

# Management Topics

\* Excerpt from "Management Overview" and "Management Reference Materials".

## November 2024



The Okinawa Electric Power Company, Inc.

# Financial Results for FY2024 2Q (Year-on-Year Comparison)

## ■ Semi-annual financial results(April – September)

(Unit: million yen, X)

	Consolidated (A)				Non-consolidated (B)				(A) / (B)	
	FY2023 2Q YTD (Results)	FY2024 2Q YTD (Results)	Change	Rate of Change	FY2023 2Q YTD (Results)	FY2024 2Q YTD (Results)	Change	Rate of Change	FY2023 2Q YTD (Results)	FY2024 2Q YTD (Results)
Sales	130,501	127,229	-3,271	-2.5%	125,604	122,356	-3,248	-2.6%	1.04	1.04
Operating income	4,704	7,284	+2,579	+54.8%	4,026	7,145	+3,118	+77.4%	1.17	1.02
Ordinary income	4,216	6,871	+2,654	+63.0%	3,814	7,103	+3,289	+86.2%	1.11	0.97
Net income	3,238*	5,354*	+2,116	+65.4%	3,106	5,702	+2,595	+83.6%	1.04	0.94

\* Net income attributable to owners of parent.

## Consolidated and Non-consolidated : Decrease in Sales, Increase in Income for the first time in 4 years

### 【Revenue】

- Decrease in Fuel cost adjustment system due to lower fuel prices although increase in Electricity sales in Electric business.

### 【Expenditure】

- Decrease in Fuel costs due to coal and LNG fuel price fall in Electric business.

# Annual Outlook Summary FY2024

(Unit: million yen, X)

	Consolidated(A)				Non-consolidated(B)				(A) / (B)	
	FY2023 (Results)	FY2024 (Forecasts)		Change (II) - (I)	FY2023 (Results)	FY2024 (Forecasts)		Change (II) - (I)	FY2023 (Results)	FY2024 (Forecasts)
		Announced in Jul. 2024 (I)	Announced in Oct. 2024 (II)			Announced in Jul. 2024 (I)	Announced in Oct. 2024 (II)			
Sales	236,394	232,200	233,600	+1,400	225,609	218,100	219,500	+1,400	1.05	1.06
Operating income	3,481	8,100	8,100	-	1,027	6,200	6,200	-	3.39	1.31
Ordinary income	2,568	6,800	6,800	-	387	5,000	5,000	-	6.63	1.36
Net income	2,391*	5,000*	5,000*	-	1,200	4,000	4,000	-	1.99	1.25

\* Net income attributable to owners of parent.

## Consolidated and Non-consolidated : Decrease in Sales, Increase in Income for the first time in 4 years

### [ Comparison with previous forecasts (Jul.2024) ]

#### 【Revenue】

- Increase in sales due to increase in electric energy demand in Electric business.

#### 【Expenditure】

- Increase in Purchased power costs due to increase in electric energy demand in Electric business.

# Effective Utilization of Management Results: Shareholder Return Policy

## Basic policy on shareholder return \*

- For the distribution of profits, our company will maintain a “consolidated dividend on Equity ratio (DOE) of at least 2.0%” based on a “stable and continuous dividend” policy.

\*However, since the financial base has seriously deteriorated in the wake of the large deficit for FY2022, we have set the three years through FY2025 as a recovery period in which we will focus on restoring our financial base.

During the period, we will raise the dividend level in stages, aiming to return to the previous level after the end of the recovery period. The amount of dividends for each fiscal year will be determined in consideration of the balance between recovery of the damaged financial base and return to shareholders.

### [FY2024 Dividend]

For the interim dividend for FY2024, we decided to pay 10 yen per share. And we plan to pay a year-end dividend of 10 yen per share, the same as the interim dividend(annual dividend 20 yen/share).

	Dividend per share (yen)		
	Interim	Year-end	Annual
FY2024	10	10 (Forecast)	20 (Forecast)

# 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 on an expansionary trend, particularly in personal consumption and tourism-related sectors.

