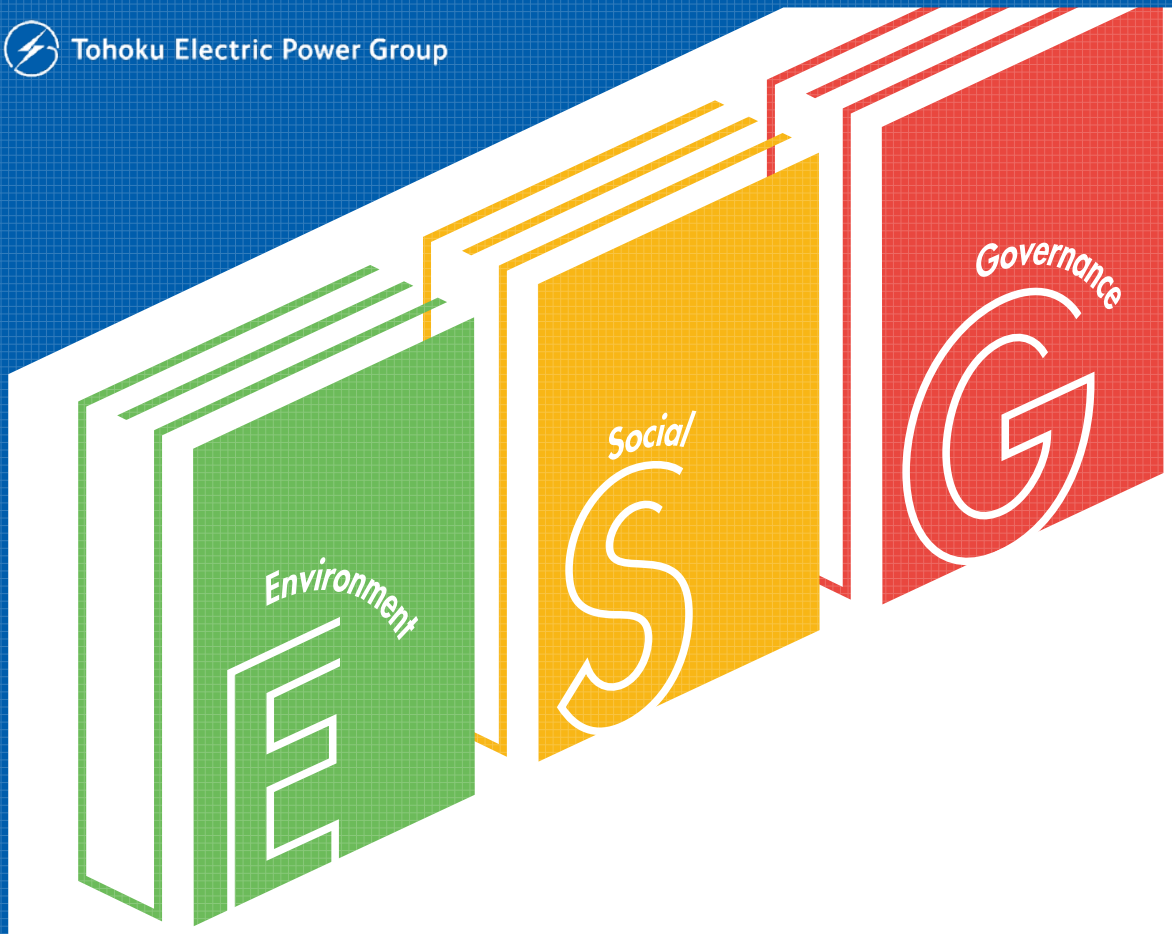
Tohoku Electric Power Group



ESG DATA BOOK 2020

Tohoku Electric Power Group ESG Data Book 2020

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Tohoku Electric Power Group CSR Policy

Drawing on our Management Philosophy of Prosperity in Partnership with Communities and the Group Slogan Yori, Sou, Chikara (The Strength to Work Alongside), the Tohoku Electric Power Group's concept of corporate social responsibility (CSR) calls for the Group to work as a cohesive, united team alongside customers and communities to realize a smart society. The Group will provide energy-related services that deliver solutions to the challenges facing communities and society and seek to grow in pace with sustained progress within society. Based on the goal of fulfilling its CSRs, the Tohoku Electric Power Group will demonstrate its overall strengths through sincere and fair business activities in accordance with the Tohoku Electric Power Group Code of Conduct while drawing on the unique characteristics of individual group companies, thereby providing powerful support for the value chain of business activities and meeting the expectations of its valuable stakeholders.

The Tohoku Electric Power Group's relationship to stakeholders

The Tohoku Electric Power Group defines customers, local communities, shareholders, and investors, business partners and employees as its key stakeholders. It will continue and enhance its wide range of activities through two-way dialogue to ensure safety, taking into account the environment and complying with laws, regulations, and corporate ethics. All Group companies will work together to address CSR actions.

Together with our customers

We will deliver maximum value to our customers through services and products that contribute to a smart society in which customers can create living spaces characterized by comfort, safety, and peace of mind, based on a stable supply of low-cost energy. In this way, we support fulfilling lives and vital business activities—all while putting safety first.

Together with our community

Through initiatives that contribute solutions to community issues and by acting with their best interests at heart, we will work in partnership with communities to achieve their sustained progress. Each and every employee will seek to build trust through ongoing two-way dialogue with and working alongside our communities.

With shareholders and investors

We will enhance information disclosure and corporate governance to boost management transparency. We will also enhance communication with shareholders and investors to increase corporate value.

With business partners

We will engage in fair and sound transactions to build strong relationships of trust with our business partners. We will bolster the transparency of transactions as part of efforts to strengthen societal confidence.

With employees

We will respect the personality of our employees with their diverse backgrounds to ensure they can fully showcase their skills and motivation. We will also take steps to ensure they find work comfortable and rewarding and offer development opportunities to help employees build rich and healthy lives.

Tohoku Electric Power Group CSR Policy
https://www.tohoku-epco.co.jp/csr/index.html

Tohoku Electric Power Group's Relationships with Stakeholders

The Tohoku Electric Power Group will continue to enhance its wide range of activities based on dialogue with many different stakeholders.
All Group companies will work together to address CSR actions.

Main opportunities for dialogue/Tools for communicating with stakeholders

	Customers	Communities	Shareholders and Investors	Business Partners	Employees
Relationships with stakeholders	The Tohoku Electric Power Group chiefly operates in the six prefectures in the Tohoku region and Niigata Prefecture. Customers vary from business to business. In our core electric power business, we have contracts with a broad range of customers, from general households to large factories.	The Tohoku Electric Power Group operates under the precept that the prosperity of the Tohoku region is essential to development. As part of the local community, we are committed to dialogue with community members.	The Tohoku Electric Power Group has 173,712 shareholders. Many are institutional investors, financial institutions, and private investors in Japan and overseas.	The Tohoku Electric Power Group engages in transactions with business partners not just in the six Tohoku prefectures and Niigata Prefecture, but elsewhere in Japan and overseas.	The Tohoku Electric Power Group has 24,870 regular employees (consolidated) working at Group companies. Most reside in the six Tohoku prefectures and Niigata Prefecture.
Major opportunities for dialogue/ Communication tools	■ The Customer Center and the Network Call Center receive different kinds of requests, comments, and inquiries. ■ Everyday sales activities, including proposals of energy solution services ■ Communication with customers near power stations (all household visit activities) ■ Online publication of useful information for energy conservationi ■ CSR surveys ■ Tours to visit power stations and other facilities	■ Activities promoting local collaboration ■ Activities promoting social contributions ■ Support for local revitalization ■ Facilitating international cooperation and exchange activities	■ General meetings of shareholders ■ Briefings for investors ■ Visits to institutional investors ■ Facilities tours ■ Business reports ■ Webpages for shareholders and Investors	■ Disclosure of the Basic Policy of Procurement and other materials to provide fair and rightful trading opportunities ■ Day-to-day procurement activities ■ Briefings for business partners ■ Surveys of business partners ■ Dialogue with business partners ■ Workshops and safety patrols	■ Office visits by management team members ■ Diversity-related seminars ■ Periodic dialogue with supervisors ■ Discussions with labor union ■ Consulting services (on compliance and other matters) ■ Interactive Intranet ■ In-house newsletters

Surveys on Tohoku Electric Power's corporate activities and CSR action

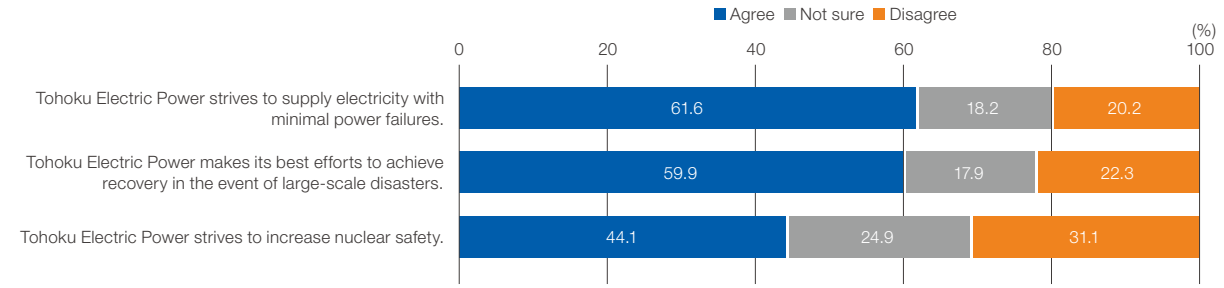
We conduct surveys on Tohoku Electric Power's corporate activities and CSR actions to learn about customer perspectives on our activities, CSR actions, and the current energy environment for use as a guide when considering future business activities and how we communicate with local communities.
This section gives some examples of the results from the 2019 survey.

Online survey of Tohoku Electric Power's corporate activities and CSR actions

Date	July 11 – 22, 2019
Subjects	2,449 men and women living in the six Tohoku prefectures and in Niigata Prefecture

Views on our actions to address the stable supply of electric power and other issues

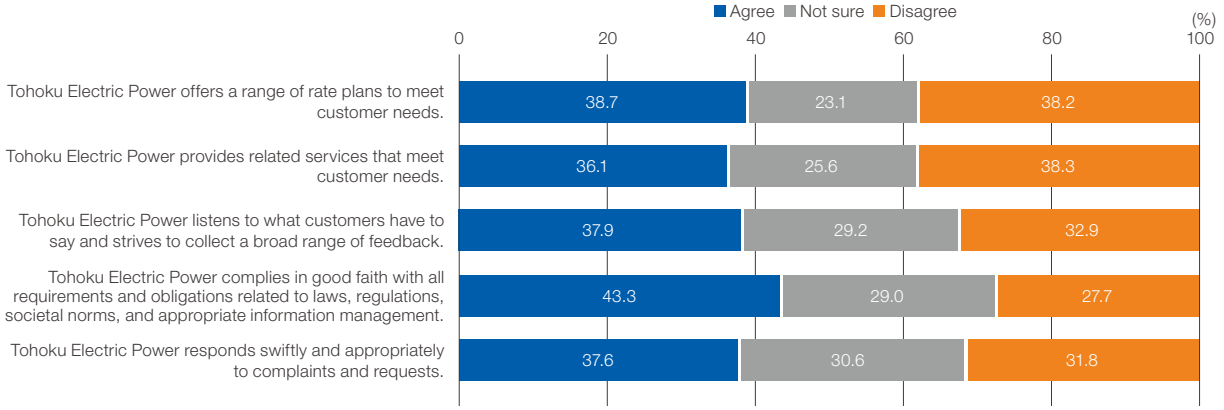
Most customer responses offered positive feedback on our actions involving the stable supply of electric power, including electric power supply with few power failures reported and recovery work in the wake of large-scale disasters.
Tohoku Electric Power Network will continue to engage in the construction, maintenance, and operation of power transmission and distribution facilities and drills with earthquakes, typhoons, and other hazards in mind to enhance its response capabilities and to ensure customers can use the electric power we provide in full confidence.



* Percentages may not total 100 due to rounding.

Assessing customer service

As a company based in the six Tohoku prefectures and Niigata Prefecture, we strive to offer a wide range of electricity rate plans and services that meet customer needs and ensure customers in our communities will choose us.
We're committed to continuing to enhance our services and improve our business quality to meet customer needs.



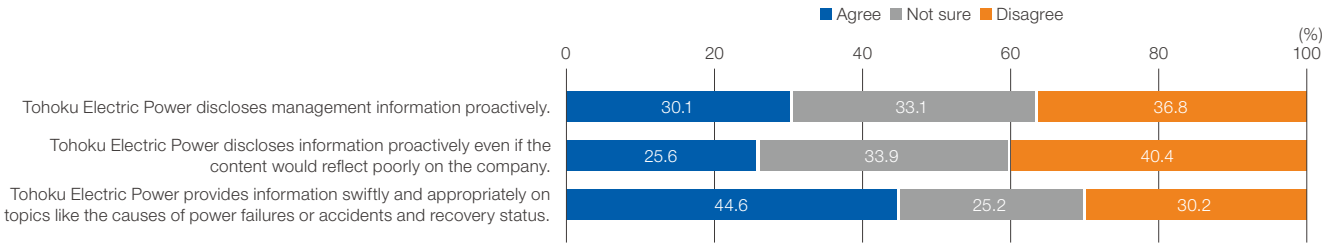
* Percentages may not total 100 due to rounding.

System for Learning about Local Communities' Views and Requests

Surveys on Tohoku Electric Power's corporate activities and CSR initiatives

Assessing information communication

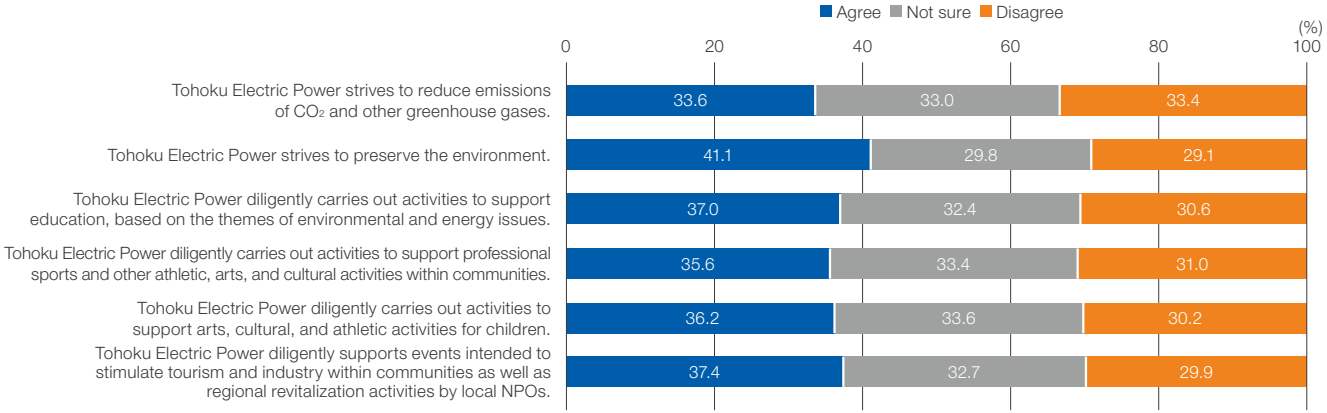
We strive to provide information proactively through press releases, our website, social media, and other means.
We believe it is essential to strengthen customer satisfaction through the swift and accurate communication of information.



