

Feature 1

Response to climate change based on TCFD recommendations

As there is a worldwide trend toward low-carbon and no carbon-societies, the Kyuden Group, as a responsible energy business operator, will contribute to the creation of a sustainable society by actively undertaking global warming countermeasures and reducing greenhouse gas emissions.

In June of last year, we formulated Kyuden Group Management Vision 2030 (hereinafter “Management Vision”), and Kyuden Group is committed to “creating the future, starting from Kyushu”, and our aim is “providing more prosperous, comfortable living to become our customers' No.1 choice”.

We have set one of business performance targets the reduction of Kyushu's CO₂ emissions in 2030 by 70% (compared to FY2013). While promoting the use of all-electric energy, the use of energy sources that are low-carbon or non-carbon and other initiatives, we will consider appropriately climate-related risks and carry out sustainable corporate management.

To achieve these goals, we will take into consideration TCFD recommendations^(*) in analyses of long-term risks and opportunities caused by climate change. At the same time, by enhancing information disclosure in line with this framework, we will fulfill our information responsibilities to our stakeholders.



(*) TCFD: Task Force on Climate-related Financial Disclosures
This task force was established by the Financial Stability Board (FSB) at the request of the G20 Finance Ministers and Central Bank Governors Meeting. In June 2017, TCFD issued a set of recommendations to encourage the disclosure of information related on the financial impacts of climate-related risks and opportunities, to aid investors in making appropriate investment decisions.

Disclosure items recommended by the TCFD and response to our disclosed content

The content of the disclosure items are based on TCFD-disclosure recommendations.

TCFD disclosure recommendations		Content disclosed by company (page)
Governance	<ul style="list-style-type: none"> Construction of a supervisory system through internal committees, etc. Roles of management in evaluating and managing risks and opportunities 	<ul style="list-style-type: none"> Structure for actions involving climate change (risk and opportunity assessment and management process) ⇒ (P36)
Risks/opportunities and countermeasures	<ul style="list-style-type: none"> Identification of short-, medium-, and long-term risks and opportunities Impact of risks and opportunities on business, strategy, and financial planning 	<ul style="list-style-type: none"> Assumptions behind consideration Factors affecting forecasts and the electricity business Results of risk and opportunity analysis Consideration of countermeasures, and financial impact assessment ⇒ (P37-P40)
Metrics and goals	<ul style="list-style-type: none"> Setting of metrics used to evaluate risks and opportunities in strategy and risk management 	<ul style="list-style-type: none"> Setting of climate-related goals (KPIs) matched to business performance targets ⇒ (P40)

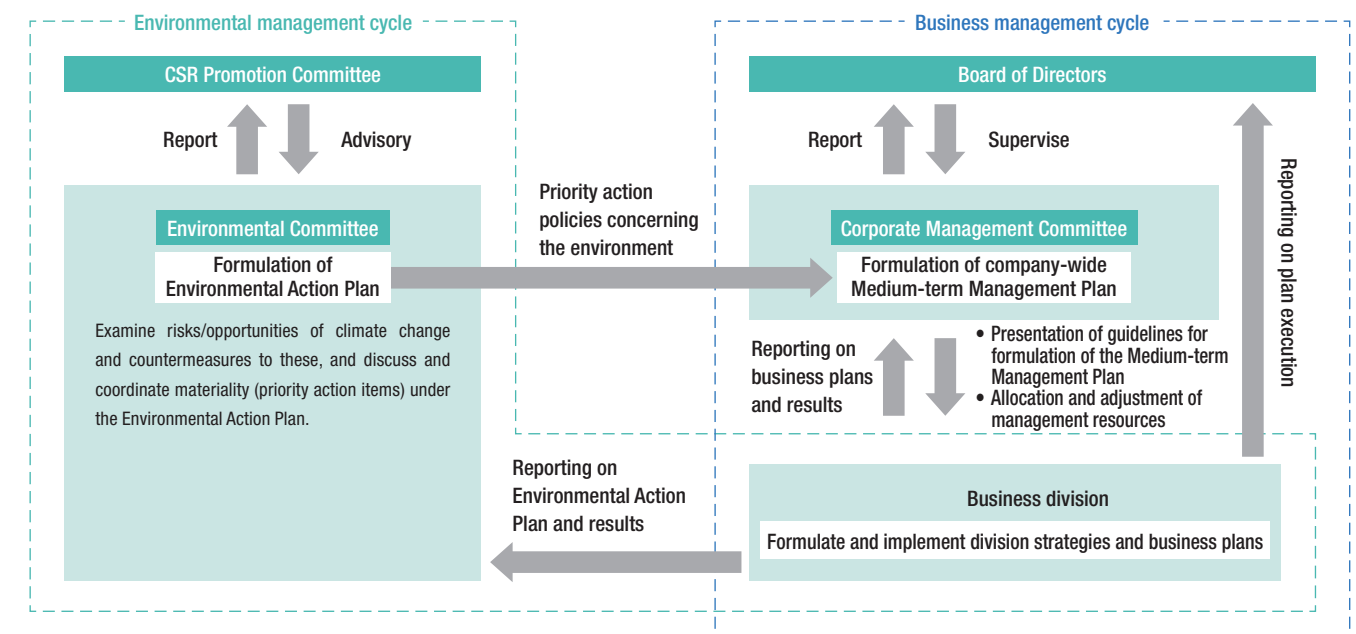
1 Governance Linking the environmental management cycle to the business management cycle

