

Management Reference Materials

May 2022



The Okinawa Electric Power Company, Inc.

Contents

■ Main contents

Characteristics of the Business Base	1
[Demand for Energy]	
Okinawa Prefecture Demographics	2~3
Number of incoming tourists	4~6
Urban Development of the Returned former U.S. military base sites and Others	7
[Competition]	
Full liberalization of the Electricity Market	8
[Power Generation Facilities]	
Power Supply Composition	9
Response to the Fade-out of Inefficient Coal-fired Thermal Power Generation	10
Demand-Supply balance	11
[Remote Islands]	
Efforts to Improve Income and Expenditure	12
[Global Warming Countermeasures]	
Comprehensive Partnership Agreements with Municipalities, Private Companies, etc.	13
Introduction status of renewable energy Facilities	14
Challenges for the introduction of renewable energies	15~18
Efforts to base on TCFD Recommendations	19~20

■ Q&A contents

Q1.Topics of Okinawa's Economy	
1) Current Status and Future Forecast of Okinawa's Economy	21
2) Economic Growth of Okinawa Prefecture under the Okinawa Promotion Plan	22
Q2.What is the Current State of U.S. Military Bases?	23
Q3.What is the Current State of Promotion of Electrification?	24
Q4.What is the enrichment of electricity rate menus?	25~26
Q5.What are the efforts to fuel cost reduction?	27~28
Q6.The Fuel Cost Adjustment System	29
Q7.What is the approval that it's possible to engage in electricity transmission and distribution on concurrent?	30
Q8.What are the Special Tax Measures?	31
Q9.What are the efforts to typhoon measures?	32
Q10. Response to the Corporate Governance Code	33
Reference 1:Trends of Ordinary Income and ROE	34
Reference 2:Trends of the Total Assets and Shareholder's equity	35
Reference 3:Trends of the Capital Expenditure and Free Cash Flows	36
Reference 4:Change in Okinawa Electric Power's Stock Price	37
Reference 5:Earnings Per Share and Payout Ratio	38
Reference 6:Policy for Returning Profits to Shareholders	39

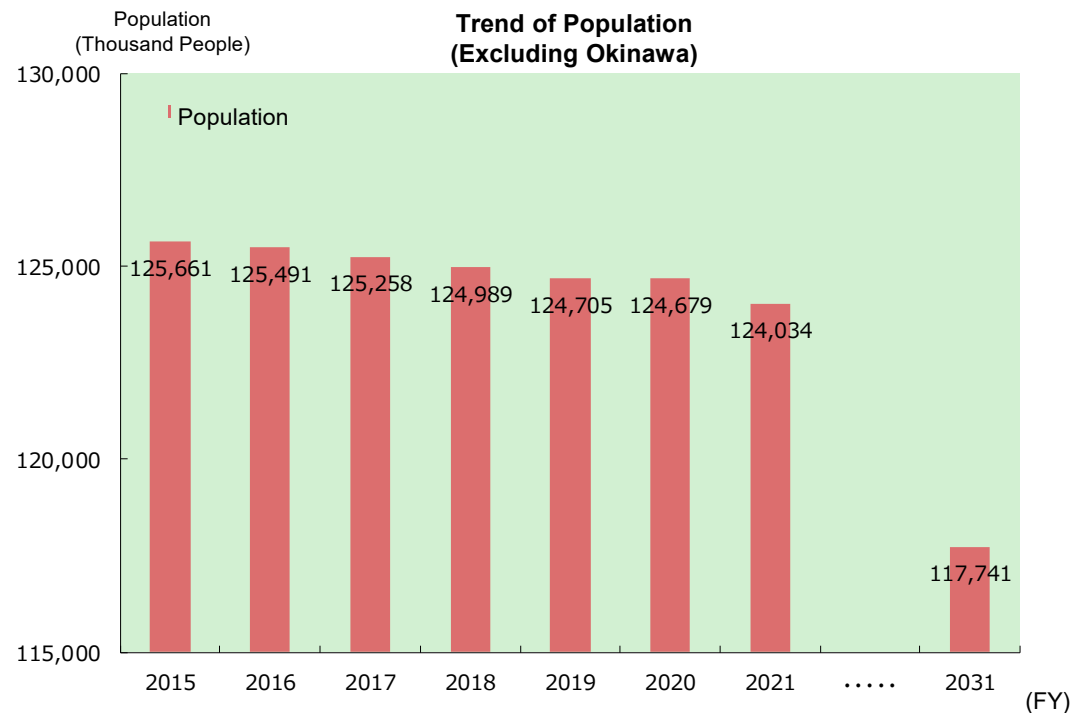
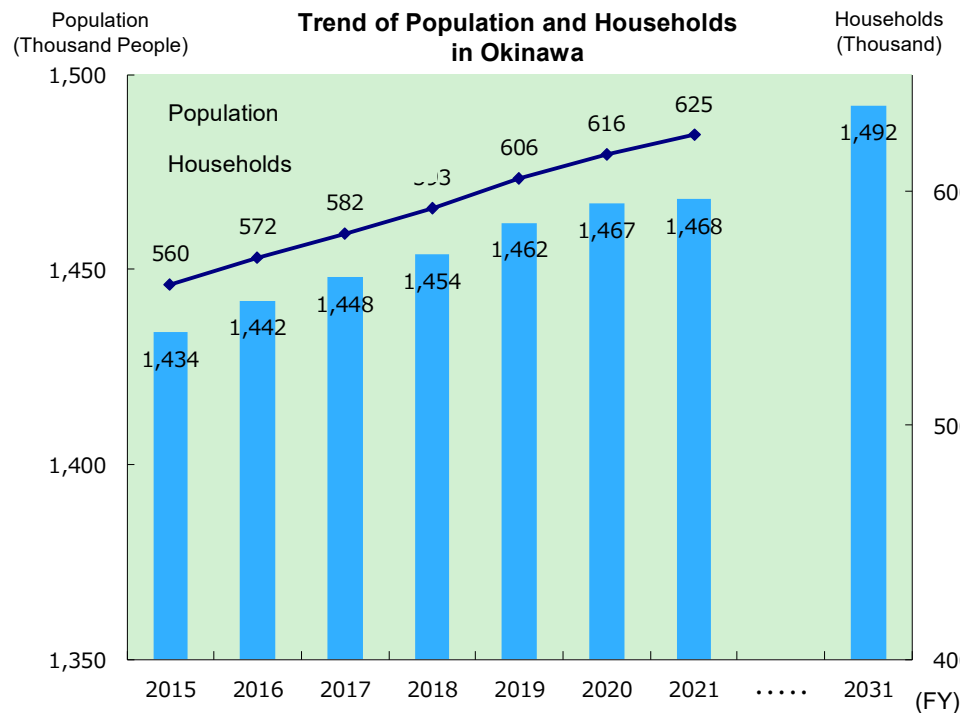
Characteristics of the Business Bases

Item	Overview	Reference Page
Demand for Energy	<ul style="list-style-type: none"> ◆ 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	<ul style="list-style-type: none"> ◆ 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
Electric Power Generation Facilities	<ul style="list-style-type: none"> ◆ 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	<ul style="list-style-type: none"> ◆ 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	<ul style="list-style-type: none"> ◆ 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. 	13~20

Okinawa Prefecture Demographics (1/2)

- While the national population has started decreasing, the population in Okinawa is expected to increase until around 2030. *
- Demand for lighting is expected to increase as the population and number of households increases in the future.

* 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 FY2031 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 FY2031 are based on estimated data provided by OCCTO.

- The total fertility rate of Okinawa Prefecture in FY2020 was 1.86, the highest among all prefectures in Japan (nationwide:1.34)
- While the number of the national population in FY2021 decreased by -5.1 persons per 1,000 people, that of Okinawa increased by 0.7 people.

Okinawa Prefecture Demographics

(People)

		2017	2018	2019	2020	2021
The total fertility rate (Per Thousand people)	Nationwide	1.43	1.42	1.36	1.34	—
	Okinawa	1.94	1.89	1.82	1.86	—
	Ranking	(1)	(1)	(1)	(1)	—
The Increase of population (Per Thousand people)	Nationwide	-1.8	-2.1	-2.2	-3.2	-5.1
	Okinawa	2.6	3.1	3.9	4.1	0.7
	Ranking	(3)	(2)	(2)	(1)	(1)
The Natural Increase of population (Per Thousand people)	Nationwide	-3.0	-3.4	-3.8	-4.0	-4.8
	Okinawa	2.9	2.6	2.0	1.9	0.9
	Ranking	(1)	(1)	(1)	(1)	(1)
The Social Increase of population (Per Thousand people)	Nationwide	1.2	1.3	1.7	0.3	-0.3
	Okinawa	-0.3	0.5	1.9	1.2	-0.2
	Ranking	(17)	(11)	(8)	(7)	(11)

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

"Population Estimates" by Statistics Bureau, Ministry of Internal Affairs and Communications

"Population Estimates" by Okinawa Prefectural Government

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

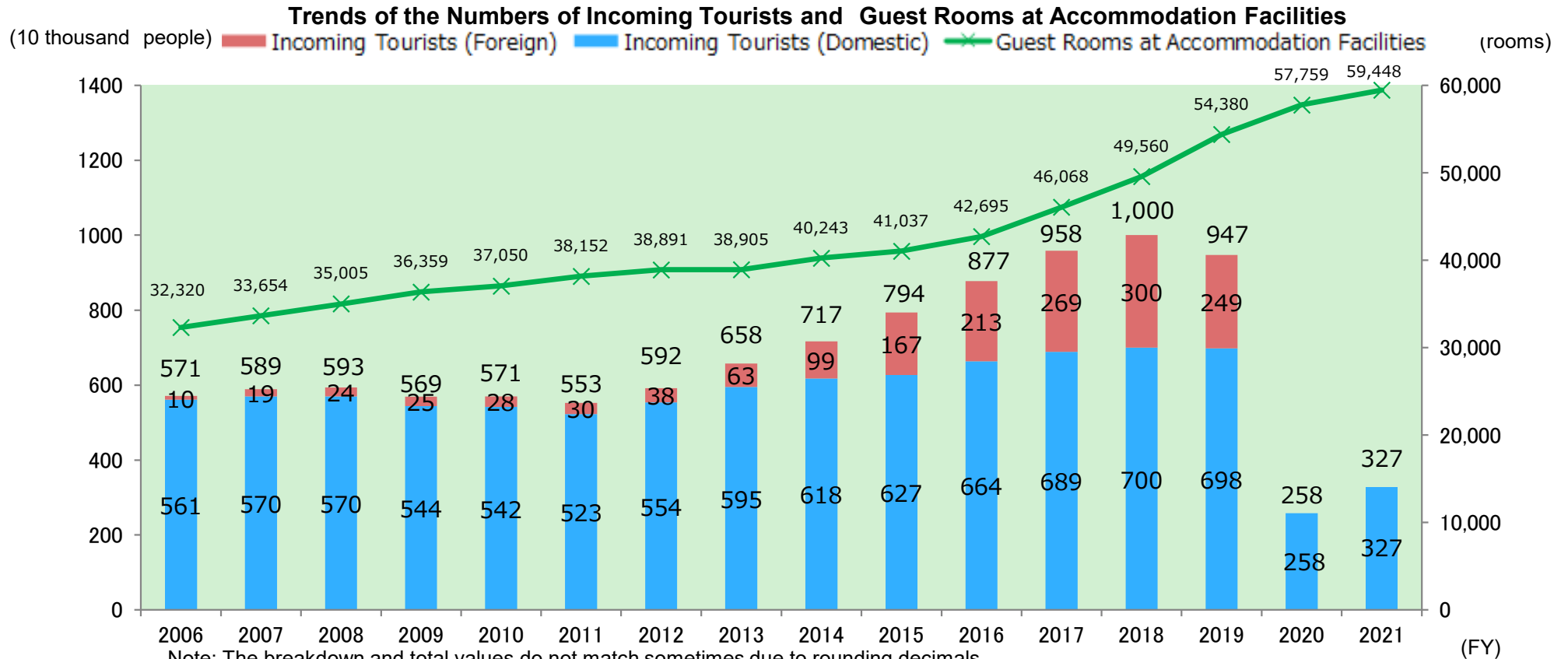
Number of incoming tourists (1/3)

■ In FY2021, the number of Incoming tourists was 3.27 million, higher than the previous year.

[Incoming tourists] FY2020 : 2,580 thousand people (Growth rate of -72.7% year-on-year)

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

■ Although the situation remains difficult compared to that before the spread of the novel coronavirus, the demand for domestic travel is expected to recover due to the spread of vaccinations and the implementation of the “Go To Travel” project.



Note: The breakdown and total values do not match sometimes due to rounding decimals.

Source: “Tourism Guidebook”, “Summary Statistics on Incoming Tourists to Okinawa”, “2021 Accommodations Fact-finding Survey Result”, published by Okinawa Prefectural Government

Number of incoming tourists (2/3)

- Although the number of incoming tourists in FY2021 exceeded that of the previous year, the situation remains difficult compared to that before the spread of the novel coronavirus.

