networking and foster awareness of career formation at an early stage. In FY2018, we began running training courses for female employees raising young children, to support them in finding a healthy work-life balance. Additionally, we support management personnel in acquiring skills and gaining a greater understanding with regard to ways of offering appropriate support and communicating expectations, based on an understanding of differences of values between individual subordinates, irrespective of gender.



Number of female employees

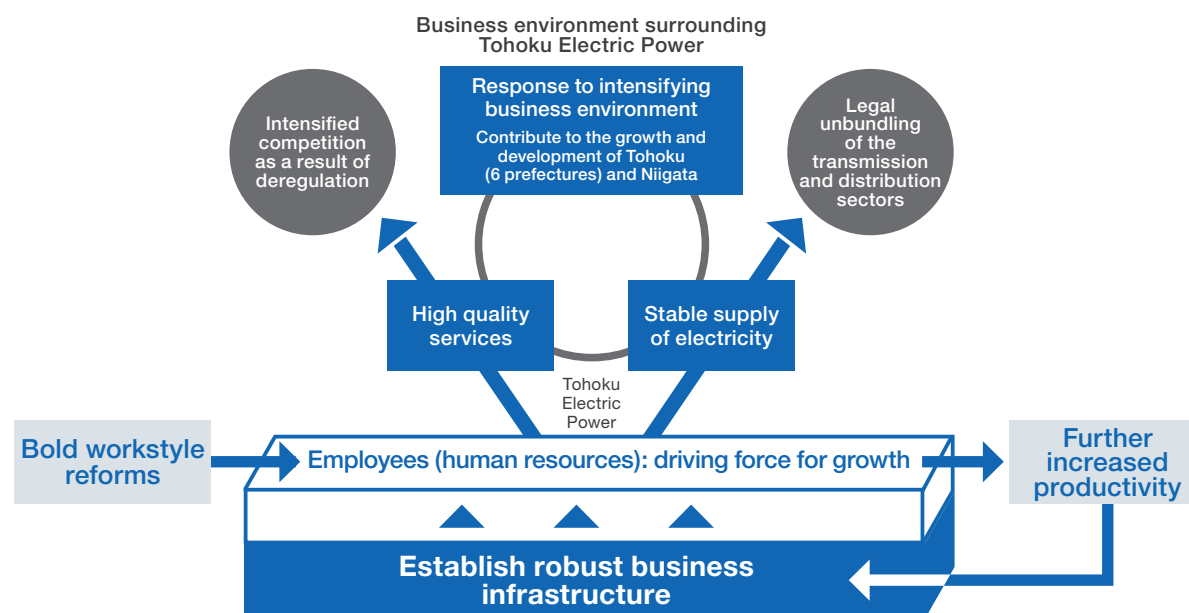
Year	FY2016	FY2017	FY2018
Number of people (percentage of female employees)	823 (6.6%)	828 (6.7%)	839 (6.9%)
Number of female employees hired	28	29	36

Employing People with Disabilities

The Tohoku Electric Power Group has established a new company, Tohoku Electric Power Friendly Partners in order to further promote the employment of persons with disabilities. In May 2019, the company was certified as a special subsidiary. Moving forward, we will continue making efforts to develop working environments that are easy for people with disabilities to work in, and actively promoting the employment of people with disabilities.



Establishing a robust business infrastructure with growth powered by human resources



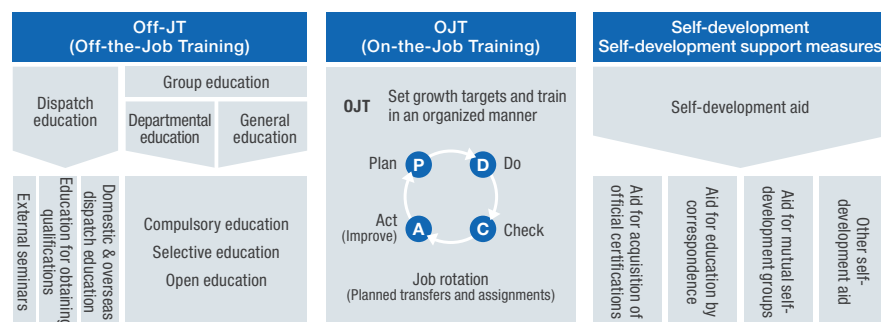
Human Resources Development

Developing Human Resources Who Can Take On the Challenge of Transformation Towards New Opportunities for Growth, and Passing on Technology and Skills

The Tohoku Electric Power Group develops human resources from a medium to long-term perspective with a view to pursuing new opportunities for growth.

In FY2019, we identified key items to be implemented, including “fostering awareness of transformation and motivation for challenge,” “sure passing on of knowledge, technology and skills and improving quality of work,” and “fostering awareness for growth through independent learning,” and are working to enhance the development of each individual employee while at the same time seeking to achieve organic, mutual collaborations, based on the three key pillars of (1) OJT (On-the-Job Training), (2) Off-JT (Off-the-Job Training) and (3) Self-Development.

Our skill development support system



Each employee's motivation to grow and ability to take the initiative



Education of new employees



Education of management staff

Reference : ESG Data Book ▶ P.23

Workstyle Reform

Creating a Healthy Company Where Everyone Works Energetically

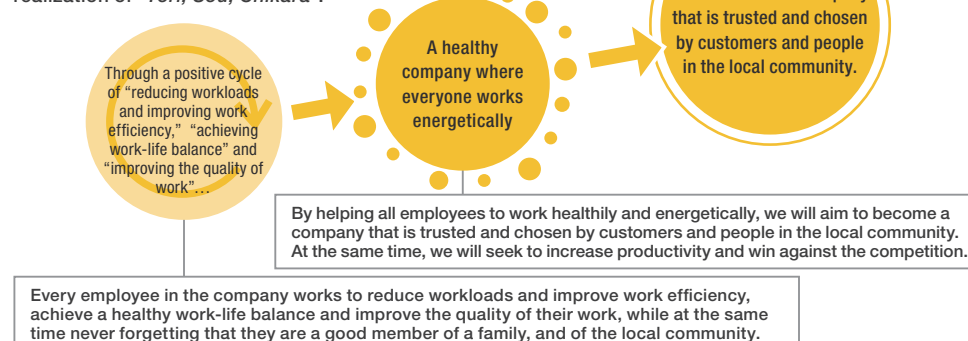
In April 2018 we established the Workstyle Reform Promotion Committee, chaired by President Harada, and formulated the slogan “*Mina, Osu, Chikara*” (literally, “The Strength to Review and Push Ahead”), incorporating the wishes that everyone in the company should work together as one to review workstyles and push ahead with reforms.

As a result of implementing various initiatives from the perspectives of “reducing workloads and improving work efficiency,” “improving the quality of work,” and “achieving work-life balance,” we are slowly but surely beginning to see the fruits of these reforms.

“*Mina, Osu, Chikara*” – “*Yori, Sou, Chikara*” (Workstyle Reform Version)

(Reviewing workstyles and pushing ahead with reforms)

By advancing workstyle reform as a major movement throughout the company as a whole, we will link it to the realization of “*Yori, Sou, Chikara*”.



Reference : ESG Data Book ▶ P.22

Promoting Health and Productivity 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.

Moving forward, through the implementation of health and productivity management, we will seek to revitalize our organization by invigorating our employees and increasing productivity.

Reference : ESG Data Book ▶ P.25

Safety

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

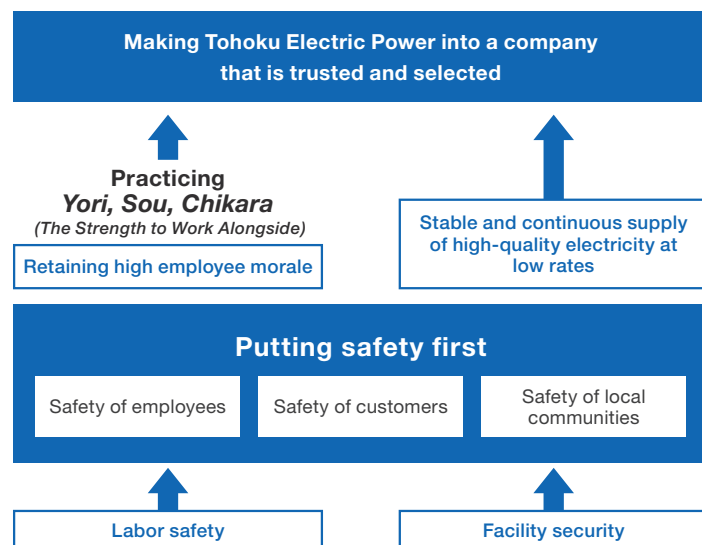
Actions for safety that lead to continuous growth and to a medium- and long-term improvement in corporate value

Ensuring safety and security is the basis of our business activities. We believe that ensuring the safety of customers and local communities is the first step toward earning confidence and fulfilling our mission of ensuring a stable and continuous supply of high-quality electricity at low rates for 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

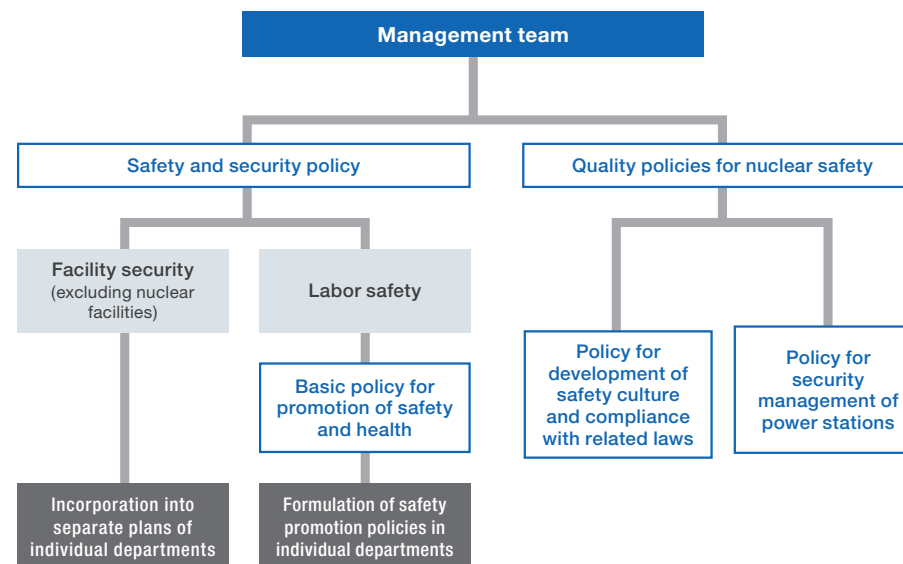


Intensive efforts to ensure safety and actions for improving operational quality

We aspire to strengthen our corporate culture of making intensive efforts to ensure safety and to improve operational quality. The Safety and Security Promotion Conference and the Nuclear Power Safety Promotion Conference play central roles in raising the company-wide level of security and in the continuous improvement of the nuclear quality management system.

We are periodically reviewing these activities and taking other actions for the PDCA cycle and to establish them as part of the corporate culture.

Position of the safety and security policy



Intensive efforts to ensure safety and actions for improving operational quality

Safety and security policy

We created the safety and security policy in November 2018 as guidelines to ensure that all employees share safety awareness and concepts and are proactive.

In a continuous effort to eradicate serious accidents and incidents and to protect the lives of our employees and personnel of contractors and partner companies related to our businesses, we will work to ensure safety and security by making the spirit behind every single word in the safety and security policy well understood by our employees and other personnel concerned with our businesses so that they will firmly act in accordance with the policy.

Safety and security policy

- | | |
|--|---|
| 1 Always act while ensuring safety as the top priority | 4 Behave according to your roles and duties |
| 2 Have the courage to stop your action | 5 Always communicate and share information |
| 3 Always review and question yourself | |

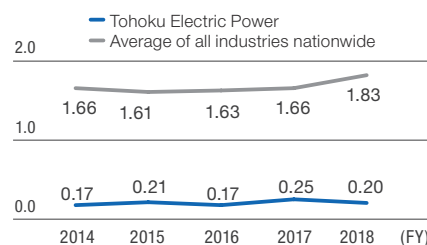
Actions on safety management towards the achievement of zero accidents

For the purpose of reducing industrial accidents, we have introduced the safety and health management system to independently and continuously improve safety management.

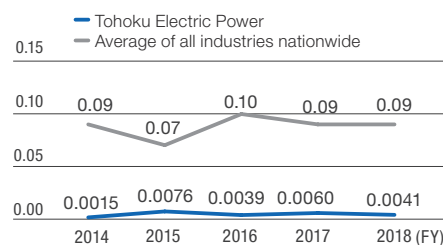
It is an international standard method of safety and health management. Each office will independently perform management and remove and reduce latent risks and harmful factors in advance to prevent industrial accidents.