* Percentages may not total 100 due to rounding.

Assessing initiatives targeting environmental issues and social contributions

To help establish a low-carbon society, Tohoku Electric Power not only strives to reduce emissions of CO_2 and other greenhouse gases, but to adopt and expand use of renewable energy such as solar, wind, geothermal, and hydroelectric power.
In addition, given our focus on close communication with community members and a company management philosophy calling for Prosperity in Partnership with Communities, we engage in communication activities based on close ties to communities, with each business site playing a central role.
We're committed to continuing to seek to work alongside and to grow in partnership with communities, fulfilling our role as a community member through environmental and social contribution activities and working to deepen trust and relationships with community members, in addition to contributing solutions to community issues.



* Percentages may not total 100 due to rounding.

Overview

A look at the assessment of our corporate activities by members of the local community shows evaluations have grown increasingly positive from year to year since falling dramatically in the aftermath of the Great East Japan Earthquake.
Specifically, we earned more positive evaluations than last year in terms of assessments of initiatives to secure a stable supply of electricity, as seen in responses to questions concerning "electric power supply with few power failures" and "recovery work in the event of large-scale disasters" and in terms of customer service, as demonstrated by questions on topics like "respond(ing) swiftly and appropriately to complaints and requests" and "complying in good faith with all requirements and obligations." We believe these assessments come from Group employees taking good-faith action in interactions with community residents and other stakeholders under the Group Slogan Yori, Sou, Chikara (The Strength to Work Alongside).
At the same time, positive evaluations on questions concerning topics like communication of information and initiatives targeting environmental issues and social contributions fell from last year. We see a need to enhance information communication still further through press releases, our website, social media, and other means while improving efficacy of our initiatives in various areas.
The Group will continue to promote CSR as a cohesive and united team by advancing, and improving, various activities, based on two-way dialogue with stakeholders, in accordance with the Tohoku Electric Power Group CSR Policy and the Tohoku Electric Power Group Code of Conduct.

Environmental Management

Promoting environmental management

Tohoku Electric Power Group Environmental Policy

Basic stance

Through our environment-friendly energy services, we work with local communities and our customers to achieve a sustainable society in which future generations can live safely and in peace of mind.

We strive to ensure a stable supply of energy compatible with environmental conservation and economic efficiency, based on the premise that ensuring safety as a corporate group is aligned with the interests of local communities.
This is our mission, one that will not change in the future.
We appreciate the earth and its bounty. We respect the traditional values of the people of this region as they coexist with nature. We seek to achieve sustainable growth alongside our local communities and customers.
Based on good faith dialogue, we take our commitment to environmental issues seriously and implement actions to achieve our goals.

Four environmental action principles

1 » Appreciate the earth's bounty and make careful use of its limited resources

2 » Minimize environmental impact.

3 » Safeguard and coexist with the rich natural environment.

4 » Think and act with the local communities and our customers in mind.

Overview of our FY2020 Medium-Term Environmental Plan (FY2020–2022)

Shared Groupwide courses of action

Three Cs

1 Focal Point **Change** » Enhancing competitive strengths through comprehensive reforms in the electricity supply business

2 Focal Point **Challenges** » Taking on the challenge of swiftly achieving profitability in businesses to realize a smart society

3 Focal Point **Creation** » Evolving the management foundations to support corporate value creation

Priority I Promoting measures to counter climate change

Based on our recognition of climate change as a key management topic impacting our business results and finances over the long term, we strive to address this challenge from various business aspects, including adopting and expanding our use of renewable energy and support for customer energy conservation and other sales initiatives, all based on the S+3E concept (safety, energy security, economy, environment). Based on a study of physical risks accompanying climate change, we plan to redouble measures that reflect the risks and opportunities of climate change in management strategy.

Priority II Compliance with environmental laws and regulations and protecting the environment within communities

By accurately ascertaining information on matters such as amendments to laws and policy trends, we seek to achieve thorough compliance with environmental laws and regulations in all our business activities. At all sites and facilities, including power plants, we strive to protect community environments through measures that protect endangered species, in addition to controlling our environmental impact.

Priority III Promoting a society that recycles

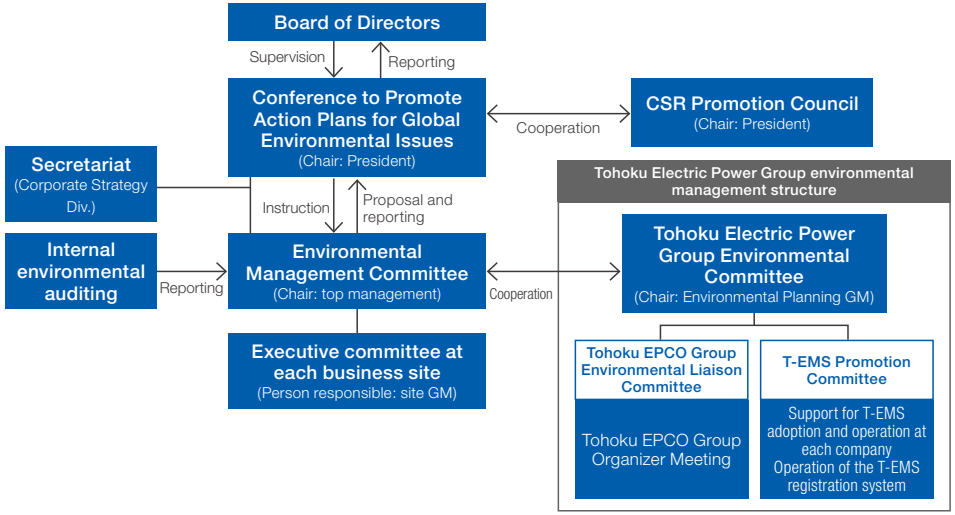
Together with appropriate management and treatment of the various types of waste generated from our business activities, we continually press ahead with responsible efforts to reduce, reuse, and recycle (3R) waste throughout the Tohoku Electric Power Group. One approach is to maintain and improve the rates at which we make effective use of waste.

Priority IV Promoting environmental management and environmental communication

Through the Tohoku Electric Power Group Environmental Management System (T-EMS) and other means, we strive continually to strengthen environmental management at each Group member company while enhancing environmental management groupwide, including at Tohoku Electric Power itself.
In light of growing ESG investment in Japan and worldwide, we engage in thorough and appropriate dialogue with institutional investors and other stakeholders, including communicating environmental information in accordance with TCFD recommendations. At the same time, we strive to maintain and improve relationships of trust with local communities and customers through interactive environmental communication.

The Tohoku Electric Power Group's environmental management structure

Tohoku Electric Power regards environmental management as a key element of Group management efforts. Based on the Tohoku Electric Power Group Environmental Policy, we've identified the shared Group courses of action and priorities underlying our FY2020 Medium-Term Environmental Plan. We strive to maintain and improve groupwide governance while allowing the scope of autonomy each company needs.
We promote environmental management at each Group member company through the Tohoku Electric Power Medium-/Long-Term Vision, adopted by resolution of the Board of Directors. The Conference to Promote Action Plans for Global Environmental Issues, whose membership consists of the presidents of Tohoku Electric Power and Tohoku Electric Power Network as well as all vice presidents and managing directors, is responsible for the execution of environmental measures centered on response to global environmental issues.
The Environmental Management Committee, a subcommittee of the Conference to Promote Action Plans for Global Environmental Issues whose membership includes the heads of individual departments and offices, carries out environmental measures under the command and control of the director responsible for environmental matters.
Consisting of directors responsible for environmental matters and managers at the department general manager level from each Group company, the Tohoku Electric Power Group Environmental Committee is tasked with improving environmental management on an ongoing and groupwide basis in cooperation with the Environmental Management Committee.



▶ See "Climate change mitigation/adaptation initiatives," Integrated Report, p. 51.

Tohoku Electric Power Group Environmental Management System (T-EMS)

The Tohoku Electric Power Group Environmental Management System (T-EMS) is an original environmental management system intended to enhance environmental activities across the Tohoku Electric Power Group. We implement this system in accordance with the T-EMS Guidelines, which we formulated in reference to the ISO 14001 international standard for environmental management systems and the Eco-Action 21 program operated by the Ministry of the Environment.
The qualified ISO 14001 auditors and internal auditors within our Group inspect T-EMS certified companies for environmental activities, then deliver reports to the T-EMS Promotion Committee, an organization within the Tohoku Electric Power Group Environment Committee and evaluate the individual companies inspected. The T-EMS certification remains valid for three years from the date of registration. Following initial registration, certified companies are subject to annual reviews in addition to reviews at registration renewal.
Composed of predetermined requirements, T-EMS aims to continuously improve environmental activities by repeating the PDCA cycle: activities are Planned, Done, then Checked, to enable Actions for overall reviews and revisions.

Comparison to other management systems

	T-EMS Guidelines	ISO 14001	Eco-Action 21
Formulation body	Tohoku Electric Power Group Environment Committee	International Organization for Standardization (ISO)	Ministry of the Environment
Scope of application	Companies within the Tohoku Electric Power Group	Organizations of any type or size	Small- and mid-sized enterprises
Requirements	Check items on the checklist Step 1: 18 items Steps 2 and 3: 31 items	80 requirements	Check items on the checklist 51 requirements in accordance with ISO 14001
Characteristics	They stipulate requirements based on Eco Action 21 and are easier to address than Eco Action 21 itself, defining three steps associated with different tiers of difficulty.	The requirements of this standard pertain solely to the framework of the environmental management system. Companies must establish internal rules independently.	These requirements are relatively easy to address because the system provides specific rules for the framework required by the ISO standard. On the other hand, it involves an obligation to prepare and publish environmental reports and numerous items on the self-checksheet and other documents.

Certification status under the Tohoku Electric Power Group Environmental Management System (T-EMS) (as of March 31, 2020)

Number of companies certified	Companies certified as a share of consolidated net sales
27	96%

Moving to establish a low-carbon society

Scope 1, Scope 2, and Scope 3 (Category 3) greenhouse gas emissions

Unit: million tons CO_2

Scope	Emissions (FY2018)	Emissions (FY2019)
Scope 1	31.9	30.6
Scope 2	0	0
Scope 3 (Category 3)	9.1	8.2

Reporting boundaries and calculation methods

Scope 1 and Scope 2 emissions of greenhouse gases from Tohoku Electric Power's power stations, offices, and other facilities are calculated in accordance with Japan's Act on Rationalizing Energy Use and Act on Promotion of Global Warming Countermeasures. Scope 3 emissions are calculated by multiplying the electricity purchased from other companies by the alternative CO_2 emission factor specified under the latter Act—specifically, 0.000500 t- CO_2/kWh for FY2018 and 0.000488t-CO_2/kWh for FY2019. They do not include upstream emissions of purchased fuels. Scope 1 emissions refer to greenhouse gas emissions emitted directly from sources owned by Tohoku Electric Power. Scope 2 emissions refer to greenhouse gas emissions associated with consumption of electricity and heat supplied by other companies. Scope 3 (Category 3) emissions are emissions from fuels and energy-related activities not included in either Scope 1 or Scope 2.

Emissions of greenhouse gases other than CO_2 for fiscal 2019

We're working to reduce emissions of greenhouse gases besides CO_2 that have significant impact on global warming. One example is sulfur hexafluoride (SF_6), which is used in gas circuit breakers and other electric power instruments at substations.

Tohoku Electric Power SF_6 recovery rates and HFC stockpiles and emissions in FY2019

SF_6	
Recovery rate	99.6%
Main application	Insulators for gas circuit breakers and other electric power instruments
Countermeasure	Use of SF6 gas recovery systems to prevent release into the atmosphere

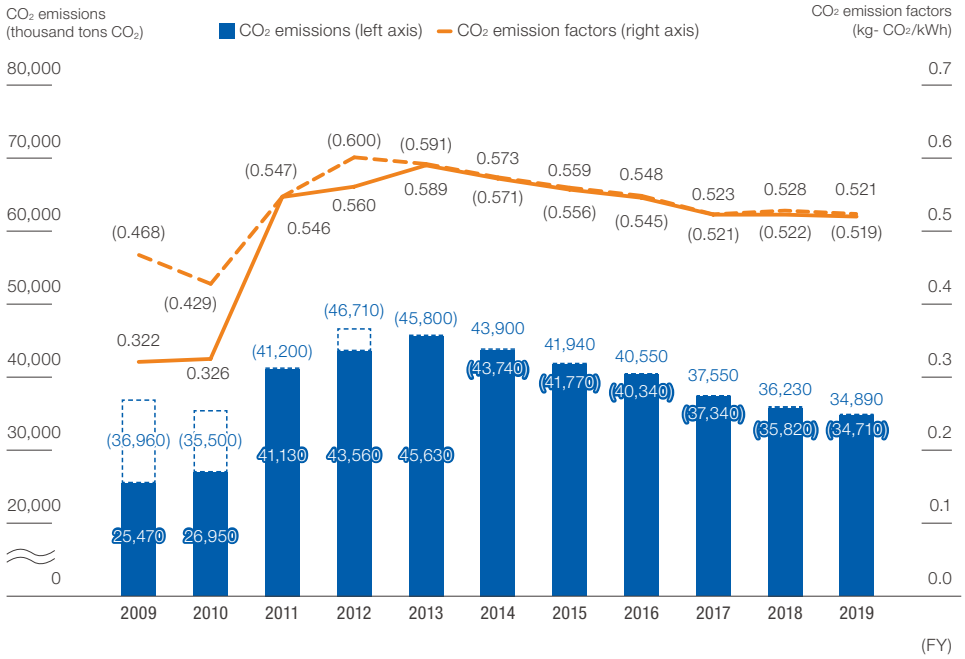
HFC	
Stockpile	56.0 tons
Emissions	794 t- CO_2
Main application	Refrigerants for air conditioning equipment
Countermeasure	Efforts to prevent leakage and promote recovery and reuse HFC when installing or repairing equipment

* SF_6: sulfur hexafluoride, HFCs: hydrofluorocarbons

CO_2 emissions for fiscal 2019

Our base CO_2 emissions before adjustments under the feed-in tariff (FIT) scheme for renewable energy dropped 3.1% from the previous year due to an increase in hydroelectric power production. CO_2 emission factors also dropped 0.6% year on year. After FIT adjustments, CO_2 emissions and CO_2 emission factors dropped 3.7% and 1.3%, respectively, from the previous year.