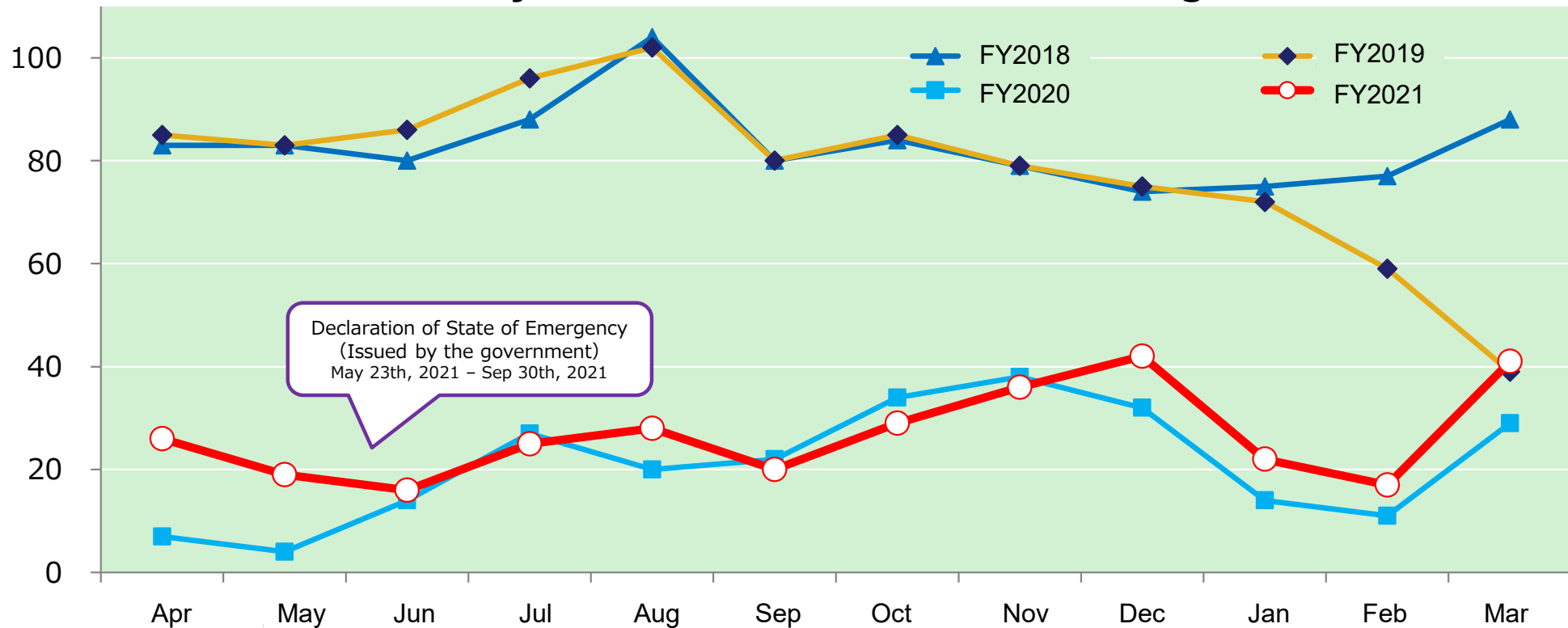
[Incoming tourists]

FY 2021 : 3,270 thousand people (Growth rate of 26.7% year-on-year)

※ Growth rate of -65.4% vs FY2019

(10 thousand people)

Monthly trend of the number of incoming tourist

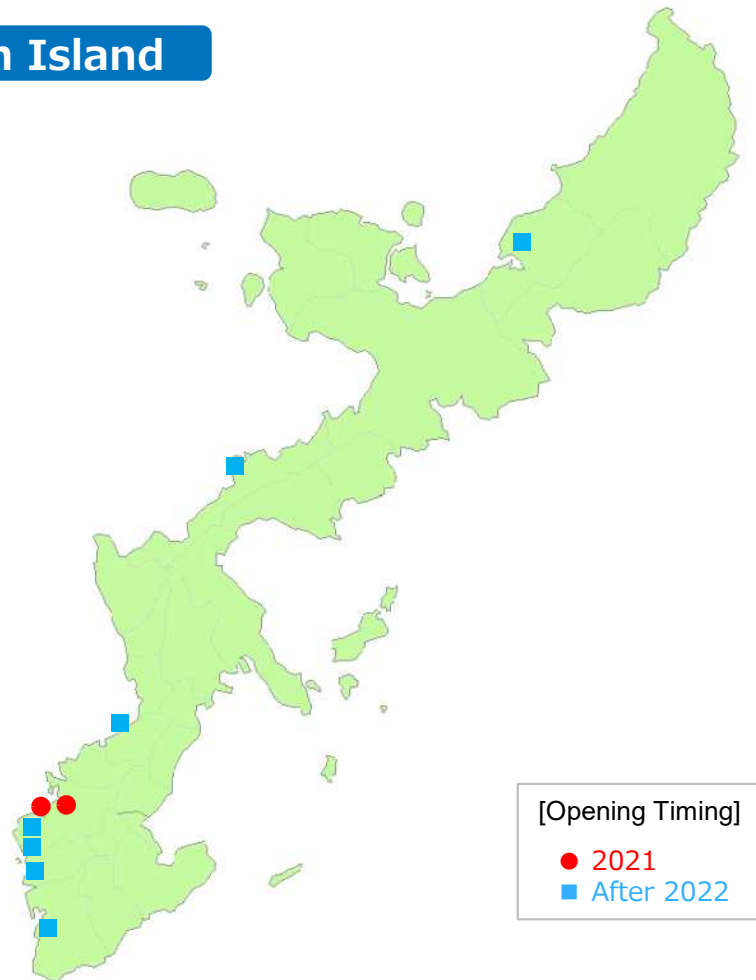


Source: "Tourism Guidebook" and "Summary Statistics on Incoming Tourists to Okinawa" published by Okinawa Prefectural Government

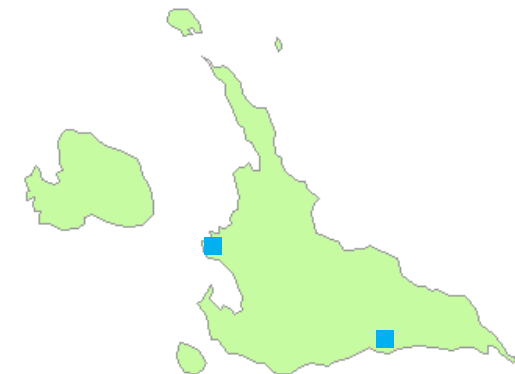
- Going forward, multiple accommodation facilities are planned to open.

Major Plans for Opening Accommodations

Okinawa Main Island



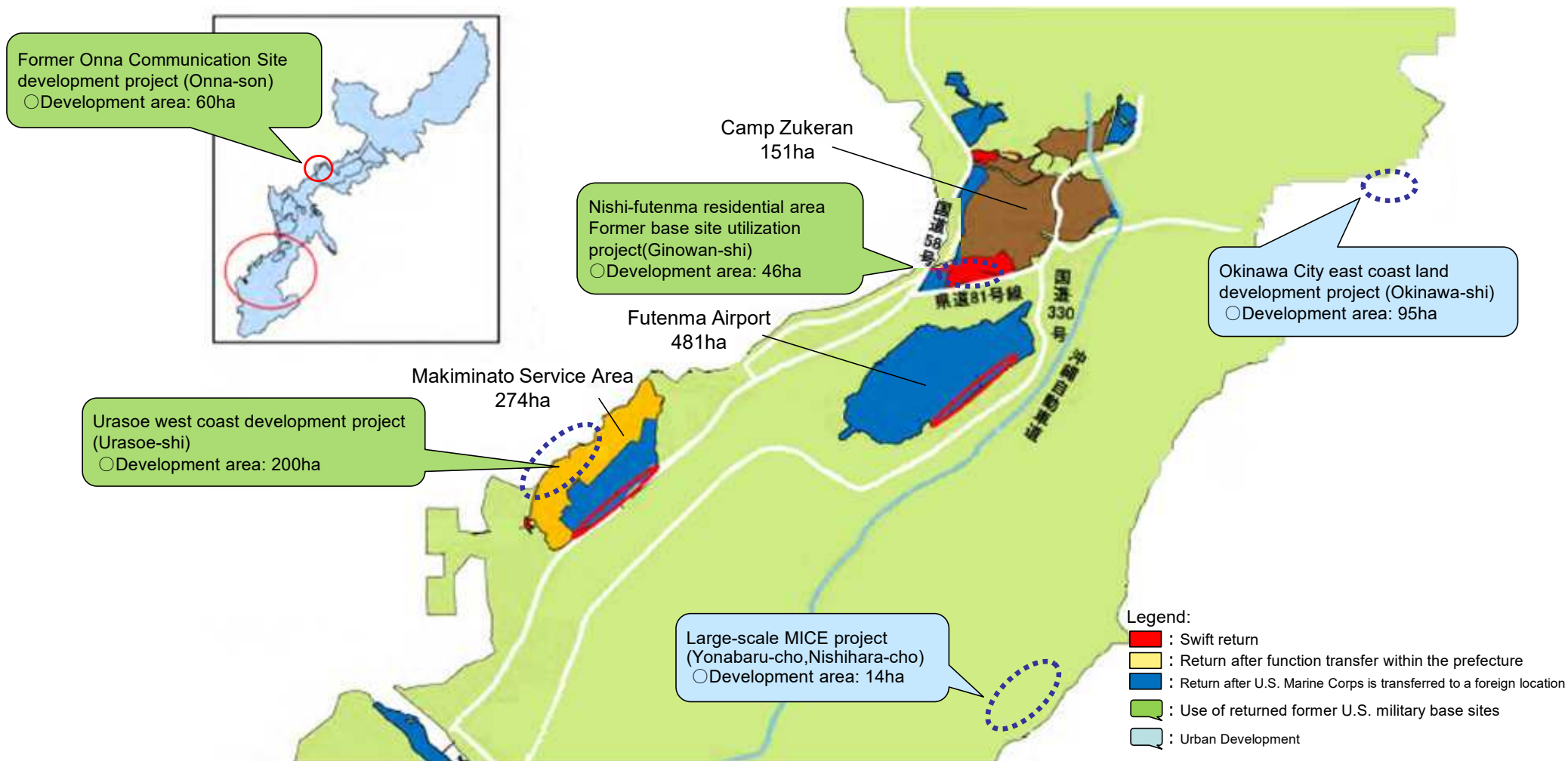
Miyako Island



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.

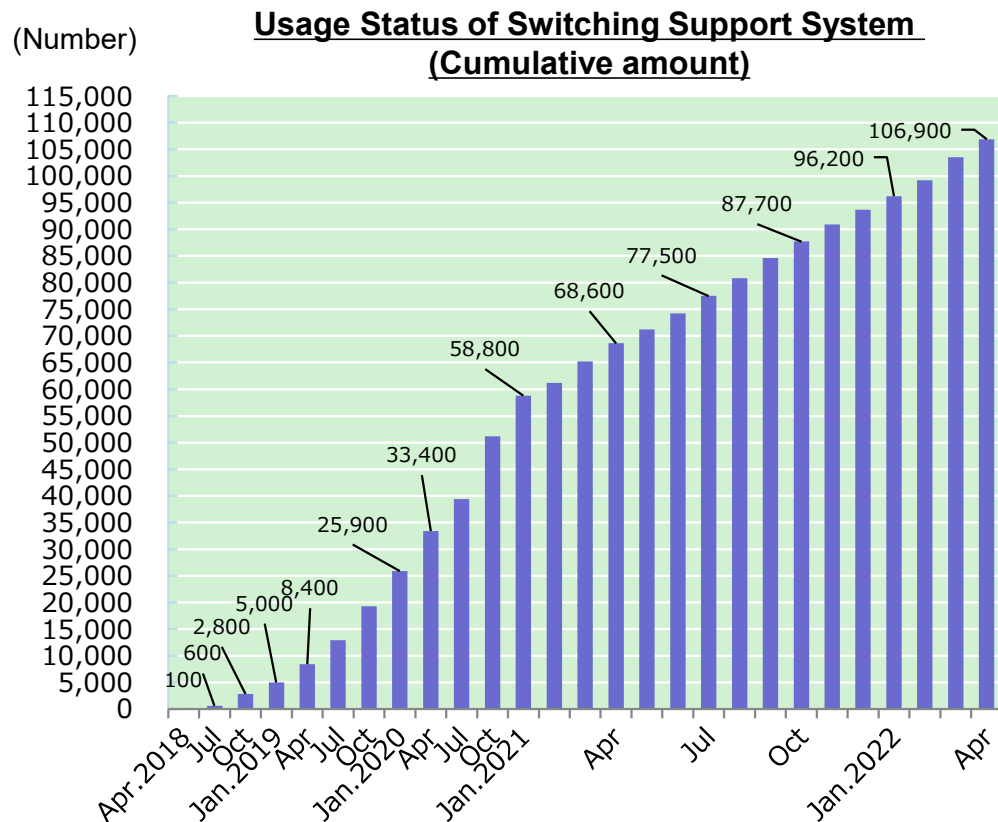


* Source: The material of the Okinawa Revitalization Council Chair and Specialized Committee Meeting (third session) presented on the Cabinet Office website, and Survey of Consideration of Ripple Economic Effects from Utilization of Former U.S. Forces Sites posted on the Okinawa Prefectural Government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

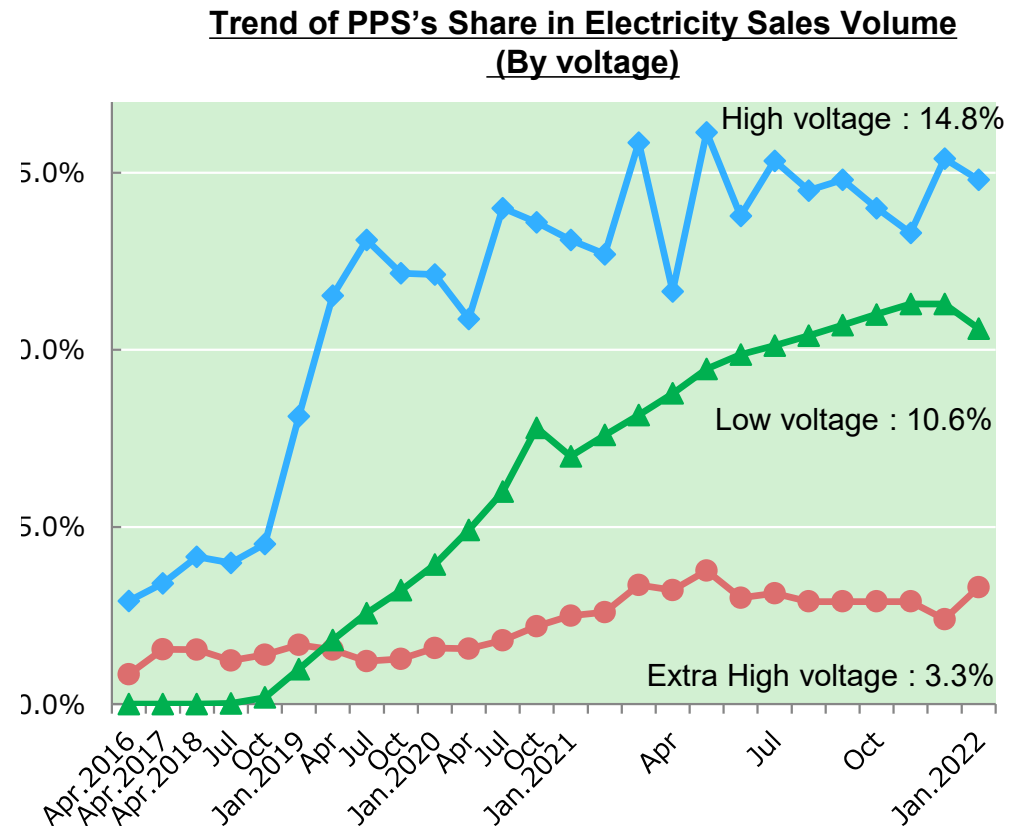
Full liberalization of the Electricity Market

- 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 10.7% in the total of all voltages (as of Jan 2022).
- 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



Source : "Usage Status of Switching Support System".