In addition, we conduct support for the management system (system monitoring) to check safety management actions taken by separate offices. In this way, we are working to raise the level of company-wide safety management. 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.

Trends in the industrial accident frequency rate*¹



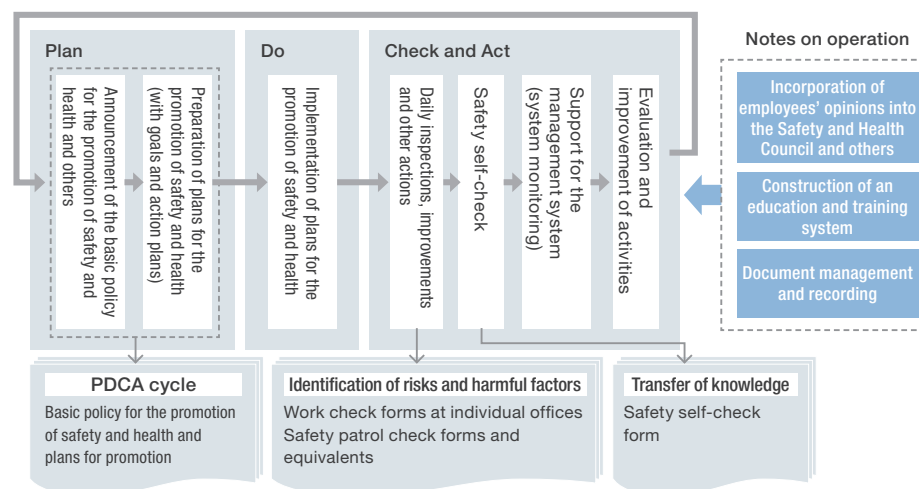
Trends in the industrial accident severity rate*²



*1 Number of industrial accidents with lost work time occurring every million working hours

*2 Number of working days lost for every thousand working hours

Implementation of the safety and health management system



Quality policies for nuclear safety

We have formulated quality policies on nuclear safety. They place top priority on nuclear safety, and provide for the unfailing implementation and continuous improvement of the nuclear power quality management system. We will steadily implement actions towards the continued safety enhancement.

Quality policies for nuclear safety

We have a duty to enhance nuclear safety by inheriting high safety awareness from our predecessors, learning many lessons and information from the Great East Japan Earthquake and other disasters, and constantly reducing risks.

For this objective, each employee has made a resolution to secure understanding and trust from society by having a strong sense of responsibility, developing a safety culture and continually conducting PDCA activities, and formulated the policies set out below.

- | | |
|--|---------------------------------|
| 1 Always put safety first | 4 Enhance information sharing |
| 2 Comply with laws, regulations and rules | 5 Carry out active improvements |
| 3 Always review and solidify the practice of reviewing | |

Reference : ESG Data Book ▶ P.26

Actions for ensuring customers' safety

Implementation of works with priority on ensuring customers' safety

Many electric power facilities, including utility poles and electric wires that supply electricity, are near the living environments of general households. When conducting electrical facility works, we pay attention to ensuring the safety of customers around worksites. For example, we place safety barriers and position traffic guide personnel.



Place safety barriers around the work area



Position traffic guide personnel

TOPICS

Visiting elderly households for their electric facilities

In cooperation with group companies, our offices visit elderly single-person households and inspect their electrical facilities, clean lighting fixtures and others. This is conducted as community cooperation activities in collaboration with local governments, social welfare councils and other institutions.



Towada Network Center carries out electric facility inspection and clean-up activities for elderly single-person households.

Patrols and calls for attention to protect customers from electric shock

Coming close to or touching any transmission or distribution line may cause a serious, life-threatening electric shock accident. It may also cause a power outage and produce considerable impacts on society. For the prevention of any such accident, we implement timely patrols at fishing sites and locations with carp streamers, festivals, kiting and others to check if there is any danger. We also visit customers engaging in civil engineering and construction, logging and agriculture and associations and organizations related to these businesses as well as customers that run fishing gear stores to provide safety advice and to distribute posters and flyers that gain attention. In addition, on our website we publish information that appeals to the prevention of electric shock to broadly raise awareness of visitors.



For the prevention of electric shock
<http://www.tohoku-epco.co.jp/safe/>



Actions for ensuring facility security

Measures to address aging facilities in consideration of economic efficiency and reliability

Many transmission lines were laid when the Japanese economy showed dramatic growth in the 1960s and 1970s. More and more facilities are expected to age in the future. For stably delivering electric power to customers, we not only perform full maintenance, including daily patrols and inspections, but also replace electric wires systematically to properly manage these aging facilities. Recently, more and more aluminum wires have been found to be slightly deteriorated, mainly in coastal areas. As part of our actions to deal with aging wires, we conduct sample testing to learn about the actual conditions and close inspections to make any necessary replacement of electric wires. We also study the mechanism of deterioration and adopt wires with resistance to deterioration for facilitating maintenance and other works.

With respect to aging towers and other supports, we systematically conduct anti-corrosive coating work to prevent the deterioration of steel materials.

We will continue to implement optimal maintenance and other works in the overall consideration of reliability with a stable supply to customers and economic efficiency in the form of low rates.



Inspection of transmission lines

Contributing to Local Communities

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

Deploying Initiatives that Support Local Communities

To be trusted and chosen by customers in this age of intense competition, in addition to offering rate levels, plans and services that truly match the needs of customers, Tohoku Electric Power also considers it important to deploy initiatives that strongly support the growth and development of the Tohoku Region (six prefectures) and Niigata Prefecture.

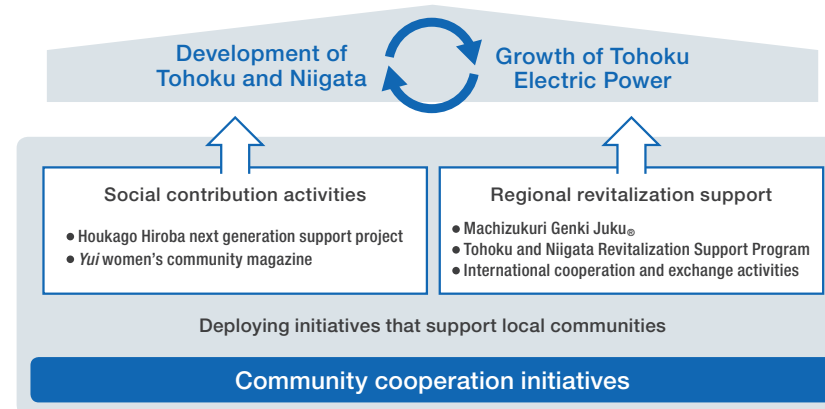
Tohoku Electric Power values the concept of community cooperation as one of the basic principles of its business operations, passed down over the generations since the time of the company's initial founding. Community cooperation is the concept of every individual employee fulfilling their responsibilities as members of the local community, deepening the level of mutual understanding between them and other members of the community, and building a trusting relationship between them and the community itself. All Tohoku Electric Power group companies work together and engage in community cooperation as one.

Working under our basic principle of "We grow while Tohoku prospers," we have achieved growth together with local communities over many years. Moving forward, too, we believe that it is our mission to grow together with local communities, strongly supporting their recovery and development, as a local electric power company operating businesses franchises in the six prefectures of the Tohoku region and Niigata.

In addition to our community cooperation initiatives, we are also engaged in various other initiatives, including social contribution activities such as the Houkago Hiroba (literally, After School Plaza) program, which supports the healthy growth of children who will play key roles in the future of the region, and regional revitalization support activities as represented by the Machizukuri Genki Juku® program, which provides support for resolving various issues faced by local communities. In this way, we aim to improve our corporate value, as a Tohoku Electric Power that is trusted and chosen by local communities.



Becoming a company that is trusted and chosen by local communities



Examples of results achieved in these initiatives

Social contribution activities	Regional revitalization support
<ul style="list-style-type: none"> FY2018 social contribution activities <p>Actions implemented: around 200</p> <p>Number of participants (external): around 73,000</p>	<ul style="list-style-type: none"> Machizukuri Genki Juku® support organizations <p>Between 2006 and 2018: 36 organizations</p> <ul style="list-style-type: none"> Tohoku and Niigata Revitalization Support Program aid organizations <p>Between 2017 and 2018: 14 organizations</p>
Community cooperation initiatives	
<ul style="list-style-type: none"> Community cooperation initiatives <p>Number of actions: 1,328</p> <p>Number of participating employees (counting multiple participations by the same employee): 19,753</p>	

Reference : ESG Data Book ▶ P.17

Community cooperation Initiatives

Every employee at Tohoku Electric Power offices participates in various initiatives as a member of the local community, and works to build a trusting relationship with other members of the community.

Participation in Yamagata Hanagasa Festival

Offices in Yamagata City, Corporate Group



Yamagata Hanagasa Festival is well known throughout Japan as a summer festival that is representative of the Tohoku region. Around 200 employees from the Tohoku Electric Power Group participated in the event as dancers.

Activities to support tree felling in parks

Kamaishi Power Network Center, Iwate Sanriku Office



As one aspect of its activities for a community outreach month, Tohoku Electric Power cooperated with the town of Otsuchi and helped with tree felling, pruning, clearing up fallen leaves and general cleaning activities in Ogaguchi Park.

Support for Regional Revitalization

Tohoku Electric Power is engaged in various initiatives that contribute to the revitalization and development of local communities, including initiatives to support urban planning in local areas and support for activities aimed at resolving issues in local communities.

Machizukuri Genki Juku®



Tohoku Electric Power supports community-led urban planning activities by dispatching urban planning experts to organizations working to resolve issues with the aim of revitalizing communities and enabling greater autonomy and independence.

Tohoku and Niigata Revitalization Support Program



Through this program, we support organizations engaged in voluntary activities aimed at resolving issues in the local community—such as promoting local industry, local community restoration and revitalization, and increasing the numbers of people involved in exchanges—through subsidies.

Social Contribution Activities

Tohoku Electric Power is engaged in numerous initiatives that contribute to society, including activities that support the growth of children who will play key roles in the future of the region and active roles for women living in the local community, cooperation with local community events, and donation of streetlights to local governments.

Houkago Hiroba next generation support project



Tohoku Electric Power is working hard to create environments in which children can grow and flourish. These efforts include cooperation with the Tohoku Electric Flag Tohoku Mini Basketball Tournament, junior high school writing competitions, and providing visiting lectures on energy-related issues.

Issuing Yui women's community magazine



The community magazine Yui is issued three times a year, as a tool for communicating with women over a wide range of ages. It conveys the appeal and attraction of the six prefectures of the Tohoku region and Niigata.

Promoting International Cooperation and Exchange Activities

Tohoku Electric Power believes that internal exchanges lead to the development of local communities. Based on this idea, we are engaged in international cooperation and exchange activities, such as in our acceptance of technical trainees from various ASEAN countries, and through our efforts in running the Tohoku Canada-Japan Society.

Cooperation with ASEAN trainee programs operated by Japan Electric Power Information Center, Inc. (JEPIC)



Tohoku Electric Power supports this cooperative program, run with the objectives of developing electric power infrastructure and training human resources in ASEAN member countries. In addition to accepting trainees, we also dispatch our own employees as experts to lecture at seminars on location.

Running the Tohoku Canada-Japan Society and cooperation with international exchanges



In addition to seeking to promote mutual understanding, friendship and goodwill between Japan and Canada through the operation of the Tohoku Canada-Japan Society administrative office, we also cooperate with organizations seeking to promote exchanges between the Tohoku Region and various overseas countries.

Corporate Governance

Our Basic Approach to Corporate Governance

Based on the self-established Tohoku Electric Power Group Management Vision 2020 – Together with Local Communities, the Company is seeking to realize management through which it shapes original values with local communities while actively adapting to future changes in the management environment and repeating dialogues with stakeholders. The Company is doing this in order to make the Tohoku Electric Power Group grow with and play an indispensable part in local communities.

To manage businesses appropriately according to this course of action, the Company is continuing to implement initiatives for enhancing corporate governance, including those for enforcing corporate ethics and compliance exhaustively, promoting honest, fair and transparent business administration, and improving internal control and risk management.

The Company views the enhancement of corporate governance as one of its priority management issues. Based on this view, the Company will advance initiatives for sustaining its growth and enhancing its corporate value on a medium- and long-term basis in a bid to meet the expectations of its stakeholders. Such initiatives by the Company will include those for making its management more flexible, sound and transparent based on the policies described below.

(1) Guarantee of shareholders' rights and their equality

The Company deals with matters appropriately based on laws and regulations to guarantee rights and equality to shareholders in real terms. At the same time, the Company advances efforts to prepare conditions that permit stakeholders to exercise their rights properly, paying sufficient attention to minority and foreign shareholders.