Trends in Main Economic Indicators of Okinawa Prefecture (Year-on-Year Comparison)

(Unit: %, X)

Indicators	FY2023													FY2024						
	Apr.	May	Jun	Jul	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	FY	Apr.	May	Jun	Jul	Aug.	Sep.	1st Half
Sales by large-scale retailers	11.0	11.5	6.7	10.4	11.4	11.3	8.9	7.0	4.2	5.3	10.6	7.6	8.7	4.4	3.3	10.9	5.5	7.9	6.2	6.4
No. of new car sold	23.7	69.8	36.3	1.9	3.2	19.5	15.1	6.1	-8.1	-19.7	-29.5	-26.8	3.2	-25.4	-7.5	-7.4	-2.5	17.9	-2.2	-5.7
No. of incoming tourists	63.8	62.6	47.9	28.1	13.7	43.5	25.0	11.9	5.0	18.2	20.3	10.3	25.9	12.3	10.0	12.2	17.1	37.2	17.0	18.1
Value of public works contracts	6.4	2.8	-55.0	68.0	-32.3	150.2	-23.0	78.9	58.8	279.4	-9.1	-11.1	13.5	-19.5	58.7	51.0	2.2	-12.5	-55.1	-13.3
New residential Construction starts	-25.2	-8.0	62.6	26.4	4.6	21.1	15.3	0.6	7.3	-14.2	-2.6	-4.8	5.6	16.2	4.7	-20.7	3.4	-12.2	-4.1	-3.8
Total unemployment rate	3.8	3.5	3.1	2.8	4.2	3.4	3.0	2.9	2.9	2.8	3.0	3.7	3.2	3.9	3.2	2.8	3.4	3.1	3.5	3.3
Job Opening Ratio	1.17	1.19	1.18	1.19	1.18	1.19	1.16	1.14	1.15	1.14	1.16	1.16	1.17	1.14	1.10	1.07	1.10	1.12	1.12	1.07

Note 1: The figures for 'Sales by large-scale retailers' are calculated on an all-store base. The values in September 2024 are preliminary figures.

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 and the first half of the year are both raw data which use the number of job openings by prefecture received nationwide.)

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

### ■ Prospect

The outlook for the prefecture's economy is expected to continue to expand.

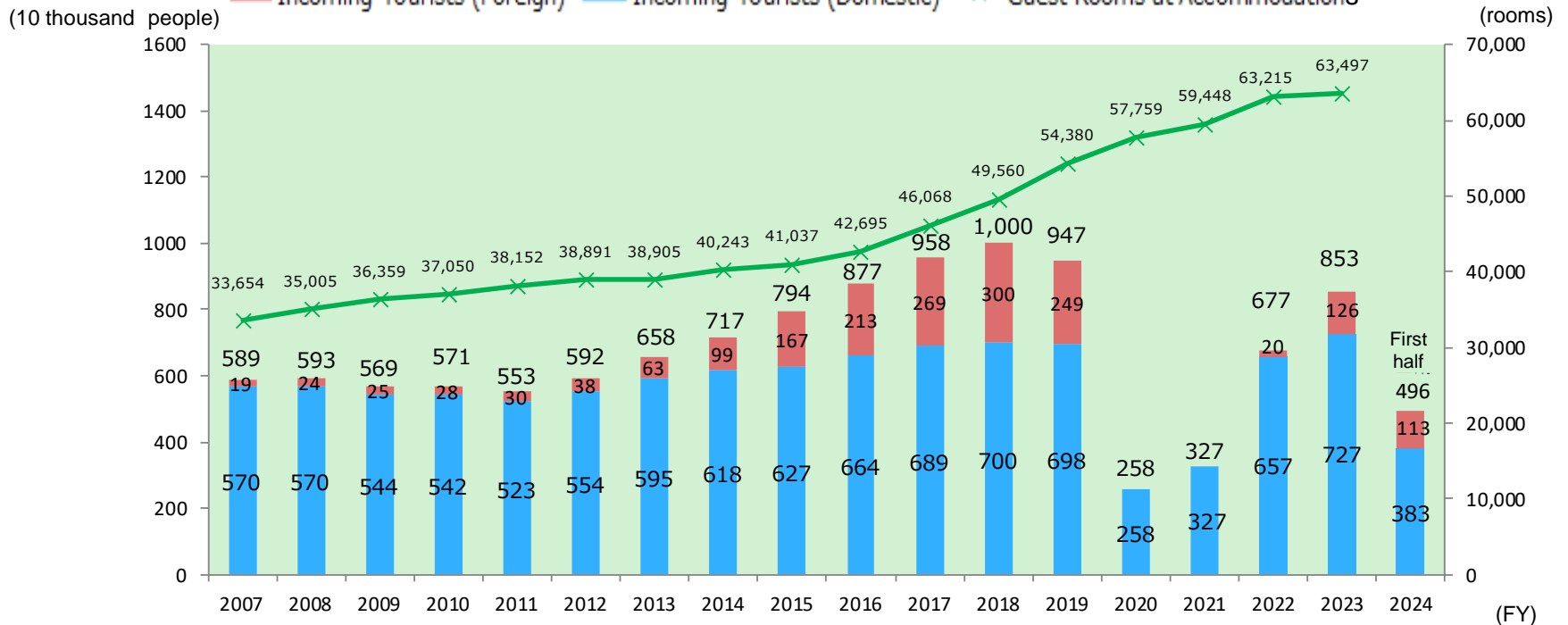
# Number of incoming tourists (1/4)

