

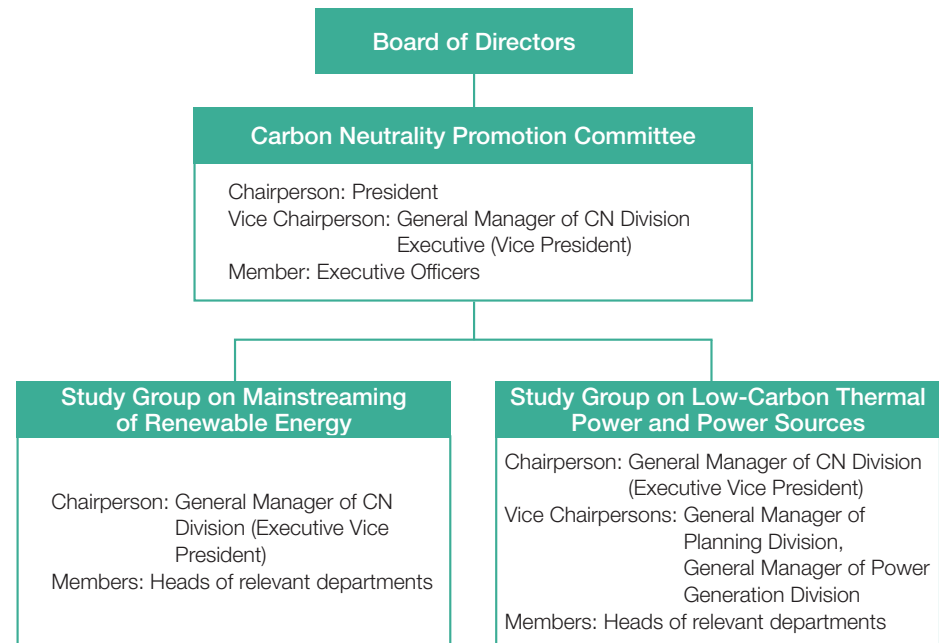
Measures for TCFD Recommendations

Based on the “OPEC Group Environmental Policy,” we are working together as a group to prevent global warming and reduce environmental impact. We will appropriately respond to the risks and opportunities that climate change brings to our business activities, strive to improve corporate value, enhance information disclosure, and contribute to the realization of a society that can achieve sustainable development together with our stakeholders.



Governance

- Addressing climate change as an important management issue, we regularly hold the regular meetings of the “Carbon Neutral Promotion Committee”, chaired by the President, to discuss various measures and issues related to climate change, and strive to improve and enhance initiatives, etc. In addition to reporting the results of deliberations and management status to the Board of Directors, when significant issues related to climate change occur, the Board will report as appropriate and receive confirmation.
- The Priority Action Policies were discussed by the “Carbon Neutrality Promotion Committee” and reflected in the management plan and policies. It was decided that the Board of Directors will discuss and decide the policy, and execution status of the business plan will be reported to the Board of Directors by each division.
- The OPEC Group Medium-Term Management Plan 2025 was formulated through the Board of Directors, including a long-term plan for achieving carbon neutrality by 2050.



Risk Management

We check the status of risk management every year to prevent risks and quickly respond if risks occur. Business and financial risks, including risks related to climate change, are checked separately by coordinating with the relevant departments. Physical risks associated with climate change are assumed to be particularly important. The Equipment Department evaluates them from the perspective of protecting the equipment and ensuring the safety of employees. We prescribe regulatory documents such as risk management manuals, prepare for the occurrence of risks by conducting drills, simulate disasters caused by typhoons and tsunamis, perform periodic evaluation and analysis of the effectiveness of our disaster prevention plan, examine risk mitigation measures, and take appropriate actions. The status of risk management is reported to senior management during management review.

Strategies – Referring climate change scenarios –

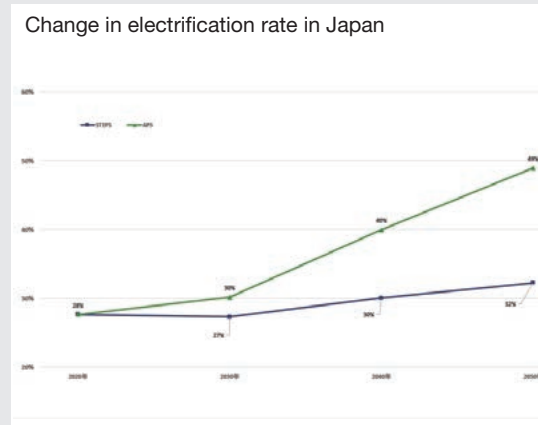
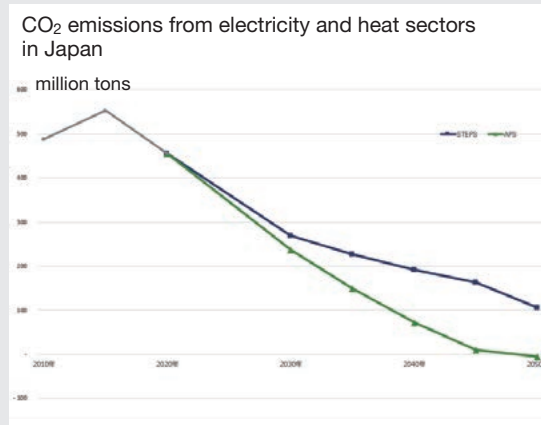
To understand the risks and opportunities associated with future climate change, we refer to multiple climate related scenarios, including those presented by the International Energy Agency (IEA) and the UN Intergovernmental Panel on Climate Change (IPCC). Referring to the “2°C scenario” in which necessary measures are taken to keep the temperature rise below 2°C and the “4°C scenario” in which low carbonization does not advance without taking climate change measures that exceed the current situation, in this report, we looked at possible events regarding climate-related risks and opportunities.