(2) Appropriate collaborations with stakeholders other than shareholders

The Company has established the CSR Promotion Council, which is chaired by the Representative Director & President, and has decided on the Tohoku Electric Power

Group CSR Policy and the Tohoku Electric Power Group Action Guidelines based on the awareness that all business activities undertaken by the Tohoku Electric Power Group are related to corporate social responsibilities (CSRs). The Tohoku Electric Power Group is promoting CSRs as a united body based on the concepts of guaranteeing safety, considering the environment, and enforcing corporate ethics and compliance exhaustively. In terms of CSR initiatives, the Company works to make the importance of collaborations with stakeholders known to all employees through management dialogues with front-line offices and the like, in addition to disseminating information to a broad range of stakeholders.

(3) Appropriate information disclosure and guarantee of transparency

The Company discloses information appropriately based on laws and regulations. At the same time, the Company proactively discloses information needed by stakeholders such as shareholders and investors on its official website and via various media and the like, in addition to organizing news conferences by the Representative Directors and briefing sessions held as the occasion demands. The divisions concerned at the Company continue their efforts to disclose accurate and highly useful information in a timely and appropriate manner in cooperation with each other.

(4) Responsibilities of the Board of Directors, etc.

The Company is a company with an audit and supervisory committee. The Board of Directors decides on matters that are essential for the execution of the Company's businesses, including important management plans, such as its Management Vision and Mid-Term Management Policies while overseeing the performance of duties of the Directors, for sustaining the Company's growth and enhancing its value on a medium- and long-term basis, taking fiduciary responsibilities and accountability for shareholders into consideration and incorporating the objective, neutral and diverse viewpoints of the Company's Independent Outside Directors. In addition, the Board of Directors guarantees the

rationality of decision-making and the appropriateness of the Company's businesses by preparing internal control systems and operating those systems appropriately.

Furthermore, the Board of Directors delegates a portion of the important decisions on business execution to the Directors based on its resolutions. Additionally, the Board of Directors divides the supervisory and executive roles more clearly, steps up its supervisory functions, and executes businesses effectively with quick and flexible decisions by adopting a system under which the Representative Director & President, Representative Directors & Executive Vice Presidents and Managing Executive Officers take charge of business execution. The Audit and Supervisory Committee audits and supervises job execution by the Directors from an independent, objective position to contribute to the sustained improvement of effective corporate governance. At the same time, the Audit and Supervisory Committee members perform management supervisory functions appropriately by attending Management Committee meetings and other important meetings and stating their opinions as necessary, in addition to participating in Board of Directors' meetings.

(5) Dialogues with shareholders

To sustain its growth and enhance its value on a medium- and long-term basis, the Company also offers dialogue opportunities to shareholders other than the General Meetings of Shareholders. Directors and other members of the Company's executive team strive to explain management policies and the like to shareholders in a manner that is easy to comprehend so that they can understand the Company's initiatives under the existing management environment. They also address the interests and concerns of shareholders appropriately by listening sincerely to their opinions.



Corporate Governance

<http://www.tohoku-epco.co.jp/ir/policy/governance/index.html>

Internal Control and Corporate Governance Diagram

1 Board of Directors

The Board of Directors consists of 17 Directors including six Outside Directors who are in possession of independence and free from conflicts of interest that may arise with general shareholders. In principle, the Board meets once a month to decide on important plans related to management and matters that are essential for the execution of the Company's businesses. The Directors also report on the status of business execution to the Board of Directors' meetings. They keep watch over these reports and the business execution carried out by each other. Furthermore, the Board of Directors delegates a portion of the important decisions on business execution to the Directors based on its resolutions by adopting a system under which 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 & Compensation Advisory Committee

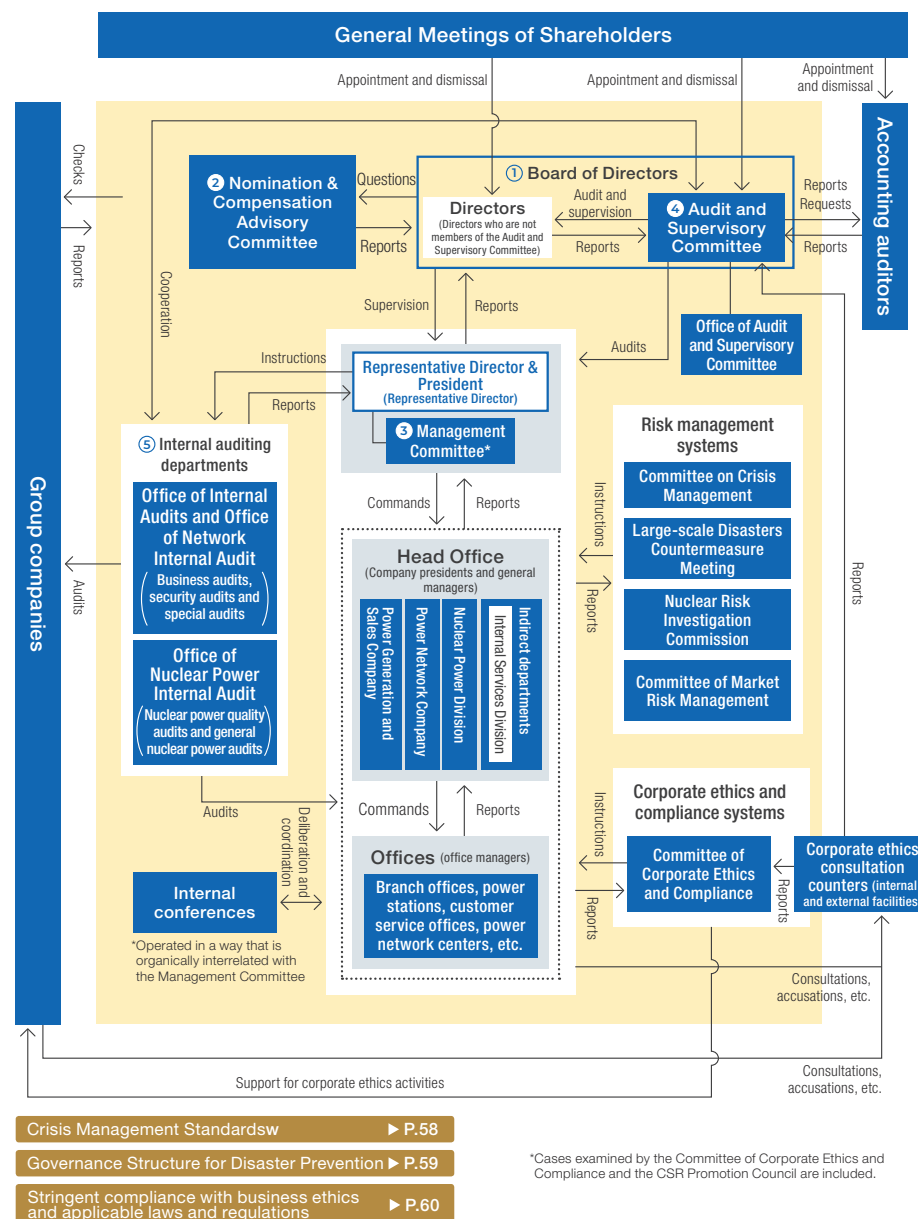
The Company has established the Nomination & Compensation Advisory Committee (chaired by Makoto Kaiwa), which consists of two internal Directors (Representative Director and Chairman of the Board Makoto Kaiwa and Representative Director & President Hiroya Harada) and four Independent Outside Directors (Directors Shiro Kondo, Masaki Ogata and Tsutomu Kamijo who are not members of the Audit and Supervisory Committee, and Director Chiharu Baba who is a member of the same Committee) as an advisory body to the Board of Directors from the viewpoint of securing objectivity, timeliness and transparency. The Nomination & Compensation Advisory Committee performs the functions of both a voluntary committee that corresponds to a nomination committee and a voluntary committee that corresponds to a compensation committee.

3 Management Committee

In principle, the Management Committee consisting of Executive Officers with titles meets once a week to discuss overall business administration policies and plans, along with the execution of important business based on the basic management policies set by the Board of Directors. Furthermore, the Management Committee promotes the development of appropriate and efficient business processes through an in-house company system that the Company has introduced, in which the Power Generation and Sales Company, the Power Network Company, the Nuclear Power Division and the Internal Services Division respectively seek goals including autonomous business expansion.

4 Audit and Supervisory Committee

The Audit and Supervisory Committee has four members, including three who come from outside the Company. In this way, the Audit and Supervisory Committee guarantees the objectivity and neutrality of management supervisory functions. Furthermore, the Committee has one appointed full-time member for enhancing the effectiveness of audit and supervisory functions through the daily execution of tasks, including attendance at meetings of the Management Committee and other important meetings, interviews regarding business



*Cases examined by the Committee of Corporate Ethics and Compliance and the CSR Promotion Council are included.

execution status in divisions in charge, on-site audits in offices, and cooperation with internal auditing departments. The full-time Audit and Supervisory Committee member attends meetings of the Management Committee and other important meetings, in addition to Board of Directors' meetings. At the same time, the full-time Committee member reads important documents and studies matters including the status of business executed and assets owned by the offices. The full-time Committee member strives to improve audits on matters such as job execution by the Directors, the preparation of internal control systems and the status of their application. In addition to attending regular meetings with the Representative Directors, the full-time Committee member seeks to increase the effectiveness of audits by periodically exchanging information with the Office of Internal Audits, the Office of Network Internal Audit and the Office of Nuclear Power Internal Audit, all of which are internal auditing departments, as well as the accounting auditors, and increasing cooperation with auditors at affiliated companies. Audit and Supervisory Committee members from outside the Company attend periodic meetings with the Representative Directors, in addition to Board of Directors' meetings. At these gatherings, the Committee members from outside the Company state their opinions from broad viewpoints based on their extensive experience in the business community and the like. At the same time, the Committee members from outside the Company visit offices and the like and study the status of their businesses. In addition, those Committee members receive reports on the execution status of internal audits, audits by the full-time Committee members and accounting audits, as well as the status of internal control systems through the Board of Directors and the Audit and Supervisory Committee. The Audit and Supervisory Committee appoints two Audit and Supervisory Executive Officers who are responsible for assisting it with its duties. At the same time, the Committee has established the Office of Audit and Supervisory Committee (consisting of 11 members) as an organizational unit dedicated to assisting it with its duties.

5 Internal auditing departments

At the Company, the Office of Internal Audits and the Office of Network Internal Audit conduct internal audits on businesses in general from 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 guarantee and reliability enhancement for nuclear power generation within the Company. These internal auditing departments conduct internal audits using approaches including interviews with the individuals concerned at the Company, its subsidiaries and principal affiliates, documentary research and on-site confirmation. The internal auditing 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 improve problems and issues that need to be changed for the better. Moreover, the departments seek to raise the effectiveness of internal audits in cooperation with the Audit and Supervisory Committee and accounting auditors. The internal auditing 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. These two departments have 19 members combined. The Office of Network Internal Audit is an organizational unit that belongs to the Power Network Company. However, it is under the direct command of the Representative Director & President. The Office of Network Internal Audit consists of seven members.

Changes in corporate governance systems

	Commencement of initiatives for strengthening governance aimed at flexible business administration	Promotion of governance reforms based on corporate governance codes	Deepening of governance in consideration of rapidly changing management environment
	<ul style="list-style-type: none"> Reduction in the number of Directors and shortening of their terms of office Introduction of the Executive Officer system Introduction of the system of stock options for stock-based compensation 	<ul style="list-style-type: none"> Appointment of two or more Outside Directors Start of assessment of the Board of Directors' effectiveness Establishment of the voluntary Nomination & Compensation Advisory Committee 	<ul style="list-style-type: none"> Establishment of Executive Officers with titles Status change to a company with an audit and supervisory committee Appointment of female Directors
	April 2005 to March 2015	April 2015 to March 2018	April 2018 to the present
Governance system	<ul style="list-style-type: none"> Company with an audit and supervisory board 	<ul style="list-style-type: none"> Company with an audit and supervisory board 	June 2018 <ul style="list-style-type: none"> Status change to a company with an audit and supervisory committee
Committee		January 2017 <ul style="list-style-type: none"> Establishment of the voluntary Nomination & Compensation Advisory Committee (consisting of two members from the Company and two additional members from outside the Company) 	June 2018 <ul style="list-style-type: none"> Increase in the number of Nomination & 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)
Chairman of the Board of Directors	<ul style="list-style-type: none"> Representative Director & Chairman of the Board 	<ul style="list-style-type: none"> Representative Director & Chairman of the Board 	<ul style="list-style-type: none"> Representative Director & Chairman of the Board
Separation of supervision and execution	June 2005 <ul style="list-style-type: none"> Introduction of the Executive Officer system Decrease in the number of Directors prescribed in the Articles of Incorporation from 25 or less to 18 or less 		April 2018 <ul style="list-style-type: none"> Establishment of Executive Officers with titles June 2018 <ul style="list-style-type: none"> Delegation of a portion of the Board of Directors' authorities to Directors
Nomination of Directors	June 2007 <ul style="list-style-type: none"> Reduction of the term of office for Directors from two years to one year 	November 2015 <ul style="list-style-type: none"> Establishment of criteria for judging the independence of Outside Directors Establishment of policies for nominating Directors 	
Compensation for Directors	June 2007 <ul style="list-style-type: none"> Abolition of Retirement Benefits for Directors June 2010 <ul style="list-style-type: none"> Introduction of the system of stock options for stock-based compensation 	November 2015 <ul style="list-style-type: none"> Establishment of policies for deciding compensation for Directors 	
Assessment of the Board of Directors' effectiveness		February 2016 <ul style="list-style-type: none"> Start of the assessment of the Board of Directors' effectiveness (using a questionnaire survey) 	
Basic policies regarding corporate governance		November 2015 <ul style="list-style-type: none"> Establishment 	
Number of Outside Directors		From June 2013 1 Outside Director [6%]	From June 2016 2 Outside Directors [13%]
			From June 2018 6 Outside Directors [35%] <small>(Including three Outside Directors who serve as members of the Audit and Supervisory Committee)</small>
			From June 2019 6 Outside Directors [35%] <small>(Including three Outside Directors (one female Outside Director) who serve as members of the Audit and Supervisory Committee)</small>
Number of Outside Statutory Auditors	3 Outside Statutory Auditors		

* Figures in [] are the ratios occupied by Outside Directors among the total number of Directors.