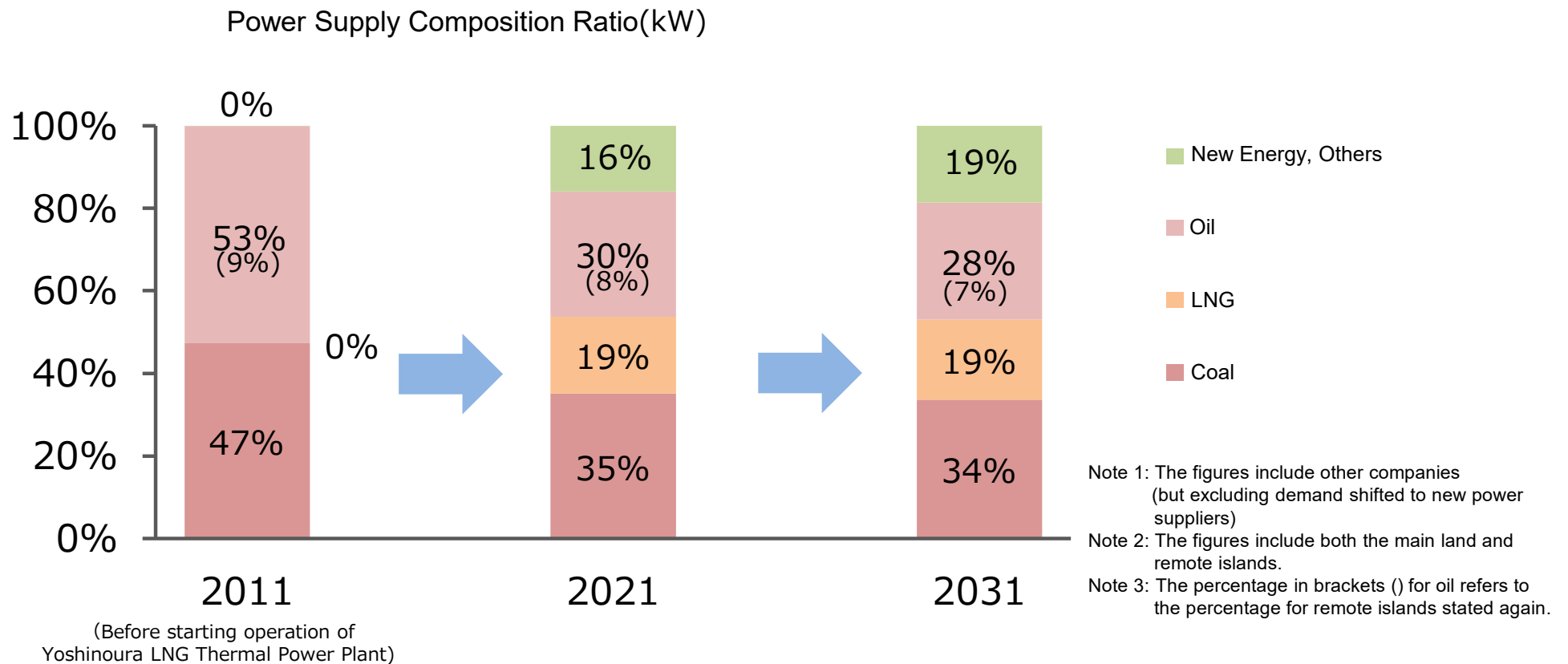
Source : "Electricity Trading Report".

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.



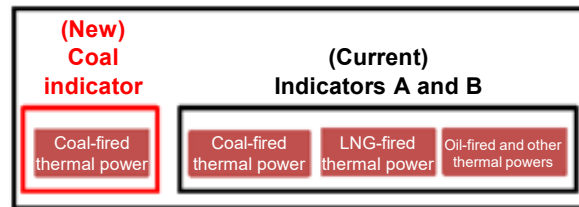
Response to the Fade-out of Inefficient Coal-fired Thermal Power Generation

- For Okinawa, where thermal power generation has to be the mainstay, coal-fired thermal power generation is indispensable not only for stable supply but also for maintaining electricity rates. 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 efficiency
 - ✓ 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

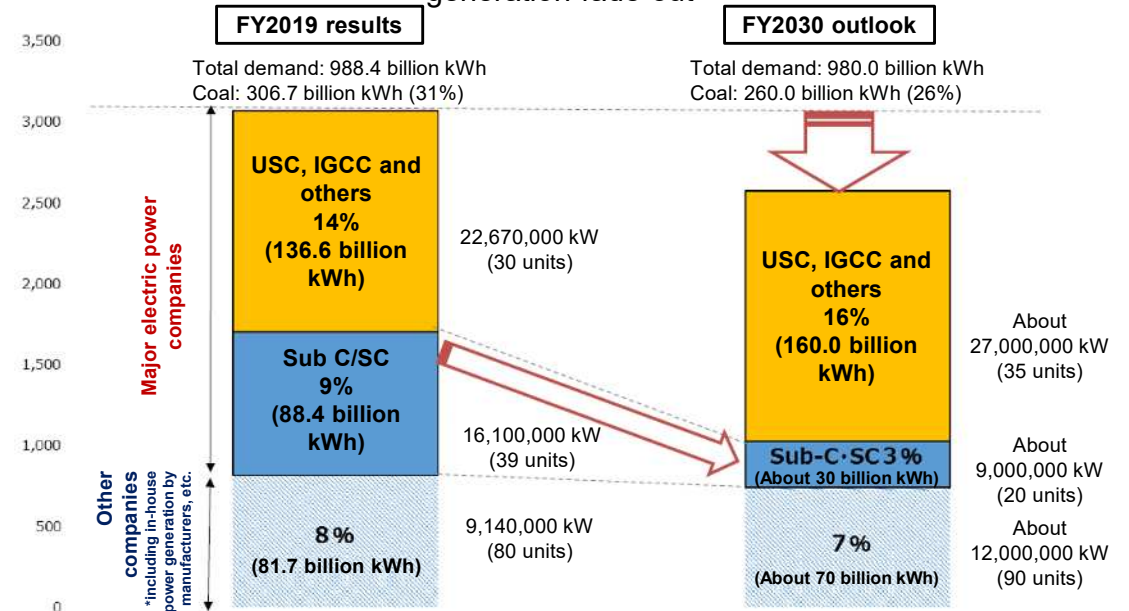
⇒ Not applicable to Okinawa

* "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 generation fade-out



*Estimation are based on transmission end power generation.

*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.

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

Power station/unit	Maximum output	Power generation system	Start of operation
Gushikawa Thermal Power Plant	No. 1 Unit	Sub-C	1994.3
	No. 2 Unit		1995.3
Kin Thermal Power Plant	No. 1 Unit		2002.2
	No. 2 Unit		2003.5

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, %)

		2021 (Reference)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Demand-supply balance	Supply capacity	2,119	2,134	2,114	2,153	2,077	2,101	2,080	2,203	2,086	2,205	2,207
	Peak load	1,502	1,535	1,555	1,564	1,573	1,582	1,591	1,600	1,609	1,618	1,628
	Reserve supply capacity	617	599	559	589	504	519	489	603	477	587	579
	Reserve supply rate	41.1%	39.1%	35.9%	37.6%	32.1%	32.8%	30.8%	37.7%	29.6%	36.3%	35.5%

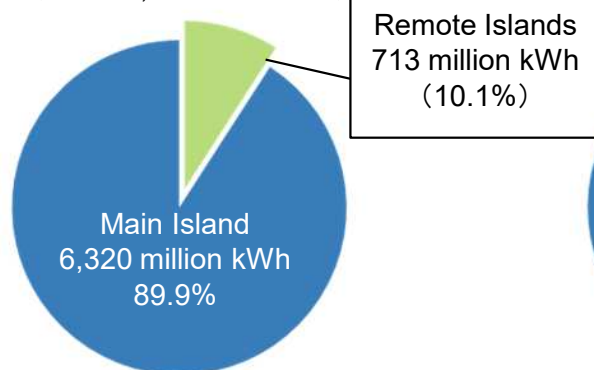
Note: Based on FY2022 Supply Plan Notification. (general transmission / distribution business)

Remote Islands (Efforts to Improve Income and Expenditure)

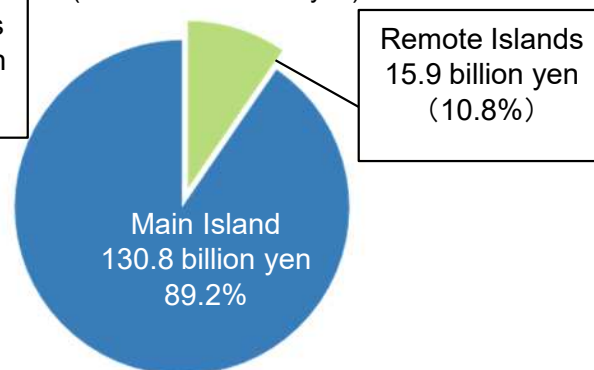
- The region has a high cost structure because of such reasons as having small islands scattered about a vast sea area and the narrow scale of the economy.
- Remote island business occupies about 10% of electricity sales and residential, commercial and industrial use charges.



Electricity Sales Volume
(FY2021 results)
(Total : 7,033 million kWh)



Electricity Sales
(FY2021 results)
(Total : 146.7 billion yen)



(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

- Starting with the 2050 Carbon Neutral Declaration by the central government, Okinawa Prefecture and local governments in the prefecture have issued 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 "Make Renewable Energy as 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 on the demand side such as households, industries and transportation sectors.
- To date, we have concluded partnership agreements with Okinawa Prefecture, other local governments, University and Companies.
- Through comprehensive partnership agreements with local communities, we will collaborate and cooperate more closely than ever with industry, academia, and government to develop sustainable communities in Okinawa Prefecture and realize a local decarbonized society.

<Status of Conclusion of Comprehensive Partnership Agreements : 10 agreements >

Dec 22, 2020 Okinawa Prefecture
Partnership agreement for realization of a decarbonized society

Apr 8, 2022 Nago City
Partnership agreement for realization of a decarbonized society

Jul 19, 2021 Okinawa City
Comprehensive Partnership Agreement on the Zero Carbon City Declaration

Dec 6, 2021 Uruma City
Agreement for development of a decarbonized and sustainable community

Apr 20, 2021 Urasoe City
Partnership agreement for realization of a decarbonized society

Jul 14, 2021 Ryukyu University
Agreement on industry-academia collaboration

Jul 5, 2021 RYUSEKI CORPORATION
Partnership agreement for realization of a decarbonized society

Sep 10, 2021 The Bank of Okinawa, Ltd.
Partnership agreement for realization of a decarbonized society

Mar 11, 2022 THE OKINAWA KAIHO BANK, LTD.
Partnership agreement for realization of a decarbonized society

Feb 7, 2022 Takushinkai-TAKUNAN GROUP
Partnership agreement for realization of a decarbonized and establishment of a Recycling-Oriented society

[Expected effects of conclusion of partnership agreements]
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 27,928 kW in total.

【 OEPC 】

	Name	No. of Units	Output	Remark
Wind Power	Ogimi Wind Power	2	4,000 kW	
	Yonaguni Wind Power	1	600 kW	
	Aguni Tilttable Wind Power	1	245 kW	*1
	Minamidaito Tilttable Wind Power	2	490 kW	*1
	Tarama Tilttable Wind Power	2	490 kW	*1
	Hateruma Tilttable Wind Power	2	490 kW	*1
	subtotal (6)	10	6,315 kW	
Solar Power	Abu Mega Solar Power	—	1,000 kW	
	Kitadaito Daini Solar Power	—	100 kW	*2
	Miyako Mega Solar Power	—	4,000 kW	*2
	Miyako Branch Solar Power	—	10 kW	
	Tarama Solar Power	—	250 kW	*2
	Yaeyama Branch Solar Power	—	10 kW	
	Hateruma Solar Power	—	10 kW	
	Yonaguni Solar Power	—	150 kW	*2
subtotal (8)	—	5,530 kW		
Others	Mix combustion of coal and wood biomass (at Gushikawa Thermal Power Plant)	2	—	*3
	Mix combustion of coal and wood biomass (at Kin Thermal Power Plant)	2	—	*4
	Miyako Small Hydroelectric Power	1	60 kW	
	subtotal (3)	5	60 kW	

【 Group company 】

	Name	No. of Units	Output	Remark
Wind Power	Sosu Wind Power	2	3,600 kW	
	Nakijin Wind Power	1	1,995 kW	
	Sashiki Wind Power	2	1,980 kW	
	Iejima wind Power	2	1,200 kW	
	Iejima Daini wind Power	2	1,490 kW	
	Karimata Wind Power	2	1,800 kW	
	Sadefune Wind Power	2	1,800 kW	
	subtotal (7)	13	13,865 kW	
Solar Power	Iejima Solar Power	—	10 kW	
	Tokashiki Solar Power	—	198 kW	
	Nago Mega Solar Power No.1	—	1,990 kW	
	Nago Mega Solar Power No.2	—	1,200 kW	
	Itoman Mega Solar Power	—	1,500 kW	
	PV-TPO business	—	836 kW	*5
	subtotal (5)	—	5,734 kW	

(As of March 31, 2022)

*1 Tilttable 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

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 “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

Extreme mean wind speed that may be experienced in the next 50 years

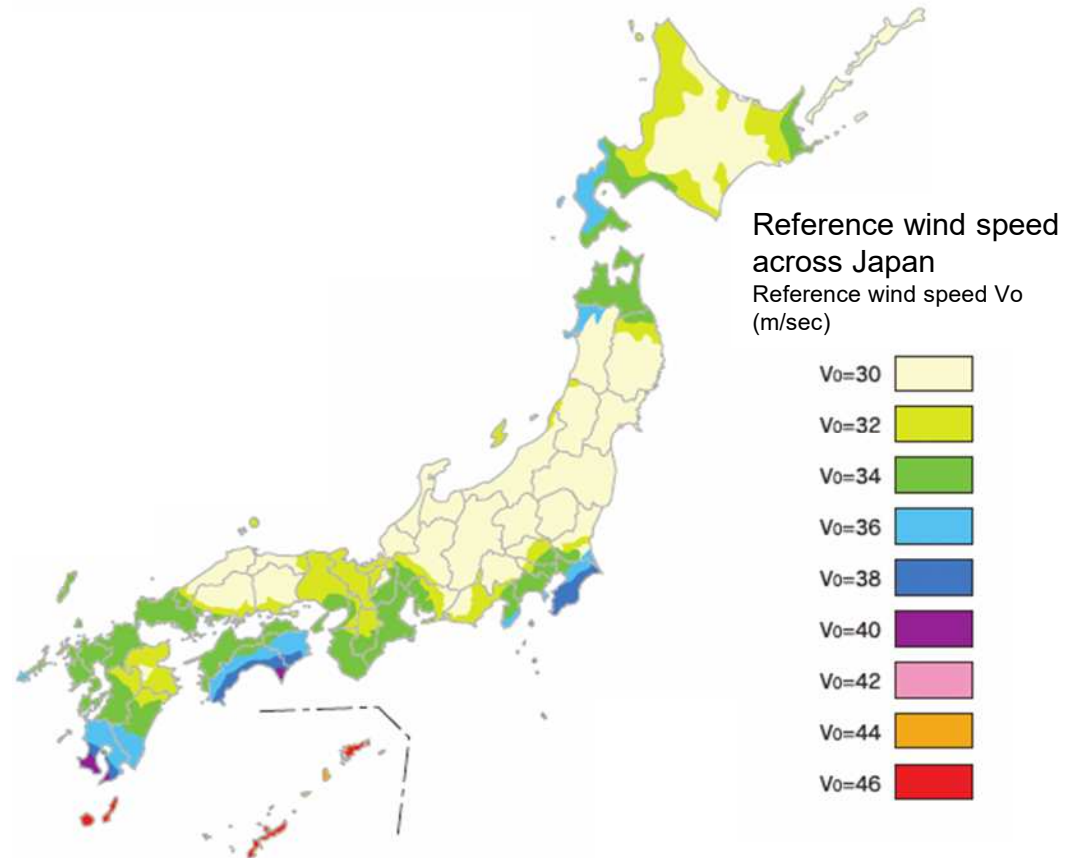
Extreme wind speed (90 m/s)