- In FY2023, the number of Incoming tourists was 8.53 million, higher than the previous year.  
 [Incoming tourists] FY2023 : 8,530 thousand people (Growth rate of +25.9% year-on-year)  
 FY2024[First half results] : 4,960 thousand people (Growth rate of +18.1% year-on-year)
- Domestic tourists exceeded pre-COVID-19 levels and were the highest ever. The number of guest rooms at accommodations was also on an increasing trend. In addition, due to the return of international flights and the strong performance of international cruise ships, the number of foreign tourists has increased for 24 consecutive months, and further recovery of demand is expected.  
 \*92.7% compared to the first half of FY2019 (domestic tourists: 102.7%, foreign tourists: 69.6%)

Reference: The electricity demand of hotels and inns accounts for about 6% of the total in the first half of FY2024, which is about 40% more than in the first half of FY2019 before COVID-19.

## Trends of the Numbers of Incoming Tourists and Guest Rooms at Accommodations

■ Incoming Tourists (Foreign) ■ Incoming Tourists (Domestic) ◆ Guest Rooms at Accommodations



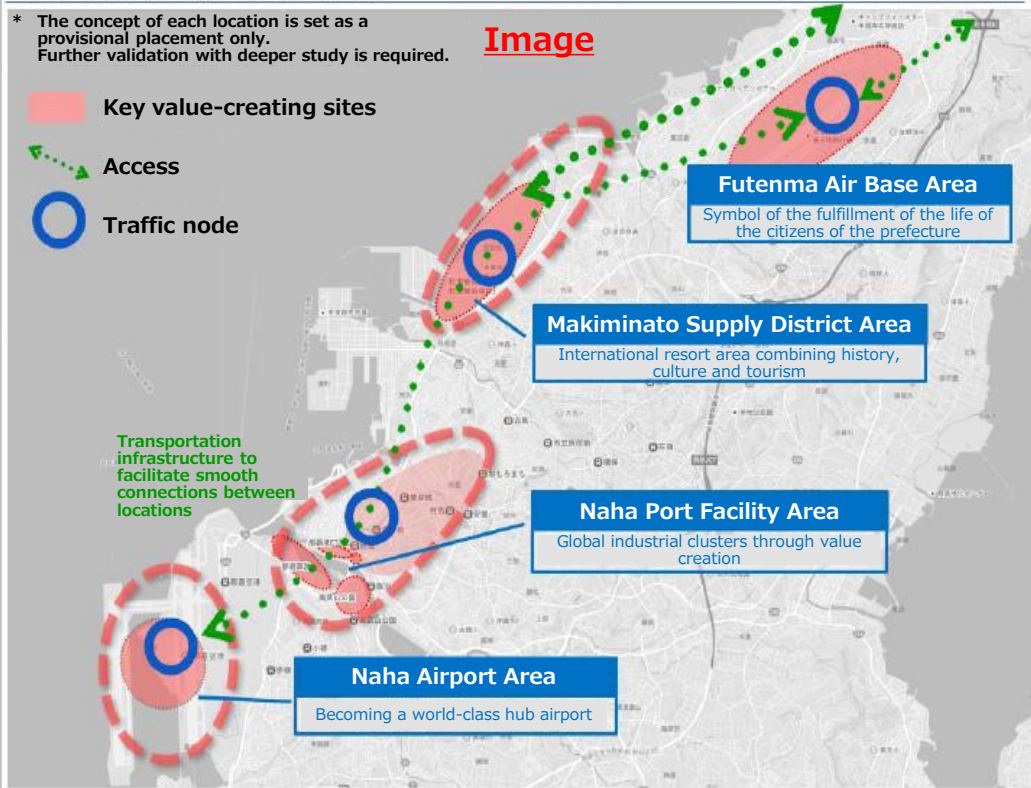
Note: The breakdown and total values do not match sometimes due to rounding decimals.