Trends in CO_2 emissions by year



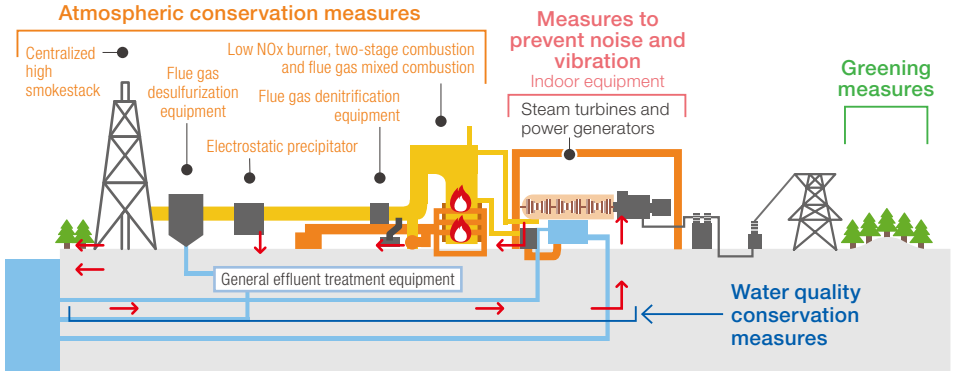
* Figures in parentheses ( ) represent basic CO_2 emissions and CO_2 emission factors that do not reflect adjustments under the feed-in tariff (FIT) scheme for renewable energy.
* Figures for FY2016 and later years denote relevant values for the retail electric supply business, not including the portion related to general electricity transmission and distribution (e.g., isolated island service).
* Figures for FY2019 are provisional values as of August 2020.

Reduction of environmental impact and conservation of local environments

Compliance with environmental laws and regulations and pollution prevention agreements

We share the latest information on revisions of environmental laws and regulations among Group companies to ensure thorough legal compliance. Apart from compliance with statutes addressing environmental conservation, our thermal power stations and other facilities enter into pollution prevention agreements with related local governments in an effort to preserve local environments. Pollution prevention agreements provide for environmental conservation measures. In consideration of local idiosyncrasies, they set allowable air quality, water quality, noise, and other limits more rigorous than those in national regulations. We periodically carry out environmental measurements and report the results to relevant local governments.

Examples of environmental measures at thermal power stations



Environmental assessment

When establishing a new power plant, in addition to conducting environmental impact assessments based on the Environmental Impact Assessment Act, we explain the plant in detail to local governments and community residents. Based on the results of environmental impact assessments, we strive to protect the local environment through various measures that reflect concern for the quality of the local air, water, and natural environment.

Even where no environmental assessments are required by law or by local ordinances, we implement voluntary assessments before building a power station or other facilities. The statutory environmental assessment for the Joetsu Thermal Power Station expired in 1996. However, given that the latest technologies are introduced to the plan for the construction of Unit 1, we performed a voluntary study of the surrounding area, forecast and evaluated the environmental impact of power plant construction, and provided explanations of these and our environmental conservation measures to local communities in November 2018.

Strict atmospheric conservation measures

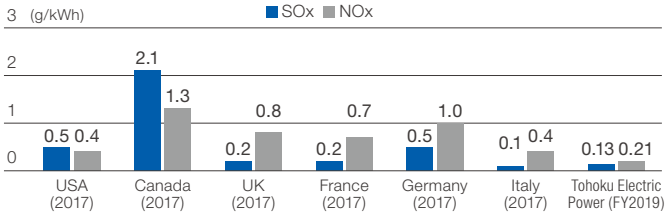
Major air pollutants emitted from thermal power stations include nitrogen oxides (NOx), sulfur oxides (SOx), soot, and dust.

To reduce the emissions of these substances, we install environmental equipment* and implement operational measures, including stringent combustion management aimed at preventing air pollution.

NOx emissions from all thermal power plants in FY2019 totaled 0.21 g/kWh. SOx emissions totaled 0.13 g/kWh. These figures are quite low compared to rates in other countries.

* Flue gas denitrification equipment, flue gas desulfurization equipment and electrostatic precipitator

SOx and NOx emissions per unit of generated power



Sources: OECD StatExtracts, IEA World Energy Balances 2019

Strict water quality conservation measures

We treat effluent from our thermal power stations by coagulating sedimentation, filtration, and purification to ensure the discharge meets all applicable standards and to prevent water pollution. We use seawater for the cooling steam used in steam turbines in thermal power stations and elsewhere and discharge it as thermal effluent after heat exchange. To minimize environmental impact, we discharge this water in a manner suited to the characteristics of the surrounding sea zone and implement appropriate controls to account for temperature differences between the water taken in and the water discharged.

For the pumped storage power station reservoir, we conduct periodic water quality surveys and adjustment operations based on turbidity monitoring results in a bid to maintain water quality.

Results of analysis of effluent from thermal power stations in fiscal 2019

Measurement items	Hachinohe		Akita		Higashi-Niigata		Sendai		Shin-Sendai		Niigata		Noshiro		Haramachi	
	Agreed level	Maximum / Minimum	Agreed level	Maximum / Minimum	Agreed level	Maximum / Minimum	Agreed level	Maximum / Minimum	Agreed level	Maximum / Minimum	Agreed level	Maximum / Minimum	Agreed level	Maximum / Minimum	Agreed level	Maximum / Minimum
Hydrogen ion concentration [pH]	5.8-8.6	7.4 / 7.0	6.0-8.0	7.4 / 7.0	6.0-8.0	7.5 / 6.5	6.0-8.0	7.4 / 6.9	6.0-8.0	7.4 / 7.3	5.8-8.6	7.3 / 6.8	6.0-8.0	7.2 / 6.8	6.0-8.0	7.2 / 6.3
Chemical oxygen demand (COD) [mg/l]	40 or less	4.5 / 2.0	20 or less	4.1 / 1.6	15 or less	4.3 / 1.5	15 or less	3.7 / 1.2	15 or less	3.9 / 2.4	15 or less	3.5 / 1.1	15 or less	6.9 / 3.0	15 or less	9.9 / 1.1
Suspended solids [mg/l]	40 or less	18 / <1	30 or less	7 / 1	20 or less	5 / <1	20 or less	<1 / <1	20 or less	2 / <1	20 or less	4 / <1	20 or less	<1 / <1	15 or less	4 / <1
Normal hexane extract content [mg/l]	5 or less	<0.5 / <0.5	2 or less	<0.5 / <0.5	1.5 or less	<0.5 / <0.5	1.5 or less	<0.5 / <0.5	1.5 or less	<0.5 / <0.5	1.5 or less	<0.5 / <0.5	2 or less	<0.5 / <0.5	1 or less	<0.5 / <0.5

Controlling chemical substances

Managing release and transfer amounts of specific chemical substances

We monitor the release and other amounts of all chemical substances used in power stations and other facilities and report them to the administrative authorities in accordance with the pollutant release and transfer register (PRTR) scheme.* We create and maintain records of the amounts purchased, consumed, stored, and other aspects to ensure proper control and to minimize their release into the environment.

* This scheme is intended to encourage businesses to make voluntary efforts to minimize the release of chemical substances. Business operators subject to this scheme are required to report data, including amounts of potentially hazardous chemicals released into the environment to administrative authorities, which then publish the reported data.

Release and transfer amounts of specific chemical substances in fiscal 2019 (tons)

Substance (main applications)	Release and transfer amounts*1			
	Atmosphere	Water	Soil	Transfer
Asbestos (heat insulators)	0.0	0.0	0.0	95.5
Ethylbenzene (fuel for power generation and coating)	2.8	0.0	0.0	0.0
Xylene (fuel for power generation and coating)	5.1	0.0	0.0	0.0
HCFC-225 (dry cleaning)	2.2	0.0	0.0	0.0
Styrene (coating material)	1.2	0.0	0.0	0.0
Toluene (fuel for power generation and coating)	9.2	0.0	0.0	0.0
Hydrazine (treatment chemical for water supply)	0.0	0.2	0.0	0.0
Normal hexane (fuel for power generation)	0.2	0.0	0.0	0.0
Benzene (fuel for power generation)	<0.1*2	0.0	0.0	0.0
Methylnaphthalene (fuel for power generation)	0.4	0.0	0.0	0.0

*1 The data in this table address offices and facilities meeting statutory conditions, as per reporting obligation requirements
*2: At emission rates of less than 0.1 t/year

Systematic asbestos removal

We periodically monitor points sprayed with asbestos-containing materials in our own facilities and systematically implement removal work and other measures to prevent asbestos scattering.
Other products containing asbestos do not result in asbestos scattering in their normal state. They are successively replaced with asbestos-free products during building removals and facility repair works.

Management and detoxification processing of PCB waste

We implement appropriate management and detoxification processing of polychlorinated biphenyl (PCB) waste in accordance with applicable laws and regulations.

High level PCB waste
We outsource the treatment of high level PCB waste to Japan Environmental Storage & Safety Corporation (JESCO).

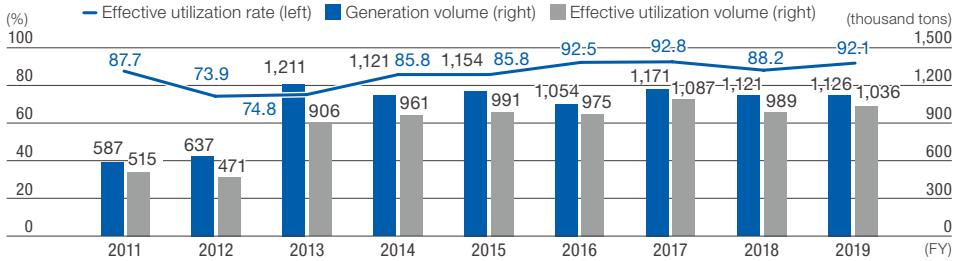
Low level PCB waste
We outsource the treatment of low level PCB waste, including waste generated in large transformers, to processing facilities recognized by the national government. Technologies appropriate for the items treated are used for treatment purposes. We completed detoxification processing of pole-mounted transformers with trace PCB contents at our Sakata Recycling Center by March 2016.

Effective resource use

Appropriate waste management and treatment

Our waste management system allows centralized and companywide control of emitted waste. In addition to appropriate waste treatment, we're moving ahead with studies of individual waste items based on a wide range of perspectives, including cutting emissions and final treatment volumes, recycling, and reuse.
For coal ash in particular, which accounts for some 80% of total waste emissions, we're enhancing recycling initiatives to allow use in land reclamation as landfill materials, in addition to use as a component of cement and roadbed materials.
Our target for FY2019 was to put 90% of waste to effective use. The actual rate achieved, 92.1%, more than met this target.

Waste generation volume and effective utilization



Environmental Conservation and Effective Resource Use

Making effective use of waste plastic

With the goal in mind of establishing a society that recycles, in addition to reducing, recycling, and reusing plastic waste, we strive to purchase products made from waste plastic. Examples of recycled products include the plastic deadman units needed to help prevent the collapse, subsidence, and inclination of power poles. We've replaced concrete deadman units with plastic units made from waste plastic removed during wiring construction.


Waste plastic after removal
(e.g., meter boxes, insulation covers)

Recycling

Plastic deadman
(buried in the ground to prevent power pole collapse)

Green procurement

We formulated the Tohoku Electric Power Group Green Procurement Guidelines to reduce environmental impact through the use of environmentally-friendly products and to contribute to a green shift in the market. In fiscal 2019, 98.8% of our purchases of fixtures, materials, and equipment subject to green procurement met guidelines.

Reduce-Reuse-Recycle (3R) practices in collaboration with group companies

We're working with other Group companies to reduce, reuse, and recycle used materials and equipment.

Reduce

We carry out meticulous maintenance and inspections of electric power facilities with a view to prolonging service life.

Reuse

Our collected watt-hour meters and pole-mounted transformers are repaired and reused at our group companies. We strive to reuse breakers with the goal of utilizing resources effectively.

Tohoku Electric Power Network

Watt-hour meter

Collection

Reuse

Tohoku Electric Meter Industry

Repair and inspections of watt-hour meters

Pole-mounted transformer

Collection

Reuse

Tohoku Electric Manufacturing and other companies

Repair of pole-mounted transformers

Recycle

We recycle waste copper derived from electric wires removed in power distribution line work into electric wires. Part of the polyvinyl chloride (PVC) coating is subsequently recycled into wire coating materials and resins.
After nearly 40 years of use, utility poles are crushed, then recycled into aggregate and reinforcing bar scrap at a rate of 100%, for reuse in public works and for other purposes.

Tohoku Electric Power Network

Used electric wire for power distribution

Collection

Kitanihon Electric Cable

Electric wire recycling work

Reuse

Recycled electric wire for power distribution

Tohoku Electric Power Network

Aged concrete poles

Collection

Tohoku Pole and other companies

Crushing of utility poles

Reuse

Recycled aggregate

Our thinking on and targets for preservation of biodiversity

One of our four environmental action principles calls for safeguarding and coexisting with the rich natural environment. Emphasizing the spirit of coexistence with nature so characteristic of the Tohoku and Niigata region, we advance various business activities that reflect due consideration for the environment, including a sense of gratitude for the various blessings and benefits generated by biodiversity and measures to prevent our business activities from damaging biodiversity. We will continue to seek to avoid and minimize the impact of power plant operations on biodiversity.

Biodiversity considerations at power plants

Coexistence with peregrine falcons, a rare wild animal species in Japan at thermal power stations

Peregrine falcons are found in the areas of the Sendai Thermal Power Station and the Shin-Sendai Thermal Power Station. To further the level of biodiversity, we're working to preserve their living habitats.

At the Sendai Thermal Power Station, we revised the schedule for Unit 4 replacement work to avoid disturbing their daily life patterns. These birds can now be found perching on a new stack, even after Unit 4 came online. Visitors to the power station are delighted to see peregrine falcons living there.

At the Shin-Sendai Thermal Power Station, we discovered that peregrine falcons had built their nests on the centralized smokestacks of Units 1 and 2. When these were replaced with the Unit 3 system in 2015, we placed nesting platforms on the new Unit 3 stacks to make up for the removal of Units 1 and 2. We have observed peregrine falcons making their nests on the nesting platforms, as well young birds that have already fledged and left the nests.

We will continue to make every effort to preserve the habitat of these birds.

Peregrine falcon on the premises (Sendai Thermal Power Station)

Creating a waterside environment on the premises of a thermal power station

The Sendai Thermal Power Station reconstructed a biotope around the reservoir on its premises following damage in the 2011 Great East Japan Earthquake, as part of our actions to conserve biodiversity. Cercion sexlineatum, Oryzias fish, and other valuable species can be found in the Maejima Pond for Wild Birds, positioned at the center of the biotope.

