Management Reference Materials

May 2023



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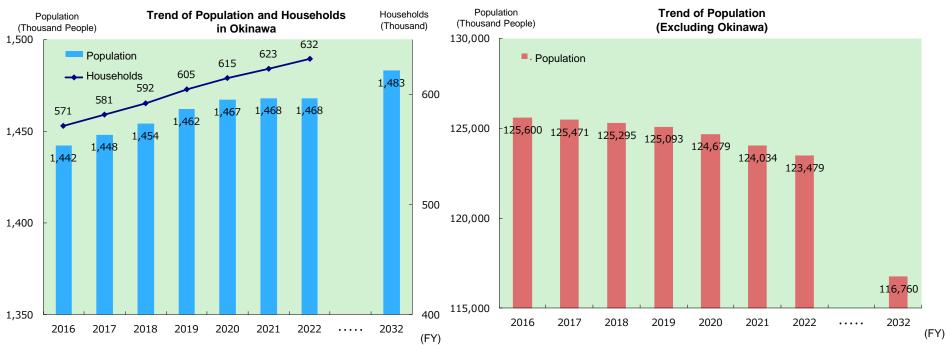
Characteristics of the Business Bases

Item	Overview	Reference Page
Demand for Energy	 Increasing demand for energy due to population growth. As the proportion of energy for consumer use is high, effects of economic fluctuations are low for demand for Electric power. Potential demand due to large-scale urban development projects 	2~7
Competition	 OEPC is outside the framework of wide-area power interchange because it has an isolated system. OEPC has voluntarily released power of 10,000kW supplied by J-Power. Competition is advancing due to the entry of energy suppliers. Biomass power plant by power producer and supplier has started operation. 	8
Power Generation Facilities	 A high reserve supply capacity is required due to an isolated system. Reliant on fossil fuels only due to difficulties to develop nuclear or hydraulic power generation. Coal-fired thermal power generation is indispensable not only for stable supply but also for maintaining electricity rates. 	9~11
Remote Islands	 OEPC supplies power to 11 isolated systems including those in the main island. The region has a high cost structure because it has small islands and also because the scale of the economy is small. This leads to constant loss recording. 	12
Global Warming Countermeasures	 Currently, possible measures are limited due to reasons including the region's geographic characteristics and constraints on the scale of demand. The introduction of renewable energies contributes to reducing fuel consumption and cost on remote islands, where fuel unit price is high. Since the systems of Okinawa area are small and independent, the limit of connection volume is likely to occur when using renewable energies. 	13~21

Okinawa Prefecture Demographics (1/2)

- The population of Okinawa had been on an increasing trend, however decreased by 145 (0.01%) compared to the previous year in FY2022, the first decline since its return to Japan.
- The number of households has been on the rise, and was higher than in the previous year in FY2022.

^{*} According to the National Institute of Population and Social Security Research, "Regional Population Projections for Japan: 2015–2045 (2018)



Source:

Population: The actual figures are based on the data provided by the Ministry of Internal Affairs and Communications (MIC).

The figures for FY2032 are based on estimated data provided by the Organization for Cross-regional Coordination of Transmission Operators, JAPAN (OCCTO).

No. of households: The figures are based on the data provided by the Okinawa Prefecture Government.

Source: The actual figures are based on the data provided by MIC.

The figures for FY2032 are based on estimated data provided by OCCTO.

Okinawa Prefecture Demographics (2/2)

- The total fertility rate of Okinawa Prefecture in FY2021 was 1.80, the highest among all prefectures in Japan (nationwide:1.30)
- The number of the population of Okinawa in FY2022 decreased by 0.1 persons per 1,000 people, the first decline since its return to Japan. (nationwide: -4.4)

Okinawa Prefecture Demographics

(People)

		2018	2019	2020	2021	2022
	Nationwide	1.42	1.36	1.34	1.30	-
The total fertility rate (Per Thousand people)	Okinawa	1.89	1.82	1.86	1.80	-
(i or modeand poopie)	Ranking	(1)	(1)	(1)	(1)	-
	Nationwide	-2.1	-2.2	-3.2	-5.1	-4.4
The Increase of population (Per Thousand people)	Okinawa	3.1	3.9	4.1	0.7	-0.1
(i or modeand poopie)	Ranking	(2)	(2)	(1)	(1)	(2)
	Nationwide	-3.4	-3.8	-4.0	-4.8	-5.8
The Natural Increase of population (Per Thousand people)	Okinawa	2.6	2.0	1.9	0.9	-0.5
(i di madana podpio)	Ranking	(1)	(1)	(1)	(1)	(1)
	Nationwide	1.3	1.7	0.3	-0.3	1.4
The Social Increase of population (Per Thousand people)	Okinawa	0.5	1.9	1.2	-0.2	0.4
(1 of filododila pooplo)	Ranking	(11)	(8)	(7)	(11)	(17)

Source: "Vital Statistics" by Ministry of Health, Labour and Welfare

[&]quot;Population Estimates" by Statistics Bureau, Ministry of Internal Affairs and Communications

The figures in brackets in the chart show Okinawa Prefecture's national ranking

Number of incoming tourists (1/3)

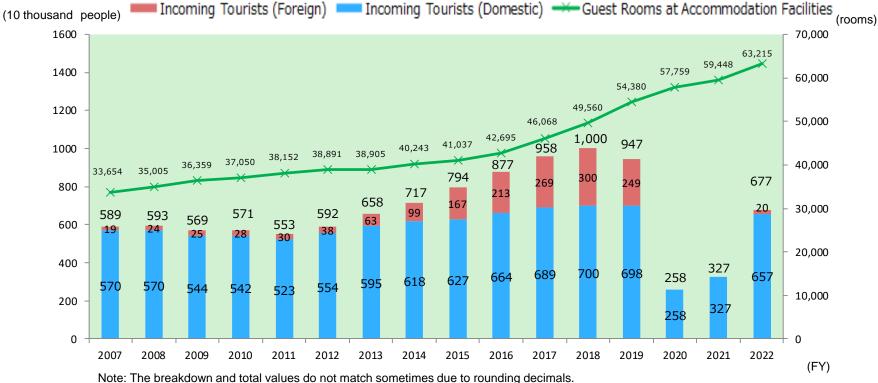
- In FY2022, the number of Incoming tourists was 6.77 million, higher than the previous year.
- [Incoming tourists]

FY2021: 3,270 thousand people (Growth rate of +26.7% year-on-year)

FY2022: 6,770 thousand people (Growth rate of +106.9% year-on-year)

■ A further recovery in travel demand is expected, boosted by nationwide tourism support measures by the government and an anticipated increase in the number of foreign tourists due the resumption of overseas airline routes and international cruise ship operations.

Trends of the Numbers of Incoming Tourists and Guest Rooms at Accommodation Facilities



Source: "Tourism Guidebook", "Summary Statistics on Incoming Tourists to Okinawa", "2022 Accommodations Fact-finding Survey Result", published by Okinawa Prefectural Government

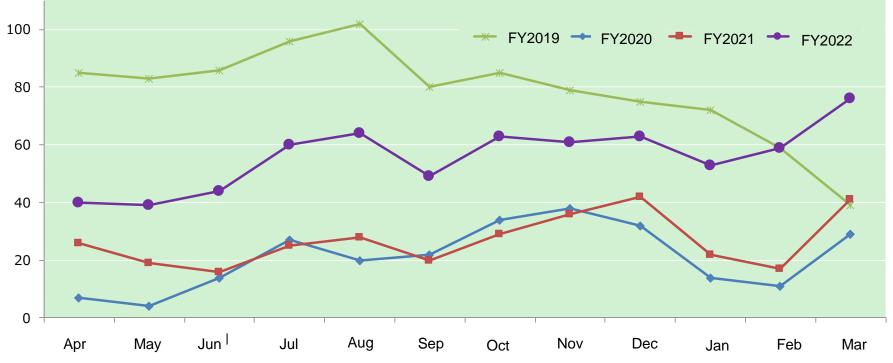
Number of incoming tourists (2/3)

■ Both the number and rate of increase in the number of incoming tourists in FY2022 were the highest ever, due to the continued absence of behavioral restrictions related to the novel coronavirus infection, demand stimulated by nationwide travel support, and the resumption of flights from overseas due to the easing of entry restrictions.

[Incoming tourists]

FY2022: 6,770 thousand people (Growth rate of +106.9% year-on-year)

(10 thousand people) Monthly trend of the number of incoming tourist

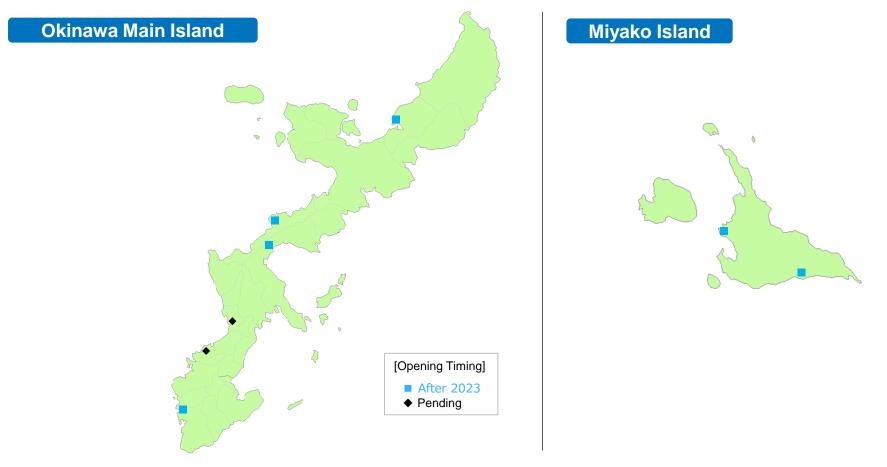


Source: "Tourism Guidebook" and "Summary Statistics on Incoming Tourists to Okinawa" published by Okinawa Prefectural Government

Number of incoming tourists (3/3)

■ Going forward, multiple accommodation facilities are planned to open.