= 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

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, 2022)]

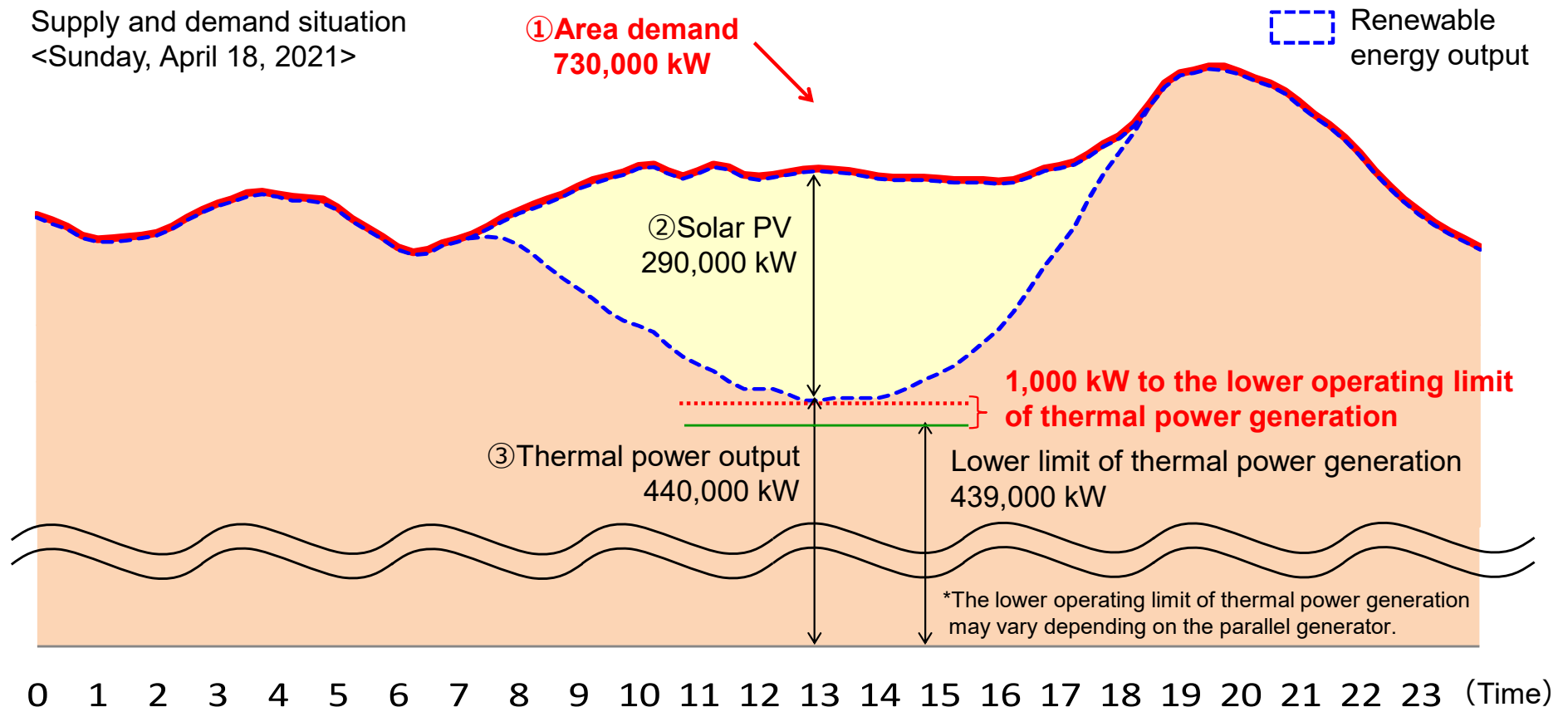
(MW)

		Amount already connected	Connection application amount	Total
Main island of Okinawa		369	125	495
Remort island	Miyako	34	4	38
	Ishigaki	22	4	26
	Kume	3	0	3

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

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.



4 Output Control Outlook

- Simulations were conducted on the output control outlook for the Okinawa main island in FY2022, taking into account the actual demand in FY2020 and the latest power source repair plan, among others.
- There were ten controls a year (April (three times), December, January, February (four times), and March).
- If all operators went online, there were two controls a year (April).

Prerequisites for simulations

- FY2020 data were used for demand, photovoltaic and wind power forecasts (actual).
- For the capacity of photovoltaic generation facilities, the capacity of facilities of 366,000 kW at the end of September 2021 and the latest increase (1,000 kW/month) were considered.
- FY 2022 repair plan was incorporated in the supply capacity.
- Thermal power was minimum (according to the priority power supply rule)

< FY2022 Photovoltaic Power Output Control Outlook (by Control Category) > (% , [10,000 kWh])

Output control rate*1 [Amount of electricity controlled]						
	Target facilities for control only					All facilities
	Old rules 500 kW or more (Offline)	Old rules Less than 500 kW	New rules (Online)	Without limitation No compensation (Online)	Total target facilities for control	
FY2022 Estimate	0.3 [14.66]	0.4*2 [81.43]	0.03 [1.45]	0.02 [0.09]	0.3 [97.64]	0.2 [97.64]
(Reference) FY2022 online	0.08 [20.37]		0.009 [0.42]	0.005 [0.03]	0.07 [20.82]	0.05 [20.82]

*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 photovoltaic power output to the amount of total photovoltaic power output (including amount of controlled output) including non-target facilities for output control.

*2 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).

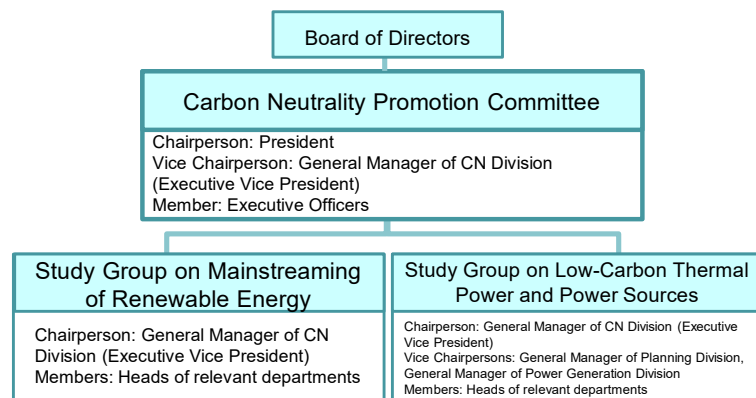
Efforts to base on TCFD Recommendations (1/2)

- In September 2019, Expressing to support the Recommendations adopted by the Task Force on Climate-related Financial Disclosures(TCFD).
- Based on the TCFD recommendations, we have disclosed "Governance" and "Climate Change Risks and Opportunities" in the FY2021 Integrated Report.

[Governance]

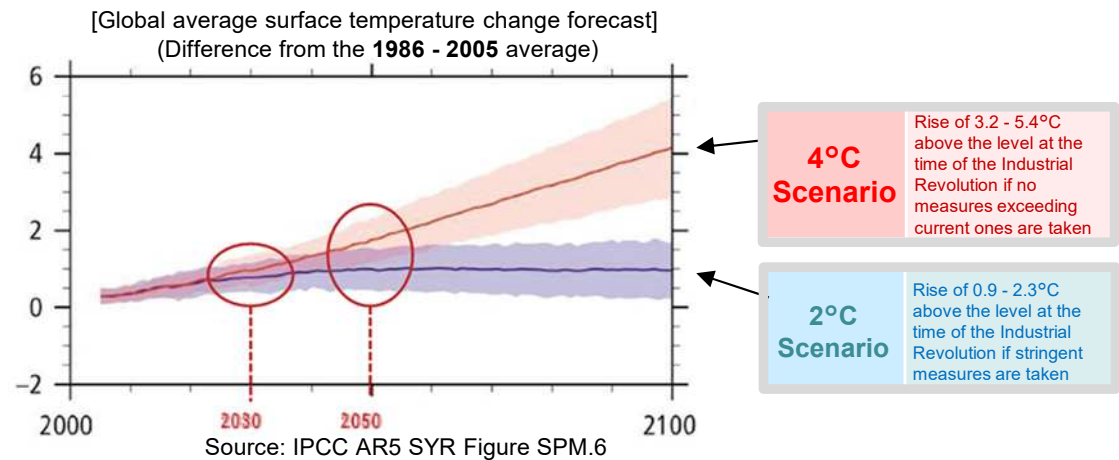
- Recognizing response to climate change as an important management issue, we established the "Carbon Neutrality Promotion Committee" chaired by the President in July 2021.
- The results of deliberations by the "Carbon Neutrality Promotion Committee" and important issues related to climate change, if any, will be reported to the Board of Directors as appropriate.

<Carbon neutrality promotion system>



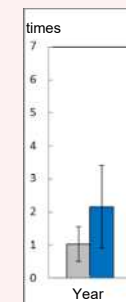
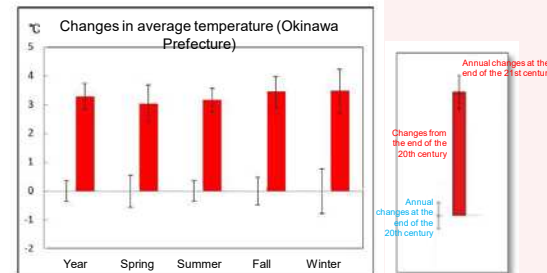
[Climate Change Risks and Opportunities]

- Climate change risks and opportunities are summarized by referring to 2°C and 4°C rise cases as climate change scenarios.

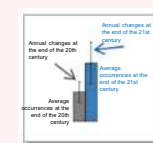


Projected Okinawa's future at the end of the century (2100) based on the IPCC 4°C scenario (RCP 8.5)

- Temperature in Okinawa at the end of this century will **rise by an annual average of 3.3°C**



- The number of short-time heavy rainfalls (one hour precipitation of 50 mm or more) in Okinawa at the end of this century will **increase by about 2.1 times from the present**



Source: Excerpt from Okinawa Regional Headquarters, the Japan Meteorological Agency "Okinawa Climate Change Monitoring Report 2021" (March 2021)

Efforts to base on TCFD Recommendations (2/2)

- Regarding the "Risks and opportunities related to climate change," classify individual items into short- to medium- or long-term manifestation timing and summarize them.
- Continue to enhance scenario analysis, including disclosure of financial impacts.

— Summary of risks and opportunities related to climate change —

	Classification	№	Contents	Category	Manifestation timing	
					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 ⇔ Expansion of renewable energy)</small>	Risk Opportunity	■	■
		2	Introduction of carbon pricing, etc.	Risk	■	
		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	■	■
	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	■	■
		Market/services <small>Changes in customer preferences</small>	5	Advances in electrification and EVs	Opportunity	
	6		Changes in customer preferences <small>(Increasing customer needs for environmentally conscious menus)</small>	Opportunity		■
	Reputation <small>Changes in corporate image</small>	7	Social evaluation of responses to climate change	Risk	■	
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		■
	Chronic <small>Changes in weather patterns</small>	9	Influence of rising seawater temperature <small>(Lower thermal efficiency)</small> and drought <small>(Restriction of water intake)</small> on operations	Risk		■
		10	Influence of sea level rise <small>(Decline in electricity demand due to loss of tourism resources)</small>	Risk		■
		11	Responding to the intensification of natural disasters <small>(Supply chain destabilization)</small>	Risk		■

* 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

1 Current Status and Future Forecast of Okinawa's Economy

■ The current state

The prefectural economy is in a difficult situation due to the impacts of the novel coronavirus, but is showing signs of recovery.

Trends in Main Economic Indicators of Okinawa Prefecture

(Unit: %, X)

Indicators	FY2021												
	Apr.	May	Jun	Jul	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	FY
Sales by large-scale retailers	15.1	8.9	-9.2	2.0	-1.4	2.9	5.3	2.9	1.6	1.8	3.7	-	2.7
No. of new car sold	-9.5	30.4	-11.7	-9.1	-10.5	-38.7	-29.3	-15.6	-10.1	-22.7	-24.4	-18.2	-16.0
No. of incoming tourists	239.7	343.6	13.0	-9.7	42.1	-10.0	-12.4	-3.4	29.8	56.0	50.8	38.9	26.7
Value of public works contracts	21.3	47.3	-27.9	-0.3	17.2	64.3	-0.6	21.6	1.6	64.1	58.9	60.8	24.7
New residential Construction starts	-19.1	-27.0	-0.8	0.6	-34.9	18.8	-8.9	2.3	15.8	-20.7	-27.8	2.9	-9.9
Total unemployment rate	3.7	3.6	4.0	4.3	3.7	3.6	2.7	3.1	3.4	3.8	4.1	3.4	3.7
Job Opening Ratio	0.78	0.81	0.83	0.82	0.80	0.81	0.81	0.82	0.83	0.85	0.86	0.85	0.83

Note 1: The figures for 'Sales by large-scale retailers' are calculated on an all-store base. The values in February 2022 are preliminary figures. The values for the fiscal year are the total figures from April 2021 to February 2022.

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.

■ Prospect

Although the situation will remain severe, the prefectural economy is expected to pick up as the impact of the novel coronavirus eases.

2 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 has been growing faster than the national average, but is affected by the novel coronavirus at the moment.
- The Okinawa economy is expected to develop further through the implementation of various measures based on the new Okinawa Promotion Plan that started in FY2022.