Response structure for climate change (risk and opportunity assessment and management process)

Viewing our response to risks and opportunities associated with climate change as an important management issue, we will deliberate on materiality (major matters to address) involving climate change and other environmental issues within the CSR Promotion Committee chaired by the president of Kyushu Electric Power and within the Environmental Committee chaired by a vice president of Kyushu Electric Power, and will make efforts to improve and enhance our initiatives.

The priority action policies deliberated in the Environmental Committee are reflected in our company-wide Medium-term Management Plan, and are discussed and decided by the Corporate Management Committee and the Board of Directors. Each business division reports on the execution of its business plan to the Board of Directors.

Response structure



CSR Promotion Committee

Role:	Deliberation and coordination regarding basic policies and action plans for CSR activities overall, sustainability reporting, etc.
Composition:	Chairperson: President of Kyushu Electric Power Vice chairperson: Kyushu Electric Power vice president or executive officer in charge of CSR Committee members: Kyushu Electric Power, vice presidents, members of the board of directors, senior managing executive officers, managing executive officers, officers connected to Kyushu Electric Power Transmission and Distribution Co., Inc. ^(*) (appointed by the chairperson)
Meetings:	Twice a year in principle
Primary agenda:	Disclosure policy and overview of considerations by the Environmental Committee

Environmental Committee

Role:	Comprehensive deliberation of company-wide environmental activity strategies
Composition:	Chairperson: Kyushu Electric Power vice president or executive officer in charge of CSR Vice chairperson: Kyushu Electric Power director of the District Symbiosis Division Committee members: Kyushu Electric Power directors, deputy directors, and general managers appointed by the chairperson
Meetings:	Twice a year in principle
Primary agenda:	<ul style="list-style-type: none"> Priority action items for the following year's Environmental Action Plan, based on the Management Vision Disclosure policies, written content, etc. based on TCFD recommendations

(*) Following the spin-off in April 2020, these will continue cooperating and attend meetings as committee members, to promote CSR initiatives

2 Risks/opportunities and countermeasures Climate change countermeasures based on scenario analysis

(1) Assumptions behind consideration

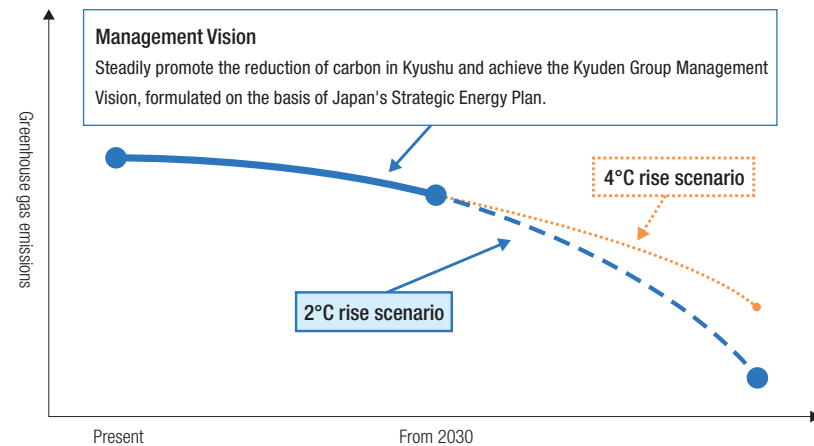
Target periods

As Japan's medium- and long-term goals under the Paris Agreement target 2030 and 2050, and as the Management Vision that we released last year targets 2030, we set the scenario analysis target periods to 2030 and 2050.

Envisioned scenarios

The scenario analysis assumes the 2°C rise scenario^(*) as in Japan's medium- to long-term targets. Regarding the scenario, based on Japan's Strategic Energy Plan for 2030 and referencing forecast models by the IEA^(*) for 2050, we analyzed the main impact factors concerning the electric power business, focusing on reduced carbon/decarbonization in power sources from the supply side, and electrification from the demand side. We identified potential risks and opportunities, and considered countermeasures to address these.