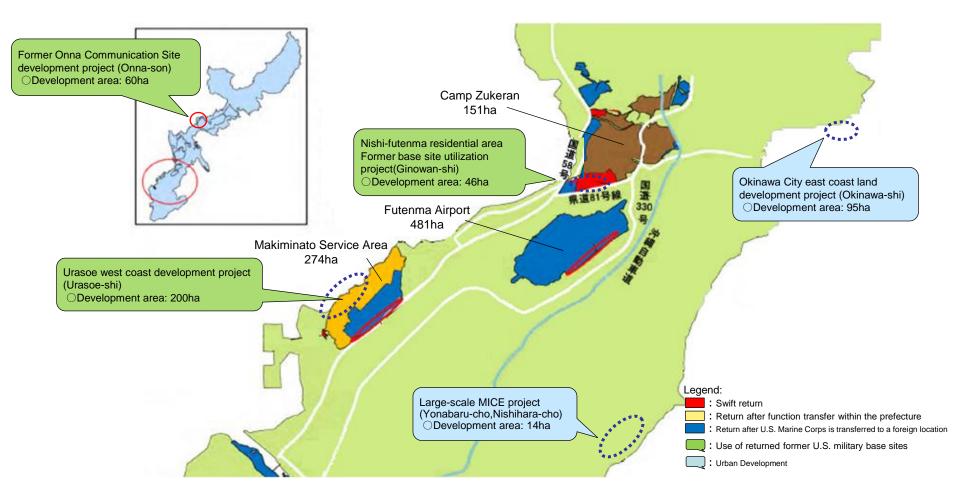
Major Plans for Opening Accommodations



Source: Compiled by OEPC based on newspaper reports, etc. *Planning more than 200 rooms

Urban Development of the Returned former U.S. military base sites and Others

■ By actively engaging in urban development projects including the returned U.S. military bases and supplying energy in the entire area, the Company will achieve the continued expansion of energy sales.

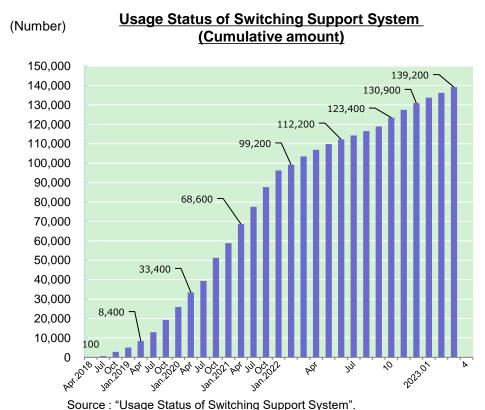


^{*} Source: The material of the Okinawa Revitalization Council Chair and Specialized Committee Meeting (third session) presented on the Cabinet Office website, and Survey of Consideration of Ripple Economic Effects from Utilization of Former U.S. Forces Sites posted on the Okinawa Prefectural Government website

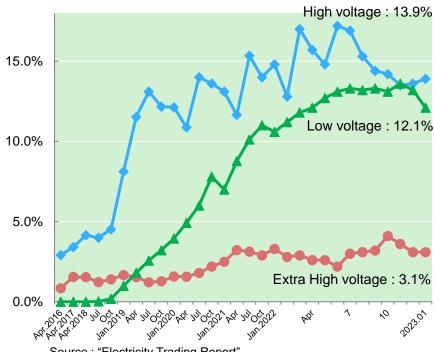
Full liberalization of the Electricity Market

- As a voluntary initiative to develop the competitive environment in the Okinawa area, which has an independent system, the Company is cutting out part of J-POWER's Ishikawa Coal Thermal Power Station, and offering routinely backing up and the wholesale electricity menu for supply-demand adjustment.
- Liberalization is in progress also in the Okinawa area, PPS's* share in the electricity sales volume reached 11.1% in the total of all voltages (as of Jan 2023).
- In July 2021, a biomass power plant by PPS will start of operation, and further competition will develop.

* new suppliers, officially called power producer and suppliers



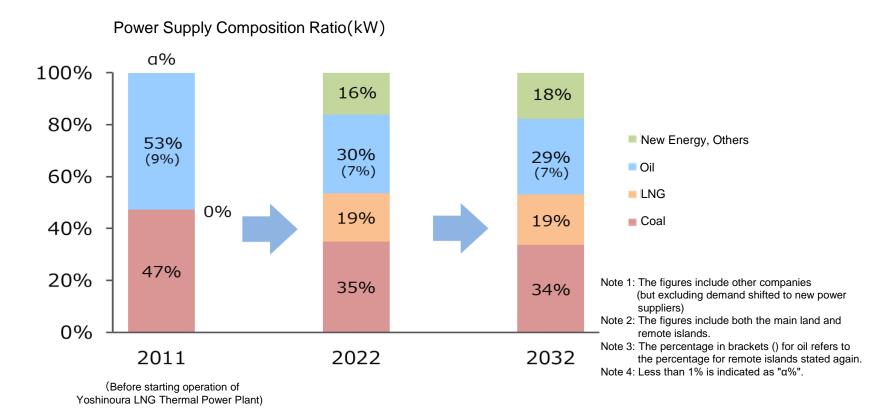
<u>Trend of PPS's Share in Electricity Sales Volume</u> (By voltage)



Source: "Electricity Trading Report".

Power Generation Facilities (Power Supply Composition)

- The composition of electric power source is highly reliant on fossil fuel, as developing nuclear or hydroelectric power generation is difficult in Okinawa due to the reasons of geographic condition and the small scale of demand. Accordingly, fossil fuels; petroleum, coal and LNG, are the only source for the composition.
- We have secured long-term power supply capacity, the improvement of energy security, and effective countermeasures for global warming issues by commencing the operation of Yoshinoura Thermal Power Plant(since 2012), our first plant using LNG.



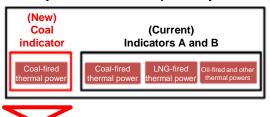
Response to the Fade-out of Inefficient Coal-fired Thermal Power Generation

■ For Okinawa, where thermal power generation has to be the mainstay, coal-fired thermal power generation is indispensable for stable supply, etc. On the other hand, it is necessary to respond appropriately in light of the direction of the national government, such as the 2050 Carbon Neutral Declaration.

< The policy package for the Fade-out of Inefficient Coal-Fired Thermal Power Generation>

1 Regulatory measures (Energy Saving Act)

New thermal power indicator (Conceptual diagram)



Target level: Power generation efficiency of 43%

- * Corrective measures for calculation of power generation efficien
 - ✓ Correction of biomass co-firing, etc.
 - ✓ Correction of ammonia/hydrogen co-firing
 - ✓ Correction of reduction in power generation efficiency due to adjusting operation

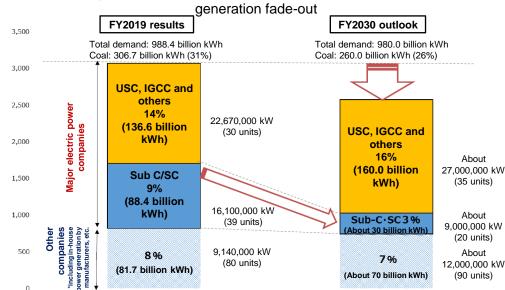
2 Guidance by the capacity market

- ⇒ Not applicable to Okinawa
- * "As coal-fired thermal power generation plays a role in supporting local employment, the local economy, and the stable supply of electric power, it is important to continue making efforts while listening to the opinions of relevant parties, in light of concerns expressed about the impact of its suspension and abolition."

Source: Interim Report of Coal-fired Power Study WG (April 23, 2021)

3 Fade-out plan (Annual submission)

(Diagram) Outlook of the inefficient coal-fired thermal power



*Estimation are based on transmission end power generation.

<Reference: Coal-fired thermal power stations owned by the Company>

Power stati	on/unit	Maximum output	Power generation system	Start of operation
Gushikawa Thermal Power	No. 1 Unit	156,000 kW	·	1994.3
Plant	No. 2 Unit	156,000 kW	Sub-C	1995.3
Kin Thermal	No. 1 Unit	220,000 kW	Sub-C	2002.2
Power Plant	No. 2 Unit	220,000 kW		2003.5

The remaining SCs and Sub-Cs in FY2030 will be important facilities for stable supply and local employment, for which it is also necessary to take measures such as reduction of the operating rate and co-firing.

Demand - Supply balance

- A high generation reserve margin is necessary because of OEPC's isolated system and the responsibility to provide stable supply as a public utility.
- The reserve capacity exceeding of the largest unit is secured so that it is possible to provide stable supply even if the largest unit breaks down.

■ We would ensure long-term and stable supply.

Demand-supply balance of maximum electric power (August)

(Unit: Thousand kW, %)

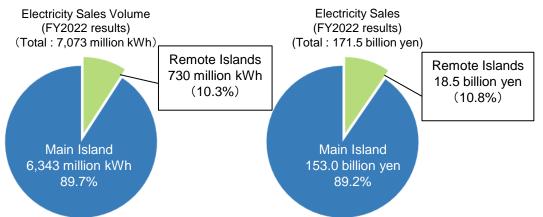
		2022 (Reference)	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Ş	Supply capacity	2,212	2,049	2,196	2,206	2,112	2,263	2,265	2,262	2,145	2,263	2,265
supply	Peak load	1,629	1,611	1,620	1,629	1,639	1,649	1,658	1,668	1,678	1,689	1,699
mand-s balanc	Reserve supply capacity	583	438	576	577	473	614	607	594	467	574	566
Dei	Reserve supply rate	35.8%	27.2%	35.5%	35.4%	28.8%	37.3%	36.6%	35.6%	27.8%	34.0%	33.3%

Note: Based on FY2023 Supply Plan Notification. (general transmission / distribution business)

Remote Islands (Efforts to Improve Income and Expenditure)

- The region has a high cost structure because of such reasons as having small islands scattered about a vast sea area and the narrow scale of the economy.
- Remote island business occupies about 10% of electricity sales and residential, commercial and industrial use charges.