Source: "Tourism Guidebook", "Summary Statistics on Incoming Tourists to Okinawa", "2023 Accommodations Fact-finding Survey Result", published by Okinawa Prefectural Government

# Establishment of "GW2050 PROJECTS Promotion Council"(1/2)

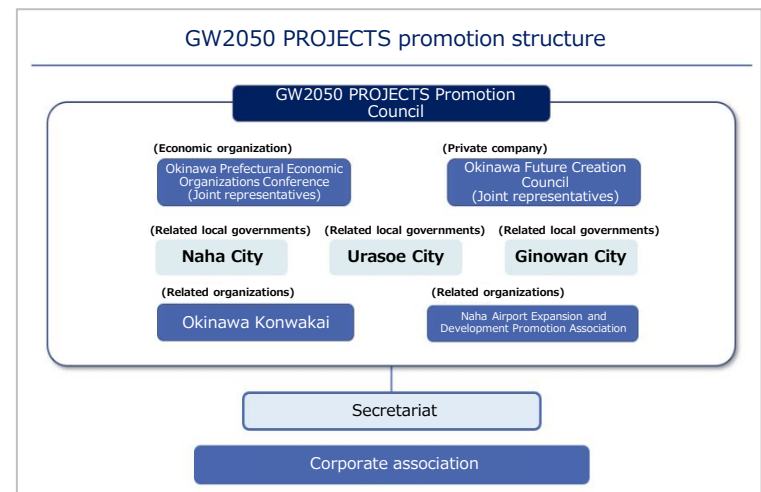
- The "GW2050 PROJECTS Promotion Council" (hereinafter referred to as the "Promotion Council") was established under the leadership of the private sector in cooperation with various economic organizations and related local governments in the prefecture, with the aim of realizing the future vision of Naha Airport as an "Open Gateway to the World" through the integrated use of the former base return site and functional enhancement of the airport. (August 13, 2024)
- The Promotion Council will conduct research and study in order to strengthen Okinawa's international competitiveness and sustainable development by taking advantage of the potential for extensive, areal development from cleared land in the area scheduled for base return from Naha Airport to Futenma Air Base.

## Overall picture of key value-creating sites



## GW2050 PROJECTS promotion structure

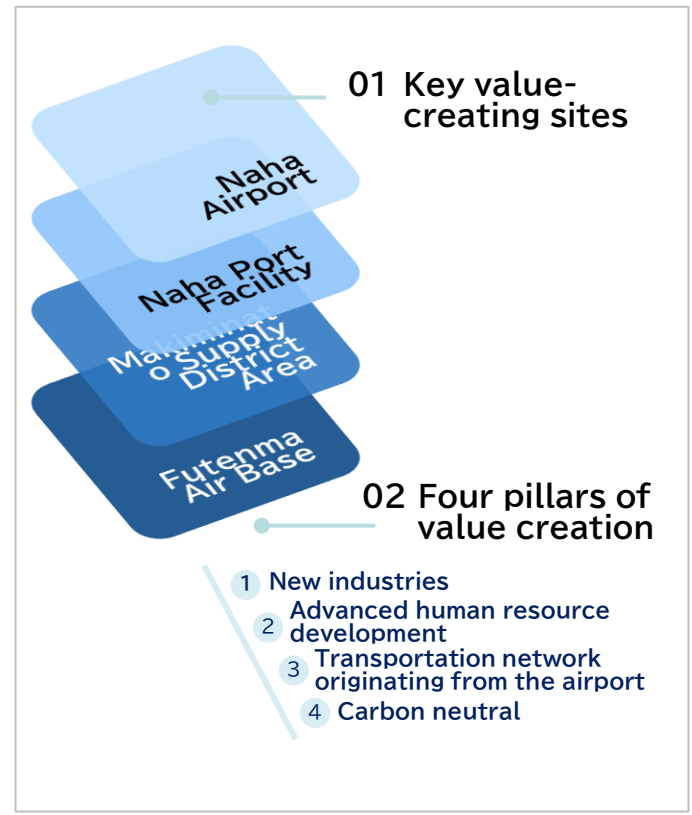
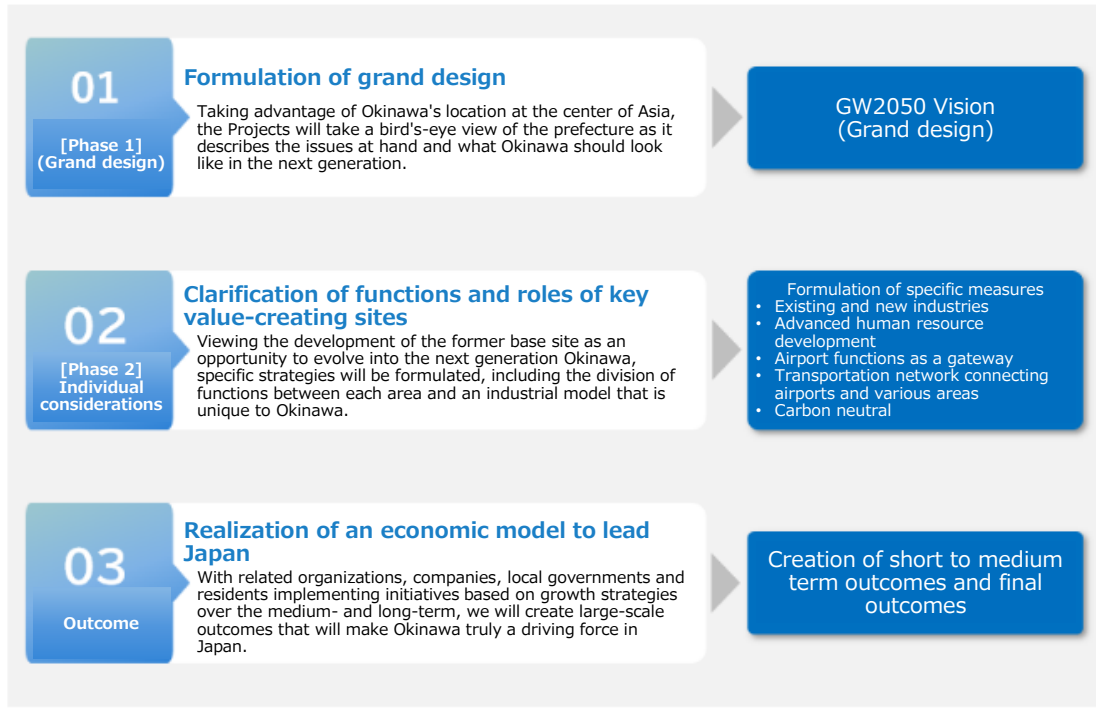
- GW2050 PROJECTS Promotion Council
  - Led by the private sector, with cooperation from various economic organizations and related local governments in the prefecture. In addition, a "corporate association" consisting of seven companies in the prefecture will support the operation.
  - Okinawa Electric Power Company participates as one of the companies in the corporate association.