Prefectural GDP and National GDP

(billion yen)

	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Prefectural GDP	5.5% 4,064.2	3.3% 4,200.2	1.6% 4,268.7	1.5% 4,334.4	-0.4% 4,315.1	-9.6% 3,901.2
National GDP	1.7% 539,409.3	0.8% 543,462.5	1.8% 553,214.8	0.2% 554,260.3	-0.7% 550,625.4	-4.5% 525,766.9

Sources: “Prefectural Accounts for FY2018”, “Prefectural economic outlook for FY2020” and Cabinet Office “List of Statistical Tables” (Second Preliminary Data for the October-to-December 2021 period)

Note : Prefectural GDP's for FY2019 and FY2020 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	186,973km ²

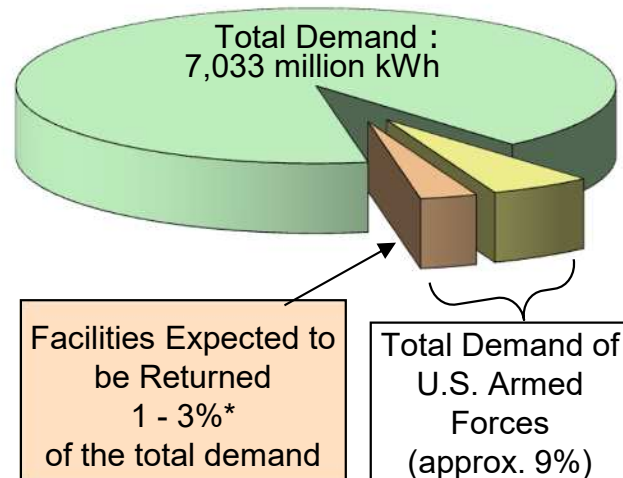
<Reference>

No. of employees working for the U.S. Armed Forces in Okinawa: 8,957

*As of the end of March 2020.

Sources : Japan Ministry of Defense "US Forces and SDF Bases in Okinawa March 2021", Military Base Affairs Division, Executive Office of the Governor, Okinawa Prefecture

The U.S. Armed Forces' share of total electricity demand (FY2021)



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

Principal electricity supply destination facilities *1

Name	Location *2	Area
Camp Gonsalves [US Marine Corps]	Kunigamison, Higashison	36,590km ²
Okuma Rest Center [US Air Forces]	Kunigamison	546km ²
Iejima Auxiliary Air Base [US Marine Corps]	Ieson	8,015km ²
Yaedake Communication Site [US Air Forces]	Motobucho, Nago-shi	37km ²
Camp Schwab [US Marine Corps]	Nago-shi, Ginozason	20,626km ²
Camp Hansen [US Marine Corps]	Nago-shi, Ginozason, Onnason, Kincho	48,728km ²
Kadena Ammunitions Storage Are [shared use]	Onnason, Uruma-shi, Okinawa-shi, Kadenacho, Yomitanson	26,584km ²
Camp Courtney [US Marine Corps]	Uruma-shi	1,339km ²
Camp Mc Tureous [shared use]	Uruma-shi	379km ²
Camp Shields [shared use]	Okinawa-shi	700km ²
Torii Station [US Army]	Yomitanson	1,895km ²
Kadena Airbase [US Air Forces]	Okinawa-shi, Kadenacho, Chatancho, Naha-shi	19,855km ²
White Beach Naval Facility [shared use]	Uruma-shi	1,568km ²
Camp Kuwae [US Marine Corps]	Chatancho	675km ²
Camp Zukeran [US Marine Corps]	Uruma-shi, Okinawa-shi, Kitanakagusukuson, Chatancho, Ginowan-shi	5,341km ²
Futenma Airport [US Marine Corps]	Ginowan-shi	4,759km ²
Makiminato Service Areas [US Marine Corps]	Urasoe-shi	2,676km ²
Naha port facilities [US Army]	Naha-shi	559km ²

*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)

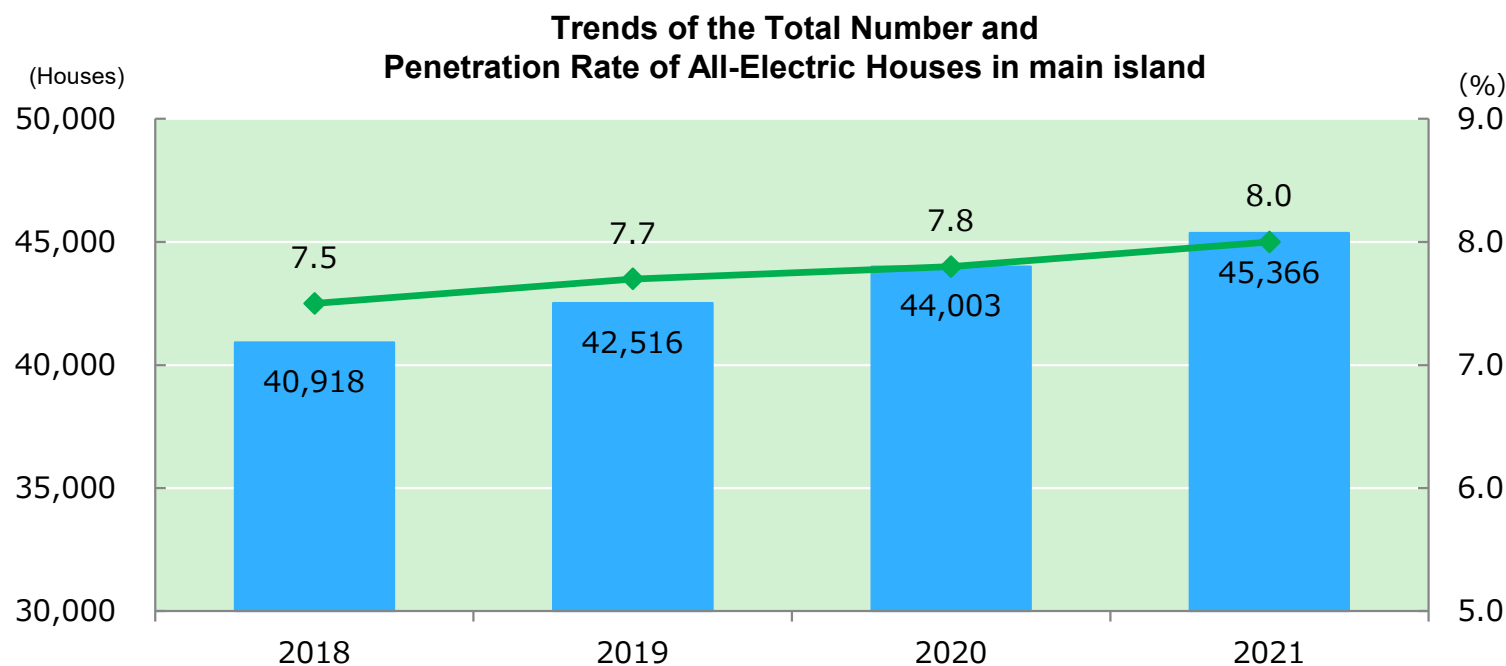
Q3. What is the Current State of Promotion of Electrification?

■ 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."

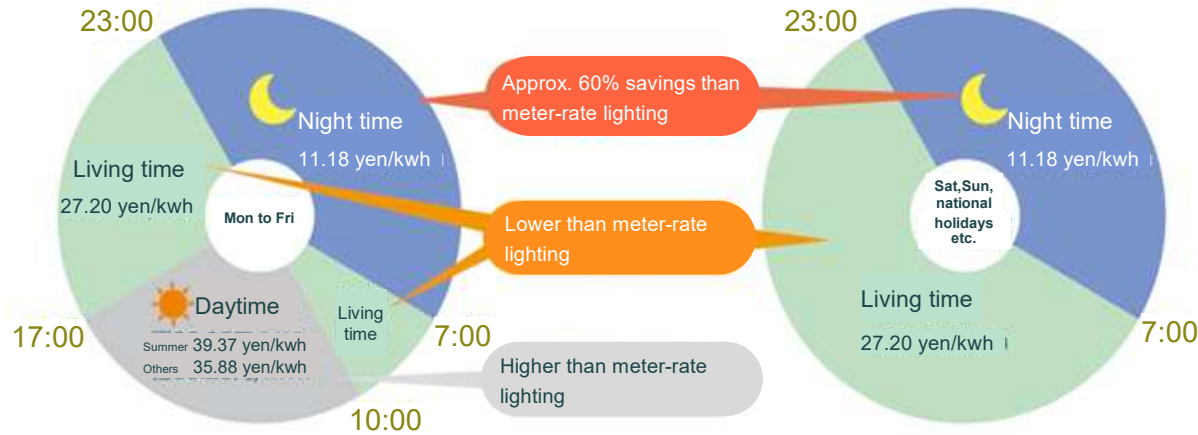


Q4. What is the enrichment of electricity rate menus? (1/2)

The electricity rate menu for all electrification

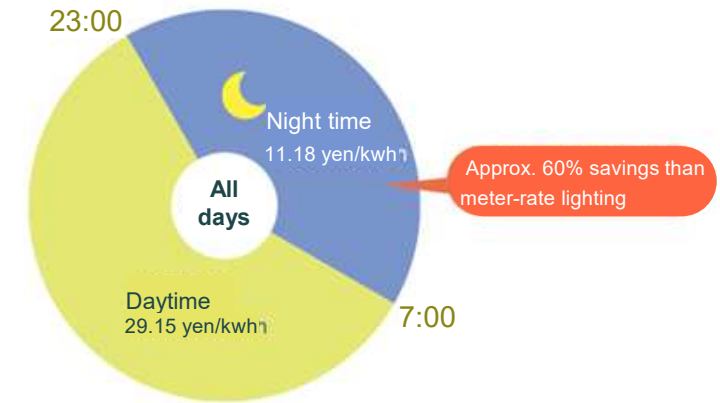
◆Ee Home Holiday

Suitable for double-income households who use less electricity on weekdays.



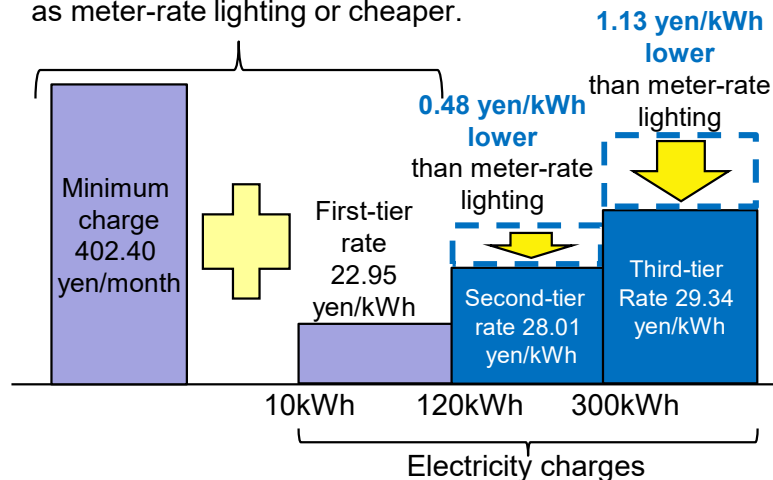
◆Ee Home Flat

Suitable for households of full-time housewives and senior citizens who use more electricity during the daytime on weekdays.



Good Value Plan

The plan that is more advantageous than meter-rate lighting by setting the unit price to be the same as meter-rate lighting or cheaper.



au Denki

au でんき

powered by 沖縄電力



- ✓ This is a service for customers using au.
- ✓ OEPC supplies electricity as before.
- ✓ The electricity tariff is equivalent to the electricity tariff charged at the meter-rate lighting plan by OEPC.
- ✓ The au WALLET points corresponding to up to 5% of electricity tariff are returned.

Premium Value Plan



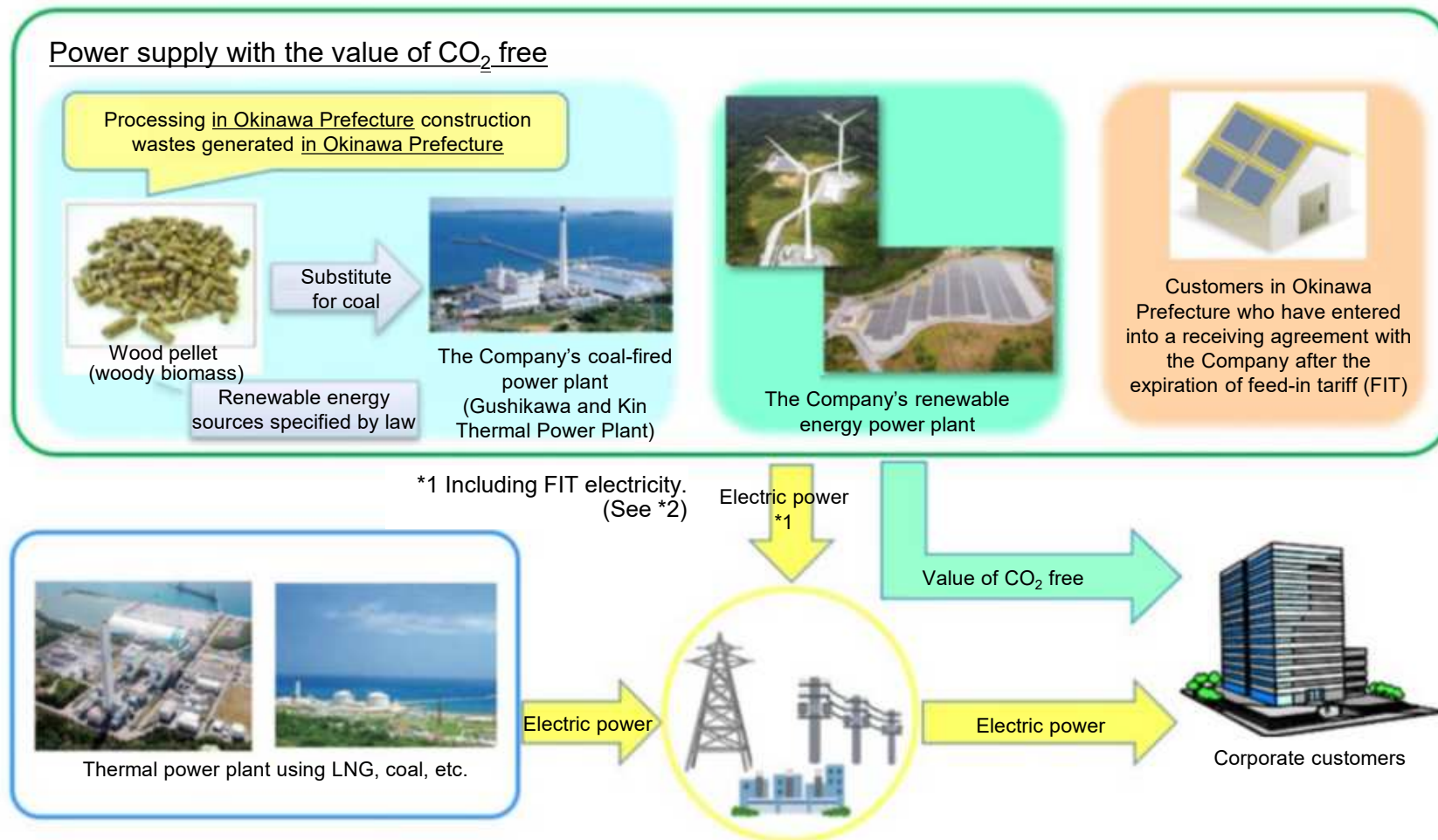
	Category	Unit	Unit price (yen)
Basic charge	Up to first 400 kWh	One contract	10,590.00
Electricity charge	Over 400 kWh	1kWh	26.37

Recommended menu for customers with monthly power consumption exceeding 400 kWh

Q4. What is the enrichment of electricity rate menus? (2/2)

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.