(Efforts to improve remote island income and expenditure)

- Reducing fuel consumption by introducing renewable energies (Tiltable wind power generators, etc.)
- Effective utilization of waste oil
- Reducing the fuel consumption rate by introducing high-efficiency units

Comprehensive cooperation agreements with municipalities, private companies, etc.

- Starting with the national government's 2050 Carbon Neutral Declaration, Okinawa Prefecture and local governments in the prefecture have announced similar declarations.
- The Company also announced its roadmap in December 2020, implementing various measures to achieve net zero CO2 emissions in 2050 in terms of both making renewable energy a main power source and reducing CO2 emissions from thermal power plants.
- The Company's initiatives are primarily on the supply side, but it also needs to take initiatives for carbon neutral in coordination with the demand side such as households, industries and transportation sectors.
- To date, the company has concluded cooperative agreements with Okinawa Prefecture, local governments, universities, and companies in the prefecture.
- Through the Comprehensive Collaborative Agreement with the local community, we will work towards the realization of sustainable urban development and a local decarbonized society in Okinawa Prefecture through closer collaboration and cooperation between industry, academia, and government than ever before.

(Comprehensive Collaborative Agreements concluded: 11)

	Okinawa Prefecture	Concluded on December 22, 2020					
	Urasoe City	Concluded on April 20, 2021					
Governmental bodies	Okinawa City	Concluded on July 19, 2021					
	Uruma City	Concluded on December 6, 2021					
	Nago City	Concluded on April 8, 2022					
University	University of the Ryukyus	Concluded on July 14, 2021					
	RYUSEKI	Concluded on July 5, 2021					
	Bank of Okinawa	Concluded on September 10, 2021					
Companies	Takushinkai	Concluded on February 7, 2022					
	Okinawa Kaiho Bank	Concluded on March 11, 2022					
	Bank of Ryukyu	Concluded on June 6, 2022					

[Expected Effects of the Collaboration Agreement]

By concluding comprehensive partnership plans to introduce PV-TPO (photovoltaic third-party ownership model), which is one of the measures for mainstreaming of renewable energy, provide an electricity charge menu with the value of CO2 free, conduct joint research and projects to create new technologies that will contribute to solving decarbonization issues, and promote beach cleaning, environmental education and other initiatives.

Introduction status of renewable energy Facilities

■ The OEPC Group has introduced various forms of renewable energy such as wind power, solar power, biomass, and small hydroelectric power, maintaining and operating facilities for 32,301 kW in total.

(As of March 31, 2023)

[OEPC]

10	EPC]		(As of March	31, 2023)
	Name	No. of Units	Output	Remark
	Ogimi Wind Power	2	4,000 kW	
<u></u>	Yonaguni Wind Power	1	600 kW	
Š	Aguni Tiltable Wind Power	1	245 kW	*1
P	Minamidaito Tiltable Wind Power	2	490 kW	*1
Wind Power	Tarama Tiltable Wind Power	2	490 kW	*1
>	Hateruma Tiltable Wind Power	2	490 kW	*1
	subtotal (6)	10	6,315 kW	
	Abu Mega Solar Power	_	1,000 kW	
	Kitadaito Daini Solar Power	_	100 kW	*2
e	Miyako Mega Solar Power	_	4,000 kW	*2,6
≥	Miyako Branch Solar Power	_	10 kW	
Solar Power	Tarama Solar Power	_	250 kW	*2
<u>a</u>	Yaeyama Branch Solar Power	_	10 kW	
So	Hateruma Solar Power	_	10 kW	
	Yonaguni Solar Power	_	150 kW	*2
	subtotal (8)	_	5,530 kW	
S	Mix combustion of coal and wood biomass (at Gushikawa Thermal Power Plant)	2	_	*3
Others	Mix combustion of coal and wood biomass (at Kin Thermal Power Plant)	2	_	*4
0	Miyako Small Hydroelectric Power	1	65 kW	
	subtotal (3)	5	65 kW	

[Group company]

(As of March 31, 2023)

<u>1 Gi</u>	oup company 1	(As of March 31, 2023				
	Name	No. of Units	Output	Remark		
	Sosu Wind Power	2	3,600 kW			
	Nakijin Wind Power	1	1,995 kW			
Ver	Sashiki Wind Power	2	1,980 kW			
0	lejima wind Power	2	1,200 kW			
Wind Power	lejima Daini wind Power	2	1,490 kW			
Vin	Karimata Wind Power	2	1,800 kW			
>	Sadefune Wind Power	2	1,800 kW			
	subtotal (7)	13	13,865 kW			
	lejima Solar Power	_	10 kW			
_	Tokashiki Solar Power	_	198 kW			
Power	Nago Mega Solar Power No.1	_	1,990 kW			
	Nago Mega Solar Power No.2	_	1,200 kW			
Solar	Itoman Mega Solar Power	_	1,500 kW			
Sc	PV-TPO business	_	1,628 kW	*5		
	subtotal (5)	_	6,526 kW			

^{*1} Tiltable Wind Power

^{*2} Micro grid (a combination of system stabilizing technologies such as storage batteries)

^{*3} Mix combustion of coal and wood biomass (The total output of the Gushikawa Thermal Power Plant is 312 thousand kW).

^{*4} Mix combustion of coal and wood biomass (The total output of the Kin Thermal Power Plant is 440 thousand kW).

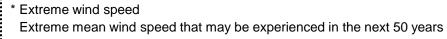
^{*5} Total amount installed

^{*6} All solar panels are taken off in order to ensure safety as part of the facility was damaged by a typhoon.

Challenges for the introduction of renewable energies (1/5)

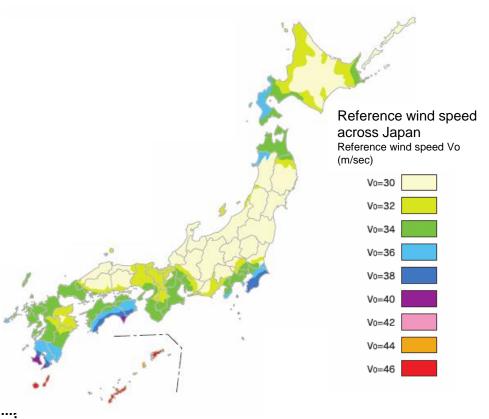
1 Wind power generation

- Wind power generation has tended to move toward larger scale for the purpose of reduce costs through economies of scale, the capacity of the mainstream in recent years is 3,000 to 4,000 kW.
- Examination criteria tightened for construction of wind power generation facilities more than 500kW in Japan (2016).
- "Extreme wind speed"*, which is the construction standards in Okinawa, is or more "90 m/s "equivalent.
- At present, we have not been able to identify any wind turbine manufacturers around the world is producing wind power generation facilities more than 500kW that meet these standards. As a result, it is practically impossible to introduce new ones.
- The Company is considering measures to expand the introduction of wind power generation.



Extreme wind speed (90 m/s)

- = Reference wind speed (46 m/s) \times a \times b \times c
- a: Coefficient corresponding to the terrain
- b: Coefficient corresponding to the hub height, etc.
- c: Coefficient corresponding to the maximum instantaneous wind speed



[Design reference wind speed distribution]

*Image of "Building Standards Act Notice No.1454" categories

Source: Japan Exterior Industry Association website

Challenges for the introduction of renewable energies (2/5)

2 Solar power generation

- The amount of solar PV generation interconnection in the Okinawa area has increased rapidly since the implementation of the feed-in tariff scheme (FIT scheme) in July 2012.
- With the revision of the "Regulation for Enforcement of the Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities", all solar power generation and wind power generation facilities connected after April 1, 2021 will be subject to unrestricted and uncompensated output control.

[Connection of renewable energies (As of March 31, 2023)]

(MW)

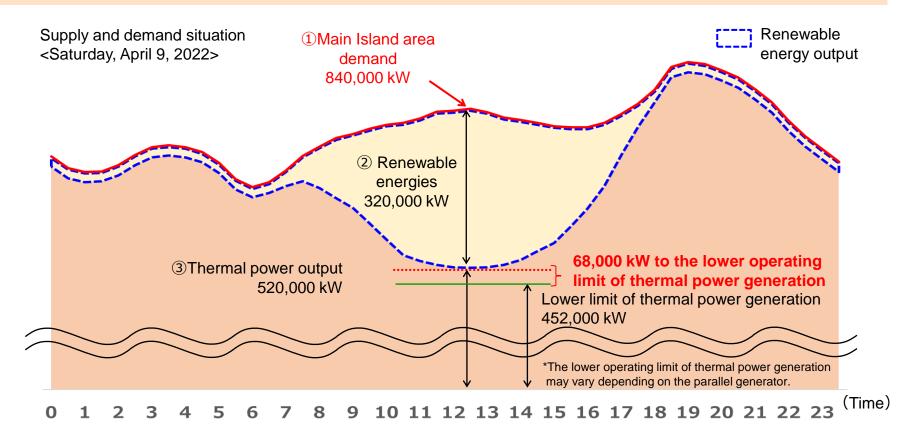
		Amount already connected	Connection application amount	Total
Main island of Okinawa		377	26	404
	Miyako	36	3	39
Remort island	Ishigaki	22	3	25
	Kume	3	0	3

^{*}The figures may not exactly match the figures because of rounding.