# Establishment of "GW2050 PROJECTS Promotion Council"(2/2)

- In the research and study, Naha Airport, Naha Port Facilities, Makiminato Supply District, and the area surrounding Futenma Air Base are positioned as "Key value-creating sites," and the specific functions and roles of each base, as well as the development of infrastructure such as industry, transportation infrastructure, advanced human resource development, and carbon neutrality, will be combined to steadily advance urban development. By formulating an integrated growth strategy under the leadership of the private sector, the municipality and the private sector will work together to systematically promote urban development.
- The Promotion Council plans to draw up a grand design through two years of research and study, compile a growth strategy for the division of functions of the former base return site, and make major measures and proposals.

## Flow of research and study





# Long-Term Growth Potential of Okinawa

- Okinawa's geographical advantage of being located in the center of East Asia is attracting attention as a business base for capturing the huge markets of Asian countries.
- We aim to achieve sustainable growth and development of the OEPC Group along with economic growth that leverages Okinawa's strengths.

## Strengths of Okinawa

### Geographical advantage

#### Okinawa is located in the center of East Asia



### Urban development

Approximately 1,000 hectares of land south of Kadena Air Base is expected to be returned (about the same area as Tokyo's Chuo Ward).

## GW2050 PROJECTS

The projects aim to make integrated use of the former base return site and strengthen the functions of Naha Airport, and to develop Okinawa's economy as a **"Gateway Open to the World"** that will truly lead Japan.

**Revitalization of the northern part of the main island (theme park opening in 2025)**

**JUNGLIA: approx. 60 ha**  
(Tokyo Disneyland: 51ha)



## Sustainable growth and development of the OEPC Group



### Tourism related

- Number of incoming tourists at pre-COVID-19 pandemic level  
Expected to recover to (10 million people/year).
- The number of accommodation guest rooms is now the largest ever.  
(63,497 rooms in FY2023)
- Number of cruise ship calls at ports: Record **658 calls** expected (Year 2025)  
Number of cruise ship calls at ports: **1.8 calls/day or more**

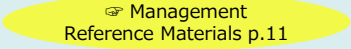
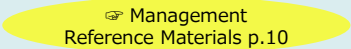
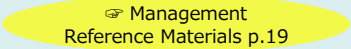


Photo sources: Okinawa Times, Nihon Keizai Shimbun

## Issues and the state of initiatives to achieve carbon neutrality

- We are diligently taking various measures and initiatives, while there are issues specific to the Okinawa area due to structural disadvantages, and those to achieve “Mainstreaming of renewable energy” and “Reducing CO2 emissions from thermal power plants.”