Cercion sexlineatum

The reservoir and the waterside environment on the premises of the Sendai Thermal Power Station

A pair of greater scaup arrived at the waterside

Preventing intrusion of sandfish in thermal power plants

In addition to installing nets on its water intakes to keep fish out, the Noshiro Thermal Power Plant in Akita Prefecture deploys channels to return to the sea any fish that make it through the nets. These are part of efforts to prevent the intrusion of sandfish—the prefectural fish—which congregate in large numbers near the coast to spawn during winter.

While sandfish eggs adhere to the nets, the plant removes the nets after incubation is confirmed, reflecting our concern to preserve local fishery resources.

Sandfish, the prefectural fish of Akita

Setting up fish ladders at hydroelectric power plants

Fish ladders are installed at hydroelectric power plants to protect aquatic life and to allow fish to pass over dams.

These fish ladders have been installed at Kamigo Dam in the town of Asahi, Yamagata Prefecture. Observations have confirmed the presence of salmon believed to have navigated these ladders in waters upstream from the dam.

Preserving wetlands on the premises of a nuclear power station

Numerous rare animal and plant species are found in the wetlands on the premises of the Higashidori Nuclear Power Station. Protecting them requires controlling the growth of reeds and other plants. We carry out regular weeding to ensure that habitats for rare animals and plants remain unchanged.

Hemerocallis esculenta in bloom in the wetlands

Maculinea teleius, a rare butterfly species

Biodiversity initiatives
https://www.tohoku-epco.co.jp/enviro/seibutsu/index.html

Independent Assurance Report, Environmental Data Book, etc.

Independent Assurance Report

KPMG

Independent Assurance Report

To the Representative Director & President of Tohoku Electric Power Co., Inc.

We were engaged by Tohoku Electric Power Co., Inc. (the "Company") to undertake a limited assurance engagement of its 'Scope 1, Scope 2 and Scope 3 (Category 3) greenhouse gas emissions' (the "Indicators") for the period from April 1, 2019 to March 31, 2020 included in Tohoku Electric Power Group ESG DATA BOOK 2020 (the "ESG Data Book").

The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the ESG Data Book.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information', and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements', issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the ESG Data Book, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the ESG Data Book and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Visiting the Company's Haramachi Thermal Power Station selected on the basis of a risk analysis.
- Evaluating the overall presentation of the Indicators.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the ESG Data Book are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the ESG Data Book.

Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
November 10, 2020

Environmental data book

In addition to the information in this ESG data book, other data on the environment are available at our website.

Environmental data book
https://www.tohoku-epco.co.jp/enviro/envirodata/index.html

Grün environmental communication booklet

We publish and distribute the Grün environmental communication booklet for customers. We also post this booklet on our website.

Grün environmental communication booklet
https://www.tohoku-epco.co.jp/enviro/grun/

Customer feedback

We use customer feedback to meet wide-ranging customer needs, improve our service, and to ensure satisfaction.

Product Liability

Our Customer Center handles applications for starting and discontinuing electricity contracts when customers relocate, as well as inquiries concerning billing plans and services, delivering timely and accurate responses by telephone.
These centers perform daily analyses of the service provided over the phone to assess telephone etiquette, effective response to phone inquiries, appropriate processing of applications, and to confirm that their actions comply with the operational rules for reception to identify issues that need to be addressed. We incorporate customer comments and feedback to improve our operations. We will continue these efforts to enhance reception skills and operational quality and to offer services that meet community needs.

Service at Our Customer Center

TOPICS

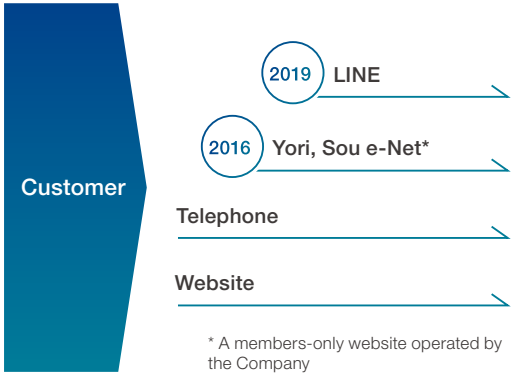
Setting up contact points for various applications and inquiries to meet customer needs

(Customer Centers)

In addition to telephone applications and inquiries, we accept applications and inquiries via the Internet and LINE smartphone app to make communication still more convenient. These contact points make it easy to submit applications and inquiries at any time of day.*
We will continue to act in response to customer needs based on feedback and voiced preferences.

* In some cases, it may take more than one day to check on an application or respond to an inquiry.

Applications/ inquiries contact points



* A members-only website operated by the Company

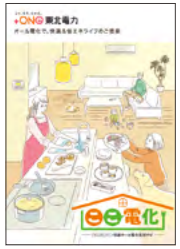
Enhancing actions to boost customer energy efficiency

We propose energy systems providing superior environmental, energy-saving, and safety features to help customers conserve energy and live comfortable and productive lives.

Sho-Ene Life (Energy Efficient Life)
http://www.tohoku-epco.co.jp/suggestion3/index.html

Encouraging household energy savings

For household users, we offer information on ways to cut energy consumption without reducing comfort when using electrical systems for hot water supply, heating, lighting, and other general electrical uses. To meet the customer need to shift to electrical appliances and support household energy conservation, we offer the EcoCute heat pump system and other products with outstanding environmental and energy-saving features.
For households in the Tohoku region, hot water supply accounts for around 30% and heating for approximately 40% of the energy consumed. Achieving efficient energy use for these applications is key to energy conservation in households. We create proposals for super-insulated housing and energy-saving measures, in addition to highly efficient hot water supply and heating systems that incorporate heat pumps to support safe and comfortable lives with high environmental and energy-efficient performance for buildings, household appliances, and daily life.



Brochure on energy conservation

Sho-Ene Life (Energy Efficient Life) – Tohoku Electric Power's webpage offering different kinds of energy conservation

Proposals on total energy solution services that resolve customer issues

Acting in their capacity as energy solution partners, our employees propose highly energy efficient heat pumps, electrical systems, and energy management systems so business customers can conserve energy and cut costs. Heat pump systems aren't just environmentally friendly and energy efficient. They're combustion free and boast superior safety. These electrical systems are widely adopted by commercial users at hospitals, welfare facilities, nursery schools, kindergartens, restaurants, cafes, agricultural facilities, and other sites. We propose electrical systems for production processes to factory operators and other business customers to help them achieve both high economic efficiency and advanced environmental performance.
As part of our energy-saving diagnostic service, our technical employees propose optimal solutions for customers based on actual use of facilities and financial considerations, including subsidies and leasing.

Inspecting customer facilities

Development of the HEATEDGE as an air-cooled heat pump heat source for the Tohoku region

With limited energy input, air-cooled heat pump heat sources collect heat from the air and convert it into significant thermal energy for cooling and heating. They are so energy efficient that many relatively large factories, hospitals, commercial facilities, and other facilities use them for air conditioning. However, heating performance tends to be less effective under low outdoor temperature conditions. Customers in cold regions needed better heating performance.
To meet this need and encourage use of heat pump systems in these regions, we developed the HEATEDGE in joint efforts with Toshiba Carrier Corporation. This air-cooled heat pump heat source features stronger heating performance during defrosting operations than conventional models.
The HEATEDGE will provide greater comfort for space heating, even where outdoor temperatures are low, as well as lower energy consumption.
The HEATEDGE received the 2017 Commendation for Global Warming Prevention Activity (in the technological development and commercialization categories) from the Minister of the Environment and the 2017 Energy Conservation Grand Prize from the Commissioner of the Agency for Natural Resources and Energy.
We will continue to work to resolve customer energy issues while fulfilling customer needs in the Tohoku region.

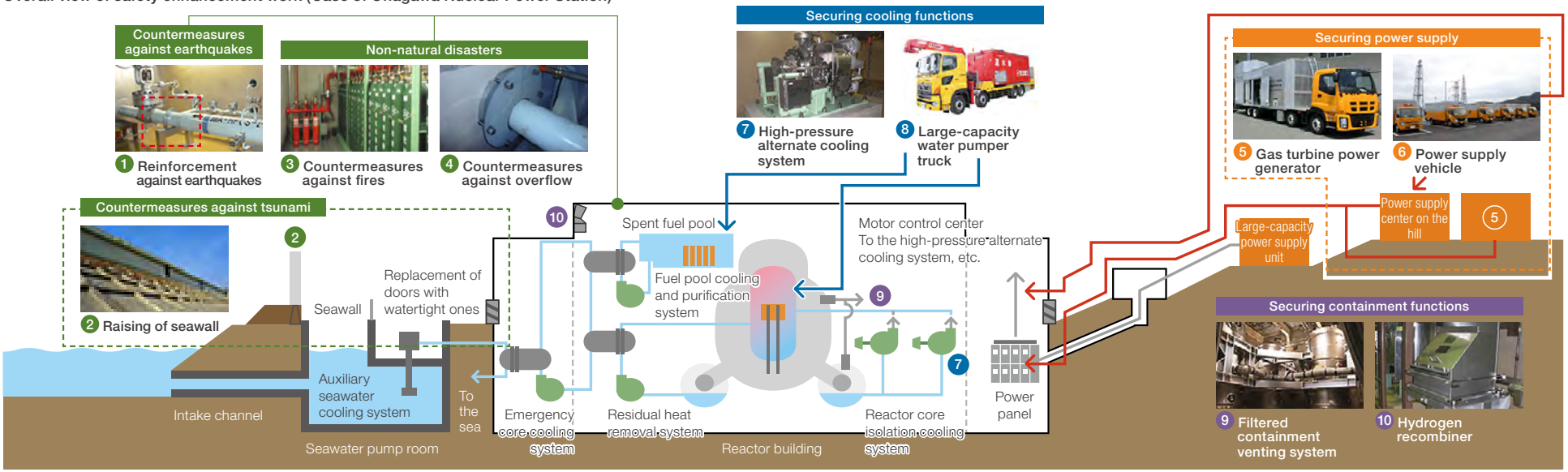
Exterior view of the HEATEDGE

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

Facility initiatives (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 underway to protect the station from tsunamis. Also underway at the power station is the installation of a filtered containment venting system. This system prevents the discharge of radioactive materials during the venting done to prevent damage to reactor containers due to overpressure. At the Higashidori Nuclear Power Station, the installation of three freshwater tanks (with a storage capacity of approx. 3,600 m^3 each), which are used to secure the amount of cooling water needed in the event of an accident, is nearly complete. Operational procedures are currently being examined. We're also working on maintenance for facilities at both power stations, including safety inspections during shutdowns and various other inspections.

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



Preparing countermeasures against the progress of accident [Defense in depth]

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

Protecting the facility	Countermeasures against earthquakes and tsunami	1 Reinforcement against earthquakes, 2 Raising of seawall and other measures
Preventing fuel failure	Securing power supply	5 Installation of gas turbine power generators, 6 Additional deployment of power supply vehicles and other measures
	Securing cooling functions	7 Installation of high-pressure alternate cooling system, 8 Deployment of large-capacity water pumper trucks and other measures
Containing radioactive materials	Securing containment functionsa	9 Filtered containment venting system, 10 Hydrogen recombiner and other measures

Non-natural disasters
3 Countermeasures against fires,
4 Countermeasures against overflow

Improving infrastructure to enable response to accidents

- Enhancing heavy machinery for removing debris, monitoring equipment, etc.
- Construction of an emergency response building and other measures

Countermeasures against terrorism

- Facilities for responding to specific serious incidents: Facilities for responding to deliberate aircraft crash (terrorism) shall be established within five years following receipt of permission for construction plans related to major facilities (such as a reactor). (Separate application required)

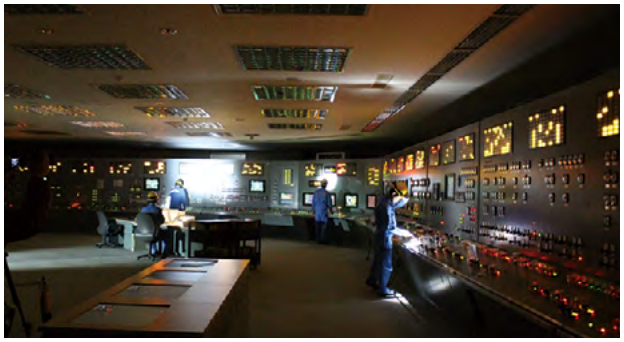
Initiatives related to operations (intangible aspects)

To ensure safety measures and the proper functioning of the facility, we've established operating procedures for and provide comprehensive training on equipment operations. Based on established procedures, we provide ongoing training on operations at power station emergency headquarters, alerts and communication, water injection into reactors, securing a power supply, and other topics. All this represents efforts to improve our emergency response.

Drills on use of large-capacity pumping trucks to secure cooling function

A drill on use of a large-capacity pump truck to pump water to nuclear reactors and spent-fuel pools in an emergency (Onagawa Nuclear Power Plant)

Training simulating accidents



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

Training to remove debris with heavy machinery

Training to remove debris with wheel loader or other heavy machinery assumes a tsunami or other disaster generating debris (Higashidori Nuclear Power Station).

TOPICS

Nuclear power information on our website

The nuclear power information section on our website provides detailed information on topics like safety measures and compatibility reviews at the Onagawa and Higashidori nuclear power stations and the decommissioning of Unit No. 1 at the Onagawa Nuclear Power Station.
Pages for virtual tours (Virtual Kengaku) explain safety measures at Onagawa and Higashidori nuclear power stations, using videos, photos, and computer graphics to enable virtual tours around power stations. We will maintain such initiatives as part of 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

Operation of nuclear power generation without compromising safety

Establishing and strengthening systematic risk management

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

1 Establishing the Nuclear Risk Investigation Commission

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

2 Enhancing risk communication

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

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

It is vital for nuclear power plant operators to gather community feedback based on two-way dialogue. Twice each year, as part of the continuing Konnichiwa Visit (Onagawa) and All-household Visit (Higashidori) programs, plant personnel from the Onagawa and Higashidori nuclear power plants visit each household within local communities.
These in-person activities provide residents with more information on power plants and help gather valuable feedback for subsequent reflection into plant operations.
In December 2019, we visited some 3,800 households around the Onagawa Nuclear Power Plant (in the town of Onagawa and the Oshika Peninsula area of the city of Ishinomaki) and 2,800 households around the Higashidori Nuclear Power Plant.
We plan to continue these efforts to ensure these power plants are trusted by and have firm roots in their communities.