*2 Part of the cost of procuring this electricity is covered by Renewable Energy Power Promotion Surcharge by electricity users, including customers other than our company's.

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

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

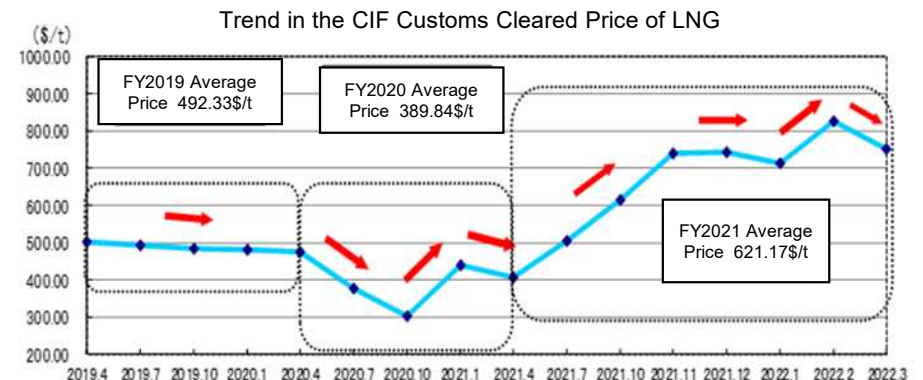
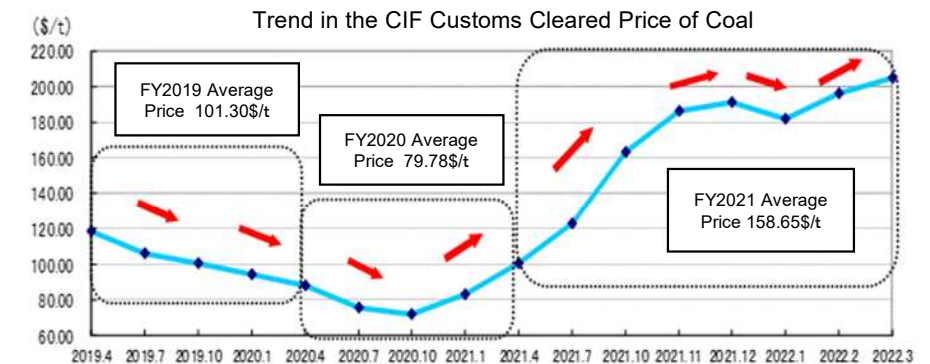
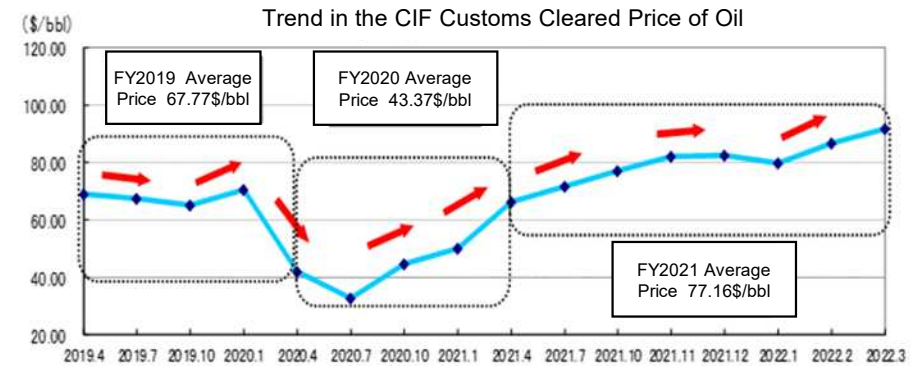
Stable procurement through long-term coal purchase contracts

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

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



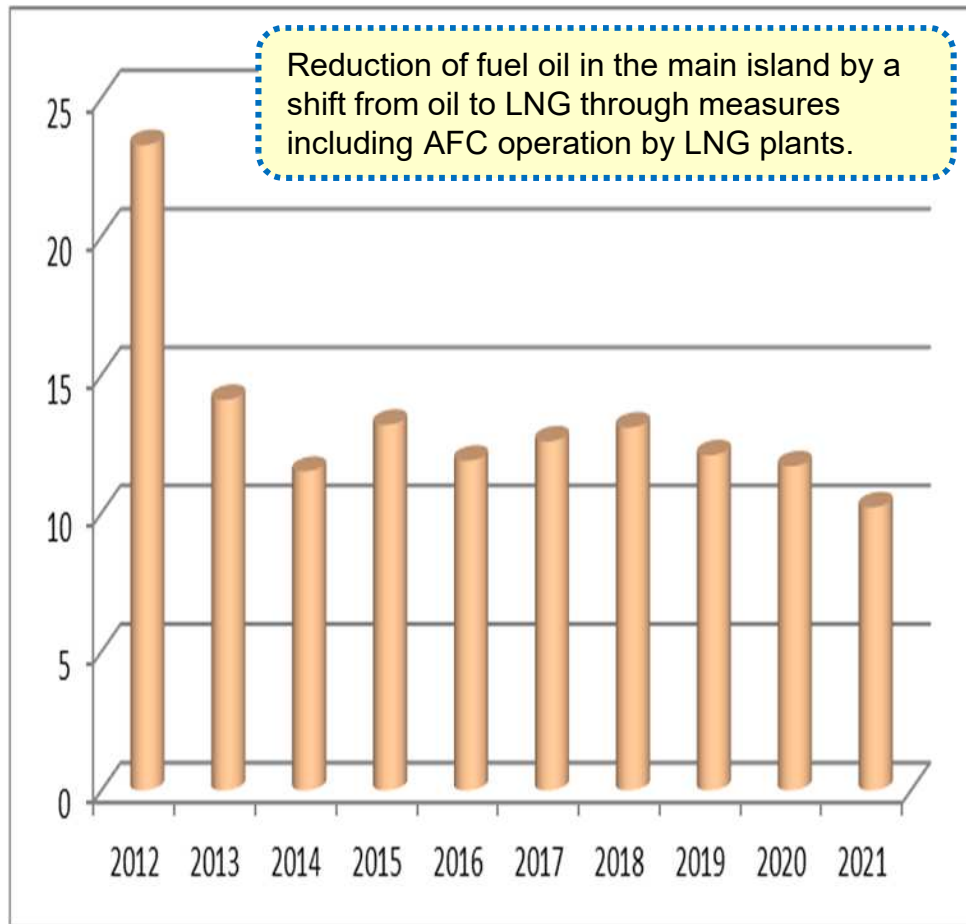
Q5. What are the efforts to fuel cost reduction? (2/2)

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

* AFC=Automatic Frequency Control

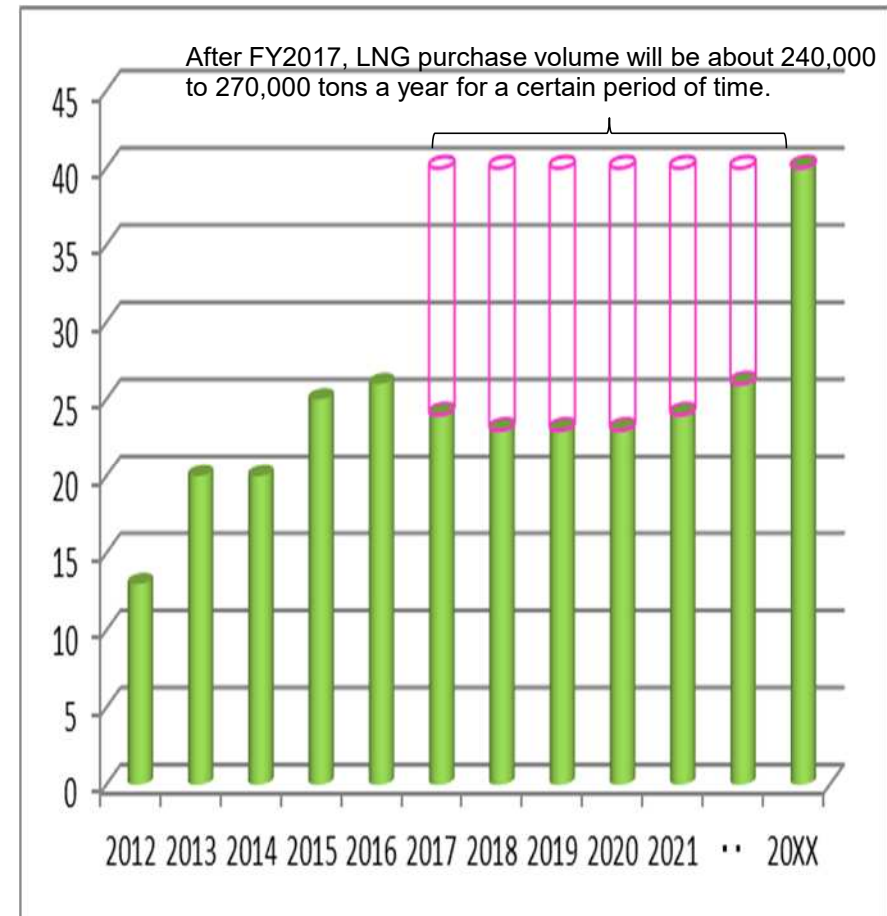
- Reduction of oil consumption by shifting AFC* that oil-fired plants took charge of to LNG-fired plants.
- A shift to coal-fired plants that have much lower power unit costs by reducing the volume of LNG.

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



(FY)

(10,000 t) **Trend in LNG Purchase Volumes**



(FY)

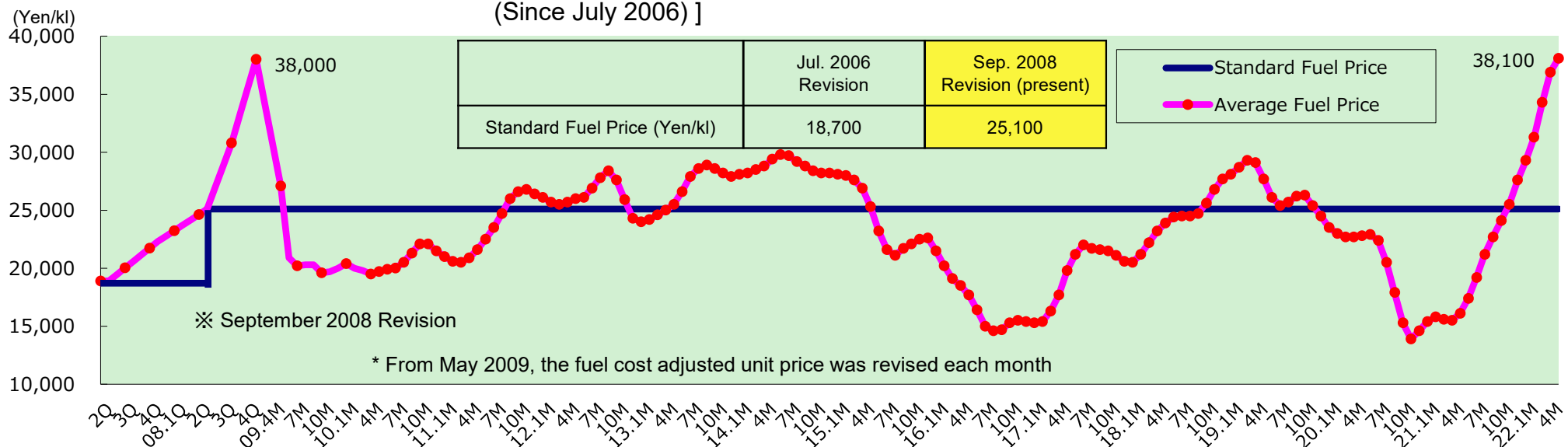
Q6. The Fuel Cost Adjustment System

- 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]

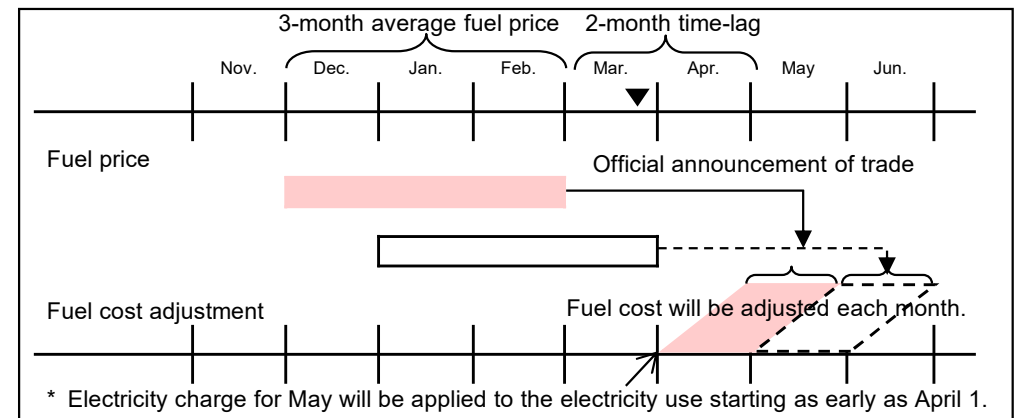
- We will calculate the average fuel price based on the prices of crude oil, coal and LNG on the trade statistics during the period between five months and three months prior to the fuel cost adjustment, and electricity charge will be automatically adjusted each month by comparing the above price with the standard fuel price at the time of electricity rate revision.
- The maximum level of fuel cost adjustment will be 50%.
- There will be no lower adjustment limit.
- The average fuel cost adjustment price for April 2022 was 38,100 yen (the upper limit on plus adjustment was 37,700 yen).
- There is no upper limit on plus adjustment for the free rate menu that we started to offer after the full liberalization of the retail electricity market in April 2016.