Challenges for the introduction of renewable energies (3/5)

3 Supply and demand situation

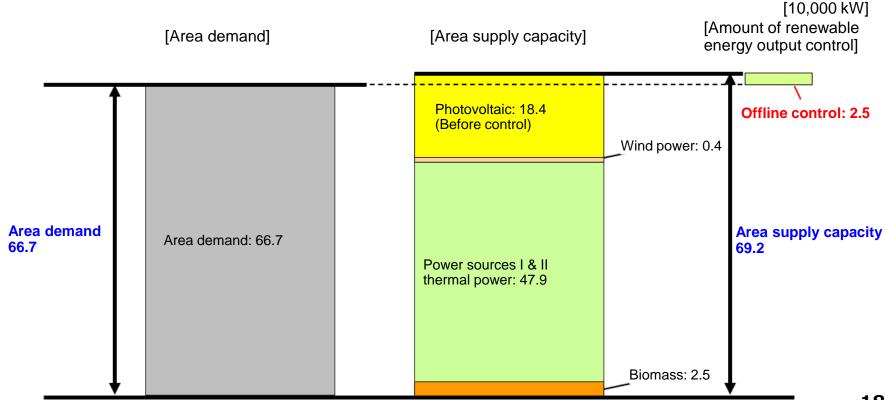
- Due to expanded introduction of renewable energies, the lower operating limit of thermal power generation which is necessary for a stable supply is approaching.
- There is an increasing possibility of controlling the output of renewable energies in order to maintain the balance between supply and demand.



再生可能エネルギー導入拡大に向けた課題(4/5)

Demand Situation and Records of Output Control (January 1)

- Due to expanded introduction of renewable energy, the first output control by the Company was implemented on Sunday, January 1 to maintain the balance of demand and supply.
- As of the end of March, output control of renewable energy were implemented three times.
- The amount of photovoltaic power output control based on the maximum error as of the previous day was 69,000 kW, however control during offline hours directed on the previous day was sufficient as upward deviation in photovoltaic was smaller in actual supply.



Challenges for the introduction of renewable energies (5/5)

5 Output Control Outlook

- Simulations were conducted on the forecast of output control on the main island of Okinawa in FY2023, taking into account actual demand in FY2021 and the latest power supply repair plan, etc.
- Prerequisites for simulations
 - FY2021 data were used for demand, photovoltaic and wind power forecasts (actual).
 - Solar PV capacity takes into account the near-term growth to 379,000 kW of capacity at the end of August 2022 (0.02 MW/month).
 - Supply capacity incorporates FY2023 repair plan
 - Thermal power was minimum (according to the priority power supply rule)

< FY2023 Output Control Outlook (by Photovoltaic Power Control Category) >

(%, [10,000 kWh])

Output control rate*1 (Amount of electricity controlled)[The output control ratio each for photovoltaic and wind power.]										
	Old offline*2	rules Online	New rules	Without limitation no compensation rules	Total target facilities for control	All facilities				
FY2023 Estimate			0.28% [21.0] Photovoltaic:0.32% wind power :0.17%	0.27% [3.6] Photovoltaic:0.41% wind power:0.17%	0.47% [188.8] Photovoltaic:0.49% wind power :0.17%	0.34% [188.8] Photovoltaic:0.35% wind power:0.17%				
(Reference) FY2023 Whole area online	[24 Photovolt	8% I.1] aic:0.08% er :0.04%	0.07% [5.1] Photovoltaic:0.08% wind power :0.04%	0.06% [0.7] Photovoltaic:0.08% wind power :0.04%	0.08% [29.9] Photovoltaic:0.08% wind power :0.04%	0.06% [29.9] Photovoltaic:0.06% wind power :0.04%				

^{*1} Calculated by dividing amount of photovoltaic power output control for each category by amount of total photovoltaic power generation for each category (including amount of output control). All facilities shows the ratio of the controlled amount of power output to the amount of total power output (including amount of controlled output) including non-target facilities for output control (of less than 10 kW).

The output control rate (amount of controlled electricity) of the online proxy control portion is calculated using a value converted into one for a control time corresponding to an offline time (eight hours).

Efforts to base on TCFD Recommendations (1/2)

- In September 2019, Expressing to support the Recommendations adopted by the Task Force on Climate-related Financial Disclosures(TCFD).
- Besides establishing governance, we referred to multiple climate scenarios to identify potential impacts of climate change on our business.

scenario

2°C

scenario

<u>န</u>

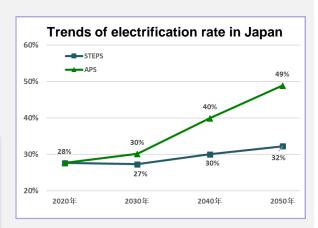
[Governance]

- Recognizing that responding to climate change is an important management issue, regularly hold the Carbon Neutrality Promotion Committee, chaired by the president, to discuss various measures and issues, and to improve and enhance initiatives.
- The results of deliberations by the "Carbon Neutrality Promotion Committee" and important issues related to climate change, if any, will be reported to the Board of Directors as appropriate.

[Climate Change Risks and Opportunities]

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

While the population of the whole country has started to decline, the population of Okinawa is expected to increase until around 2030. Accordingly, the impact of the population decline on electricity demand will be limited, and the expected promotion of electrification for decarbonization is likely to lead to steady growth in electricity demand.



Source: Prepared by our company, referring to IEA World Energy Outlook 2021

<Carbon neutrality promotion system>



Study Group on Mainstreaming of Renewable Energy

Chairperson: General Manager of CN Division (Executive Vice President) Members: Heads of relevant departments

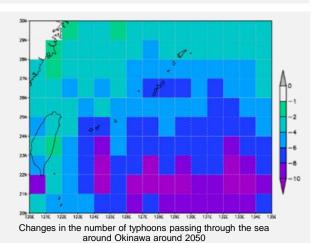
Study Group on Low-Carbon Thermal Power and Power Sources

Chairperson: General Manager of CN Division (Executive Vice Chairpersons: General Manager of Planning Division, General Manager of Power Generation Division Members: Heads of relevant departments

Refer to RCP8.5 of the IPCC (Intergovernmental Panel on Climate Change) and summarize physical risks and opportunities such as extreme weather events.

It is conceivable that the number of typhoons passing through the sea around Okinawa, especially in the southern part of the sea, will "decrease."

On the other hand, the frequency of strong typhoons with large maximum wind speeds is expected to "increase."



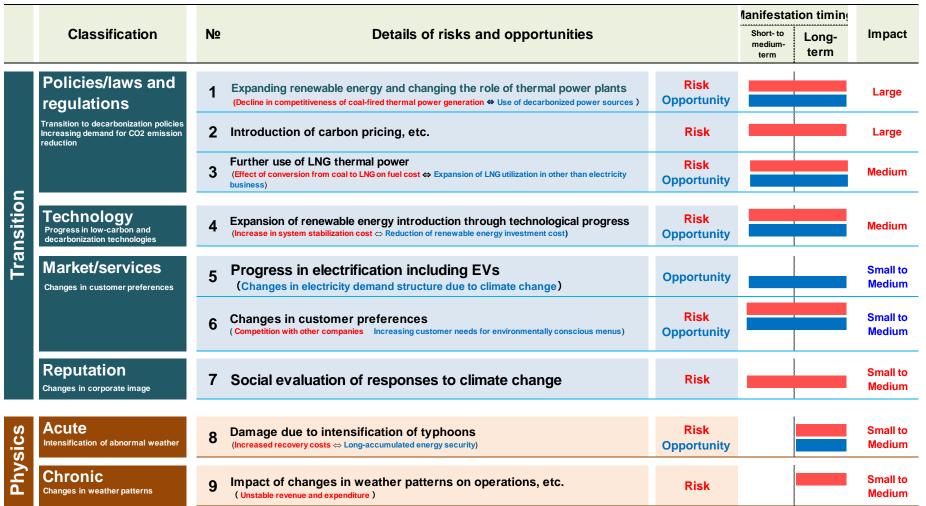
(Difference calculated by deducting current climate from future one) [typhoons/10 years]

20

Efforts to base on TCFD Recommendations (2/2)

- We will appropriately respond to the risks and opportunities that climate change poses to our business activities and strive to enhance our corporate value.
- In the FY2022 Integrated Report, the relative qualitative assessment of the impact of risks and opportunities on financial planning, etc. was presented.

— Summary of risks and opportunities related to climate change —



- * 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.

Q & A

Q1. Topics of Okinawa's Economy

1 Current Status and Future Forecast of Okinawa's Economy

■ The current state

The economy in the prefecture is showing stronger signs of recovery, as consumer spending sees consumer confidence rising due to increased opportunities to go out and other factors, and tourism-related also sees travel demand on a solid trend with the continued absence of behavioral restrictions.

Trends in Main Economic Indicators of Okinawa Prefecture

(Unit: %, X)

Indicators		FY2021											
THUICALOIS	Apr.	May	Jun	Jul	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	FY
Sales by large-scale retailers	4.8	2.1	10.2	9.1	12.9	6.0	5.8	6.5	8.7	11.4	9.5	11.0	8.2
No. of new car sold	9.9	-30.8	4.7	7.6	-7.0	31.9	21.7	11.4	26.0	32.8	45.9	18.6	13.8
No. of incoming tourists	55.8	103.3	175.3	142.7	122.3	141.4	110.9	67.1	49.9	137.0	233.6	84.3	106.9
Value of public works contracts	-41.5	-51.1	132.5	-40.6	12.0	-45.5	11.1	-22.1	-37.6	-58.6	141.8	54.9	1.3
New residential Construction starts	7.3	12.2	-2.0	-18.9	25.4	-2.1	-27.8	-11.9	10.3	41.4	21.2	-10.9	1.7
Total unemployment rate	2.8	2.8	2.8	3.9	3.4	3.1	2.5	3.1	3.5	2.8	3.6	4.1	3.2
Job Opening Ratio	0.92	0.94	0.98	0.99	1.02	1.04	1.07	1.10	1.10	1.13	1.12	1.14	1.04

Note 1: The figures for 'Sales by large-scale retailers' are calculated on an all-store base. The values in March 2023 are preliminary figures.

■ Prospect

As for the outlook of the economy in the prefecture, a recovery trend is expected to continue.