A Konnichiwa Visit at the Onagawa Nuclear Power Plant

All-household Visit at the Higashidori Nuclear Power Plant

Providing information on nuclear power via social media

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

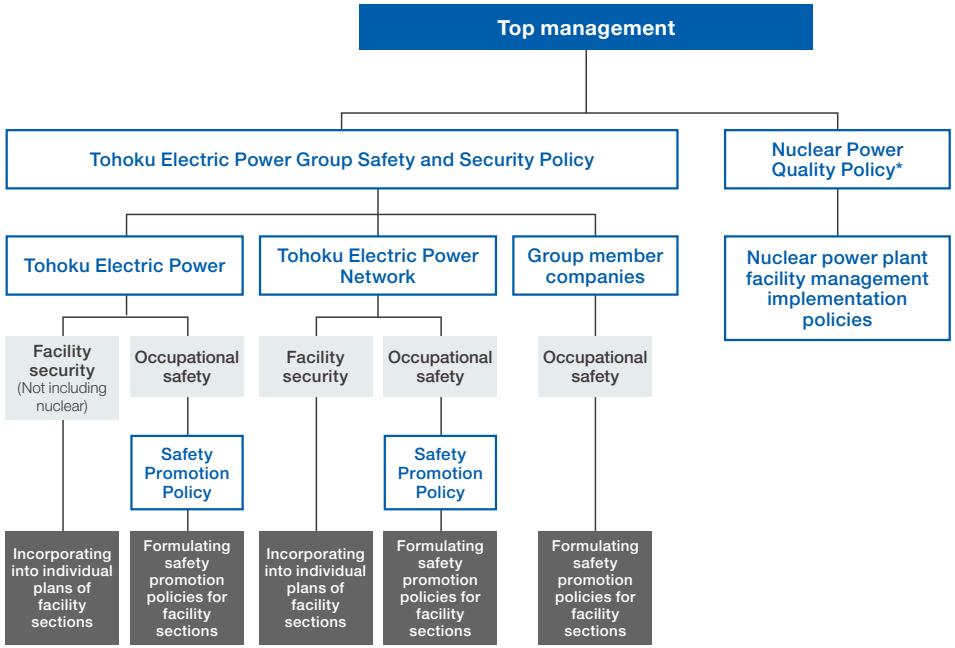
Communicating information via Twitter

An introduction to safety measures on YouTube

Initiatives to ensure safety and improve business quality

Based on the goal of establishing a robust corporate culture based on safety and improving business quality, Tohoku Electric Power and Tohoku Electric Power Network strive at all times to strengthen security companywide and to improve quality management in nuclear power. These efforts are primarily handled by the Safety and Security Promotion Conference and Nuclear Power Safety Promotion Conference.
We run through the plan-do-check-act (PDCA) cycle in various activities, including periodic assessments of related activities, as we strive to establish these as an integral part of our corporate culture.

Positioning of safety and security policies



* Also serves as the Policy on Fostering and Maintaining a Culture of Safety and Compliance with Applicable Laws, Regulations, etc.

Tohoku Electric Power Group Safety and Security Policy

In November 2008, we established the Safety and Security Policy as a set of guidelines to ensure all employees take appropriate action based on a shared understanding of safety and security. (The policy was partially revised in April 2017.) Since then, we've further enhanced initiatives related to occupational safety and facility security.
With the spinoff of the power transmission segment into a separate company in accordance with the amended Electricity Business Act, the business environment in which the Tohoku Electric Power Group operates reached a major turning point in April 2020. Based on our recognition that safety is the highest priority in all our business activities, we believe it is even more important now to establish a corporate culture under which the entire Group works together while putting safety first. For this reason, we've established the Tohoku Electric Power Group Safety and Security Policy to expand the Safety and Security Policy on a groupwide basis.

Safety and Security Policy

1. Acting with safety as the highest priority at all times
2. The courage and initiative to say: "Stop"
3. Making it a practice to ask and re-ask questions at all times
4. Acting based on an awareness of our own roles and responsibilities
5. Sharing information to ensure effective communication at all times

Safety-first initiatives led by top management

Members of top management participate in Safety and Security Promotion Conference meetings to strengthen safety and security. Actions include recommendations promoting initiatives to build a safety-first corporate culture.

Safety

Tohoku Electric Power has established the following policies in accordance with the Safety and Security Policy and the Quality Policies for Nuclear Safety and determines more specific actions.

Safety Promotion Policy

We've established a Safety Promotion Policy that describes our approach to and philosophy on safety and guidelines for initiatives addressing related priorities. We implement our safety activities through the PDCA cycle.
Under the capable leadership of business site management, we will promote safety activities to eliminate fatalities, serious injuries, and accidents involving electric shock or falling accidents while promoting sound and effective communication among managers and employees and teamwork companywide.

FY2020 Safety Promotion Policy (excerpted)

In FY2020, we will take concrete action based on the now-groupwide Tohoku Electric Power Group Safety and Security Policy.

I. Implementing safety activities based on the Safety and Security Policy

- Office general managers are required as general safety and health managers to be familiar with all rules and to take the lead in establishing safety-first awareness among employees in their office.
- At individual offices, based on line management and self-management, all individuals are required to implement safety activities based on an awareness of their own roles and responsibilities.

II. Safety activities undertaken jointly with contractors

- We will create specific measures for action items from the perspective of rebuilding a safety culture for fiscal 2020.

III. Implementing safety promotion campaigns to prevent seasonal industrial accidentsv

- Offices will run timely and effective campaigns in line with national and other campaigns. Group companies will work together in the summer and winter on safety promotion campaigns.

Quality policies for nuclear safety

Our quality policies on nuclear safety 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 to achieve sustained safety enhancement.

Quality policies for nuclear safety

We have a duty to enhance nuclear safety and reduce risks based on the keen safety awareness inherited from our predecessors and the many lessons gained from the Great East Japan Earthquake and other disasters.
For this objective, each employee has resolved to gain the understanding and trust of society by demonstrating a strong sense of responsibility, contributing to the safety culture, and continually conducting PDCA activities, based on the formulated policies set forth below.

1. Put safety first at all times.
2. Comply with laws, regulations, and rules.
3. Make constant review an entrenched habit.
4. Enhance information sharing
5. Take a proactive approach to improvements.

Policy on Fostering and Maintaining a Culture of Safety and Compliance with Applicable Laws, Regulations, etc.

The Nuclear Power Quality Policy also serves as the Policy on Fostering and Maintaining a Culture of Safety and Compliance with Applicable Laws, Regulations, etc.

Policy on Maintaining and Managing Nuclear Power Stations

In accordance with the Quality Policies for Nuclear Safety, we formulated a policy on maintaining and managing nuclear power stations to ensure stable operations and safety.

Policy on Maintaining and Managing Nuclear Power Stations

Maintenance and management are key factors in ensuring safety at nuclear power stations.

To ensure maintenance and management pursuant to the Quality Policies for Nuclear Safety, we established the following policy on maintaining and managing nuclear power stations based on the current suspended status of the plants.

1. **Check on the soundness of facilities after an earthquake and unfailingly implement the restoration.**
2. **Never forget to implement facility maintenance and inspections during the suspension period.**
3. **Implement safety measures that aggressively incorporate new findings.**
4. **Renewed awareness of the importance of inspection records and checks without omission.**
5. **Improving capacity through skills transfers**

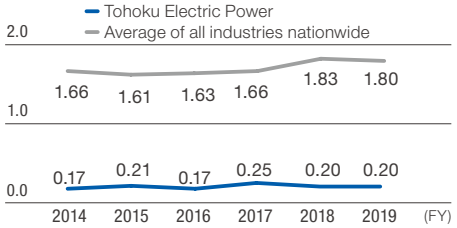
Based on these actions, we will develop a sense of personal responsibility for the power stations and implement persistent PDCA activities as part of efforts to continuously improve maintenance and management.

Actions on safety management to achieve zero accidents

To reduce industrial accidents, we introduced a safety and health management system that independently and continuously improves safety management. Under this international standard method of safety and health management, each office performs management independently and works to address and reduce latent risks and harmful factors to prevent industrial accidents.

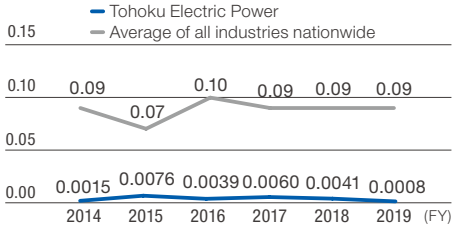
In addition, we provide support for the management system (system audit) to check safety management actions taken by each office. In this way, we're working to strengthen companywide safety management. If any industrial accident occurs, we probe the fundamental causes and background factors to develop effective measures to prevent recurrence. We also share information within the Company to prevent similar future accidents.

Trends in industrial accident frequency rates*1



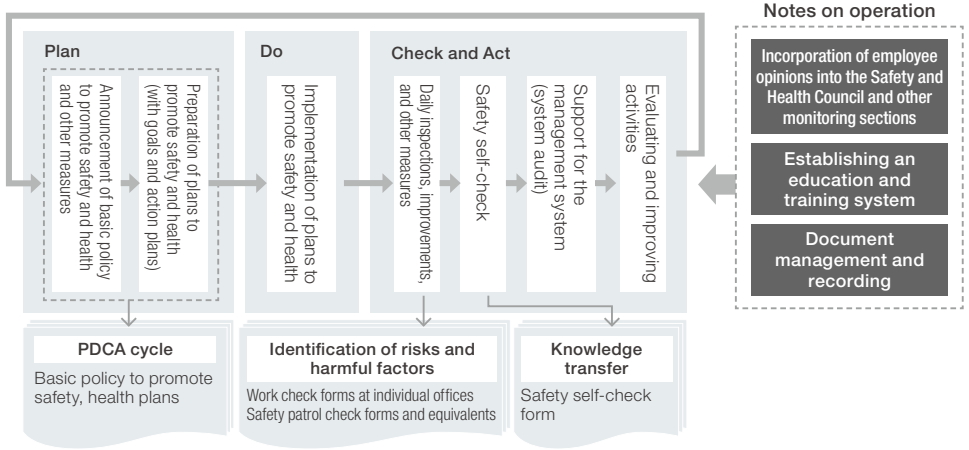
*1 Number of industrial accidents resulting in lost work time per million working hours

Trends in industrial accident severity rates*2



*2 Number of working days lost per thousand working hours

Implementation of safety and health management system



Customer Safety Initiatives

Implementing work emphasizing customer safety

Many electric power facilities, including utility poles and electric wires that supply electricity, are located close to the residential environments.

When engaging in any kind of work on electrical facilities, we focus on ensuring customer safety around worksites. For example, we place safety barriers and deploy personnel to guide and direct traffic.

Placing safety barriers around the work area

Positioning traffic guide personnel

Patrols and calls for attention to protect customers from electric shock

Approaching or touching transmission or distribution lines may result in serious and life-threatening electric shock, power outages, and incidents with serious repercussions for society.

To prevent such accidents, we implement timely patrols at popular fishing sites and locations where use of streamers, kites, or other objects may result in hazards. We also visit customers engaged in ground work, construction, logging, and agriculture and associations and organizations for these businesses, as well as fishing tackle stores to provide safety advice and distribute attention-grabbing posters and flyers.

Our website also presents information on preventing electric shock to raise general public awareness.

Preventing electric shock
https://nw.tohoku-epco.co.jp/accident/

TOPICS

Visiting elderly households to inspect electric facilities

In cooperation with group companies, our offices visit elderly single-person households to inspect electrical facilities, clean lighting fixtures, and render other services in partnership with local governments, social welfare councils, and other institutions.

Towada Network Center performs electric facility inspections and cleanup activities for elderly single-person households.

Communicating with Business Partners

Fair and equitable procurement

We're working to lower procurement prices for materials and services without compromising stable procurement or quality. We understand that winning growing trust from business partners means pursuing procurement activities that meet the standards of corporate social responsibility.

Pursuing fair and equitable procurement activities in accordance with the Basic Policy of Procurement

Through fair and impartial evaluations, we ensure the transparency of our procurement activities. We disclose procurement procedures in detail on our website. We remain open at all times to product proposals from those who wish to trade with us.

Training for procurement personnel

We work to build a sound corporate culture that ensures sustained and appropriate relationships with our business partners. Specific activities include training and education for employees to impart corporate ethics and to ensure rigorous compliance with laws and regulations, as well as the compilation of a database of applicable laws and regulations based on internal information systems.
We're committed to pursuing training and educational measures that strengthen our corporate credibility and enhance the capabilities of our employees to execute their duties.

Basic Policy of Procurement

1 Openness

In addition to maintaining relationships with suppliers with proven track records, the Company is always working to procure from new suppliers. The Company keeps an open door to companies within and beyond Japan and provides business opportunities open to all.

2 Fairness

The Company will select suppliers for procurement by considering overall quality, pricing, delivery time, supply stability, after-sales service, technical compatibility with existing equipment, transaction records, corporate stance, and other aspects, as determined based on a fair and impartial evaluation.

3 Adherence to Laws and Societal norms

In procurement operations in Japan and overseas, the Company will respect human rights and comply with all applicable laws and regulations, as well as the spirit underlying such laws and regulation. The Company firmly eschews engagement with antisocial forces, which threaten social order and public safety, and requires all suppliers to do the same

4 Safety

The Company will comply with all laws and regulations related to safety to ensure safety and prevent accidents.

5 Concern for the Environment

The Company will implement green procurement to further environmental conservation, make effective use of resources, and strive to build a resource recycling society.

6 Proper Information Management

The Company appropriately manages and safeguards all confidential information, personal information, and other sensitive information obtained in the procurement process.

7 Mutual Trust

The Company will seek to build favorable relationships of mutual trust with suppliers through fair procurement procedures.

8 Contributing to Society

Through procurement, the Company will seek to contribute to society alongside its suppliers.

Communicating with Business Partners

CSR surveys

We view our suppliers as partners and work with them to meet corporate social responsibilities. For this purpose, in the Request to Material Suppliers, we've defined seven measures we ask suppliers to implement, including adherence to all applicable laws and regulations in Japan and overseas and respect for human rights. We survey major suppliers to assess their activities in these aspects, then convert the survey results into numerical figures and engage in dialogue with suppliers. In fiscal 2019, we undertook CSR surveys of some 250 suppliers.