[Trend of Average Fuel Price and Standard Fuel Price



[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. What is the approval that it's possible to engage in electricity transmission and distribution on concurrent?

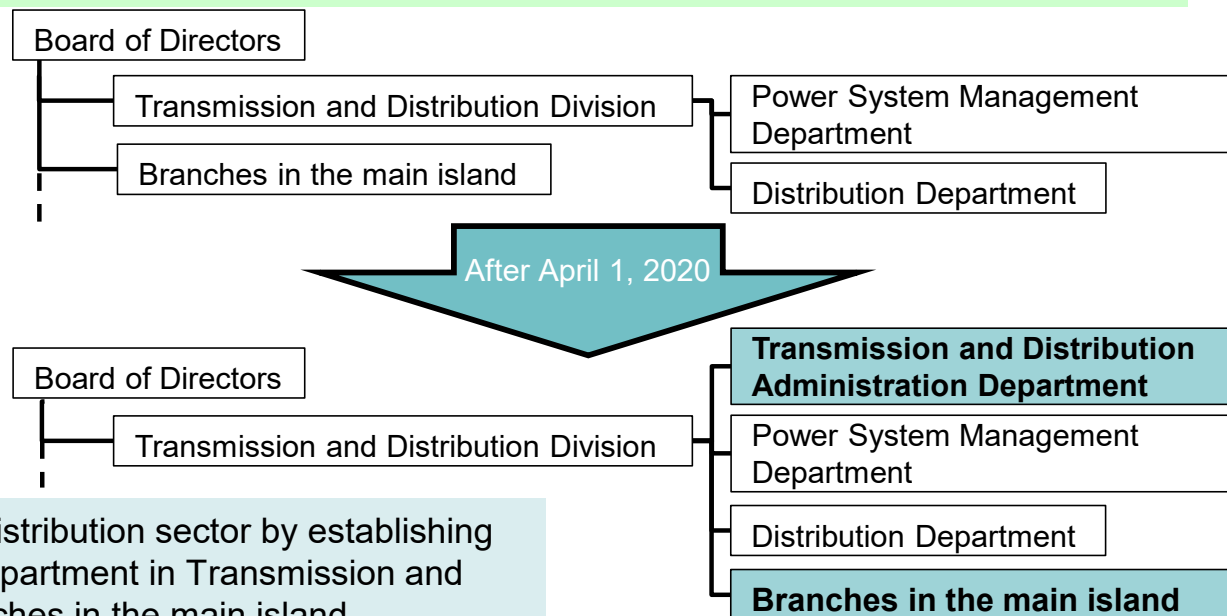
- After April 2020 when the amended Electricity Business Act comes into effect, the general electricity transmission and distribution utilities must not engage in electricity retail or electricity generation on concurrent business. (Restrictions on Concurrent Business)
- As an exception to the restriction 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.



Further ensuring neutrality of the transmission/distribution sector by establishing Transmission and Distribution Administration Department in Transmission and Distribution Division, and transferring each branches in the main island.

Q8. 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

Value of Tax Alleviation Due to the Special Measures

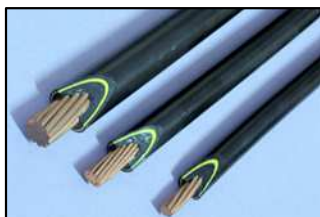
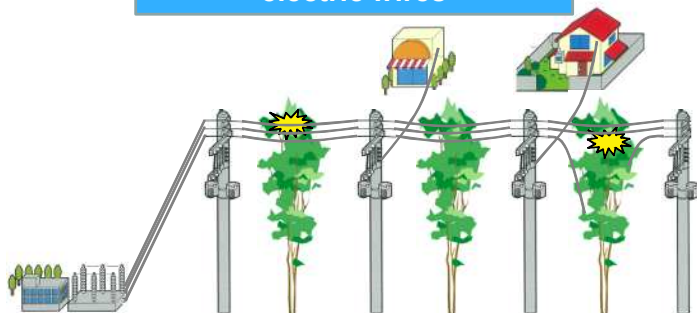
- The Act on the Special Measures for the Promotion and Development of Okinawa was revised in March 2022, and the revised law came into effect on April 1, 2022.
- Under the revised law, etc., OEPC receives favorable treatment based on “Preferential Measure for Standard Taxable Values Relating to Fixed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

- FY2020 : about 3.4 billion yen.
- FY2021 : about 3.4 billion yen.
- FY2022 (Forecast) : undecided

Q9. 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.

Replace to abrasion-resistant electric wires



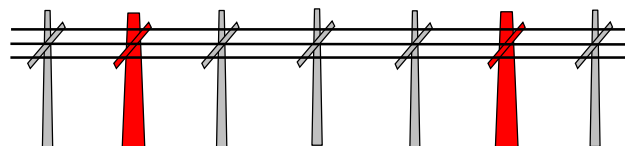
Abrasion-resistant electric wires

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

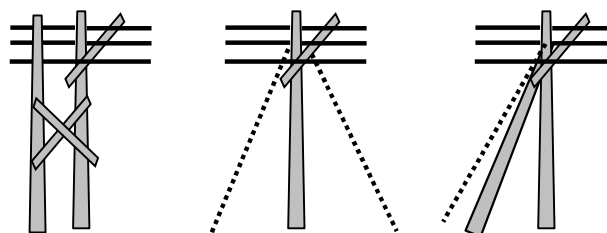
Design standard for transmission towers

Transmission towers need to be designed to withstand a wind speed of up to 40 m/s based on the “Ministerial Order to Provide Technical Standards for Electrical Equipment (Ministry of Economy, Trade and Industry)”. However, we design transmission towers that can withstand a wind speed of up to 60 m/s in consideration of the maximum typhoon wind speed in the past.

The measures to prevent the continuous collapse of utility poles



Utility poles to reinforce



Strengthened utility pole

Reinforcing wire

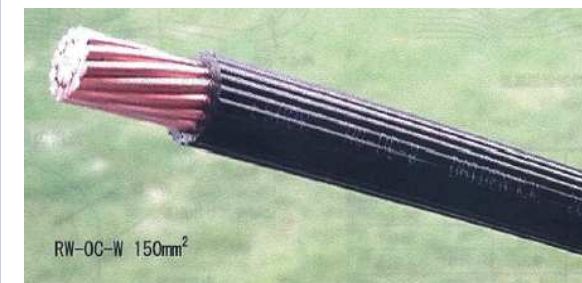
Reinforcing wire / pole

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, damages, the state of restoration works, and restoration prospects.

Q10. Response to the Corporate Governance Code

- For sustainable growth and improvement of corporate value over the medium- to long-term, we respect the principles of the Corporate Governance Code and strive to realize effective corporate governance.

1. Basic Approach to Corporate Governance

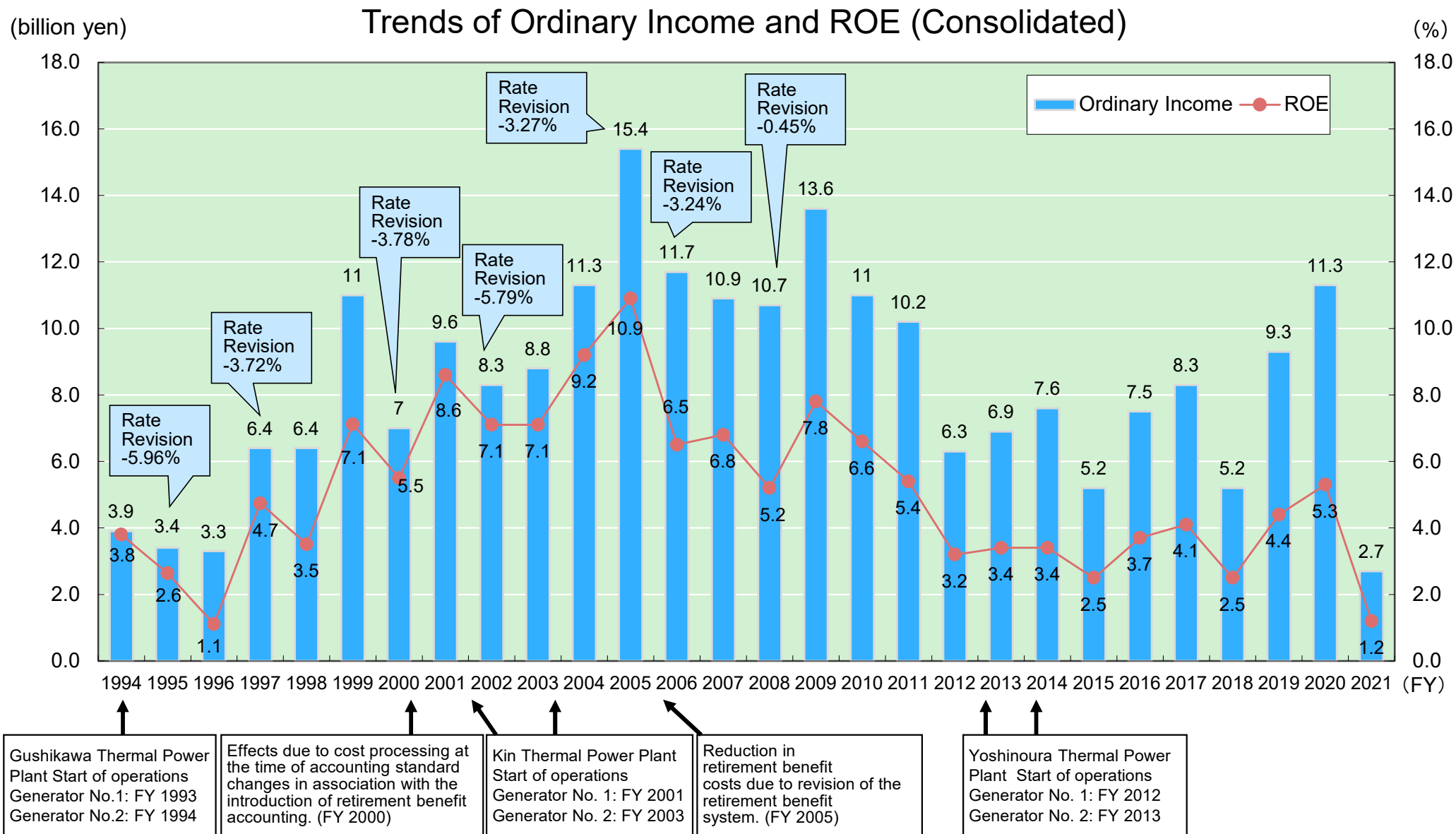
The OEPC group will do its utmost to become a business group of choice by complying with the relevant laws and regulations, striving to conduct business with high ethical standards and morale, disclosing information promptly and accurately and establishing a more profound relationship of trust with shareholders, investors and customers.

To achieve this, our Group will proactively enhance corporate governance throughout the group.

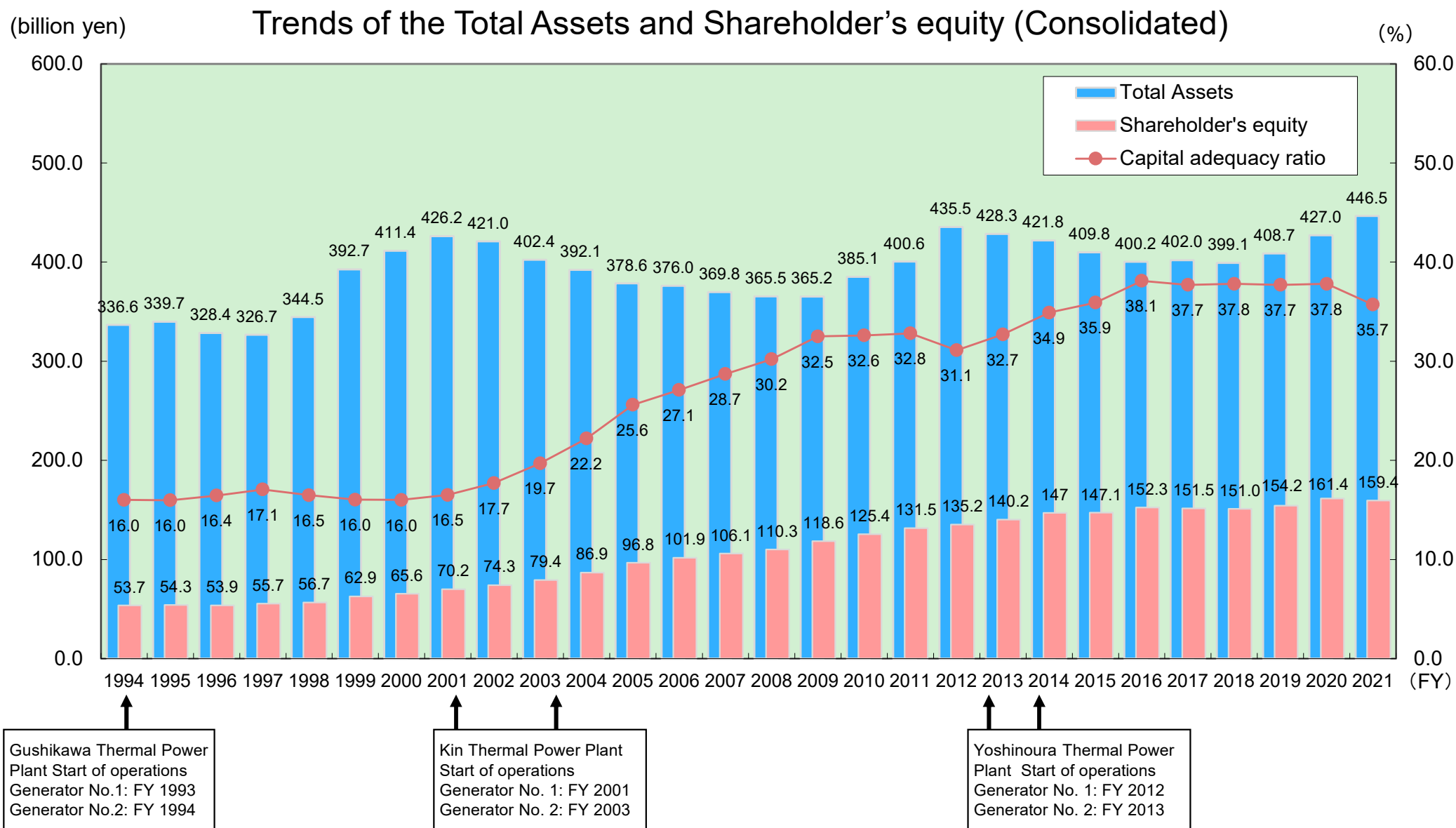
2. Response to Revision of the Corporate Governance Code

- The Corporate Governance Code was revised in June 2021, and our company submitted a corporate governance report in accordance with the revised Code in November 2021.
- Regarding the basic policy on the business portfolio, which explained the reasons for not implementing the principles at the time of the submission of the report [Supplementary Principle 5 -2 -1], its approach to financial goals and business portfolio was disclosed in the “OEPC Group Medium-Term Management Plan 2025,” and all principles are expected to become complied in the corporate governance report to be submitted after the General Meeting of Shareholders in June 2022.
- At the time of the TSE’s transition to a new market segmentation in April 2022, our company selected the Prime Market, which would require higher governance, as we would continue to strive to strengthen governance, aiming to achieve sustainable growth and improve corporate value.