Policies and procedures for the appointment and dismissal of executive team members and the nomination of candidates for Directors by the Board of Directors

The Company seeks to administer businesses in such a way that it can shape their original value with local communities by actively adapting to future changes in the management environment and repeating dialogues with stakeholders. The Company does this to keep the Tohoku Electric Power Group a group of companies that grow with and play indispensable roles in communities. The Company has adopted the following policies and procedures for nominating and dismissing Directors to administer its businesses appropriately according to this course of action.

Policies

- As its basis, the Board of Directors shall have members whose number is necessary and appropriate for building effective management systems sought in a company in the electricity business and guaranteeing the monitoring of substantial discussions and business execution. The Board of Directors shall consist of an appropriate number of members totaling 18 or less as prescribed in the Articles of Incorporation.
- In selecting and dismissing Directors, the Nomination & Compensation Advisory Committee including two or more Independent Outside Directors shall hold discussions to secure the objectivity, timeliness and transparency of their selection and dismissal.
- Candidates for Directors from the Company (excluding such candidates who serve as members of the Audit and Supervisory Committee) shall be selected from individuals who are well versed in their respective fields by taking into consideration the characteristics of the electricity business, including high specialization and broad business domains, and the balance of their respective fields of expertise, in addition to their respective technical specialization, extensive business experience and knowledge related to the management of the electricity business in general.
- Candidates for Directors from outside the Company (excluding such candidates who serve as members of the Audit and Supervisory Committee) shall be selected by attaching importance to whether or not the candidates can work to realize proper decision-making and management supervision by the Board of Directors, based on their practical experience grounded in corporate management and the like, and major insights into social, economic and other trends.
- Candidates for Directors who serve as members of the Audit and Supervisory Committee shall be selected by attaching importance to whether or not 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. Furthermore, candidates for Directors from outside the Company who serve as members of the Audit and Supervisory Committee shall be selected by attaching importance to whether or not the candidates can perform audits and supervision from an objective, neutral position.
- Whether candidates for Directors from outside the Company 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 policies stated above, procedures shall be decided with a Board of Directors' resolution from the viewpoint of guaranteeing greater objectivity, timeliness and transparency following their deliberations by the Nomination & Compensation Advisory Committee. The approval of the Audit and Supervisory Committee shall be obtained for candidates for Directors who serve as its members before their submission to the Board of Directors. Regarding the appointment of candidates for Directors (excluding candidates who serve as members of the Audit and Supervisory Committee), the Audit and Supervisory Committee may state its decided opinion at a General Meeting of Shareholders.

Policies and procedures for deciding compensation for Directors

Policies and procedures for deciding compensation for Directors (excluding Directors who serve as members of the Audit and Supervisory Committee) are as follows:

Policies

Compensation for Directors (excluding Directors who serve as members of the Audit and Supervisory Committee) shall consist of monthly compensation, stock options for stock-based compensation and bonuses. The compensation for Directors stated above shall be decided in accordance with the following policies.

- In deciding compensation for Directors, the Nomination & Compensation Advisory Committee, including two or more Independent Outside Directors, engages in deliberations to guarantee the objectivity and transparency of the decision.
- Monthly compensation shall be at an appropriate level within the sum approved at a General Meeting of Shareholders, taking business results, management environment and the like into consideration.
- With respect to stock options for stock-based compensation, share acquisition rights shall be allotted to the respective Directors (excluding Outside Directors) within a sum approved at a General Meeting of Shareholders as medium- and long-term incentive compensation aimed at increasing their willingness to contribute to the improvement of business results and corporate value on a medium- and long-term basis by linking compensation more strongly with the value of the Company's shares and sharing not only the advantages of share price increases but also the risks of share price decreases with shareholders.
- Whether or not to pay bonuses and the standards for their payment shall be decided in consideration of factors including business results and management environment.
- 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

Based on the policies stated above, the Representative Directors shall propose matters related to compensation for Directors (excluding Directors who serve as members of the Audit and Supervisory Committee) to the Nomination & Compensation Advisory Committee from the viewpoint of guaranteeing greater objectivity and transparency. The amounts paid to the respective Directors shall be decided with a Board of Directors' resolution after their deliberations by the Nomination & Compensation Advisory Committee. The amounts of bonuses paid to the respective Directors shall be decided with a Board of Directors' resolution after their sum is submitted to and resolved at a General Meeting of Shareholders in cases where bonuses are paid. The Audit and Supervisory Committee may state its decided opinion on compensation for Directors (excluding Directors who serve as members of the Audit and Supervisory Committee) at a General Meeting of Shareholders.

Policies and procedures for deciding compensation for Directors who serve as members of the Audit and Supervisory Committee are as follows:

Compensation for Directors who serve as members of the Audit and Supervisory Committee shall consist of monthly compensation only. The amounts of such compensation shall be set at 12 million yen or less per month based on a resolution made at the 94th Ordinary General Meeting of Shareholders held on June 27, 2018. The amounts of compensation paid to the respective Directors shall be decided within a sum resolved at a General Meeting of Shareholders based on discussions by Directors who serve as members of the Audit and Supervisory Committee.

Compensation for Directors, etc.

Classifications for Directors	Sum of compensation, etc. (millions of yen)	Compensation		Bonuses		Stock options for stock-based compensation	
		Number of compensation recipients (persons)	Amount paid (millions of yen)	Number of compensation recipients (persons)	Amount paid (millions of yen)	Number of compensation recipients (persons)	Amount paid (millions of yen)
Directors (excluding Directors who serve as members of the Audit and Supervisory Committee and Outside Directors)	411	13	310	-	-	10	101
Members of the Audit and Supervisory Committee (excluding Outside Directors)	20	1	20	-	-	-	-
Corporate Auditors (excluding Outside Statutory Auditors)	13	2	13	-	-	-	-
Outside Directors	64	7	64	-	-	-	-

(Notes)

- 1.The Company changed its status from a company with an audit and supervisory board to a company with an audit and supervisory committee to coincide with the 94th Ordinary General Meeting of Shareholders held on June 27, 2018.
- 2.As of March 31, 2019, there were 13 Directors (including three Outside Directors), excluding those who serve as members of the Audit and Supervisory Committee. The Company has four additional Directors who serve as members of the Audit and Supervisory Committee (including three Outside Directors). Compensation for the Directors stated above includes compensation for four Directors and five Corporate Auditors who stepped down at the end of the 94th Ordinary General Meeting of Shareholders that was held on June 27, 2018.
- 3.The ratio of monthly compensation paid as fixed compensation and the ratio of stock options for stock-based compensation paid as compensation linked with the medium- and long-term business results are about 80% and 20%, respectively. The Company has not paid a bonus, which is compensation linked with short-term business results.
- 4.In allotting share acquisition rights, which are stock options for stock-based compensation, the Company adopts fair values based on share prices and the like as an indicator.
- 5.Compensation limits based on a General Meeting of Shareholders' resolution (a resolution reached at the 94th Ordinary General Meeting of Shareholders held on June 27, 2018) are as follows. Compensation shall be paid to the number of Directors prescribed in the Articles of Incorporation (18 or less, including five or less Directors who serve as members of the Audit and Supervisory Committee).

[Compensation]

Directors (excluding Directors who serve as members of the Audit and Supervisory Committee): 43 million yen or less per month

Directors who serve as members of the Audit and Supervisory Committee: 12 million yen or less per month

[Stock options for stock-based compensation]

Directors (excluding Directors who serve as members of the Audit and Supervisory Committee): 180 million yen or less per business year

Assessment of the Board of Directors' effectiveness

The Company conducts a questionnaire survey of Directors regarding the Board of Directors' effectiveness and reports the findings of the survey to the Board of Directors once a year. 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.

In fiscal 2018, the Company worked to improve the composition of materials designed to contribute to fast, accurate management decisions. At the same time, the Company devised good explanation methods for securing sufficient time for Board of Directors' deliberations, provided scrupulous advance explanations to help Outside Directors understand cases, and offered opportunities to inspect its facilities and the like on site. Furthermore, the Company asked the Nomination & Compensation Advisory Committee to discuss the future course of action after arranging issues in order in a bid to step up supervision for the training of successors, including future chief executive officers.

Taking such initiatives into account, the Company assessed that the latest questionnaire survey findings show the Board of Directors' generally guaranteed overall effectiveness, but initiatives for further improvement must be continued to make the Board more effective at a Board of Directors' meeting held in April 2019.

In fiscal 2019, the Company will address issues including the improvement of the Board of Directors' discussions on management policies and strategies and the strengthening of the supervision of Group companies with a hard look at a legal unbundling of transmission and distribution sectors scheduled for April 2020. At the same time, the Company will continue its efforts to manage the Board of Directors more efficiently and improve support for Outside Directors.

Directors (as of July 1, 2019)

*The state of attendance shows the results for fiscal 2018.



Makoto Kaiwa

Representative Director & Chairman of the Board

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

Since joining the Company, Kaiwa has engaged in businesses centered on those assigned to the planning divisions. He is well versed in the Company's businesses in general, as demonstrated by his past service as a Director and the General Manager of the Corporate Planning Department, and as a Senior Executive Officer and the General Manager of the Niigata Branch Office. Kaiwa served as an Executive Vice President from June 2009, as the President from June 2010, and as a Representative Director & the Chairman of the Board from June 2015. The Company reappointed him as a Director in view of his extensive business experience within the Company and his knowledge of electricity business management in general.



Hiroya Harada

Representative Director & President

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

Since joining the Company, Harada has engaged in businesses centered on those assigned to the public relations and planning divisions. He is well versed in the Company's businesses in general, as demonstrated by his past service as a Director and the General Manager of the Corporate Planning Department, and as a Senior Executive Officer and the General Manager of the Tokyo Branch Office. Harada served as an Executive Vice President from June 2014, as the President from June 2015 and as a Representative Director & the President from April 2018. The Company reappointed him as a Director in view of his extensive business experience within the Company and his knowledge of electricity business management in general.



Mitsuhiro Sakamoto

Representative Director & Executive Vice President

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

Since joining the Company, Sakamoto has engaged in businesses centered on those assigned to the human resources and general affairs divisions. He is well versed in the Company's businesses in general, as demonstrated by his past service as a Director and the General Manager of the General Affairs Department, and as a Senior Executive Officer and the General Manager of the Niigata Branch Office. Sakamoto served as an Executive Vice President from June 2015 and as a Representative Director & an Executive Vice President from April 2018. The Company reappointed him as a Director in view of his extensive business experience within the Company and his knowledge of electricity business management in general.



Shinichi Okanobu

Representative Director & Executive Vice President

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

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



Jiro Masuko

Representative Director & Executive Vice President

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

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



Kojiro Higuchi

Representative Director & Executive Vice President

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

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



Shunji Yamamoto

Director & Managing Executive Officer

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

Since joining the Company, Yamamoto has engaged in businesses centered on those assigned to the accounting divisions. He is well versed in the Company's businesses in general, as demonstrated by his past service as an Executive Officer and the General Manager of the Accounting and Finance Department, and as an Executive Officer and the General Manager of the Yamagata Branch Office. Yamamoto served as the Managing Director from June 2013 and as a Director & a Managing Executive Officer from April 2018. The Company reappointed him as a Director in view of his extensive business experience within the Company and his knowledge of electricity business management in general.