Request to Material Suppliers

1 Adherence to Laws and Societal Norms

- Adherence to all applicable laws and regulations, including civil laws, commercial laws, antitrust laws, subcontracting laws, and the equivalent, as well as the societal norms that apply in the regions in which suppliers conduct business activities, whether in Japan or overseas
- Respect for human rights and measures to prevent child labor, forced labor, and discrimination
- Exclusion of antisocial forces, which threaten social order and safety

2 Safety

- Adherence to laws and regulations pertaining to health and safety
- Maintaining health and safety and preventing accidents through proper management

3 Environmental Consciousness

- Actions to help achieve an environmental management system that complies with ISO 14001 and other standards
- Actions that promote eco-friendly manufacturing, including reducing toxic chemical substances, and green procurement
- Constructive approaches to the three Rs (reduce, reuse, recycle)

4 Fair Pricing and Quality Assurance

- Providing materials at fair prices
- Ongoing provision of materials meeting quality and other standards demanded by the Company
- Sustained improvements in technical capabilities

5 After-sales Service

- Cooperation in maintenance
- Appropriate measures and warranties against defects
- Response to disasters, accidents, and other emergencies

6 Delivery System

- Unfailing adherence to delivery dates and work deadlines
- Development of a stable supply system

7 Proper Information Management

- Proper management of confidential, personal, and other information

Briefing sessions for suppliers

We're positively disclosing information to suppliers and enhancing communication with them.
We organize annual briefing sessions for suppliers to explain our financial position and to implement CSR actions, including compliance, and to provide information on purchases of goods and the commissioning of various tasks. The session in fiscal 2019, including a questionnaire survey, featured some 500 participants from approximately 330 suppliers.
We review the comments and requests submitted by participants to improve our operations and enhance communication with suppliers.
To build trust in our partnership with suppliers, we've set up a helpdesk on materials procurement. For more information, please visit our website.

Building Workplaces that Reflect Respect for Diversity

Respect for diversity

Basic concepts

One core principle of the Tohoku Electric Power Group Code of Conduct is to build an open and vital corporate culture based on respect for individuals. We act in accordance with the following guidelines to strengthen trust and relationships with stakeholders and Group employees. We regard these principles and the guidelines that emerge from these principles as the fundamental concepts underlying respect for employee human rights.

Tohoku Electric Power Group Code of Conduct (excerpts)	
Building an open and vital corporate culture based on respect for individuals **We promote efforts to build an open and vital corporate culture characterized by mutual cooperation and the free and lively exchange of opinions, based on respect for the personality and individuality of each employee.**	
Respect for individuals	We hold in esteem the rights, personality, individuality, and privacy of each and every employee. The Group will not disclose personal information held on employees without the consent of the employee in question, except as required by laws or regulations or as necessary for sound business reasons.
Prohibition of discrimination based on gender	Discrimination against employees on the basis of attributes such as gender, age, disability, ethnicity, nationality, place of origin, beliefs, creed, or religion is strictly prohibited. Instances of violence, intemperate language, sexual harassment, or other such actions will not be tolerated in the workplace.
Fostering the organizational culture needed to build and improve an open and vital corporate culture	In addition to deepening cooperation among companies, sections, and related parties both inside and outside the organization and ensuring a free and lively exchange of opinions in the workplace, we will make progress on building an open and vital corporate culture in which diverse human resources are free to boldly take on new challenges and to demonstrate their individuality and abilities. We will foster an organizational culture that proactively addresses and rectifies any improprieties, thereby preventing the emergence of legal or ethical issues.

Raising awareness of human rights

We believe the flexibility required to respond effectively to a changing business environment requires conditions that maximize the potential and ability of a diverse corps of employees and connects this to new value creation. Since FY1994, based on this perspective, we've organized lectures, group training programs, and other events with various goals, including promoting awareness of human rights.

(Number of participants)

	FY2017	FY2018	FY20179
Participation in training on human rights (companywide)	3,549	3,631	2,130

Preventing harassment

We publish the Handbook for a Comfortable Workplace on our internal bulletin board, issue warnings, and engage in periodic discussions. We also offer training at various levels, from newcomers to managers.

Setting up hotlines

Since consultations on harassment requires consideration of interpersonal relations, including those concerning the person consulting on the matter, there is a need for systems that can protect employee rights and environments that allow consultations free of concerns about retribution—specifically, hotlines for reporting harassment.
We've established a centralized and external hotline for consultations related to workplace harassment to enable swift response while protecting the confidentiality and identity of the parties involved.
Based on the consultation, the hotline will investigate the facts of the matter and consider the response after determining whether harassment has taken place.
In addition to receiving related training and acquiring the necessary skills, hotline staff comply with strict rules on the handling of personal information and unfavorable treatment of those consulting with the hotline to ensure the hotline functions as intended.
Through good-faith response to consultations received at the hotline, we're committed to being a company at which anyone can work with vitality in workplaces free of harassment.

Building Workplaces that Reflect Respect for Diversity

Promoting diversity

Our thinking on promoting diversity

To enhance our ability to meet increasingly diverse customer needs and to continue to grow as a company amid dramatic changes in the business environment, we believe it is crucial to build workplaces in which diverse human resources are free to demonstrate their capabilities to the fullest, regardless of gender, age, or job title. We're active in moving forward with initiatives in various areas, including promoting women in the workplace and employing those with disabilities.

Promoting women in the workplace

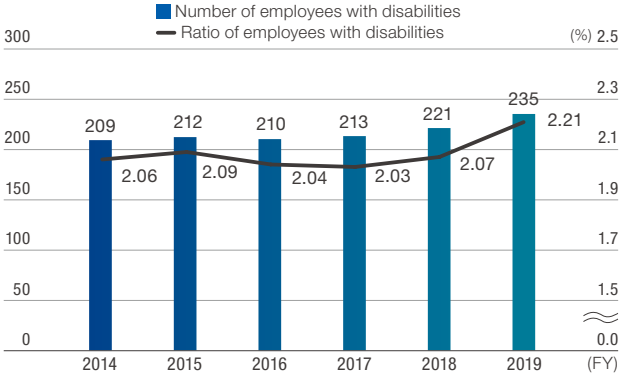
We're moving forward with initiatives to create workplaces in which diverse human resources can demonstrate their abilities to the fullest and to promote roles for women in the workplace. We've been certified by individual prefectures for workstyle reforms and efforts to promote careers for women. Pursuant to the Act on Promotion of Women's Participation and Advancement in the Workplace, in April 2020, we formulated a new general employer action plan, identifying various goals, including boosting the numbers of women in managerial positions at least by 1.5 times (compared to the start of FY2019) by the end of March 2025 and achieving a rate of at least 80% of employees taking standard leave by the end of March 2025 (companywide average). By enhancing initiatives that support a balance of work and family and support career formation and success, we will make progress on building workplaces that allow diverse human resources to thrive regardless of gender or age. We're committed to continuing to contribute to human resource development within communities by promoting the joint participation of men and women within the workplace.

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

Actions for disability employment

To provide more options for those with disabilities and to help them participate in society, we're undertaking recruitment in partnership with educational and other institutions.
We assign more vocational and lifestyle counselors for those with disabilities to our offices than required by law, respond to individual working life inquiries, and seek to improve working environments, including renovations to make them barrier-free for workers with disabilities.
Established in July 2018 to recruit more workers with disabilities and recognized in May 2019 as a special subsidiary company, Tohoku Electric Power Friendly Partners launched office support activities to add support for clerical operations. Our disability employment rate now surpasses the legal requirement of 2.2%. We plan to continue working with Tohoku Electric Power Friendly Partners to create working environments friendly for workers with disabilities and to expand disability employment.

Numerical trends and ratio of employees with disabilities



* Includes estimated basic figures for Tohoku-Electric Power Friendly Partners Co., Inc. beginning with FY2019

T O P I C S

Efforts to strengthen promotion of diverse human resources

In January 2020, some 60 female managers and managerial staff in charge of human resources within the Group met to exchange information on building workplace environments in which employees can better demonstrate their abilities, regardless of gender, as well as to strengthen motivation among female managers and networking activities.
In addition to a lecture by outside Director Ikuko Miyahara, this meeting included lively exchange of opinions on various shared concerns, issues, and solutions to realize more rewarding workplaces, as well as asking participants to imagine their own futures and discussing how to realize their goals.
We plan to continue pursuing sustained initiatives to build workplaces in which diverse human resources can thrive.

Work-life balance

Perspective on work-life balance

We believe in the importance of achieving a work-life balance and allowing all employees to address their duties to produce positive results while ensuring health and spiritual fulfillment. Workstyle reforms are a significant factor in achieving this goal. We're seeking to introduce different systems and to manage working hours to make it easier to create a harmonious balance of professional and private life.

Introducing different systems to ensure a work-life balance

We've introduced several programs to ensure the work-life balance of our employees. These include a childcare leave system that permits employees to take leaves until a child turns three; a care leave system that provides up to two years of leave; and childcare and care support working hours systems that reduce working hours by up to three hours. We've established a volunteer leave system to help employees achieve self fulfilment. The system allows employees to take leave of work to participate in social welfare, social contribution, or community-based activities. We strive to create working environments that will support employees in raising their children without forcing them to give up their jobs or careers. On reaching the goal set in the General Employers Action Plan pursuant to the Act for Measures to Support the Development of the Next Generation, we were recognized in 2008 and in 2015 by the Miyagi Labour Bureau as a next-generation development support company.
Moving forward, we will proceed with initiatives to realize diverse work styles for employees, including expanding flextime systems and systems that allow work from home.

Proper management of working hours

We're working to optimize management of working hours to improve operational quality and to ensure employee morale and vitality.
In response to amendment of the Labor Standards Act in April 2019, we've implemented measures to keep overtime below established limits and to ensure employees take paid vacation.

Examples of specific actions:

- Clarifying daily work schedules and goals to be met at start of meetings
- Designating one no-overtime day per week
- Making meetings more efficient by clarifying in advance the purpose of the meeting, points to be discussed, and the duration
- Training for managers to enhance labor management and communication skills
- Matching staff assignments to workloads
- Encouraging employees to take time off through systematic scheduling management

Kurumin certification as a company supporting childcare

Teleworking

Systems to further employee work-life balance and number of beneficiaries

		FY2017	FY2018	FY2019
Childcare support systems	Childcare leave system (for women)	38	48	43
	Rate of beneficiaries	97.4%	97.9%	97.7%
	Childcare leave system (for men)	1	6	5
	Rate of beneficiaries	0.3%	1.6%	1.4%
	Childcare support working hours system	150	144	141
	Partner maternity leave system	308	327	322
	Rate of beneficiaries	86.0%	88.4%	88.5%
	Child nursing leave system	446	446	540
Care support systems	Care leave system	6	7	4
	Care support working hours system	3	3	2
	Family care leave system	68	185	212
Volunteer leave system		40	27	87

Sound labor-management relationship

Excluding those representing our corporate interests, all employees are members of Tohoku Electric Power's labor union. In 1956, before other companies, management and the labor union concluded a Productivity Collective Contract. The contract includes provisions whereby both management and workers work jointly to boost productivity. In accordance with this contract, individual offices have established Productivity Councils to deliberate on business implementation plans and operations to develop the Company's business activities and to improve its operations. These bodies work to deepen understanding and trust between the management and the union, thereby contributing to the pursuit of business operations.

Securing and Training Human Resources

Developing human resources to drive growth

Perspective on developing human resources

We see employees as the driving force behind corporate growth. To empower employees, we're taking diverse measures to strengthen human resource development. We believe the development of individual employees will contribute to corporate growth and to social contributions.

Ongoing recruitment of human resources and strengthening motivation and vitality

On the verge of a major change in the electric utility business, we must secure and develop diverse personnel who will work on renovations from the perspective of total optimization, drawing on flexible ideas to achieve full-scale competition and achieve growth alongside local communities.

To achieve the goal of helping to reconstruct and develop the region through the stable supply of electric power and obtaining human resources capable of tackling new management challenges, we recruited 275 new employees in fiscal 2018 and 303 in fiscal 2019.

In 2005, we also introduced a multipronged human resource and wage system targeting appropriate promotion and pay increases, fair evaluations, job satisfaction, and self fulfilment. We've implemented various measures to boost employee motivation and energy.

Beyond these measures, we must pass on the experience accumulated by employees to retain the technologies and expertise required for business operations.

We've launched a system for reemploying employees who have reached the age of retirement to make effective use of their skills. We offer a wide range of working opportunities that meet the needs of individual workers. In 2019, we newly employed 110 such personnel. As of the end of the fiscal year, we employ a total of 467 reemployed individuals.

Employment trends

		FY2018	FY2019
Number of employees	Men	11,350 (93.1%)	11,277 (92.8%)
	Women	839 (6.9%)	879 (7.2%)
Number of management staff*1	Men	5,011 (98.4%)	5,106 (98.1%)
	Women	84 (1.6%)	99 (1.9%)
Number of newly recruited personnel	Men	239 (86.9%)	266 (87.8%)
	Women	36 (13.1%)	37 (12.2%)
Average age	Men	42.9	43.0
	Women	39.6	39.6
Average tenure (in years)	Men	22.6	22.6
	Women	18.6	17.7
Number of persons employed under the elderly reemployment system*2		116 (61.7%)	110 (64.7%)

*1 All management staff, including managers and those at lower ranks
*2 A figure in parentheses ( ) next to the number of persons employed under the elderly reemployment system represents the ratio of persons employed to those eligible for the system in the specified fiscal year.

Skills development for human resources capable of working on renovations

Vision 2020 for the Tohoku Electric Power Group defines the development of the human resources needed to support future growth. By mutually and systematically applying the three pillars of on-the-job training, off-the-job training, and self-development, we plan to cultivate employees capable of working on renovations from the perspective of total optimization and flexible conceptualization, as well as those who bring with them a strong sense of duty and the reliable techniques and skills needed to support a stable energy supply.

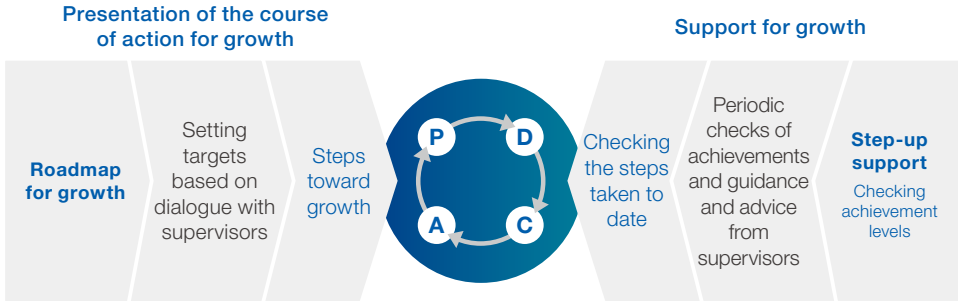
Systematic human resource development based on a range of training and education opportunities within and beyond the workplace

On-the-job training

Using a roadmap for growth—a tool that specifies the level of knowledge, techniques, skills, and experience needed—our employees set skill development targets based on dialogue with their supervisors. They receive on-the-job training and group education to meet their targets.

Supervisors provide step-up support, including monitoring progress toward targets through daily on-the-job training, periodic achievement checks, and guidance and advice to further continuing and sustained growth. We implement the systematic development of human resources based on the PDCA cycle.

Fundamental procedural flow of human resource development



Securing and Training Human Resources

Off-the-job training

We offer a systematic lineup of various off-the-job training programs, including training for new recruits, training for employees in their third year and other level-specific training, training for different duties, and programs that allow them to attend domestic or overseas graduate schools or other educational institutions.