## Structural disadvantages in the Okinawa area

- Geographical, topographical, and **demand scale constraints** compel reliance on fossil fuels  

- It is necessary to have **a high supply reserve capacity** because it is not connected to the mainland power system and is outside the framework of wide-area grid interconnection  

- Large area of ocean dotted with islands and **a large percentage of demand is from remote islands**  


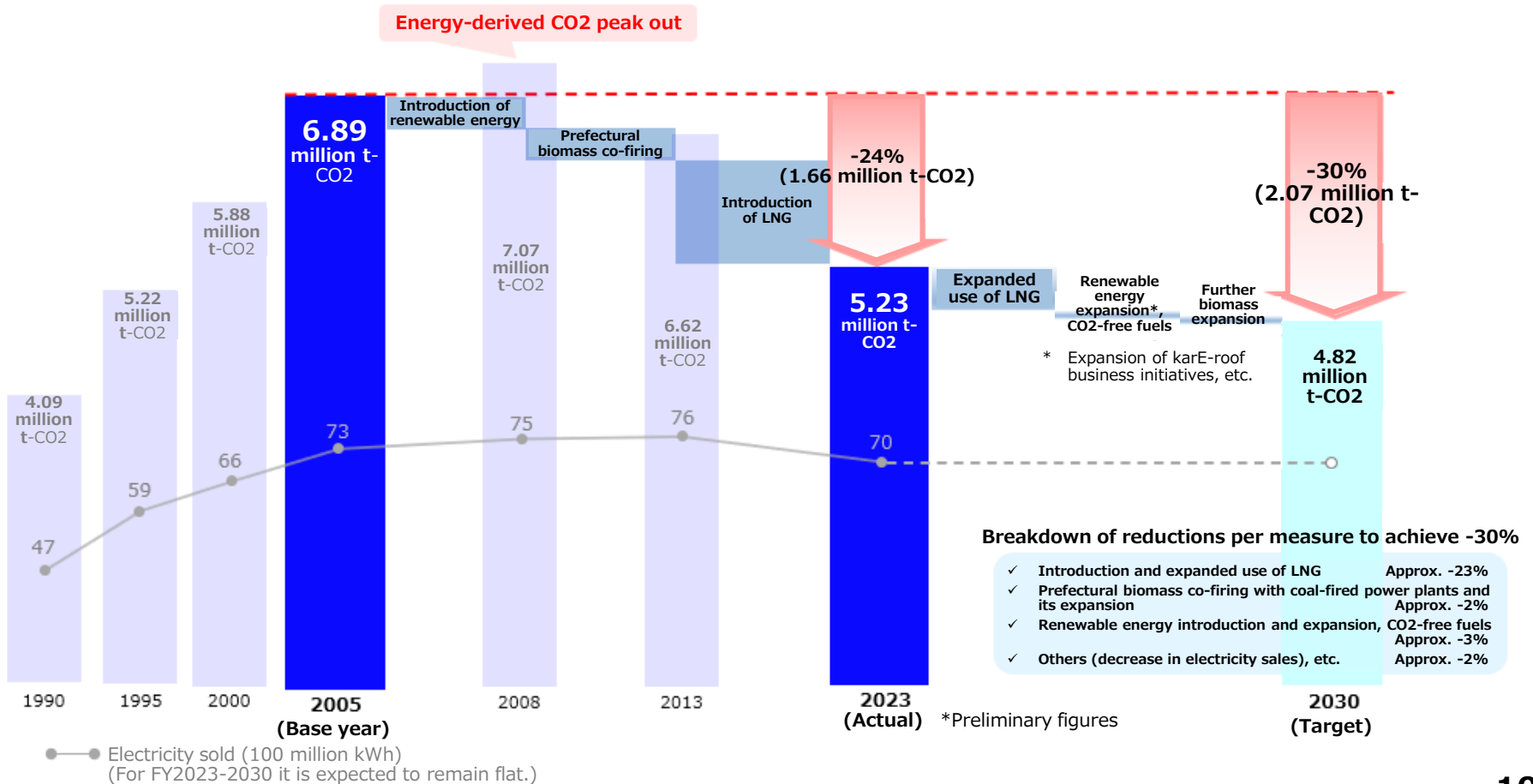
## Issues to achieve carbon neutrality

- **Limited options for decarbonized power sources** that can be introduced at the moment
- **To achieve both stable supply and decarbonization with the resources of the Okinawa region alone, thermal power sources that can ensure supply, coordination, and inertia are also needed, requiring investment in decarbonizing more thermal power than on the mainland**
- **Decarbonization needs to be aimed for through a fair transition based on regional characteristics, as it is necessary to take into account economic feasibility to avoid significant impacts on the local economy (which has different time horizon from the mainland)**

# Initiatives to Achieve Carbon Neutrality(3/6)

- Since the base year of FY2005, we have reduced its emissions by 24% by FY2023 through the co-firing of prefectural biomass and the introduction of LNG-fired power plants, which is the pillar of its countermeasures.
- Aiming to achieve a reduction of 30% in FY2030 (compared to FY2005) announced as a goal based on the “Just Transition in the Okinawa Area,” we will continue speeding up the initiatives for the various carbon neutral measures indicated in our roadmap.