Toshinori Abe

Director & Managing Executive Officer

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

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



Hirohisa Yashiro

Director & Managing Executive Officer

State of attendance

Board of Directors —

Reasons for appointment

Since joining the Company, Yashiro has engaged in businesses centered on those assigned to the planning divisions. He is well versed in the Company's businesses in general, as demonstrated by his past service as the General Manager of the Corporate Planning Department and as a Managing Executive Officer. The Company appointed him as a Director & a Managing Executive Officer in June 2019 in view of his extensive business experience within the Company and his knowledge of electricity business management in general.



Hirohiko Ito

Director & Managing Executive Officer

State of attendance

Board of Directors —

Reasons for appointment

Since joining the Company, Ito has engaged in businesses centered on those assigned to the sales divisions. He is well versed in the Company's businesses in general, as demonstrated by his past service as an Executive Officer and the General Manager of the Sales Department, and as a Managing Executive Officer. The Company appointed him as a Director & a Managing Executive Officer in June 2019 in view of his extensive business experience within the Company and his knowledge of electricity business management in general.

Directors (as of July 1, 2019)

*The state of attendance shows the results for fiscal 2018.



Shiro Kondo
Director (Outside Director)

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

Kondo has many years' experience in the management of Ricoh Co., Ltd. The Company appointed Kondo as an Outside Director in the expectation that he would be able to apply his extensive experience and distinguished insight to the management of the Company based on his past career and performance record.



Masaki Ogata
Director (Outside Director)

State of attendance

Board of Directors 8/9(89%)

Reasons for appointment

Ogata is Vice Chairman and Director of East Japan Railway Company. He has experience in the administration of public utility businesses. The Company appointed Ogata as an Outside Director in the expectation that he would be able to apply his extensive experience and distinguished insight to the management of the Company based on his past career and performance record.



Tsutomu Kamijo
Director (Outside Director)

State of attendance

Board of Directors 8/9(89%)

Reasons for appointment

Kamijo is Chairman and Director of Sapporo Holdings Ltd. He has experience in the management of a company that manufactures and sells beverages, foods and other products. The Company appointed Kamijo as an Outside Director in the expectation that he would be able to apply his extensive experience and distinguished insight to the management of the Company based on his past career and performance record.



Koki Kato
Director & Audit and Supervisory Committee Member

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

Since joining the Company, Kato has engaged in businesses centered on those assigned to the planning divisions. He is well versed in the Company's businesses in general, as demonstrated by his past service as an Executive Officer and the General Manager of the Aomori Branch Office, and as a Director and the General Manager of the Corporate Planning Department. The Company appointed him as a Director & an Audit and Supervisory Committee Member in June 2018 in view of his extensive business experience within the Company, where he served as a corporate auditor from June 2012, and his knowledge of electricity business management and audits in general.



Ikuo Uno
Director & Audit and Supervisory Committee Member (Outside Director)

State of attendance

Board of Directors 10/11(91%)

Reasons for appointment

Uno has many years of experience in the management of Nippon Life Insurance Company. The Company appointed Uno as an Outside Director & an Audit and Supervisory Committee Member in June 2018 in the expectation that he would be able to apply his extensive experience and distinguished insight to the objective and neutral audit and supervision of the Company based on his past career and performance record.



Chiharu Baba
Director & Audit and Supervisory Committee Member (Outside Director)

State of attendance

Board of Directors 11/11(100%)

Reasons for appointment

Baba has served successively in posts including a Representative Director and the Deputy President of Mizuho Trust & Banking Co., Ltd. He has considerable knowledge of financial affairs and accounting. The Company appointed Baba as an Outside Director & an Audit and Supervisory Committee Member in June 2018 in the expectation that he would be able to apply his extensive experience and distinguished insight to the objective and neutral audit and supervision of the Company based on his past career and performance record.



Ikuko Miyahara
Director & Audit and Supervisory Committee Member (Outside Director)

State of attendance

Board of Directors —

Reasons for appointment

As a university professor, Miyahara has experience in the practical use of regional resources, research on support for reconstruction in the period after major earthquakes, and industry, government and academia cooperation projects. The Company appointed Miyahara as an Outside Director & an Audit and Supervisory Committee Member in June 2019 in the expectation that she would be able to apply her extensive experience and distinguished insight as an academic to the objective and neutral audit and supervision of the Company based on her past career and performance record.

Criteria for judging the independence of Outside Directors

The Company judges the independence of Outside Directors based on the following requirements in accordance with the criteria for independence set by a financial instruments exchange on which it is listed. In appointing Outside Directors, the Company attaches importance to whether or not their candidates understand the Company's management philosophy and social responsibilities, fully perceive the roles and responsibilities of Outside Directors, and can achieve appropriate decision-making and management supervision by the Board of Directors based on their practical experience grounded in corporate management and their distinguished insight into matters including social and economic trends. In appointing Outside Directors who serve as members of the Audit and Supervisory Committee, the Company attaches importance to whether or not their candidates fully perceive the roles and responsibilities of such Outside Directors and can execute objective and neutral audits and supervision based on their extensive experience and distinguished insight.

Requirements within the Company for judging the independence of Outside Directors

In principle, the Company appoints individuals to whom none of the following conditions applies as Independent Outside Directors:

- (1) Individuals for whom the Company is a major business partner or executive officers for such individuals
- (2) Major business partners of the Company or executive officers of such parties
- (3) Consultants, accounting experts or legal experts who receive substantial amounts of money and other assets from the Company in addition to compensation for Directors (individuals who belong to groups such as corporations and associations in cases where the recipients of the assets concerned are such groups)
- (4) Individuals to whom any of conditions (1) to (3) above applied in the recent past
- (5) The close relatives of individuals to whom any of conditions a. to d. below applies (excluding those who are not important):
 - a. Individuals to whom any of conditions (1) to (4) above applies
 - b. Executive officers for the Company's subsidiaries
 - c. Directors within the Company's subsidiaries who are not executive officers
 - d. Individuals who qualified as a party stated in b. or c. above, or an executive officer for the Company in the recent past (including Directors who are not executive officers in cases where Outside Directors who serve as members of the Audit and Supervisory Committee are appointed as Independent Outside Directors)

Crisis Management Standards

Tohoku Electric Power has established its Crisis Management Standards. We have a basic stance of predicting different kinds of crises that may severely affect our business in order to prevent them and minimize damage should they occur. For the implementation of crisis management activities and the PDCA cycle, we have a Committee of Crisis Management chaired by an Executive Vice President. It holds two meetings per year to review activities in that fiscal year, share risk information, discuss action plans for the next fiscal year and report them to the Management Committee.

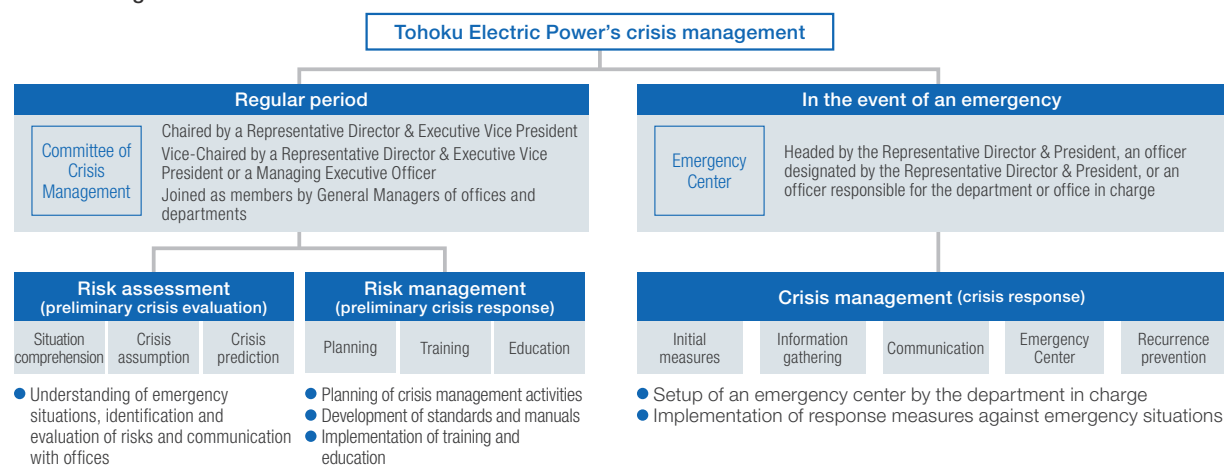
Generally, individual departments and offices enforce independent crisis prevention measures for facilities and others as well as awareness-raising activities and trainings for being more careful about crises. The executive office for the Committee of Crisis Management organizes meetings for key personnel who engage in crisis management, crisis management lectures to be delivered by outside lecturers, education for all employees using video aimed at raising crisis awareness, and communication drills in preparation for emergency situations to encourage voluntary activities in individual departments and offices. We identify and evaluate crisis risks from three perspectives—financial risks, operational risks and emergency situations. We identify and evaluate significant risks involved in our operations from a variety of perspectives.

For building group-wide awareness of risk management, we hold dialogues and drills on communication in emergency situations with group companies. We thus engage in activities with closer ties to other companies in the Group.



Educational video on initial response action in crisis management

Crisis management structure



Response system and duties of offices and departments

Crisis managers (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 for raising awareness of crisis management

Crisis management promoters (managers and equivalents)

Implementation of day-to-day crisis management operations

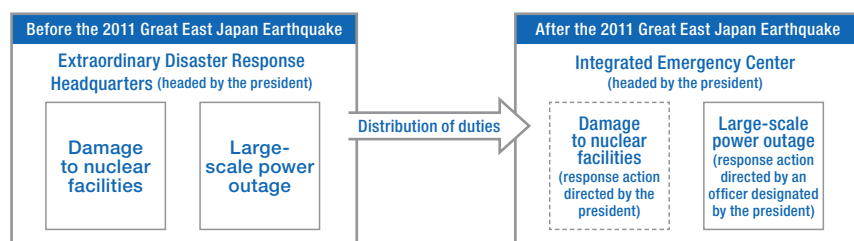
Reference : ESG Data Book ▶ P.28

Governance Structure for Disaster Prevention

Tohoku Electric Power has constructed a governance structure aimed at strengthening response capabilities in the event of an earthquake, typhoon or other large-scale disaster to stably supply electric power to customers.

Distribution of duties in the event of a complex disaster

Learning from the accident at the Fukushima Daiichi Nuclear Power Station of Tokyo Electric Power Company Holdings, Inc., following the Great East Japan Earthquake, Tohoku Electric Power distributes emergency center duties to secure a response system at the head office in the event of a complex disaster, such as the combination of a nuclear disaster with a large-scale power outage. Accordingly, the President will prioritize actions to cope with the nuclear disaster while officers designated by the President will direct actions to tackle other disasters. This way, we are prepared to properly respond to multiple simultaneous disasters.



Periodic holding of Large-Scale Disasters Countermeasure Meetings

We understand the importance of minimizing the impact of any large-scale disaster and achieving early restoration. Therefore, we hold periodic Large-Scale Disasters Countermeasure Meetings to increase the involvement of top executives. Chaired by the President, the meetings conduct companywide studies on our business continuity plan (BCP) and various measures to address issues identified from recent emergency disaster training sessions, actual disaster response actions and overall discussions on disaster control and management, which leads to enhanced PDCA activities.

Training

Working with the Self-Defense Forces to boost capacity to respond to natural disasters

Tohoku Electric Power and the JSDF have concluded an agreement to facilitate cooperation in the event of a natural disaster. In accordance with the agreement, we conduct practical drills for enhancing collaboration. Past drills included the air transport of our TOMOS low-voltage emergency power supply vehicle by a JSDF large helicopter and the marine transport of a high-voltage emergency power supply vehicle.

In November 2018, we took positive part in the Michinoku Alert large-scale disaster drill organized by the Japan Ground Self-Defense Force North Eastern Army. In recognition of our activities with the JSDF, we were awarded a letter of appreciation from the Chief of Staff, Joint Staff Office, the Ministry of Defense. We will continue to work closely with the JSDF to enhance our disaster response capabilities.

Date of conclusion	Contracting party
April 23, 2013	Japan Ground Self-Defense Force North Eastern Army
November 14, 2013	Japan Ground Self-Defense Force Eastern Army
August 29, 2018	Japan Maritime Self-Defense Force Headquarters of the Maizuru District



Low-voltage emergency power supply vehicle prepared for air transport being loaded on a JSDF helicopter



High-voltage emergency power supply vehicle being loaded on a JSDF transport vessel



We were awarded a letter of appreciation from the Chief of Staff, Joint Staff Office, the Ministry of Defense

Stringent compliance with business ethics and applicable laws and regulations

We believe that compliance with business ethics and applicable laws and regulations is essential to all business activities. For maintaining and enhancing our activities to follow corporate ethics and statutes, we have the Committee of Corporate Ethics and Compliance chaired by the President and appointed Chiefs of Corporate Ethics and Promoters of Corporate Ethics at the head office and other offices. The Committee of Corporate Ethics and Compliance formulates action plans for compliance with business ethics and applicable laws and regulations in accordance with the Tohoku Electric Power Group Action Policies for Compliance with Business Ethics and Applicable Laws and Regulations and implements awareness raising activities in collaboration with Chiefs of Corporate Ethics and other personnel, such as training sessions and Corporate Ethics Month. The committee also examines different kinds of activities to reconsider the details.