Note 2: The figures for 'Total unemployment rates' are raw data, whereas The figures for 'Job Opening Ratio' are a seasonally adjusted value for the current month.

(The values for the fiscal year are both raw data which use the number of job openings by prefecture received nationwide.)

Source: Okinawa General Bureau, Okinawa Prefecture, Ryugin Research Institute, and others.

Q1. Topics of Okinawa's Economy

Economic Growth of Okinawa Prefecture under the Okinawa Promotion Plan

- As a result of the implementation of various measures based on the Basic Plan of Okinawa 21st Century Vision (FY2012 to FY2021), the gross prefectural product of Okinawa Prefecture was growing faster than the national average, however has been affected by COVID-19 since FY2020.
- In the future, the Okinawa economy is expected to grow further through recovery from the impact of COVID-19 and the implementation of various measures based on the new Okinawa Promotion Plan that started in FY2022.

Prefectural GDP and National GDP

(billion yen)

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Prefectural	3.3%	1.6%	1.5%	4.4%	-11.6%	2.8%
GDP	4,200.2	4,268.7	4,334.4	4,524.2	3,999.9	4,113.7
National	0.8%	1.8%	0.2%	-0.8%	-4.1%	2.6%
GDP	543,479.1	553,173.5	554,546.3	550,137.7	527,364.6	540,924.3

Sources: "Prefectural Accounts for FY2019", "Prefectural economic outlook for FY2022" and Cabinet Office "List of Statistical Tables" (Second Preliminary Data for the October-to-December 2022 period)

Note : Prefectural GDP's for FY2020 and FY2021 are estimates. Figures in the upper row are growth rates on a Y to Y basis.

New Okinawa Promotion Plan

The new Okinawa Promotion Plan includes 35 basic measures, including the "creation of sustainable tourist destinations," "upgrading and increasing the value of the information and communications related industries," and the "creation of international logistics bases and the accumulation of airport and seaside industries."

The gross prefectural product (nominal) is projected to be 5,721 billion yen in FY2031 from 4,505.6 billion yen in FY2018.

Q2. What is the Current State of U.S. Military Bases?

Outline of the U.S. military Forces in Okinawa

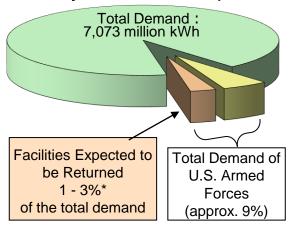
No. of Facilities	33
Area	186,970km ²

<Reference>

No. of employees working for the U.S. Armed Forces in Okinawa: 8,866 *As of the end of March 2021.

Sources: Japan Ministry of Defense "US Forces and SDF Bases in Okinawa July 2022", Military Base Affairs Division, Executive Office of the Governor, Okinawa Prefecture

The U.S. Armed Forces' share of total electricity demand (FY2022)



^{*} Range in figures due to planned return of facilities includes partial return.

Principal electricity supply destination facilities *1

Name	e	Location *2	Area		
Camp Gonsalves	[US Marine Corps]	Kunigamison, Higashison	36,590km		
Okuma Rest Center	[US Air Forces]	Kunigamison	546km²		
Iejima Auxiliary Air Base	[US Marine Corps]	Ieson	8,015km		
Yaedake Communication Site	[US Air Forces]	Motobucho, Nago-shi	37km		
Camp Schwab	[US Marine Corps]	Nago-shi, Ginozason	20,626km²		
Camp Hansen	[US Marine Corps]	Nago-shi, Ginozason, Onnason, Kincho	48,728km		
Kadena Ammunitions Storage A	Are [shared use]	Onnason, Uruma-shi, Okinawa-shi, Kadenacho, Yomitanson	26,584km		
Camp Courtney	[US Marine Corps]	Uruma-shi	1,339km²		
Camp Mc Tureous	[shared use]	Uruma-shi	379km²		
Camp Shields	[shared use]	Okinawa-shi	700km²		
Torii Station	[US Army]	Yomitanson	1,895km²		
Kadena Airbase	[US Air Forces]	Okinawa-shi, Kadenacho, Chatancho, Naha-shi	19,855km²		
White Beach Naval Facility	[shared use]	Uruma-shi	1,568km²		
Camp Kuwae	[US Marine Corps]	Chatancho	675km²		
Camp Zukeran	[US Marine Corps]	Uruma-shi, Okinawa-shi, Kitanakagusukuson, Chatancho, Ginowan-shi	5,341km		
Futenma Airport	[US Marine Corps]	Ginowan-shi	4,758km²		
Makiminato Service Areas	[US Marine Corps]	Urasoe-shi	2,676km		
Naha port facilities	[US Army]	Naha-shi	559km²		

^{*1} Professional use and large-demand customers

^{*2} Areas where facilities exist on a cross-area basis

^{*3} Facilities south of Kadenacho are scheduled to be returned (Partial return applies to Camp Zukeran)

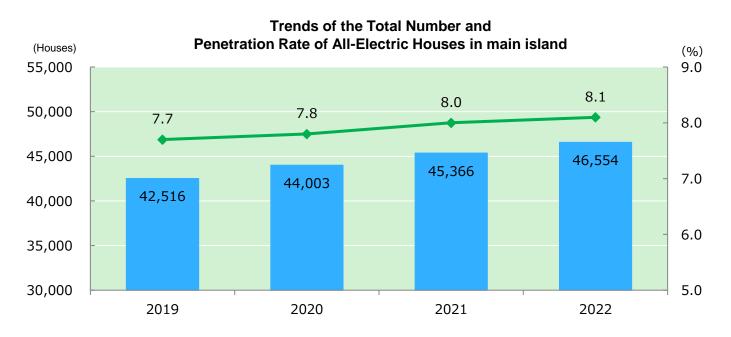
Q3. What is the Current State of Promotion of Electrification?

■ Approach for sales promotion in the corporate sector

- 1. Offering customers comprehensive proposals for electrification (air-conditioning systems, kitchens, and water heaters) appropriate for their power usage.
- 2. Strengthening of cooperation with sub-users including manufacturers, contractors, design offices, etc.
- 3. Utilization of public subsidy system, etc.

■ Approach for the promotion and growth in the household sector

- 1. Promotion of electrification (all-electrification and half-electrification).
- 2. Strengthening of electrification proposal activities in cooperation with external partners.
- 3. Promotion of electrification utilizing "Rikka Denka Lease", "KarE-roof" Service (PV-TPO), etc.
- 4. Maintenance and expansion of market share through prevention of defection and recovery marketing.
- 5. Acquisition of members by expanding the services of the member site "OEPC more E."



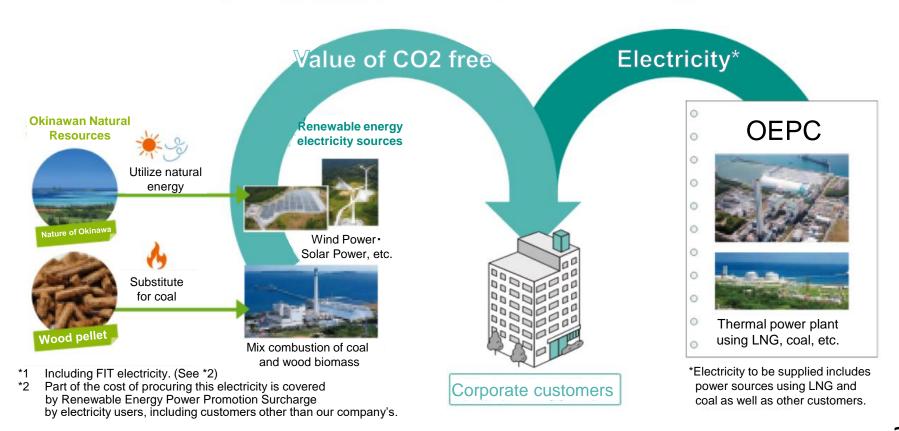
Q4. What is the enrichment of electricity rate menus?

Uchina CO₂ free menu

- Deploying an electricity rate menu with the value of CO₂ free derived from renewable energy electricity sources.
- We will work with our customers to realize a decarbonized society in Okinawa Prefecture as a whole by using only resources in the prefecture.

Utilization of resources produced in Okinawa Prefecture by non-fossil certificate

Local production for local consumption CO2 free menu



Q5. What are the efforts to fuel cost reduction? (1/2)

Efforts toward stable procurement of fuels and reduction of fuel costs.

Making Ishikawa Thermal Power Plant the base of distributing fuel oil to remote islands

Stable procurement through long-term coal purchase contracts and diversification of procurement sources

Continued use of sub-bituminous coals that are low in not only prices but also transport costs

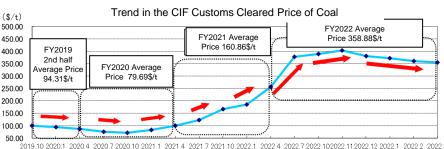
Reduction of fuel costs through measures including purchasing coal on the spot market

Stable procurement through long-term LNG purchase contracts

Efficient operation of coal-fired plants by reducing consumption of fuel oil and LNG

Achieving stable fuel supply and pursuing cost reductions





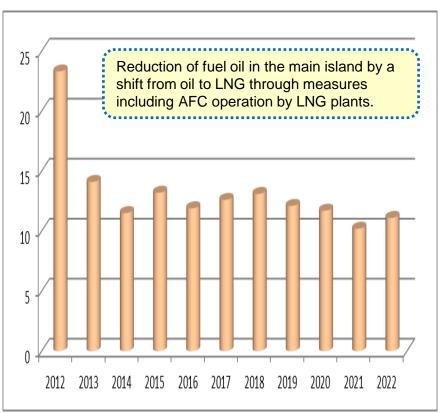


Q5. What are the efforts to fuel cost reduction? (2/2)

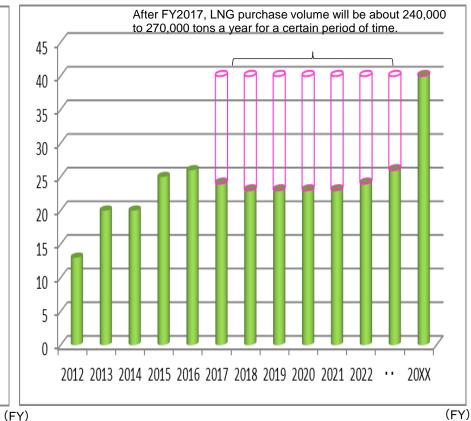
- Efficient operation of coal-fired plants and LNG-fired plants by reducing consumption of fuel oil.
- Reduction of oil consumption by shifting AFC* that oil-fired plants took charge of to LNG-fired plants.