* In the midst of many long-term uncertainties, this is a summary of possible events for our company and it does not indicate future prospects.

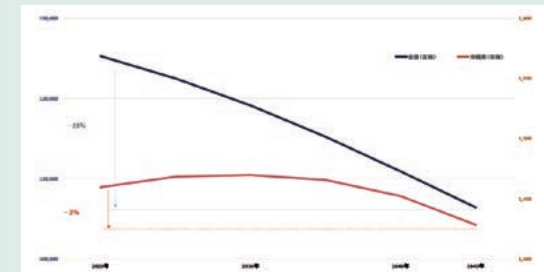
2°C Scenario

Referring to the World Energy Outlook 2021 -APS (Announced Pledges Scenario) of the International Energy Agency (IEA), the transition risks and opportunities for a decarbonized society were summarized.

APS is expected to achieve Net-zero emissions by 2050 in the Japan power sector.



Source: Prepared by our company based on IEA World Energy Outlook 2021 Electricity and CO₂ emissions (Japan).



Source: Prepared by our company based on "Regional Population Projections for Japan (2018 estimate)" (National Institute of Population and Social Security Research).

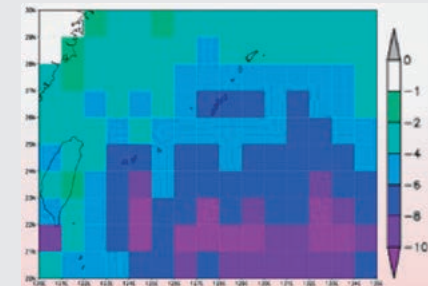
According to the National Institute of Population and Social Security Research, the population of Okinawa Prefecture is expected to decline by about 2% in 2045. Therefore, in Okinawa, the degree of impact on electricity demand due to population decline is limited, and electricity demand is expected to grow steadily, as electrification is expected to promote decarbonization.

4°C Scenario

We compiled physical risks, such as abnormal weather and opportunities by referring to RCP 8.5 of the IPCC (UN Intergovernmental Panel on Climate Change).

As a result of organizing future changes around Okinawa Prefecture around 2050 in RCP8.5 scenario from existing literature and existing data sets, it is possible that the number of future typhoons passing through the waters around Okinawa, especially in the southern part of the sea area, will decrease.

On the other hand, it is considered that the passing frequency of “strong” typhoons with large maximum wind speeds will increase.



Changes in the number of typhoons passing through the waters around Okinawa around 2050 (difference of future climate minus present climate) [units/10 years]

Strategies —Summary of risks and opportunities related to climate change— Regarding the “Risks and opportunities related to climate change,” we classify as shown in the table below.

	Classification	No.	Description of Risks and Opportunities	Category	Manifestation timing		Impact
					Short- to medium-term	Long-term	
Transition	Policies/laws and regulations <small>Transition to decarbonization policies Increasing demand for CO₂ emission reduction</small>	1	Expanding renewable energy and changing the role of thermal power plants <small>(Decline in competitiveness of coal-fired thermal power generation ⇔ Utilization of decarbonized power sources)</small>	Risk Opportunity	██████████ ██████████		High
		2	Introduction of carbon pricing, etc.	Risk	██████████		High
		3	Further use of LNG thermal power <small>(Effect of conversion from coal to LNG on fuel cost ⇔ Expansion of LNG utilization in other than electricity business)</small>	Risk Opportunity	██████████ ██████████		Middle
	Technology <small>Progress in low-carbon and decarbonization technologies</small>	4	Reduction in the price of renewable energy facilities due to technological progress <small>(Increase in system stabilization cost ⇔ Reduction of renewable energy investment cost)</small>	Risk Opportunity	██████████ ██████████		Middle
		Market/services <small>Changes in customer preferences</small>	5	Progress of electrification, including EVs, etc. <small>(changes in the electricity demand structure due to climate change)</small>	Opportunity	██████████	
	6		Changes in customer preferences <small>(competing with other companies ⇔ Increasing customer needs for environmentally conscious menus)</small>	Risk Opportunity	██████████ ██████████		Middle - Low
	Reputation <small>Change in corporate image</small>	7	Social evaluation of responses to climate change Risk	Risk	██████████		Middle - Low
Physics	Acute <small>Intensification of abnormal weather</small>	8	Damage due to intensification of typhoons <small>(Increased recovery costs ⇔ Long-accumulated energy security)</small>	Risk Opportunity		██████████ ██████████	Middle - Low
	Chronic <small>Changes in weather patterns</small>	9	Impact of changes in weather patterns on operations, etc. <small>(destabilization of income/expenses)</small>	Risk		██████████	Middle - Low