Structure for compliance with corporate ethics and applicable laws and regulations



Tohoku Electric Power Group Action Policies for Compliance with Business Ethics and Applicable Laws and Regulations

① Intensive efforts of preventing misconduct

We will observe the Tohoku Electric Power Group Action Guidelines as the basis of actions for employees in the Tohoku Electric Power Group. We will conduct activities aimed at increasing awareness of risks related to compliance with corporate ethics and applicable laws and regulations in an intensive effort to prevent misconduct.

② Pursuit of actions accepted by society

Taking the basic actions of noticing, talking and correcting, we will behave in accordance with appropriate values and criteria for judgment and conduct sincere and sound business implementation in society to maintain and boost the trust of the local community.

③ Encouragement of voluntary activities in workplaces

Individual companies in the Tohoku Electric Power Group will conduct activities autonomously to comply with corporate ethics and applicable laws and regulations and distribute information on their positive efforts for prompting and improving activities throughout the group.

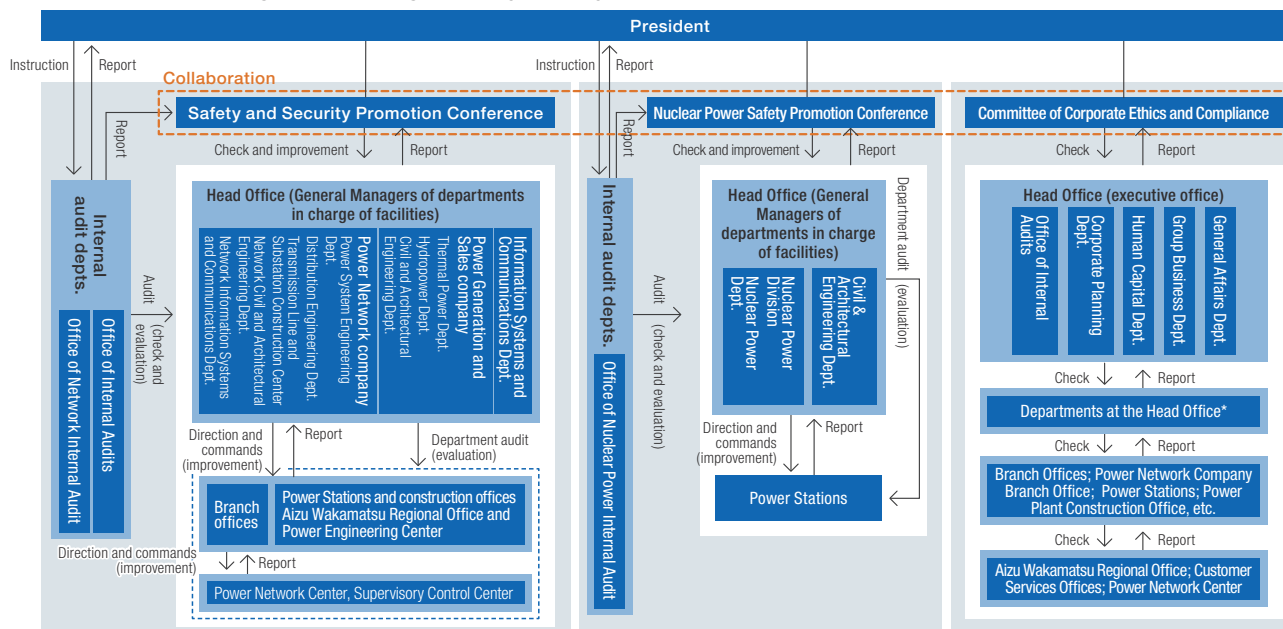
Actions for entrenching voluntary security activities

To avoid repeating any unfortunate past incident, we report the status of voluntary security activities of individual departments to the Safety and Security Promotion Conference, the Nuclear Power Safety Promotion Conference and the Committee of Corporate Ethics and Compliance. We check if the activities are implemented as planned, voluntary actions of noticing and correcting are conducted and active communication, such as dialogue activities, is guaranteed.

We will continue to follow the laws, regulations and rules from the perspective of noticing, talking and correcting in day-to-day security activities and ensure that PDCA activities are implemented. We will continue to prevent our past actions from fading or losing substance and will strive to further entrench voluntary security activities.

Reference : ESG Data Book ▶ P.27

Structure for reviewing and improving voluntary security activities

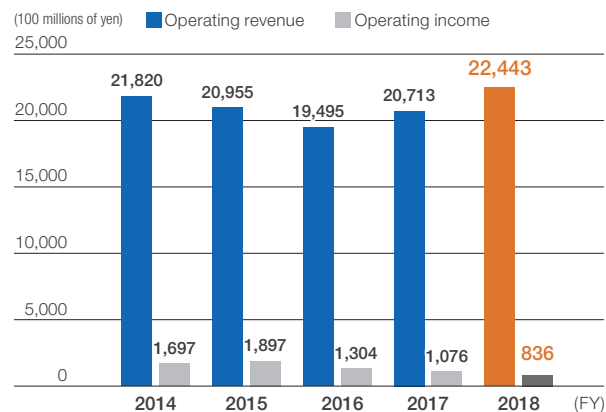


* Appointing Chiefs of Corporate Ethics and Promoters of Corporate Ethics

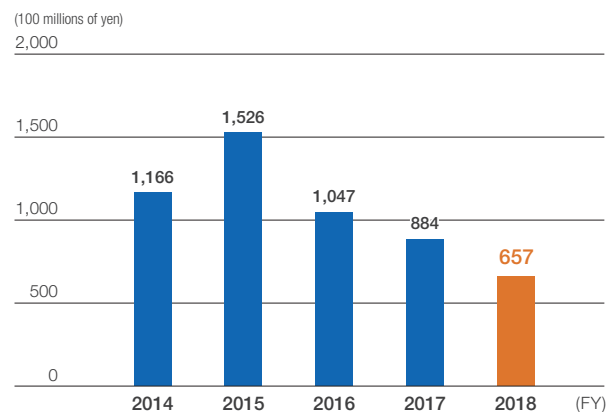
Financial Information

Financial Indicators

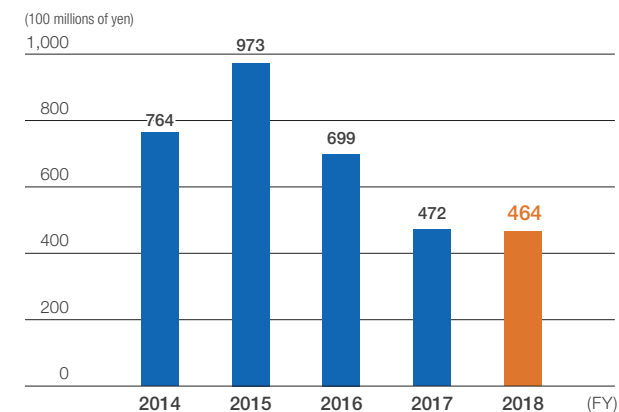
Operating revenue and operating income



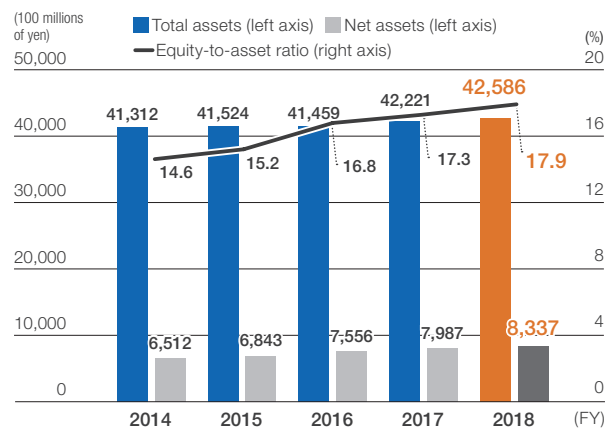
Ordinary income



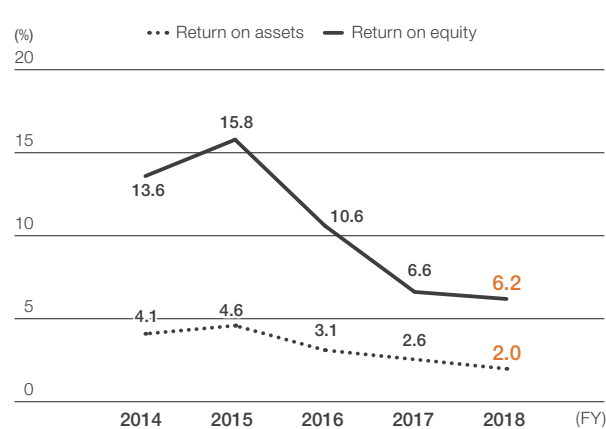
Net income attributable to owners of parent



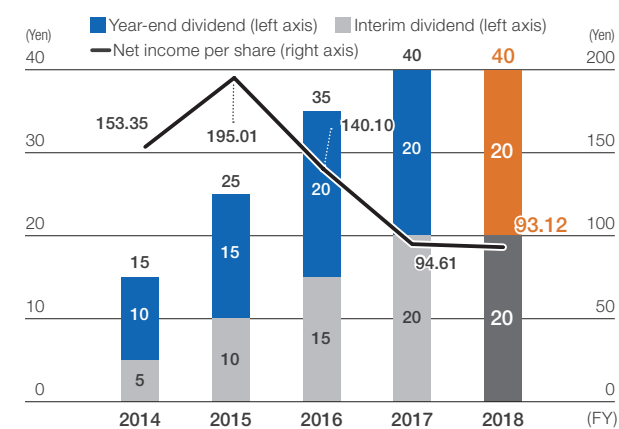
Total assets, net assets and equity-to-asset ratio



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



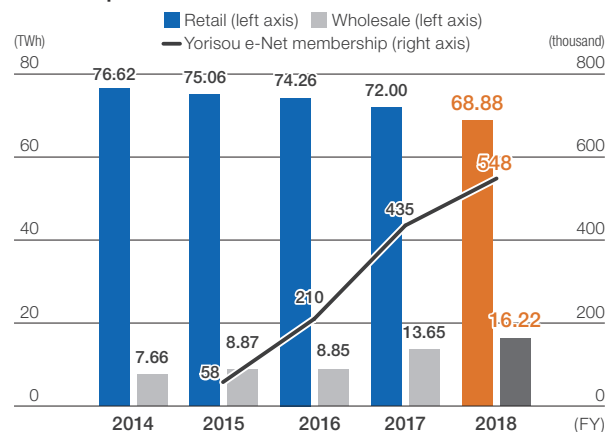
Dividends per share and net income per share



Non-Financial Indicators

Business activities

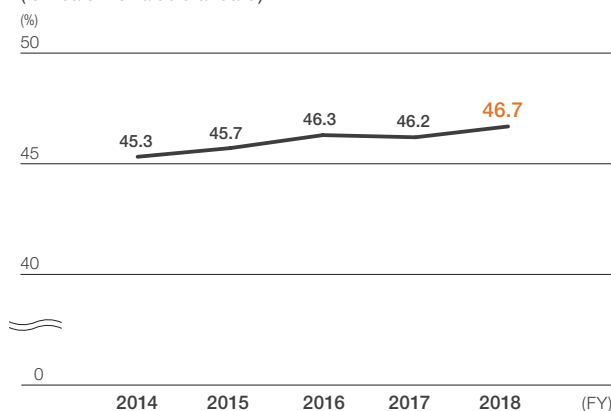
Electric power sales and others



Reference ▶ P.30-32 ESG Data Book ▶ P.14-15

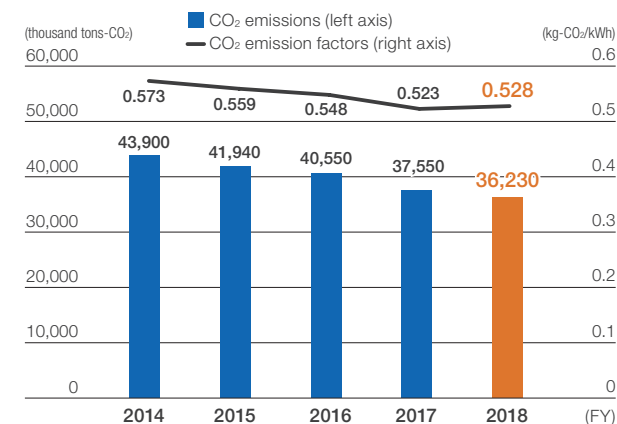
The environment

Thermal efficiency at thermal power stations (low calorific value standard)