* AFC=Automatic Frequency Control

(10,000 kl) Trend in Fuel Oil Consumption by Main Island



(10,000 t) Trend in LNG Purchase Volumes



Q6. The Fuel Cost Adjustment System

■ The fuel cost adjustment system was introduced for the purpose of clarifying the "internal factors" such as the results of efforts to promote management efficiency at electric power companies and reflecting "external factors" onto electricity rates such as exchange rates and oil and coal and LNG prices that alter the economic situation.

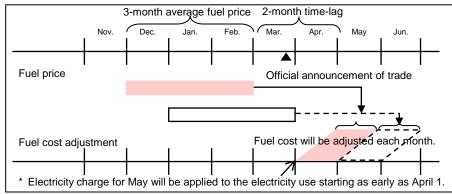
[Range of fuel cost adjustment]

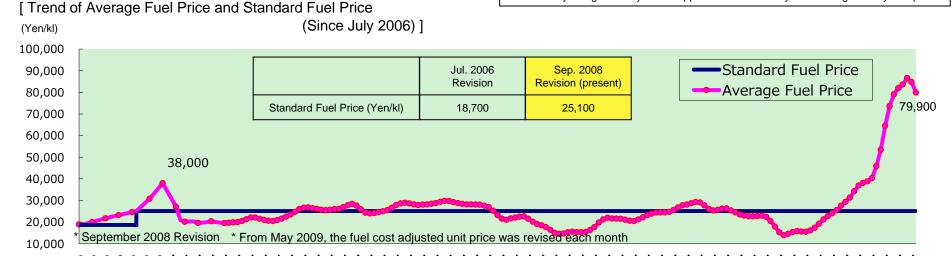
- We will calculate the average fuel price based on the prices of crude oil, coal and LNG on the trade statistics during the period between five months and three months prior to the fuel cost adjustment, and electricity charge will be automatically adjusted each month by comparing the above price with the standard fuel price at the time of electricity rate revision.
- OThe maximum level of fuel cost adjustment will be 50%.
- OThere will be no lower adjustment limit.
- OThe average fuel cost adjustment price for April 2023 was 79,900 yen (the upper limit on plus adjustment was 37,700 yen).
- OThere is no upper limit on plus adjustment for the free rate menu that we started to offer after the o full liberalization of the retail electricity market in April 2016.

[Conceptual drawing of the fuel cost adjustment system]

E.g. The average fuel price during the period between December and February of the following year will be applied to fuel cost adjustment for the electricity charge for May in the following year.

The average fuel price during the period between January and March will be applied to fuel cost adjustment for the electricity charge for June in the same year.





Q7. Status of Transitional Measures for Retail Charges

- With the elimination of regional monopolies due to the complete liberalization of entry into the electricity retail sector, rate regulations will become unnecessary in principle.
- On the other hand, it has been decided with the liberalization that rate regulations will be abolished after a transitional period so as not to interfere with the stable supply of electricity or cause confusion among consumers.
- Currently, only the Okinawa area still has transitional treatment fees in the high-voltage area, whose treatment is under consideration by the central government.

		OEPC			< Reference > Nine electric power companies in the mainland					
	Retail de	partment	Transmission and distribution department		Retail co	Transmission and distribution company				
Extra-high voltage ⇒Large factories, large shopping centers, etc.	Free [20%] Upper limit adjustm Upper from A	Last resort supply rate		Free	Last resort supply rate					
High voltage ⇒Supermarkets, office buildings, etc.	Transitional treatment fee *Regulated rate [11%] (15%) Upper limit on fuel cost adjustment exists (Upper limit on fuel cost adjustment is set by a national scheme)	Free rate [24%] (21%) Upper limit on fuel cost adjustment exists Dipper limit abolished from April 2023.	_		Free	Last resort supply rate				
Low voltage ⇒For household use, small stores, etc.	Transitional treatment fee *Regulated rate [29%] (31%) Upper limit on fuel cost adjustment exists (Upper limit on fuel cost adjustment is set by a national scheme)	Free rate [16%] (15%) Upper limit on fuel cost adjustment exists (Some menus have no upper limit) Upper limit abolished from April 2023.	_		Transitional treatment fee (Regulated rate)		_			

- The percentage of retail electricity sales to total electricity sales in FY2022 is shown in [], and the percentage when remote islands are included is shown in ().
- Areas for which transitional measures have been lifted may receive last resort supply from the general electricity transmission and distribution utility.

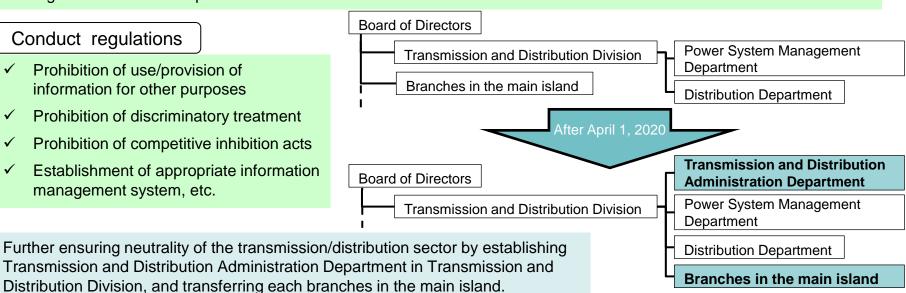
- After April 2020 when the amended Electricity Business Act comes into effect, the general electricity transmission and distribution utilities must not engage in electricity retail or electricity generation on concurrent business. (Restrictions on Concurrent Business)
- As an exception to the restriction on Concurrent Business, OEPC became the "the approved general electricity transmission and distribution utility" which can operate power retail business and power generation business, and this means that OEPC can continue maintaining the integrated system for power transmission and distribution.
- On the other hand, OEPC implemented the organizational revision to respond conduct regulations aimed at ensuring neutrality of the transmission/distribution sector.

Reasons for exceptions to Restriction on Concurrent Business

- There is a particularly high need for flexible power supply operation because OEPC's power grid is small-scale power system and independent from the mainland.
- There is a particularly high need for the transmission and distribution, retail and power generation divisions to work together in disaster response.

Conduct regulations

- Prohibition of use/provision of information for other purposes
- Prohibition of discriminatory treatment
- Prohibition of competitive inhibition acts
- Establishment of appropriate information management system, etc.



The organization chart is as of revision on April 1, 2020. As of July 2022, the main island branch offices are placed under the Distribution Department, and the Site Acquisition and Management Department has been transferred to the Transmission and Distribution Division.

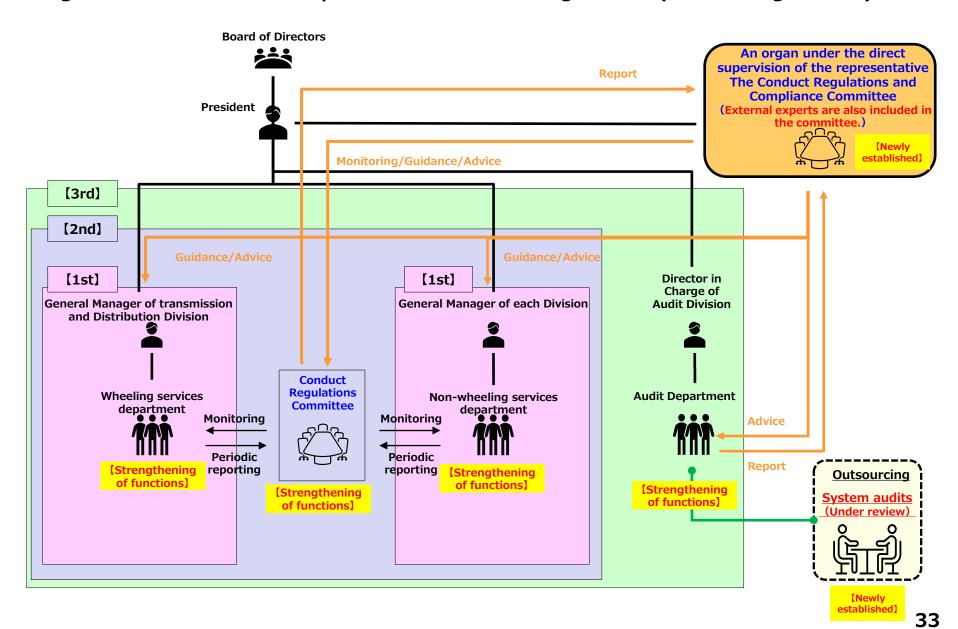
Q9. Measures to Ensure the Neutrality and Credibility of General Electricity Transmission and Distribution Utilities (1/2)

- Recently there have been cases that have raised concerns about the neutrality of general electricity transmission and distribution utilities, which serve as an essential platform of the electricity system, including cases in which customer information of PPS (power producer and supplier) was kept in a way accessible to a retail electricity company (the retail department in the case of us) in the wheeling system managed by a general electricity transmission and distribution utility, and those in which information held by a general electricity transmission and distribution utility was improperly handled.
- Efforts will be made to ensure compliance with laws and regulations, which is a prerequisite for the neutrality and credibility of general electricity transmission and distribution utilities, and to develop organizations/systems and mechanisms to ensure compliance with laws and regulations.