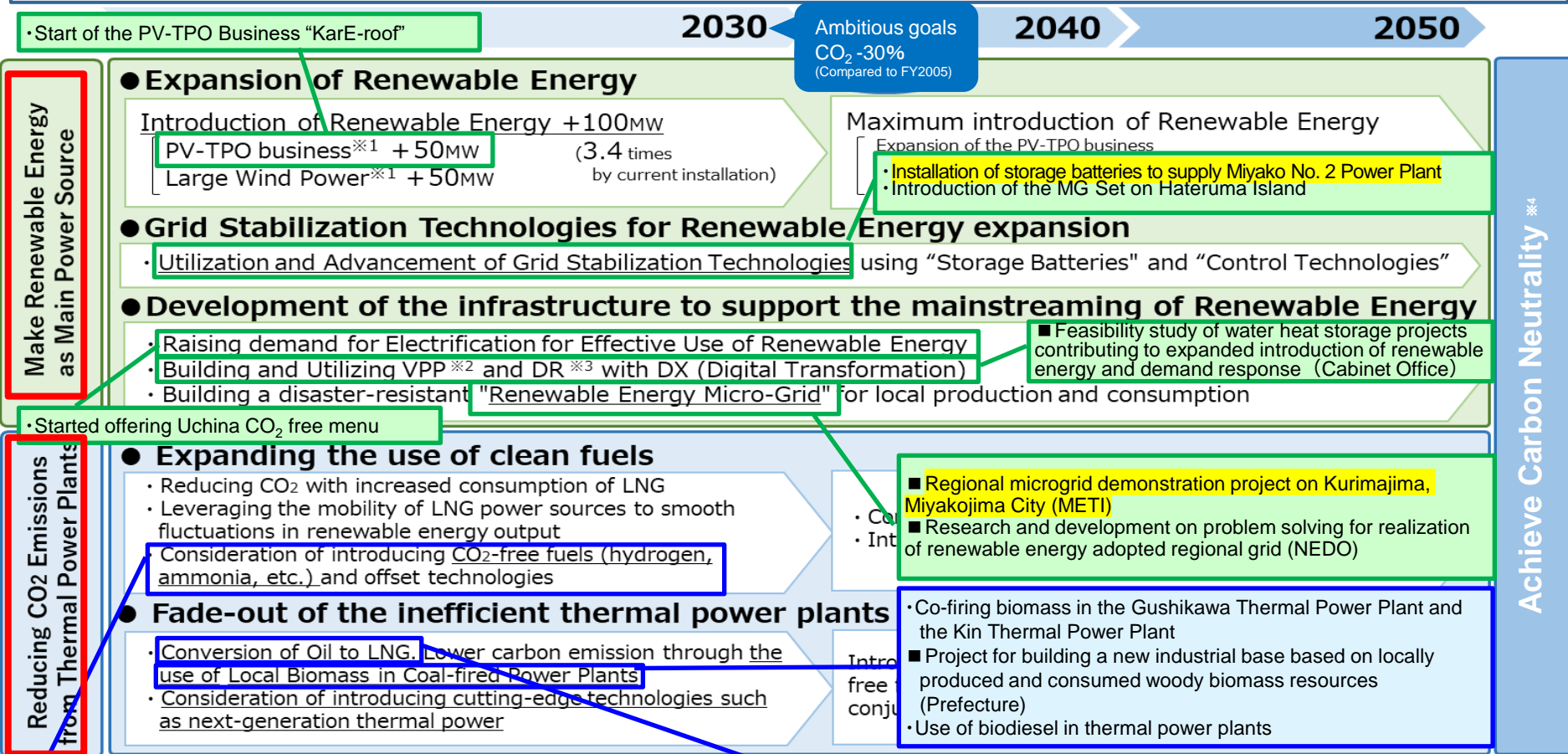
## ■ Progress and outlook of major measures toward CO2 reduction targets



# Initiatives to Achieve Carbon Neutrality(4/6)

## - Initiatives to Achieve Carbon Neutrality: Roadmap

- In order to achieve zero emissions, we will work on the “Make Renewable Energy as Main Power Source,” “Reducing CO<sub>2</sub> Emissions from Thermal Power Plants,” which are the two directions in the roadmap for the next 30 years, and “Promoting Electrification”.