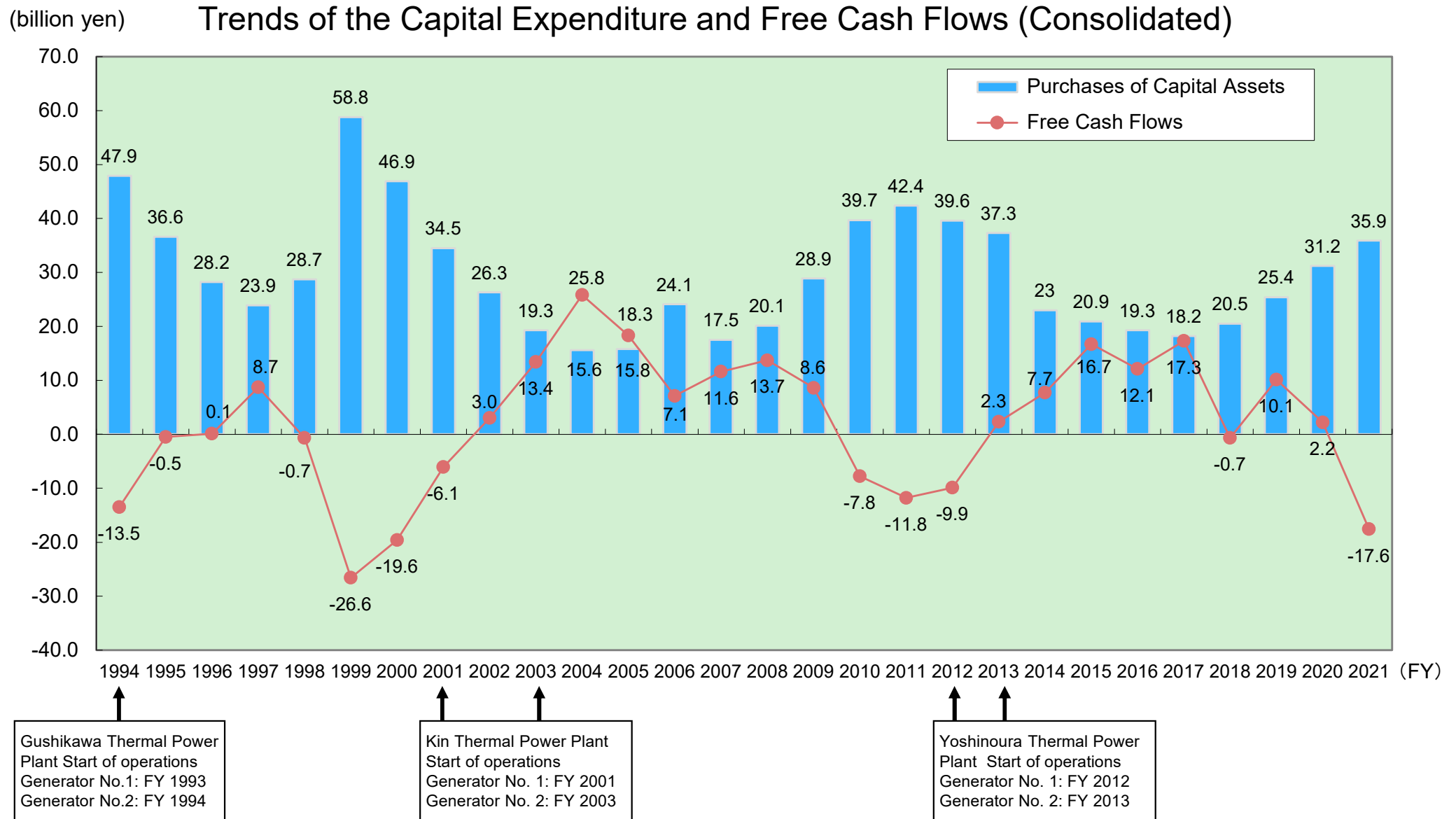
Reference 1: Trends of Ordinary Income and ROE



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.

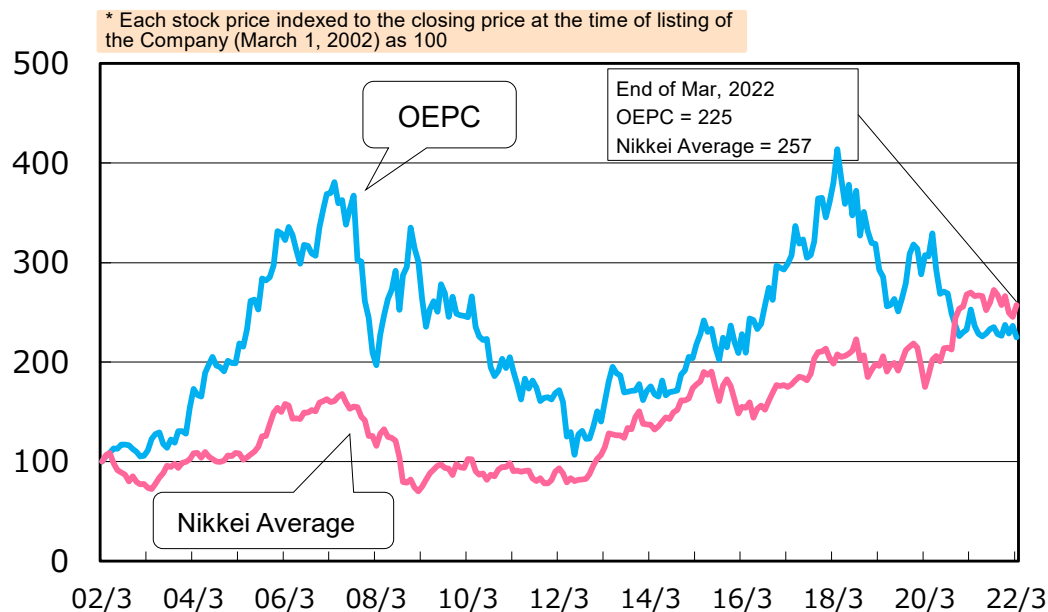
Reference 4: Change in Okinawa Electric Power's Stock Price

Recent stock price changes: from January 4, 2021 to March 31, 2022

	Okinawa Electric Power Company, Inc.	Nikkei Average
Stock price as of January 4, 2021 (closing price)	1,392 yen	27,258 yen
All-time high (closing price)	1,607 yen (+15.4%) as of May. 26, 2021	30,670 yen (+12.5%) as of Sep. 14, 2021
All-time low (closing price)	1,378 yen (-1.0%) as of Mar. 31, 2022	24,718 yen (-9.3%) as of Mar. 9, 2022
Stock price as of March 31, 2022 (closing price)	1,378 yen (-1.0%)	27,821 yen (+2.1%)

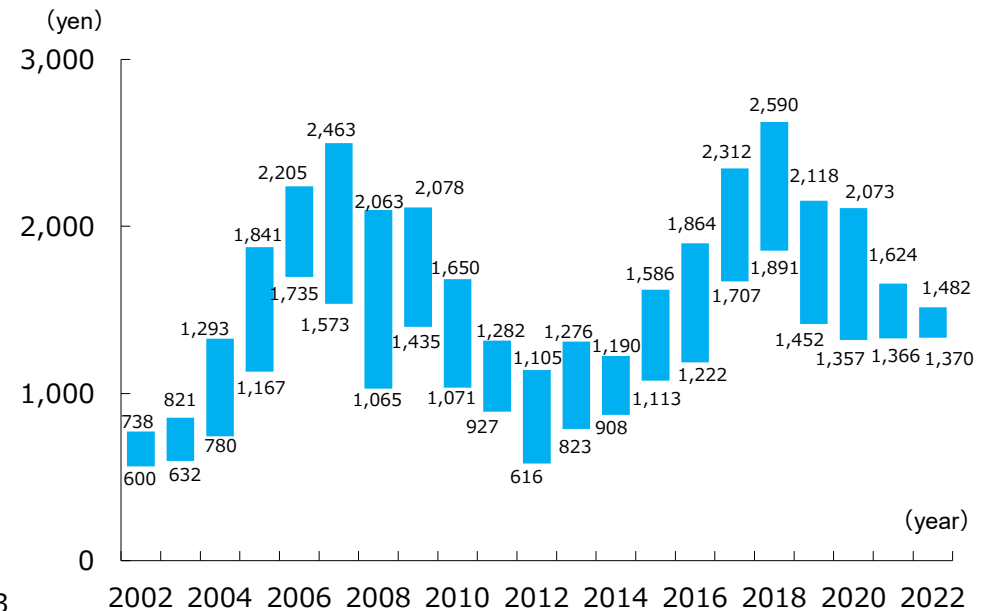
(Note) Figures in bracket indicate percentage change in the stock price from its closing price on January 4, 2021.

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



(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.

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



Reference 5: Earnings Per Share and Payout Ratio

Earnings per Share and Payout Ratio

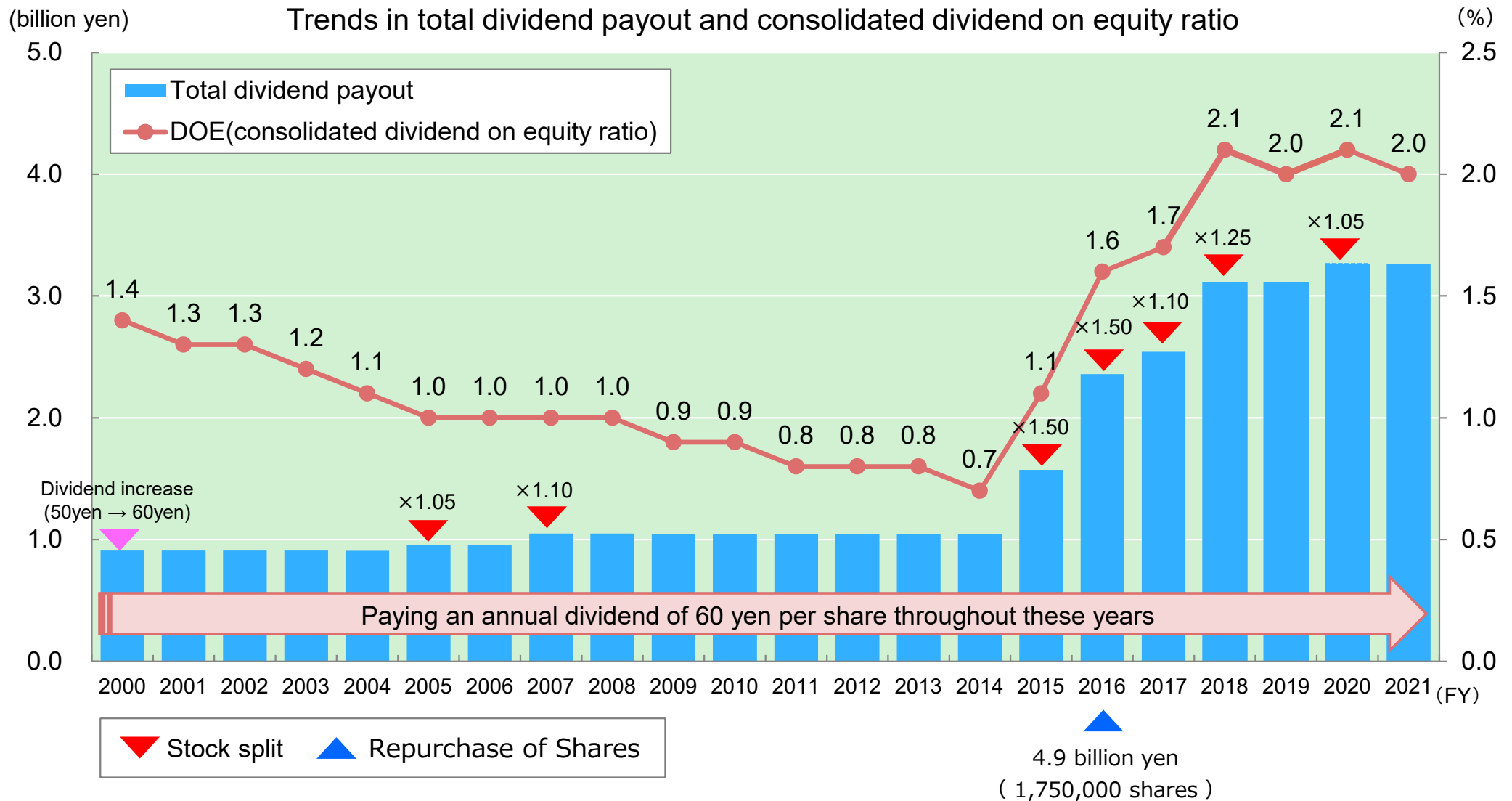
FY		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Net income ^{*1}	Million yen	4,318	4,731	4,943	3,647	5,517	6,273	3,751	6,705	8,341	1,959
Earnings per Share ^{*1}	yen	247.20	270.80	282.99	139.22	140.41	147.00	72.38	129.39	153.29	36.05
(Post-adjustment after stock split) ^{*2}		(76.10)	(83.36)	(87.12)	(64.29)	(97.25)	(112.00)	(68.94)	(123.22)		
Dividend per Share	yen	60	60	60	60	60	60	60	60	60	60
(Post-adjustment after stock split) ^{*2}		(18)	(18)	(18)	(28)	(42)	(46)	(57)	(57)		
Payout Ratio ^{*1}	%	24.3	22.2	21.2	43.1	42.7	40.8	82.9	46.4	39.1	166.4
Dividend Yield	%	1.87	1.72	1.38	1.98	2.27	1.96	3.18	3.03	3.87	4.35
Price Book-value Ratio ^{*1}	x	0.41	0.44	0.52	0.54	0.68	0.84	0.65	0.67	0.52	0.47
Price Earning Ratio ^{*1}	x	13.0	12.9	15.4	21.8	18.8	20.8	26.0	15.3	10.1	38.2

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

*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 is to “distribute stable and continuous dividends,” and we have continuously been distributing an annual dividend of 60 yen per share since 2000.
- We will make efforts to maintain “a DOE of over 2.0%,” which is our indicator.



This document includes statements concerning future results. Such statements are based on calculations and predictions and are neither definite nor guaranteed. 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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