■ Initiatives for a system used for the management of non-public information

- For a system used for the management of non-public information (the "System" hereinafter), the Company shall use granting of access rights, confirm the appropriateness of encoding processing, and perform log analysis by sampling.
- The System shared by the wheeling services department and retain department of the Company shall ensure that PPS information is encoded and shall be designed such that PPS information is inaccessible to the retail department.
- Efforts will be made to ensure thorough understanding on the management of IDs, etc., and the prohibition of access by those other than authorized persons, to strictly control information.
- Initiatives to develop organizations/systems and mechanisms to ensure compliance with laws and regulations
 - In order to ensure compliance with laws and regulations (conduct regulations), the Company will strengthen the functions of the multi-tiered risk management system of three layers and conduct regular monitoring.
- In addition to strengthening of the functions of the existing Conduct Regulations Committee, the Conduct Regulations and Compliance Committee, an organ under the direct supervision of the representative, will be newly established to strengthen the monitoring system.
- Initiatives to build a checking system by outside experts to upgrade organizations/structures and mechanisms
- Efforts will be made to build a system to provide guidance and advice on compliance with laws and regulations (conduct regulations) to strengthen the monitoring system, including the establishment of the Conduct Regulations and Compliance Committee whose members include outside experts and the outsourcing of system audits (under consideration).

Organizational chart for compliance with laws and regulations (conduct regulations)



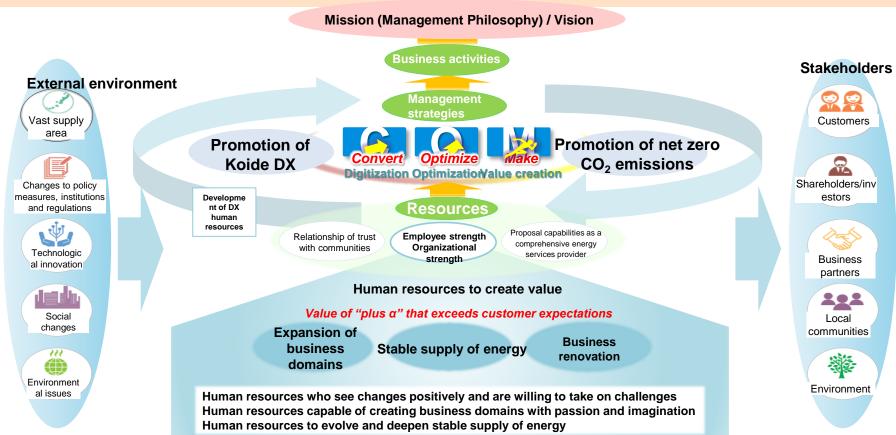
Q10. Regarding Human Capital

Talent development policy

- In order to realize and achieve our mission, vision and stated goals including **what the group aims to be**, it is the *employee strength and organizational strength* that formulate and execute management strategies and business activities, and human resources that create *values*. Accordingly we have indicated the *direction of human resources development to achieve the goals* in the Medium-Term Management Plan.
- In addition to defining the *three basic human resources* that constitute *employee strength and organizational strength*, we have established a specific set of basic skills from which those strength comes together with a skills map. They serve as the direction of human resources development and are used to support employee growth.

Our approach to ensure diversity

- Our policy is to promote core human resources without restrictions based on gender or other attributes in order to realize what the group aims to be.
- With regards to the promotion of women to core positions, we have formulated an action plan and set targets to create an employment environment in which women can play an active role in management positions. Efforts are being made to realize this.



Q11. What are the Special Tax Measures?

- We consider that special taxation measures are necessary for promoting business in Okinawa Prefecture and improving the lives of Okinawa residents on the grounds that disadvantages inherent in Okinawa's electricity business have remained unchanged. For example, there are many small and isolated systems and Okinawa is dependent on thermal power.
- The amount of tax exemption based on the special taxation measures is deducted from the cost of electricity charge.

Currently Applied Special Tax Measures

	Preferential Measure for Standard Taxable Values Relating to Fixed Property Tax	Exemption from the Oil and Coal Tax Relating to Specific Coal, etc. (Coal and LNG) Used for Power Generation in Okinawa
Details	Alleviation to 2/3 of Standard Taxable Values	(1) Exemption from the Oil and Coal Tax for coal(2) Exemption from the Oil and Coal Tax for LNG
Period	April 1, 1982 - March 31, 2024 * Extended for 2 years from April 1, 2022	 (1) October 1, 2003 – March 31, 2024 * Extended for 2 years from April 1, 2022 (2) April 1, 2012 – March 31, 2024 * Extended for 2 years from April 1, 2022
Basic Law	Supplementary Provisions of the Local Tax Law (Article 15.5)	Special Measures Law for the Promotion of Okinawa (Article 64) Special Taxation Measures Law (Article 90.4.3.1)

Revision of the Act on the Special Measures for the Promotion and Development of Okinawa

- The Act on the Special Measures for the Promotion and Development of Okinawa was revised in March 2022, and the revised law came into effect on April 1, 2022.
- Under the revised law, etc., OEPC receives favorable treatment based on "Preferential Measure for Standard Taxable Values Relating to Fixed Property Tax" and "Exemption from the Oil and Coal Tax Relating to Specific Coal, etc. (Coal and LNG) Used for Power Generation in Okinawa".

Value of Tax Alleviation Due to the Special Measures

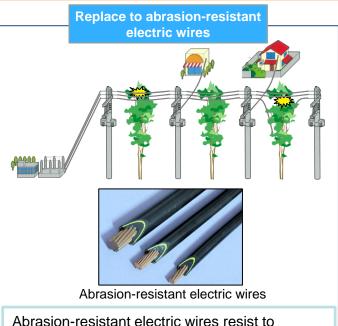
■ FY2020 : about 3.4 billion yen.

■ FY2021 : about 3.4 billion yen.

■ FY2022 : about 3.5 billion yen.

Q12. What are the efforts to typhoon measures?

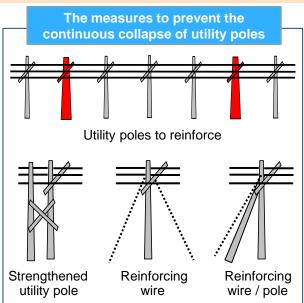
- Since many typhoons approach Okinawa every year, the we are taking basic measures by thoroughly inspection patrol electricity transmission/distribution facilities and regularly cutting trees, and is also taking various other precautionary measures.
- After the Electric Power Resilience WG compiled the verification results concerning the power failure restoration and others, we have implemented new measures, such as maximizing the number of patrol personnel in the distribution division to quickly grasp the damage situation.



Abrasion-resistant electric wires resist to damage from trees contacting them and prevent disconnection caused by abrasion.

Design standard for transmission towers

Regarding the transmission tower, the Ministerial Ordinance on Technical Standards for Electric Facilities (Ministry of Economy, Trade and Industry) stipulates that the larger load should be taken into account by comparing the wind pressure load at the reference wind speed of 40 m/sec with that at the base wind speed for each region. Our company has designed the transmission tower taking into account the maximum wind speed at the time of past typhoons, and the larger load by comparing the wind pressure load at the wind speed of 60 m/sec with that at the base wind speed for each region.



It's possible to prevent the continuous collapse of utility poles by reinforcing utility poles.

Maximizing the number of patrol personnel in power distribution department

We get the most out of the personnel in power distribution department and construction companies as patrol personnel in order to quickly grasp damages after pass typhoons. In addition, we utilize the personnel other than power distribution department as drivers.

Use of electric wires to reduce wind pressure



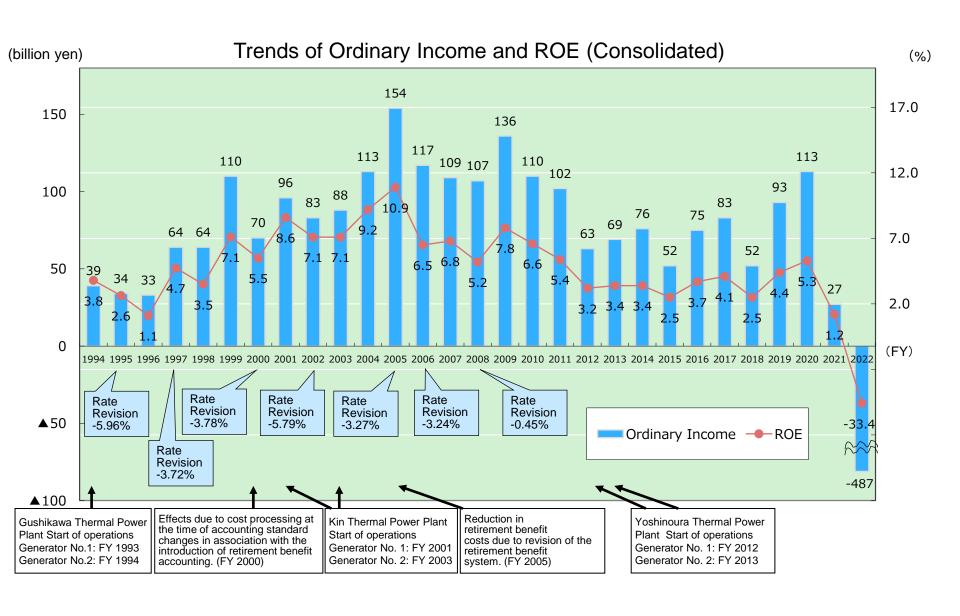
Electric wire that reduces wind pressure

Reduce the wind pressure load by providing grooves on the surface of the electric wire.