Common education programs in off-the-job training

Level	Main group training	Dispatch training
Management level personnel	Training to develop next-generation leaders (for selected trainees)	Overseas study training / Domestic study training / Domestic dispatch training
	Training for front-line office general managers	
	New managerial staff training	
Mid-level personnel	Overseas business training (for trainees selected in open competition)	
	Advanced electric power specialist academy (for trainees selected in open competition)	
	Training for personal transformation	
Young personnel	Introductory training for newly recruited employees	
	Next step training for young employees	

Job-specific departmental education and skills training

Job-specific departmental education seeks to enhance technical knowledge and the skills required to strengthen work quality in individual departments.
For the three departments of power supply, substation engineering and transmission engineering, an annual joint skills competition is held to transfer the techniques and skills and renew and build awareness of safety actions.
In addition, to improve techniques and skills in everyday operations and to enhance skills related to responding to emergencies, the power transmission, thermal power, civil engineering and construction, and other sections organize periodic hands-on drills, technical drills, and competitions. These activities strengthen and pass on techniques and skills employees acquired through workplace experience.

Transmission line grounding installation and removal training in power transmission section

Skills competition in thermal power section

Skills training in power distribution section

Self-development support systems

We've instituted several different systems to support employee self-development. Various current measures support development for the many different skills and needs of individual employees.
In addition to the programs listed below, we support self-development based on e-learning. We seek to offer environments in which employees can learn more about various topics based on their motivation to acquire skills and knowledge.

Encouragement and recognition for those achieving official certification	This system grants to employees achieving official certification related to workplace duties at their own expense with congratulatory cash gifts in recognition of self-development efforts.
System of granting aid for education by correspondence	This system covers a portion of expenses incurred after the successful completion of any educational correspondence course recommended by the Company for its employees.
Subsidies for taking the TOEIC exam	This system covers the fees required to take the TOEIC exam, as well as the cost of getting to the test venue if the test is taken by the annual due date designated by the Company.

Actions for Health Management

Health management practices based on maintaining the mental and physical health of each employee

We implement the health management needed to ensure we remain a company in which all employees can work energetically and in good health by enhancing early steps that prevent and/or treat illnesses.
We've formulated a basic health promotion policy for each fiscal year to take actions that will help establish and maintain a healthy working environment and the mental and physical health of all our employees.
In addition to ongoing health improvement efforts, measures to ban smoking throughout the head office site from April 2020 have been well received and led to recognition as a White 500 firm implementing outstanding health management (in the large firms category), a joint initiative of the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi.
We plan to continue pursuing the health management needed to improve employee health and boost productivity, thereby increasing corporate value.

2020 健康経営優良法人 Health and productivity ホワイト500

Actions that create healthy working environments

To ensure our employees can work in good health and free of needless anxiety, we take steps to maintain and improve working environments based on the results of sanitation patrols and workplace environment measurements undertaken by industrial physicians and hygiene managers.
Anti-smoking measures include the separation of smoking areas to prevent exposure to second-hand smoke, completed in fiscal 2006, and reducing smoking areas following smoking bans in entire buildings to discourage smoking. Over the three years through FY2009, continual measures were carried out such as striving to reduce the number of employees who smoke by decreasing the number of smoking areas, based on a policy of making all buildings non-smoking. Since fiscal 2010, we've worked continuously to reduce smoking rates through seminars and counseling to quit smoking. These efforts reduced employee smoking rates by 19.7 percentage points—from 44.3% in fiscal 2004, when the anti-smoking measures guidelines were formulated, to 24.6% in fiscal 2019.

Encouraging employees to maintain their own mental andphysical health

We're active in measures to prevent lifestyle-related diseases and maintain mental health as part of efforts to improve health management. Based on the two pillars of line management by management staff and self-action by employees, specific steps include guidance from industrial physicians and health promotion staff to individual employees and the organization of internal seminars to raise health awareness among management staff and employees.
We apply the PDCA cycle repeatedly to enhance the health of individual employees and to make continuing improvements.

Measures to prevent lifestyle-related diseases

We offer health guidance based on the results of annual health checkups, with a special focus on lifestyle improvements. For employees aged 40 and older diagnosed with metabolic syndrome, we provide specified health checks, specified health guidance, and related support in partnership with the health insurance society. We seek to emphasize personal guidance for young employees required to strengthen prevention awareness.
During the campaigns for National Occupational Health Week organized by the Ministry of Health, Labour and Welfare and Health Emphasis Month by the National Federation of Health Insurance Societies, we hold health promotion campaigns as part of efforts to inspire employees to change their lifestyles and to begin exercising on a daily basis.

Mental health education

To maintain the mental health of our employees, in accordance with the Guidelines for Maintaining and Promoting the Mental Health of Workers established by the Ministry of Health, Labour and Welfare, we're working to identify and prevent mental health issues in the early stages based on activities in four areas of mental healthcare: self-care, line care, staff care, and external care.
Specific measures include seminars on communication and other skills; training for newly appointed management staff on line management; training for newly recruited employees and other young staff on recognizing and responding to stress; counseling for employees facing changes in their working environment due to personnel transfers; and counseling provided by outside specialist organizations.
Under the stress check system, we urge employees to assess their own health and to improve working environments based on the group analysis results to help create and maintain employee-friendly workplaces.

Countermeasures against infectious disease

In the event of the outbreak of a novel influenza strain or other infectious diseases capable of spreading rapidly ("novel virus" hereinafter), appropriate decision-making is essential to ensure safety, business continuity, a stable supply of electricity, and minimal impact on the lives and livelihoods of the public.
At the same time, the outbreak of a novel virus may lead to many employees taking time off due to infection or to allow care for family members. Employees who have been in close contact with infected individuals may be unable to work because they have been asked to self-quarantine. The spread of a novel virus may also make it difficult to secure the materials and services needed for business operations.
For these reasons, we've formulated a Novel Virus Countermeasures Plan to define risk management structures for a novel virus outbreak, measures related to business continuity, and measures to prevent infection and the spread thereof. In this way, both Tohoku Electric Power and Tohoku Electric Power Network seek to continue fulfilling their roles as public utilities essential to maintain social infrastructure by continuing to deliver a stable supply of electricity while putting safety first and striving to minimize risk to employee health and safety.

Stringent compliance with business ethics and applicable laws and regulations

We believe compliance with business ethics and applicable laws and regulations is essential to all business activities. To maintain and enhance related activities, we've established 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 and other offices. The Committee of Corporate Ethics and Compliance formulates action plans to ensure 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. It also implements awareness-promoting activities in partnership with the Chiefs of Corporate Ethics and other personnel. Examples of these activities include training sessions and Corporate Ethics Month. The committee also examines various activities to review specific aspects.

Structure to ensure compliance with corporate ethics and applicable laws and regulations*

Committee of Corporate Ethics and Compliance

Chairman	President
Vice Chairman	Executive Vice President in charge of promoting compliance
Committee member	Members of the Management Committee

Committee of Corporate Ethics and Compliance

↓

Chiefs of Corporate Ethics (General Managers of offices, departments, and branch offices)

↓

Promoters of Corporate Ethics (Managers)

Roles of Chiefs of Corporate Ethics

Providing guidance on appropriate business execution for fair and honest business activities and preventing improprieties, through taking the initiative and setting a good example as the head of the organization

Roles of Promoters of Corporate Ethics

Providing guidance on the daily activities of section members and accelerating the development of an open workplace culture that facilitates flexible communication

* Since April 2020, Tohoku Electric Power Network has established a similar structure under which both companies engage in joint activities.

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

① Intensive efforts to prevent misconduct

We regard the Tohoku Electric Power Group Action Guidelines as the basis of all employee actions within the Tohoku Electric Power Group. As part of intensive efforts to prevent misconduct, we're committed to activities targeting ever-growing awareness of risks related to compliance with corporate ethics and applicable laws and regulations.

② Socially acceptable actions

By engaging in the basic processes of noticing, engaging in dialogue, and correcting courses of action, we will proceed in accordance with appropriate values and criteria for judgment and engage in sincere and sound business implementation in society to maintain and boost the trust of local communities.

③ Encouraging the culture of volunteering at workplaces

To prompt and improve activities throughout the Group, individual companies within the Tohoku Electric Power Group will engage in activities to ensure compliance with corporate ethics and applicable laws and regulations and to distribute information on their positive efforts.

Education, awareness promotion, and monitoring activities

To enhance knowledge and awareness as the foundations for ethical behavior and to encourage self-discipline, we regularly carry out awareness promotion activities to strengthen compliance with corporate ethics and applicable laws and regulations. We also carry out monitoring and other activities to assess ethical behavior is put into practice. Through these activities, we're working to improve our organizational self-discipline.

Providing appropriate education for different ranks

Our induction education for new employees focuses on the need to comply with corporate ethics, applicable laws and regulations, as well as the basics, whereas training for newly appointed managers focuses on points to note in management. In top seminars for the management team members, lectures are given by invited outside experts, in addition to opinion exchange sessions. In this way, we provide appropriate target-focused education for trainees to reinforce knowledge and awareness as the foundations for ethical behavior.

Implementing the Tohoku Electric Power Group Corporate Ethics Month

We define October as Tohoku Electric Power Group Corporate Ethics Month. During this month, the president delivers a message to all Group employees, a top seminar is organized and held, and workplace discussions are carried out based on case methods. The discussions seek to strengthen awareness of observing corporate ethics and applicable laws and regulations, as well as promote such as part of corporate culture.

Surveys of employees on adherence to corporate ethics and applicable laws and regulations

We've been conducting surveys of employees on the observance of corporate ethics and applicable laws and regulations since fiscal 2017. The surveys monitor the current status of employee perception regarding the observance of corporate ethics and applicable laws and regulations, the organizational culture, as well as how they check, assess and improve actions concerning the observance of corporate ethics and applicable laws and regulations.

Appropriate operation of consulting services

We've implemented a Corporate Ethics Consulting Service inside and outside the Company since April 2003. This ethics body receives inquiries and reports about the Company's operations and management and the conduct of employees or other workers or practices in the workplace that may violate corporate ethics or applicable laws or regulations, including dishonest and inappropriate activities.
Upon receipt of any such inquiry or report from an employee of the Company or any of its affiliates, the body may investigate and take corrective action and recurrence prevention measures. The Company also strives to ensure appropriate operation of consulting services, including implementing strict management of personal information and barring disadvantageous treatment of any person making use of the service.

System for using the Corporate Ethics Consulting Services

* Since April 2020, Tohoku Electric Power Network has established a similar structure under which both companies engage in joint activities.

Number of inquiries to the Corporate Ethics Consulting Services

FY2017	7
FY2018	8
FY2019	16

In fiscal 2019, the Corporate Ethics Consulting Services received five inquiries on inappropriate operational processing and 11 other inquiries.

Actions to ensure fair competition

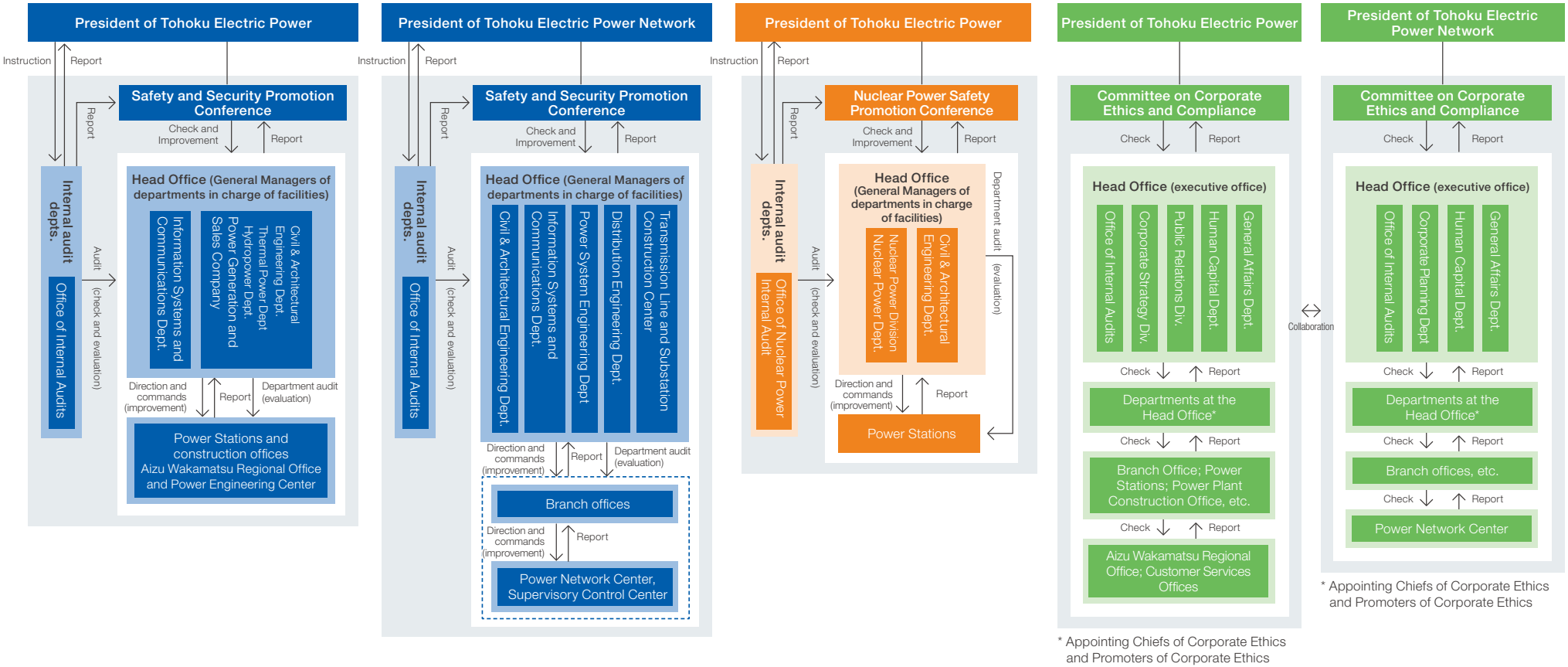
To create new value through market competition and maintain our position as No.1 choice for customers, it is important to ensure fair competition, a basic tenet of market competition. We've therefore prepared the Antitrust Compliance Manual and a resource for the Guidelines for Correct Power Trading. We're making them available to all employees to deepen their understanding of the applicable laws and regulations.

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 on Corporate Ethics and Compliance. We check if the activities are implemented as planned, voluntary actions of noticing and correcting are carried out and whether active communication, such as dialogue activities, is guaranteed.

We will continue to comply with all laws, regulations, and rules through awareness of, discussing, and applying corrections in day-to-day security activities, and ensure that PDCA activities are implemented. We will continue to keep past actions in mind and strive to further entrench voluntary security activities.
We also are working to ensure the safety of our customers and our communities through voluntary facility security activities.