* Risks are shown in red, and opportunities in blue. For the manifestation timing, the short- to medium-term is until 2030, and the long-term until 2050.
* The contents of this table summarize events that the Company can think of in the midst of many uncertainties, and do not indicate future outlook.

Indicators and Goals

We announced our long-term guidelines “OPEC’s Approach to Zero Emissions ~Towards 2050 Net-Zero CO₂ Emissions ~” in December 2020 and based on our roadmap for the next 30 years, we will implement a variety of measures, with two directions: “Make renewable energy a mainstay” and “Reducing CO₂ emissions from thermal power”.

We have set an ambitious target of “30% reduction in FY 2030 (compared to FY 2005),” which is based on the previous target (26% reduction) and will speedup “Just Transition in the Okinawa area” with maximum initiatives, including various carbon neutral measures as indicated in our roadmap.

■ Reduce CO₂ emissions by **30%** in FY 2030 in comparison to FY 2005

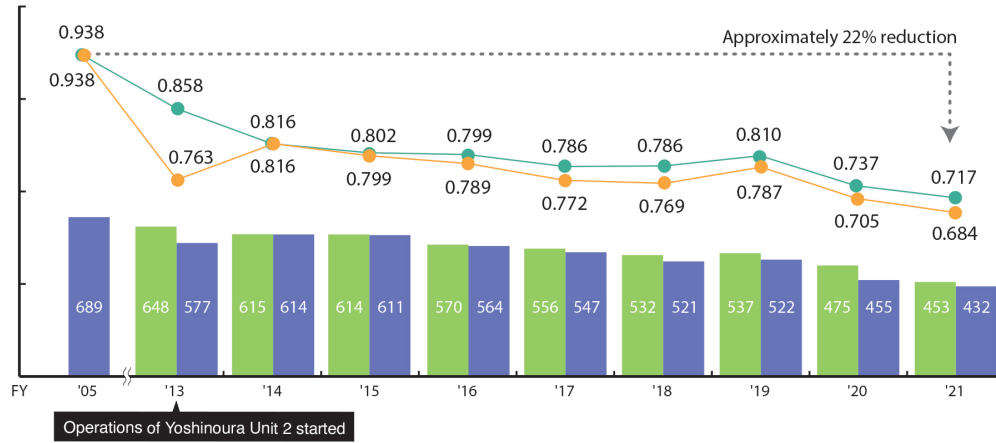
■ Addition of **+100,000 kW** renewable energy in FY 2030

▶ For details on “More ambitious goal for FY2030” and the road map see P. 35 ~ 37

Related information>> Greenhouse gas emissions through the supply chain (Scope 1, 2, 3)

■ Key data of the Electric Power Business → see P. 79

CO₂ emissions status



Emissions intensity (Basic) **0.717** kg-CO₂/kWh
Emissions intensity (after adjustment) **0.684** kg-CO₂/kWh
Emissions (Basic) **453** 10,000t-CO₂
Emissions (after adjustment) **432** 10,000t-CO₂

Emissions intensity: kg-CO₂/kWh

● Emissions intensity (Basic)^{*1}
● Emissions intensity (after adjustment)^{*1,2}

Emissions: 10,000t-CO₂

■ Emissions (Basic)^{*1}
■ Emissions (after adjustment)^{*1,2}

*1: CO₂ emissions intensity and CO₂ emissions from FY 2016 onward pertains to retail electricity suppliers (Okinawa main island) due to full liberalization of the retail electricity market. Each value pertains to the former general electricity suppliers (main and remote islands) before FY 2015.
*2: Adjusted emissions intensity and emissions reflect adjustments related to feed-in tariffs (FIT).

Greenhouse gas emissions through the supply chain

[10,000t-CO₂]

Scope	FY2020	FY2021
Scope1 ^{*1}	459	449
Scope2 ^{*2}	0.002	0.002
Scope3 ^{*3}	152	151

*1: Scope 1 emissions include direct emissions of greenhouse gases as defined in the Act on Promotion of Global Warming Countermeasures (CO₂, CH₄, N₂O, HFC and SF₆)

*2: Indirect emissions associated with the use of electricity supplied by other companies

*3: Fuel and energy activities etc., that are not included in Scope 1 and 2.

Amount of electricity generated by photovoltaic generation facilities (transmission end) (results of our company and the OEPC Group)



Amount of electricity generated by wind power facilities (transmission end) (results of the OEPC Group)