Reference ▶ P.23

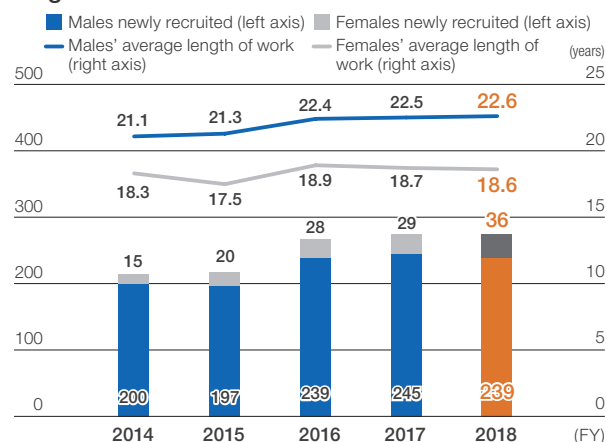
CO₂ emissions and CO₂ emission factors



ESG Data Book ▶ P.08

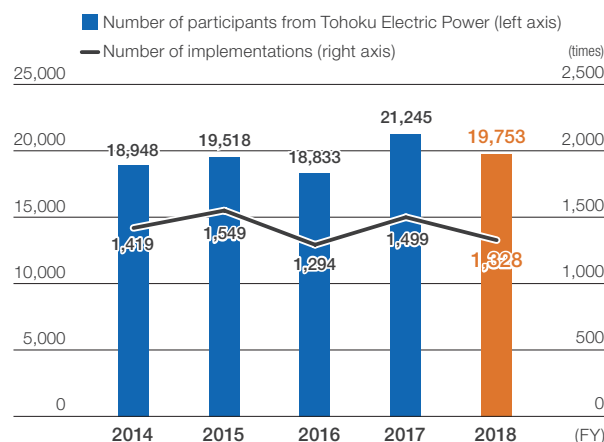
Society

Number of newly recruited personnel and average length of work



Reference ▶ P.44-45 ESG Data Book ▶ P.21-25

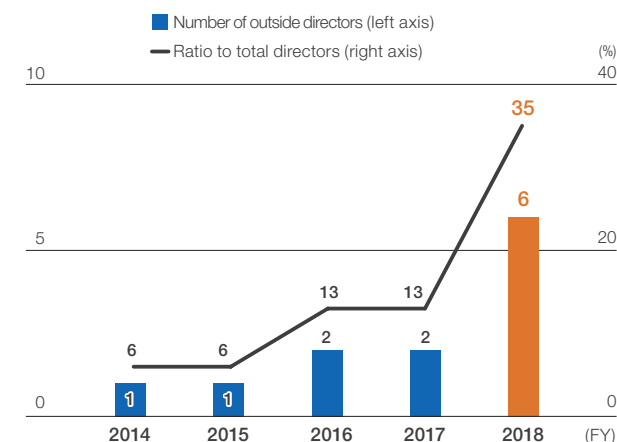
Community cooperation results



Reference ▶ P.49-50 ESG Data Book ▶ P.17

Governance

Trend in ratio of outside directors (as of the end of March 2019)



Reference ▶ P.53

Consolidated Balance Sheets

Assets

(Millions of yen)	March 31, 2018	March 31, 2019
Property, plant and equipment	3,557,465	3,620,997
Electric utility plant and equipment	2,470,308	2,468,035
Hydraulic power production facilities	181,891	181,091
Thermal power generation facilities	356,843	340,205
Nuclear power generation facilities	239,095	271,914
Transmission facilities	626,580	604,313
Transformation facilities	252,983	256,905
Distribution facilities	660,980	662,292
Operational facilities	117,905	122,667
Other electric utility plant and equipment	34,027	28,645
Other property, plant and equipment	210,644	214,278
Construction in progress	321,481	398,140
Construction and retirement in progress	311,947	359,324
Special account related to nuclear power decommissioning	-	24,514
Special account related to reprocessing of spent nuclear fuel	9,533	14,300
Nuclear fuel	159,977	165,081
Loaded nuclear fuel	34,729	30,591
Nuclear fuel in processing	125,248	134,490
Investments and other assets	395,053	375,461
Long-term investments	110,554	102,888
Net retirement benefit asset	4,224	4,303
Deferred tax assets	173,126	162,696
Other	107,424	105,933
Allowance for doubtful accounts	(276)	(360)
Current assets	664,697	637,635
Cash and deposits	187,905	178,729
Notes and accounts receivable - trade	212,195	232,303
Inventories	70,196	78,789
Other current assets	194,692	148,275
Allowance for doubtful accounts	(292)	(462)
Assets	4,222,163	4,258,633

Liabilities and net assets

(Millions of yen)	March 31, 2018	March 31, 2019
Non-current liabilities	2,411,181	2,431,227
Bonds payable	810,189	815,120
Long-term loans payable	1,235,846	1,216,986
Reserve for restoration costs of natural disaster	4,987	4,873
Net retirement benefit liabilities	178,178	178,561
Asset retirement obligations	121,001	161,929
Deferred tax liabilities for land revaluation	1,412	1,373
Other	59,565	52,383
Current liabilities	1,011,175	993,693
Current position of non-current liabilities	374,094	321,875
Notes and accounts payable - trade	143,999	141,197
Accrued taxes	34,334	22,941
Other advances	263,798	252,430
Reserve for restoration costs of natural disaster	135	198
Other	194,812	255,049
Reserves under special laws	1,100	-
Reserve for fluctuation in water levels	1,100	-
Liabilities	3,423,457	3,424,921
Shareholders' equity	739,490	766,343
Capital stock	251,441	251,441
Capital surplus	22,433	22,558
Retained earnings	472,718	499,132
Treasury shares	(7,101)	(6,788)
Accumulated other comprehensive income	(9,129)	(4,176)
Valuation difference on available-for-sale securities	6,861	3,072
Deferred losses on hedges	(1,272)	(908)
Revaluation reserve for land	(840)	(854)
Foreign currency translation adjustments	684	179
Remeasurements of retirement benefit plans	(14,562)	(5,666)
Subscription rights to shares	957	1,013
Non-controlling interests	67,387	70,530
Net assets	798,705	833,711
Liabilities and net assets	4,222,163	4,258,633

Consolidated Statements of Income and Consolidated Statements of Comprehensive Income

(Millions of yen)	FY2017	FY2018
Operating revenue	2,071,380	2,244,314
Electric utility operating revenue	1,854,398	2,012,701
Other business operating revenue	216,981	231,613
Operating expenses	1,963,714	2,160,681
Electric utility operating expenses	1,763,752	1,943,004
Other business operating expenses	199,962	217,676
Operating income	107,665	83,633
Other expenses (income)	6,358	6,840
Dividend income	764	941
Interest income	250	223
Share of profit of entities accounted for using equity method	715	141
Other	4,628	5,533
Non-operating expenses	25,590	24,730
Interest expenses	21,684	18,762
Other	3,905	5,968
Ordinary revenue	2,077,738	2,251,155
Ordinary expenses	1,989,305	2,185,412
Ordinary income	88,433	65,743
Provision or reversal of reserve for fluctuation in water levels	1,100	(1,100)
Provision of reserve for fluctuation in water levels	1,100	-
Reversal of reserve for fluctuation in water levels	-	(1,100)
Extraordinary gain	-	7,900
Compensation income for damage	-	7,900
Extraordinary loss	14,920	2,145
Impairment loss on property, plant and equipment	14,920	-
Loss on decommissioning of Onagawa Nuclear Power Station Unit 1	-	2,145
Income before income taxes	72,412	72,598
Income taxes - current	15,174	13,861
Income taxes - deferred	5,085	7,873
Income taxes	20,260	21,735
Net income	52,151	50,863
Net income attributable to non-controlling interests	4,935	4,379
Net income attributable to owners of parent	47,216	46,483

(Millions of yen)	FY2017	FY2018
Net income	52,151	50,863
Other comprehensive income		
Valuation difference on available-for-sale securities	440	(3,883)
Deferred gains or losses on hedges	611	363
Foreign currency translation adjustment	496	(503)
Remeasurements of retirement benefit plans	11,352	8,925
Share of other comprehensive income of entities accounted for using equity method	(0)	(1)
Other comprehensive income	12,900	4,900
Comprehensive income	65,052	55,763
Comprehensive income attributable to owners of parent	59,577	51,450
Comprehensive income attributable to non-controlling interests	5,474	4,312

Consolidated Statements of Changes in Equity

FY2017

(Millions of yen)

	Shareholders' equity					Accumulated other comprehensive income						Subscription rights to shares	Non-controlling 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	26,558	445,547	(7,320)	716,226	6,462	(1,883)	(940)	186	(25,371)	(21,546)	879	60,064	755,624
Changes of items during the period														
Changes in parents' ownership interests arising from transactions with non-controlling interests		(4,125)			(4,125)									(4,125)
Dividends of surplus			(19,961)		(19,961)									(19,961)
Net income attributable to owners of parent			47,216		47,216									47,216
Purchase of treasury shares				(37)	(37)									(37)
Disposal of treasury shares			(99)	256	157									157
Reversal of revaluation reserve for land			15		15									15
Net changes of items other than shareholders' equity						399	611	99	497	10,808	12,416	77	7,322	19,817
Total changes of items during the period	-	(4,125)	27,171	218	23,263	399	611	99	497	10,808	12,416	77	7,322	43,080
Balance at the end of period	251,441	22,433	472,718	(7,101)	739,490	6,861	(1,272)	(840)	684	(14,562)	(9,129)	957	67,387	798,705

FY2018

(Millions of yen)

	Shareholders' equity					Accumulated other comprehensive income						Subscription rights to shares	Non-controlling 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	22,433	472,718	(7,101)	739,490	6,861	(1,272)	(840)	684	(14,562)	(9,129)	957	67,387	798,705
Changes of items during the period														
Changes in parents' ownership interests arising from transactions with non-controlling interests		125			125									125
Dividends of surplus			(19,966)		(19,966)									(19,966)
Net income attributable to owners of parent			46,483		46,483									46,483
Purchase of treasury shares				(33)	(33)									(33)
Disposal of treasury shares			(117)	347	229									229
Reversal of revaluation reserve for land			13		13									13
Net changes of items other than shareholders' equity						(3,789)	363	(13)	(504)	8,896	4,953	56	3,143	8,152
Total changes of items during the period	-	125	26,413	313	26,853	(3,789)	363	(13)	(504)	8,896	4,953	56	3,143	35,005
Balance at the end 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

Consolidated Statements of Cash Flows

Cash flows from operating activities

(Millions of yen)	FY2017	FY2018
Income before income taxes	72,412	72,598
Depreciation	222,016	215,628
Decommissioning costs of nuclear power units	4,628	7,664
Amortization of special account related to nuclear power decommissioning	-	26
Loss on retirement of property, plant and equipment	13,989	12,636
Increase (decrease) in net retirement benefit liabilities	(8,009)	(7,266)
Increase (decrease) in reserve for fluctuation in water levels	1,100	(1,100)
Interest and dividend income	(1,014)	(1,165)
Interest expenses	21,684	18,762
Decrease (increase) in notes and accounts receivable - trade	(21,199)	(27,154)
Decrease (increase) in inventories	(7,291)	(8,589)
Increase (decrease) in notes and accounts payable - trade	12,683	(3,603)
Other	46,637	19,804
Subtotal	357,639	298,240
Interest and dividend income received	1,064	1,164
Interest expenses paid	(22,141)	(19,550)
Income taxes paid	(12,542)	(17,050)
Net cash provided by (used in) operating activities	324,019	262,804

Cash flows from investing activities

(Millions of yen)	FY2017	FY2018
Purchase of property, plant and equipment	(287,330)	(272,304)
Proceeds from contribution for construction	15,315	21,121
Payments of investment and loans receivable	(10,883)	(11,629)
Collection of investment and loans receivable	9,924	9,212
Other, net	(941)	3,029
Net cash provided by (used in) investing activities	(273,915)	(250,570)

Cash flows from financing activities

(Millions of yen)	FY2017	FY2018
Proceeds from issuance of bonds	129,560	99,666
Redemption of bonds	(100,000)	(119,700)
Proceeds from long-term loans payable	107,330	194,600
Repayments of long-term loans payable	(148,122)	(240,196)
Increase in short-term loans payable	19,106	32,300
Decrease in short-term loans payable	(18,378)	(32,928)
Proceeds from issuance of commercial papers	99,000	513,000
Redemption of commercial papers	(100,000)	(491,000)
Cash dividends paid	(19,849)	(19,871)
Dividends paid to non-controlling interests	(1,050)	(1,061)
Other, net	(3,876)	(4,116)
Net cash provided by (used in) financing activities	(36,280)	(69,307)

(Millions of yen)	FY2017	FY2018
Effect of exchange rate changes on cash and cash equivalents	84	(154)
Net increase (decrease) in cash and cash equivalents	13,908	(57,228)
Cash and cash equivalents at beginning of the period	228,262	242,171
Cash and cash equivalents at end of the period	242,171	184,942

Corporate Data and Share Information

Business Overview

Company Name

Tohoku Electric Power Co., Inc.