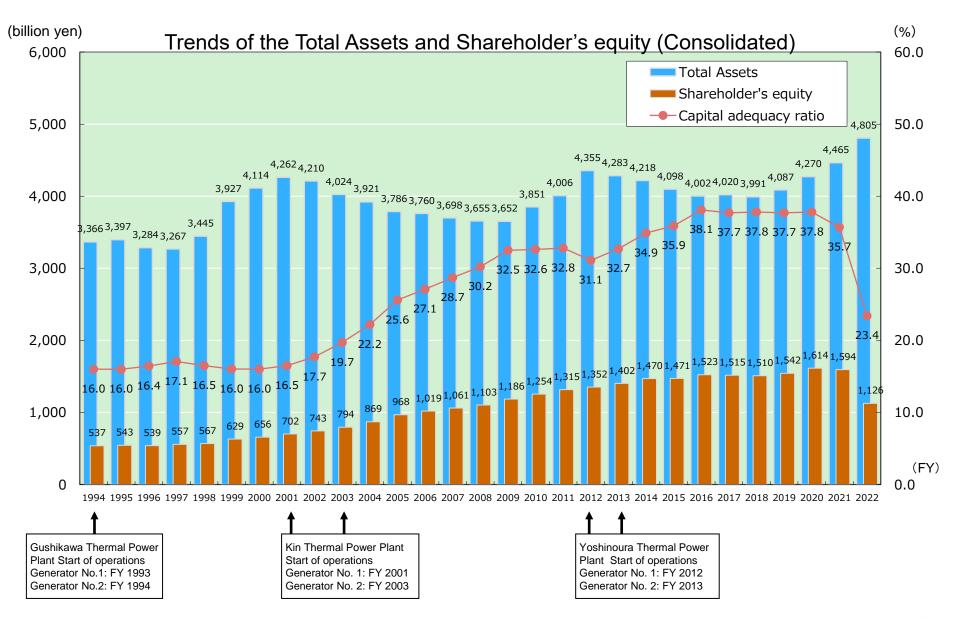
Public relations activities

We are making an effort to prevent the spread of damage by disseminating typhoon measures at home on TVCM, Radio, SNS before the typhoon approaches. Moreover, we also disseminate information using the website and SNS among others on power outages, the state of restoration works, and restoration prospects.

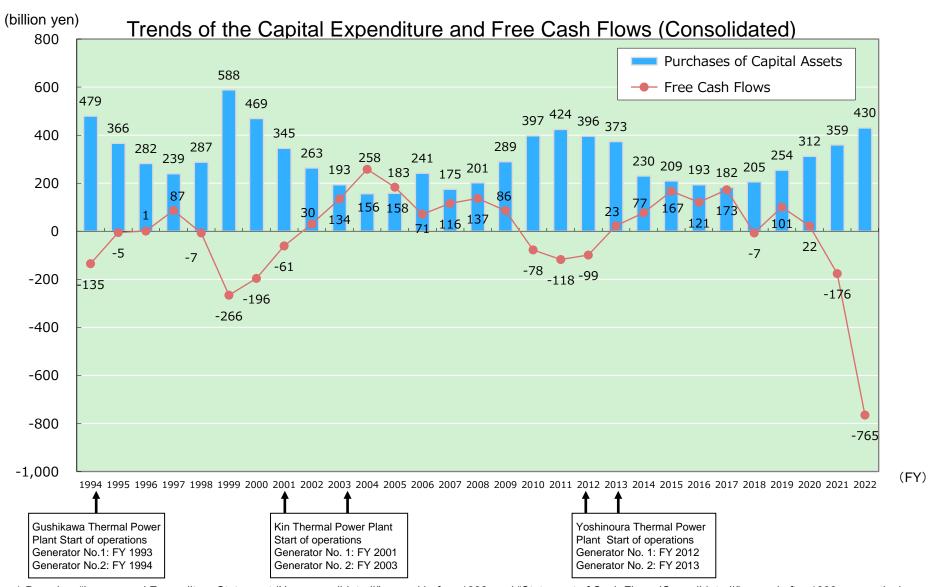
Reference 1: Trends of Ordinary Income and ROE



Reference 2: Trends of the Total Assets and Shareholder's equity



Reference 3: Trends of the Capital Expenditure and Free Cash Flows



^{*} Based on "Income and Expenditure Statement (Non-consolidated)" on and before 1998, and "Statement of Cash Flow (Consolidated)" on and after 1999, respectively.

Reference 4: Change in Okinawa Electric Power's Stock Price

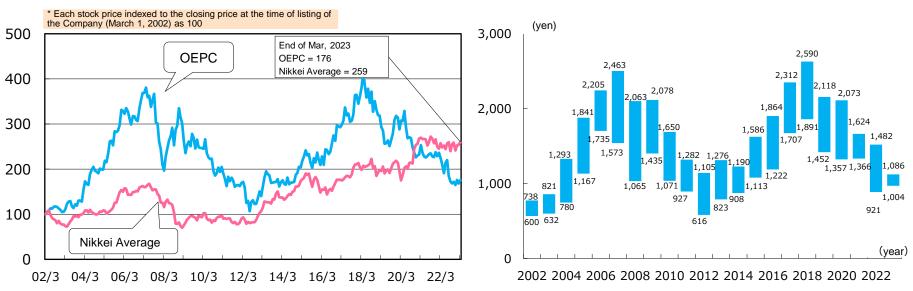
Recent stock price changes: from January 4, 2022 to March 31, 2023

	Okinawa Electric Power Company, Inc.	Nikkei Average
Stock price as of January 4, 2022 (closing price)	1,463 yen	29,302 yen
All-time high (closing price)	1,471 yen (+0.5%) as of Mar. 3, 2022	29,332 yen (+0.1%) as of Jan. 5, 2022
All-time low (closing price)	929 yen (-36.5%) as of Oct. 13, 2022	24,718 yen (-15.6%) as of Mar. 9, 2022
Stock price as of March 31, 2023 (closing price)	1,077 yen (-26.4%)	28,041 yen (-4.3%)

(Note) Figures in bracket indicate percentage change in the stock price from its closing price on January 4, 2022.

Changes in the Stock Price of the Company and the Nikkei Stock Average (month-end closing price)

Changes in the Highest and Lowest Prices of the Stock of the Company



(Note) The stock split was implemented seven times in the indicated period (Record date :End of March 2005, End of March 2007, End of May 2015, End of May 2016, End of May 2017, End of May 2018 and End of May 2020), and adjustment has been made for the figures before the end of May 2020.

Reference 5: Earnings Per Share and Payout Ratio

Earnings per Share and Payout Ratio

	FY	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Net income *1	Million yen	4,731	4,943	3,647	5,517	6,273	3,751	6,705	8,341	1,959	-45,457
Earnings per Share *1	Von	270.80	282.99	139.22	140.41	147.00	72.38	129.39	153.29	36.05	-836.98
(Post-adjustment after stock split) *2	yen	(83.36)	(87.12)	(64.29)	(97.25)	(112.00)	(68.94)	(123.22)			
Dividend per Share		60	60	60	60	60	60	60	60	60	0
(Post-adjustment after stock split) *2	yen	(18)	(18)	(28)	(42)	(46)	(57)	(57)			
Payout Ratio *1	%	22.2	21.2	43.1	42.7	40.8	82.9	46.4	39.1	166.4	_
Dividend Yield	%	1.72	1.38	1.98	2.27	1.96	3.18	3.03	3.87	4.35	0
Price Book-value Ratio *1	х	0.44	0.52	0.54	0.68	0.84	0.65	0.67	0.52	0.47	0.52
Price Earning Ratio *1	х	12.9	15.4	21.8	18.8	20.8	26.0	15.3	10.1	38.2	-1.3

^{*1} Net Income, EPS, Payout Ratio, PBR, PER are on a consolidated basis

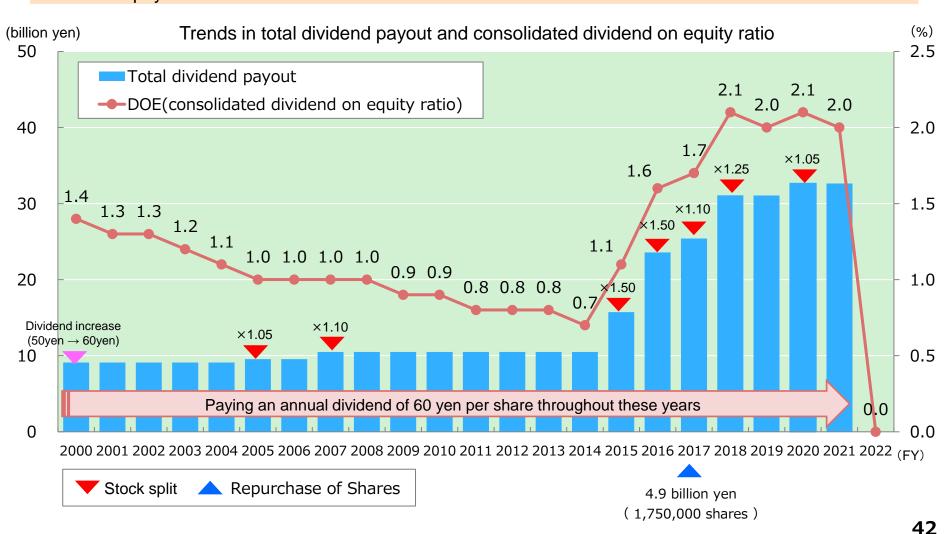
Dividends for the year ended March 2023 (FY2022)

➤ The Company has decided not to pay dividends for the fiscal year ending March 2023 in light of the difficult earnings situation in the fiscal year.

^{*2} Shown in the brackets are numbers adjusted for the effects of past stock splits.

Reference 6: Policy for Returning Profits to Shareholders

- Our basic policy for profit distribution is to "distribute stable and continuous dividends," and we will make efforts to maintain "a consolidated dividend on equity ratio (DOE) of over 2.0%".
- Due to the extremely difficult income/expense situation, we plan to suspend the interim and year-end dividend payments for FY2022.



This document includes statements concerning future results. Such statements are based on calculations and predictions and contain potential risks and uncertainties.

Please be aware that future results may change in accordance with changes in assumptions related to the management environment and the like.

[Enquiries regarding this document]

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