If measures to limit global warming to the 2°C rise scenario are not enforced, the global average temperature may rise by 4°C or more, with a risk of intensifying weather disasters. We examined the impacts of this based on the 4°C rise scenario of the IPCC^(*).



(*) There is increasing discussion worldwide regarding action based on the 1.5°C rise scenario. However, in light of the fact that Japan's Strategic Energy Plan is formulated under the 2°C rise scenario, for the time being our group will consider and address risks and opportunities on the premise of that same scenario.

(*) The International Energy Agency (IEA) conducts surveys and creation of statistics on energy, and issues reports and books. World Energy Outlook (WEO), a forecast of energy markets over the medium to long term is a well-known example.

(*) The UN Intergovernmental Panel on Climate Change (IPCC) is an intergovernmental organization that aims to perform comprehensive assessments of anthropogenic climate change, the impacts of change, and adaptation and mitigation measures from scientific, technical, and socioeconomic perspectives.

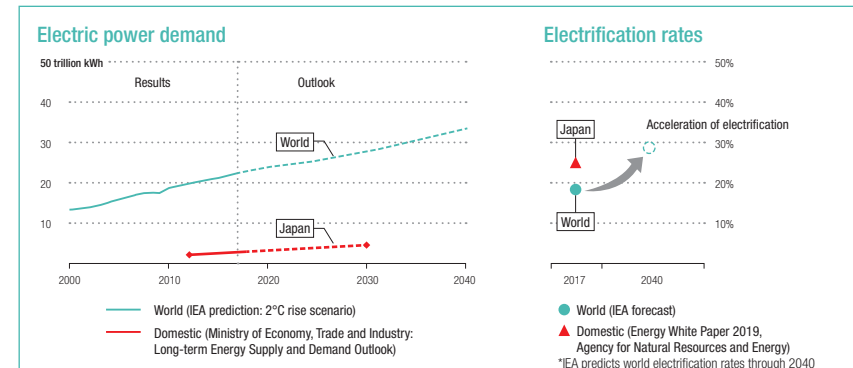
(2) Factors affecting forecasts and the electricity business

The 2°C rise scenario demands that action be taken from both the electricity supply and demand sides.

Demand side

- According to forecasts by IEA, global electrical power demand will continue to grow steadily from 2030, and electrification rate growth will accelerate.
- Japan's Strategic Energy Plan, predicts that electric power demand in Japan will increase gradually through 2030, and that the electrification rate will grow due to the advance of digitalization, and others.

Prediction model: Electrical power demand and electrification rate



Reference: Electrification rates worldwide

(From materials of the Strategic Policy Committee, Advisory Committee on Natural Resources and Energy)

Country	Electrification rates on the way to decarbonization	Current amount	Assumption in long-term strategy*
USA	Extensive electrification	approx. 20%	45-60%
Canada	Extensive electrification	approx. 20%	45-70%
UK	Promotion of electrification	-	-

* Assumed values based on results of analysis, assuming an 80% reduction in greenhouse gases in the countries in 2050

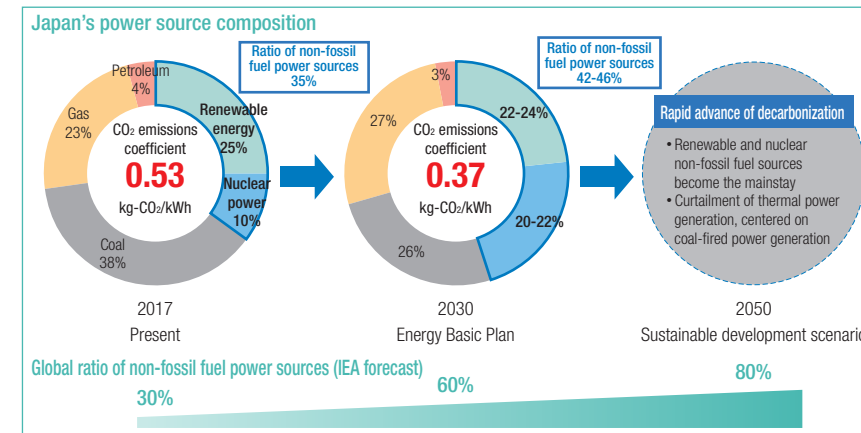
Major factors affecting the electricity business

- Proliferation of electrification in the transportation sector, including in automobiles, ships, and aircraft
- Acceleration of the shift to electrification of energy due to heightened safety and environmental orientation
- Further advancement of digital technologies such as the IoT and AI

Supply side

- According to forecasts by IEA, non-fossil fuel power sources will increase significantly around the world, with the ratio of non-fossil fuel power sources expected to reach 80% by 2050.
- Japan aims for carbon reduction by achieving the power source composition (energy mix) for 2030 indicated in the country's Strategic Energy Plan. Rapid progress in decarbonization is forecast from 2030.
- It is thought that innovation (the practical application of innovative technology) is needed for the significant proliferation of such non-fossil fuel power sources.