Head Office

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

Date of Establishment

May 1, 1951

Capital

251.4 billion yen

Total Assets

(as of the end of March 2019)
4,258.6 billion yen

Operating Revenue (for fiscal 2018)

2,244.3 billion yen

Ordinary Income (for fiscal 2018)

65.7 billion yen

Representatives

(as of the end of June 2019)
Makoto Kaiwa, Representative
Director & Chairman of the Board
Hiroya Harada, Representative
Director & President

Number of Shareholders

(as of the end of March 2019)
171,598

Service Areas

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

Number of Employees

12,189

Electricity Sales (for fiscal 2018)

Lighting: 22,745 GWh
Power: 46,130 GWh
Total: 68,876 GWh

* The sum of individual figures may not equal the total due to rounding. The figures for capital, total assets, operating revenue and ordinary income are actual figures on a consolidated basis.
The diagram on the right is correct as of the end of March 2019.

Total Number of Shares (as of the end of March 2019)

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 2019)

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)	26,950	5.35
Japan Trustee Services Bank, Ltd. (trust account)	26,525	5.27
Tohoku Electric Power Employee Shareholding Association	13,883	2.76
Nippon Life Insurance Company	13,727	2.72
Mizuho Bank, Ltd.	13,288	2.64
Japan Trustee Services Bank, Ltd. (trust account 5)	9,188	1.82
Kochi Shinkin Bank	7,927	1.57
STATE STREET BANK WEST CLIENT - TREATY 505234	7,579	1.5
JP MORGAN CHASE BANK 385151	7,357	1.46
Japan Trustee Services Bank, Ltd. (trust account 9)	6,634	1.31
Total	133,057	26.40

Facility Overview (as of the end of March 2019)

Power Stations	Hydraulic	209	2,450 MW	Transmission Facilities	Route distance	15,330 km	Power Distribution Facilities	Route distance	147,934km
	Thermal	12	11,430 MW		Circuit length	24,996km		Extended wire distance	587,638km
	Geothermal	4	190 MW		Supports	58,457		Supports	3,126,235
	Solar	4	4.8 MW		Transformation Facilities	630			
	Nuclear	2	2,750 MW						
	Total	231	16,820 MW						

*1 The sum of the individual figures may not equal the total due to rounding.

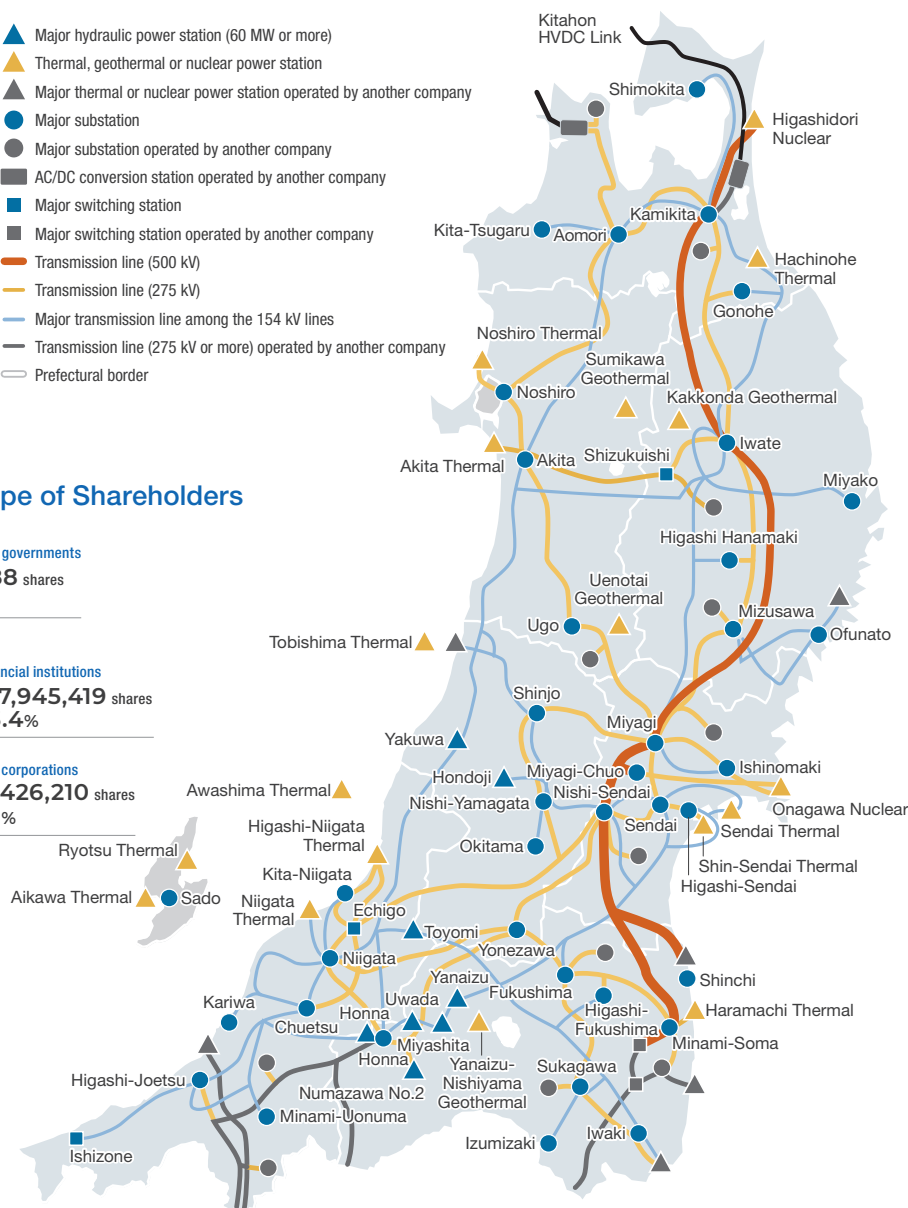
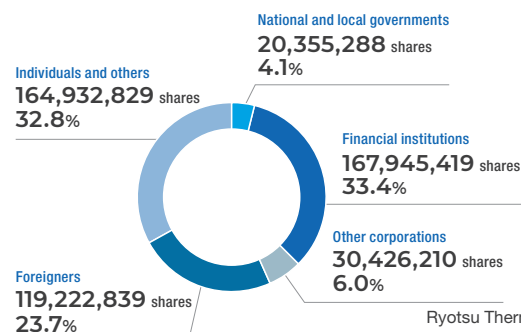
*2 The route distance represents the total horizontal distance between steel towers, utility poles and other supports.

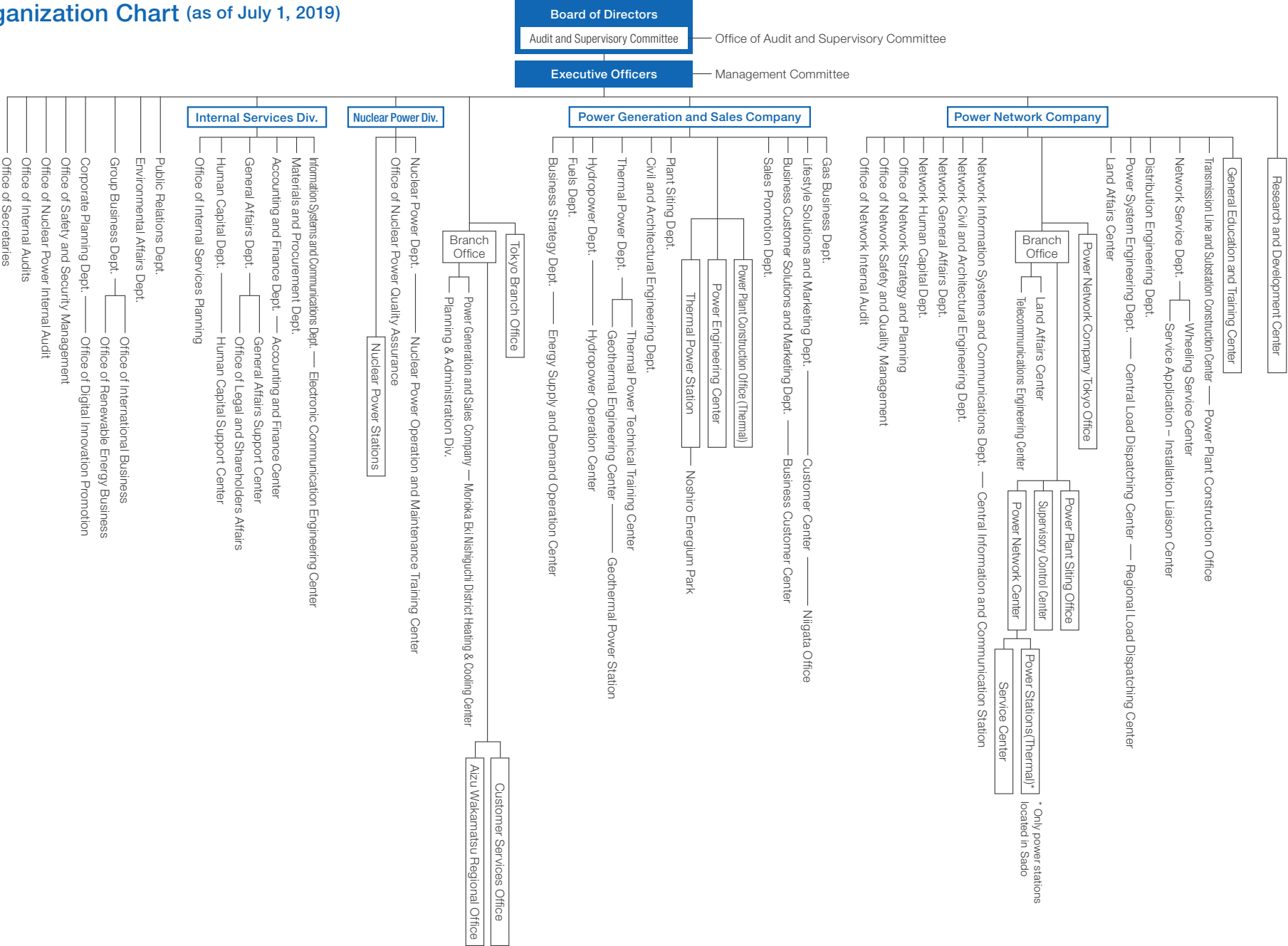
*3 The circuit length is the total value calculated by multiplying the route distance by the number of circuits.

*4 The extended wire length represents the total length of electric wires and cables attached.

- ▲ Major hydraulic power station (60 MW or more)
- ▲ Thermal, geothermal or nuclear power station
- ▲ Major thermal or nuclear power station operated by another company
- Major substation
- Major substation operated by another company
- AC/DC conversion station operated by another company
- Major switching station
- Major switching station operated by another company
- Transmission line (500 kV)
- Transmission line (275 kV)
- Major transmission line among the 154 kV lines
- Transmission line (275 kV or more) operated by another company
- Prefectural border

Distribution of Shares by Type of Shareholders (as of the end of March 2019)







Tohoku Electric Power Group

Tohoku Electric Power's Official YouTube Channel

Tohoku Electric Power opens its official YouTube channel to the public.
Our TV commercials and other video clips are available.



[Tohoku Electric Power on YouTube](https://www.youtube.com/channel/UCG4KK1iSIF0ThRaWehDWxAQ)

[https://www.youtube.com/channel/
UCG4KK1iSIF0ThRaWehDWxAQ](https://www.youtube.com/channel/UCG4KK1iSIF0ThRaWehDWxAQ)



[Tohoku Electric Power Brand on
YouTube](https://www.youtube.com/channel/UCzLXqTQFB3RrRsEXL20P7QA)

[https://www.youtube.com/channel/
UCzLXqTQFB3RrRsEXL20P7QA](https://www.youtube.com/channel/UCzLXqTQFB3RrRsEXL20P7QA)

Tohoku Electric Power's Facebook Page - Yori, Sou, Chikara, Tohoku Electric Power

This Facebook page is operated by Tohoku Electric Power's sales team.
It provides information on energy and services as well as local information in order to provide services close to individual lifestyles and enrich the lives of customers.



[https://www.facebook.com/
yorisou.tohoku.epco](https://www.facebook.com/yorisou.tohoku.epco)

Tohoku Electric Power's official Twitter page

Giving notices and information on power outages in the event of disaster and other occasions.



[https://twitter.com/
Tohokudenryoku](https://twitter.com/Tohokudenryoku)