Structure for reviewing and improving voluntary security activities



Actions for information security

Tohoku Electric Power works to maintain and improve the security of its corporate group and to control the personal information of its customers in accordance with applicable laws and regulations. We implement technical measures and establish the systems needed to safeguard against the latest cyberattacks.

Tohoku Electric Power Group's actions for maintaining and improving security

We implement technical and organizational measures to maintain and improve security in accordance with the Tohoku Electric Power Group Information Security Fundamental Policies. Technical measures include steps to prevent unauthorized access, data leakage and falsification. Organizational measures include the development of internal standards for information security, construction of a management system under which the management assumes responsibility, awareness promotion activities for employees and information management, including contractors.

Tohoku Electric Power Group Information Security Fundamental Policies.
https://www.tohoku-epco.co.jp/privacy/security.html

Appropriate management of personal information in accordance with laws and regulations concerning the protection of personal information

In compliance with the Act on the Protection of Personal Information and the Act on the Use of Numbers to Identify a Specific Individual in Administrative Procedures, we've formulated the Standards for Personal Information Protection to ensure the appropriate management of personal information concerning customers, shareholders, and business partners.

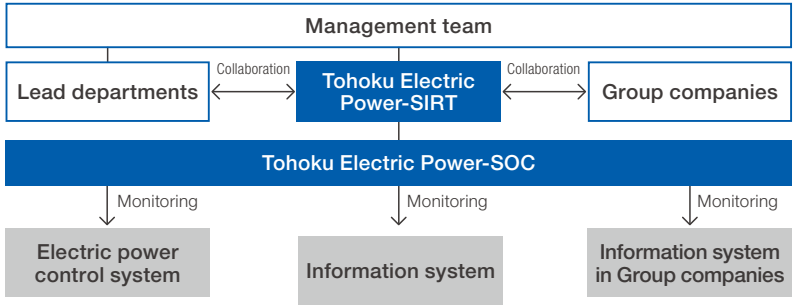
Tohoku Electric Power Standards for Personal Information Protection
https://www.tohoku-epco.co.jp/privacy/index.html

Tohoku Electric Power Network Standards for Personal Information Protection
https://nw.tohoku-epco.co.jp/privacy/index.html

Technical measures and building a system to safeguard against the latest cyberattacks

We implement the latest technical measures to address increasingly sophisticated cyberattacks, including those that block computer viruses and authorized access. We've established the Tohoku Electric Power Security Incident Response Team (SIRT)*1 as a security crisis management system and the Tohoku Electric Power Security Operation Center (SOC)*2 for 24-hour security monitoring operations. In this way, we're working to prevent security incidents and to minimize damage in the event of an occurrence in cooperation with our Group companies.

Security Implementation System



*1. SIRT: Security Incident Response Team. Tohoku Electric Power Network has implemented a similar structure since April 2020.
*2. SOC: Security Operations Center

Performance Data

Category		Item	2015	2016	2017	2018	2019 (FY)
Facilities	Facility Overview	Number of hydroelectric power stations	208	209	209	209	209
		Hydroelectric power generation output (MW)	2,430	2,440	2,450	2,450	2,450
		Number of thermal power stations	12	12	12	12	12
		Thermal power generation output (MW)	12,030	12,270	12,350	11,430	11,330
		Number of geothermal power stations	4	4	4	4	4
		Geothermal power generation output (MW)	220	220	190	190	190
		Number of nuclear power stations	2	2	2	2	2
		Nuclear power generation output (MW)	3,270	3,270	3,270	2,750	2,750
		Number of solar power stations	4	4	4	4	4
		Solar power generation output (MW)	4.8	4.8	4.8	4.8	4.8
		Total number of power stations	230	231	231	231	231
		Total power generation output (MW)	17,960	18,210	18,270	16,820	16,720
		Route distance of transmission facilities (km)	15,212	15,190	15,281	15,330	15,363
		Circuit length of transmission facilities (km)	24,794	24,797	24,945	24,996	25,036
		Number of supports for transmission facilities	58,229	58,074	58,307	58,457	58,464
		Number of substations	627	628	630	630	631
		Substation output (MVA)	75,210	75,710	76,820	78,380	79,410
		Route distance of power distribution facilities (km)	146,550	147,078	147,583	147,934	148,348
		Extended wire distance of power distribution facilities (km)	583,092	585,150	586,638	587,638	589,127
		Number of supports for power distribution facilities	3,088,541	3,108,453	3,116,413	3,126,235	3,137,078
	Power outage frequency and duration	Average power outage frequency per customer house (number of instances)	0.08	0.11	0.13	0.08	0.09
		Average power outage duration per customer house (minutes)	11	24	10	7	13
	Regional characteristics and load densityin Tohoku	Population density (per km2)	142	142	142	142	142
		Electricity sales per unit area (MWh per km2)	940	930	910	870	840
	Facility construction costs	Power sources (billion yen)	130.4	111.8	105.3	100.8	160.6
		Distribution (billion yen)	127.9	126.9	127.7	116.9	112.8
		Other (billion yen)	32.5	32.5	41.4	38.1	40.3
		Total (billion yen)	290.9	271.3	274.4	255.9	313.8
Nuclear energy	Nuclear power station facilities use	Nuclear power station facilities rate of use (%)	0.0	0.0	0.0	0.0	0.0
	Average radiation dose per worker	at the Onagawa Nuclear Power Station (mSv)	0.1	0.1	0.2	0.1	0.1
		at the Higashidori Nuclear Power Station (mSv)	0.1	0.0	0.1	0.4	0.0
	Solid waste at the Onagawa Nuclear Power Station	Generation (drums equivalent)	2,268	2,244	3,140	3,064	2,824
		Volume reduction (drums equivalent)	648	756	2,272	1,724	2,024
		Total cumulative storage (drums equivalent)	30,276	31,764	32,632	33,972	34,772
		Storage capacity (drums equivalent)	55,488	55,488	55,488	55,488	55,488
	Solid waste at the Higashidori Nuclear Power Station	Generation (drums equivalent)	668	456	488	656	516
		Volume reduction (drums equivalent)	0	0	0	0	0
		Total cumulative storage (drums equivalent)	11,648	12,104	12,592	13,248	13,764
		Storage capacity (drums equivalent)	18,360	18,360	18,360	18,360	18,360
Shareholders and investors	Percentage of ownership	National and local governments (%)	4.1	4.0	4.1	4.1	4.0%
		Financial institutions (%)	30.9	33.3	33.6	33.4	37.1%
		Other corporations (%)	5.7	5.8	5.8	6.0	4.4%
		Foreigners (%)	24.1	22.4	22.7	23.7	20.0%
		Individuals and other parties (%)	35.2	34.5	33.8	32.8	34.5%
		Total number of issued shares	502,882,585	502,882,585	502,882,585	502,882,585	502,882,585
		Number of shareholders	195,215	181,989	177,023	171,598	173,712
	Major achievements of investor relationships activities	Number of participants in financial results briefings	211	176	174	144	132
		Number of institutional investors visited	138	116	109	102	94

Category	Item	2015	2016	2017	2018	2019 (FY)
Employees	Number of employees	Male	11,592	11,576	11,488	11,350	11,277
		Female	829	823	828	839	879
	Number of management staff (executives)	Male	4,985	4,998	5,022	5,011	5,106
		Female	78	79	81	84	99
	Number of new employees recruited	Male	197	239	245	239	266
		Female	20	28	29	36	37
	Average age	Male	42.2	42.6	42.7	42.9	43.0
		Female	40.3	39.8	39.7	39.6	39.6
	Average tenure	Male (years)	21.3	22.4	22.5	22.6	22.6
		Female (years)	17.5	18.9	18.7	18.6	17.7
	Personnel re-employed under the re-employment system for the elderly	Number of personnel re-employed	110	107	139	116	110
		Ratio of personnel re-employed to those eligible for the system for the fiscal year (%)	64.0	67.7	69.5	61.7	64.7
	Training costs per employee and total number attending training classes	Training costs per employee (thousand yen)	100	107	113	116	111
		Total number attending training classes (hundred)	187	180	172	175	179
	Average number of days of training per employee	Number of days of off-site training per employee (days)	-	-	-	-	17.5
	Working hours	Total number of working hours (excluding night duty, etc.)	1,965	1,975	1,968	1,969	1,941
		Number of overtime labor hours (excluding night duty, etc.)	277	285	278	282	285
	Paid leave	Number of average days taken as paid leave	13.3	13.1	13.1	13.4	13.8
	Systems for work-life balance and number of beneficiaries	Number of beneficiaries of childcare leave system	28	43	39	54	48
		Number of beneficiaries of childcare support working hours system	140	143	150	144	141
		Number of beneficiaries of partner maternity leave system	310	308	308	327	322
		Number of beneficiaries of child nursing leave system (special leave)	257	350	446	446	540
		Number of beneficiaries of care leave system	2	1	6	7	4
		Number of beneficiaries of care support working hours system	1	1	3	3	2
		Number of beneficiaries of family care leave system	145	152	68	185	212
		Number of beneficiaries of staggered working hours system for employees living apart from their families	351	249	135	127	229
		Number of beneficiaries of volunteer leave system	35	74	40	27	87
		Number of beneficiaries of personal leave systems	1	1	2	1	2
	Disability employment	Number of employees with disabilities	212	210	213	221	235
		Disabled person employment rate (%)	2.09	2.04	2.03	2.07	2.21
	Participation in human rights education	Number of participants	4,414	4,016	3,549	3,631	2,130
	Labor safety and health	Frequency rate	0.21	0.17	0.25	0.20	0.20
		Severity rate	0.0076	0.0039	0.0060	0.0041	0.0008
Local communities	Actions involving joint efforts with local communities	Frequency of internal communication activities (number of instances)	123	95	99	73	92
		Frequency of participation in local events (number of instances)	1,549	1,294	1,499	1,328	1,130
	Energy communication activities	Frequency of events such as facilities tours, lectures, and briefings on energy and the environment (number of instances)	3,544	3,249	3,221	2,358	2,372

Performance Data

	Category	Item	2015	2016	2017	2018	2019 (FY)
The Environment	Electricity generated*1	Nuclear (TWh)				-0.2	-0.2
		Thermal (TWh)	57.2	56.3	56.5	53.8	52.2
		Hydroelectric (TWh)	7.9	6.9	8.4	7.4	8.1
		New energy and other sources (TWh)	0.9	0.9	0.8	0.7	0.7
	Transmitted and Purchased electricity*2	Power received from other companies (TWh)	-	-	-	35.0	37.2
		Power transmitted to other companies (TWh)	-	-	-	-6.8	-6.5
	Electric power consumption	Power consumed at power stations (TWh)	2.7	2.6	2.7	2.6	2.6
		Power consumed for water pumping (TWh)	0.06	0.05	0.09	0.09	0.08
		Power consumed at internal offices (TWh)	0.13	0.10	0.09	0.09	0.08*5
	Electric power sales	Electric power sales (GWh)	75,057	74,258	72,003	68,876	67,167
	Fuel consumption for power generation	Coal (thousand tons)	8,140	7,310	8,140	7,990	8,390
		Heavy oil (thousand kl)	430	540	400	270	150
		Crude oil (thousand kl)	330	300	220	80	70
		Natural gas (billion Nm^3)	0.24	0.24	0.24	0.18	0.15
		LNG (thousand tons)	4,320	4,380	4,170	4,380	4,120
		Nuclear fuel (tons)	0	0	0	0	0
	Water consumption	Industrial water (thousand tons)	11,110	10,690	10,410	10,400	10,730
	Vehicle fuel consumption	Gasoline (kl)	2,541	2,442	2,376	2,222	2,047
		Diesel oil (kl)	656	634	621	583	487
	Consumption of other materials	Limestone (thousand tons)	120	100	120	100	110
		Ammonia (thousand tons)	10	10	10	10	10
	CO_2 emissions*3	CO_2 emissions (thousand tons CO_2)	41,940 (41,770)	40,550 (40,340)	37,550 (37,340)	36,230 (35,820)	34,890 (34,710)
		CO_2 emission factors (kg-CO_2/kWh)	0.559 (0.556)	0.548 (0.545)	0.523 (0.521)	0.528 (0.522)	0.521 (0.519)
	Emissions of greenhouse gases other than CO_2	SF_6 recovery rate (%)	99.4	99.6	99.8	99.6	99.6
		HFC holding capacity (tons)	52.6	51.7	51.2	53.3	56.0
		HFC emissions (tons-CO_2)	1,349	538	947	1,522	794
	Waste	Waste generation (thousand tons)	1,154	1,054	1,171	1,121	1,126
		Waste final disposal amount (thousand tons)	164	79	84	132	89
		Industrial waste recycling amount (thousand tons)	991	975	1,087	989	1,036
		Waste effective use rate (%)	85.8	92.5	92.8	88.2	92.1
	Other emissions	SOx emissions (thousand tons)	10	10	10	7	7
		SOx emission intensity (g/kWh)	0.17	0.18	0.17	0.13	0.13
		NOx emissions (thousand tons)	14	13	12	10	11
		NOx emission intensity (g/kWh)	0.25	0.24	0.21	0.18	0.21
		Water discharge (thousand tons)	3,320	3,320	3,000	2,880	3,180
		CO_2 emitted by vehicles (thousand tons CO_2)	8	7	7	7	6
	Prevention of global warming	Total thermal power integrated efficiency (low calorific value standard) (%)	45.6	46.3	46.2	46.7	46.5
		Electricity purchase from solar power generation (MW)	2,454	3,205	4,021	4,757	5,761
		Transmission and distribution loss rates (%)*4	5.5	5.2	4.8	5.00 5.45	5.18
		Cumulative total number of EcoCute units sold in the region served by Tohoku Electric Power	367,757	405,660	443,212	481,537	524,712

*1 Beginning in FY2018, the volume of electricity generated refers to the volume of electricity generated at the transmission end, not the volume at the generating end.
*2 For purchased electricity, the upper figure indicates power received, while the lower figure power transmitted, including grid use and other transmission.
*3 Figures in parentheses ( ) represent basic CO_2 emissions and CO_2 emission factors that do not reflect adjustments under the feed-in tariff (FIT) scheme for renewable energy. Figures for FY2016 and later years denote relevant values associated with the retail electric supply business, not including the portion concerned with general electricity transmission and distribution, such as isolated island service. CO_2 figures for FY2019 are provisional values as of August 2020 and are subject to change prior to publication by the national government.
*4 The transmission and distribution loss rates shown are for the area served by Tohoku Electric Power Network (six Tohoku prefectures and Niigata Prefecture), starting with FY2019 results. Figures in parentheses ( ) represent transmission and distribution loss rates for the area served in FY2018.
*5 Beginning from FY2019, the figures exclude the electricity used for operations in power plants.