Prediction model: Changes in electrical power source composition



Reference: Examples of innovative technologies that contribute to carbon reduction

(From the long-term vision for 2030 onward from The Electric Power Council for a Low Carbon Society (ELCS))

- Renewable energy: Supercritical geothermal, innovative batteries, utilization of hydrogen
- Nuclear power: Small module reactors (SMRs), high temperature gas reactors
- Thermal power: Hydrogen power generation, CCS, CCUS
- Others: High-efficiency all-electric technology, wireless power transmission/power supply, etc.

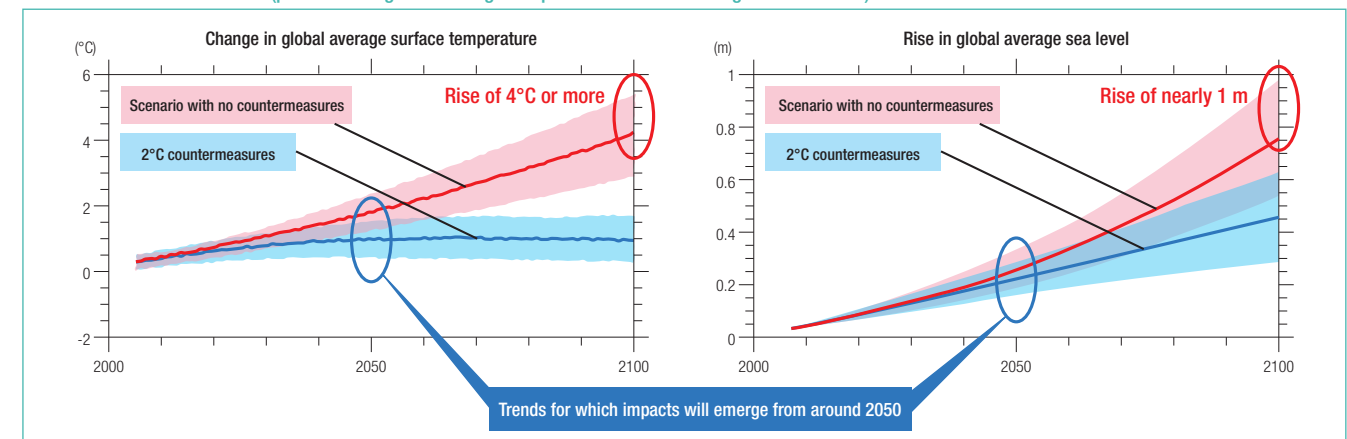
Major factors affecting the electricity business

- Growing demands for strengthened global warming regulations aimed at decarbonization
- Increased value of non-fossil fuel power sources, heightened need for large-scale adoption of renewable energy, decreased acceptance of fossil fuel use
- Low assessment of CO₂-emitting businesses from investors
- Heightened need for carbon reduction/decarbonization technology, and progress in practical application of technology

Climate disasters

Without the enforcement of global warming countermeasures, the global average temperature is predicted to rise by 4°C or more and the average sea level by nearly 1 m by 2100. There is concern that intensifying weather disasters and other physical risks will emerge, particularly after 2050.

Future Prediction Model: IPCC (prediction of global average temperature rise and average sea level rise)



Major factors affecting the electricity business

- Torrential rains/flooding, increase in storms, intensification and prolongation of high temperatures/heat waves
- Increased damage to customers' facilities and electric power supply facilities
- Inoperability of resource development areas
- Increasing need for disaster prevention and mitigation

Numbers in parentheses indicate relationship with the impact factors at left

* This scenario analysis is considered on the basis of scenarios from IEA, IPCC, etc. Many uncertainty factors are present after 2030 in particular, and the analysis was deliberately created based on what the company is able to envision, not based on predictions of outcomes.

Moreover, by appropriately considering and implementing measures against natural disasters that are expected to increase in severity, we aim to become a sustainable company.

We qualitatively evaluated the degree of impact on our business, taking into account the scale of our consolidated ordinary income (results) in recent years. As national policies, energy market trends, and other factors may fluctuate due to changes in the external environment, this impact assessment is not conclusive.

Leveraging the outstanding O&M technological capabilities that we have built up, we will actively engage in the development and operation of renewable energy, including in our overseas businesses, and will contribute to the reduction of CO₂ on a global scale.