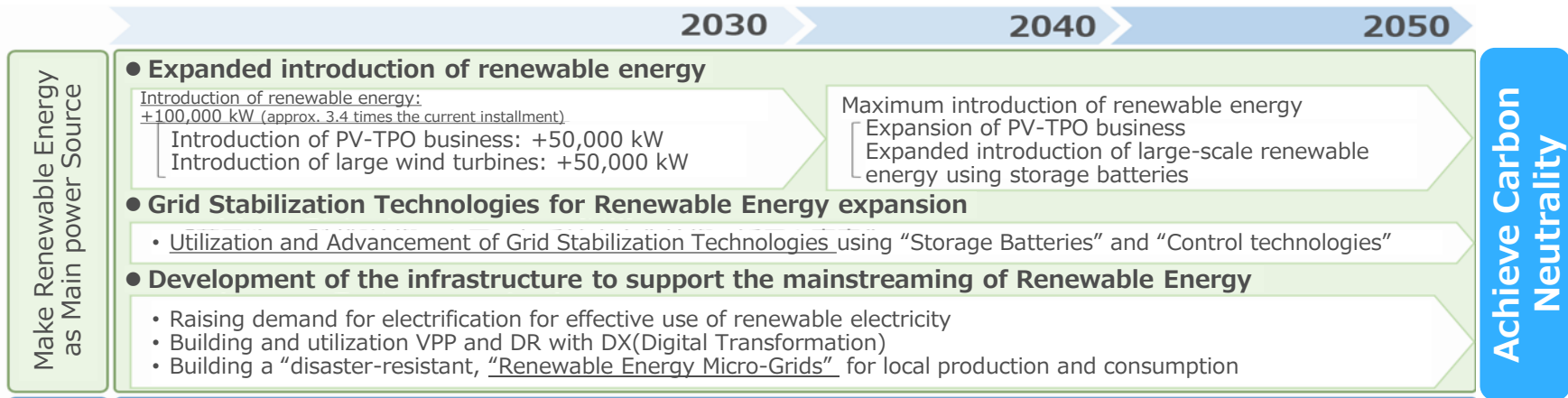


■ The development of hydrogen co-firing operation technology of electric power reserve source using actual commercial systems and the building of a hydrogen utilization model in the Okinawa area (NEDO)  
⇒ A co-firing rate (by volume) of 30% hydrogen at rated output was achieved in the test conducted on March 14 at the Yoshinoura Multi Gas Turbine Power Plant.

■ FS study project for hydrogen power generation utilization using existing facilities in Miyakojima (Pref.)

\*Projects adopted in FY2021 and later are marked with ■



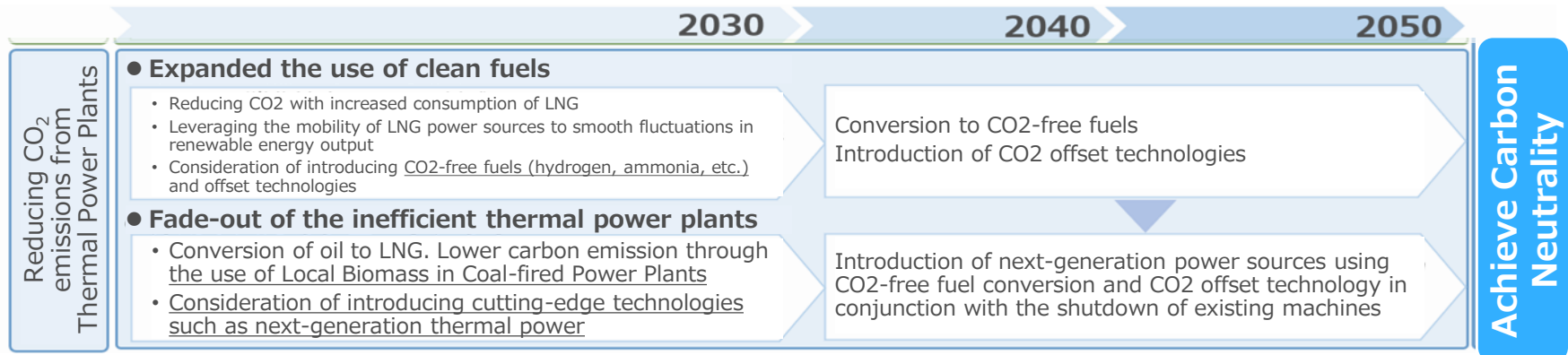


## Issues for “Make Renewable Energy as Main Power Source ”

- The area is a regular site of typhoons, and from the viewpoint of extreme wind speeds, there are issues for introducing new large wind turbines (500 kW or more)
  - ☞ Management Reference Materials p.14
- Offshore wind has economic and other issues compared to onshore wind, and environmental aspects such as the impact on coral reefs must also be considered
- Land is limited due to the narrow prefectural land area, and there are few suitable sites for mega solar power plants (sunlight hours are also short compared to the rest of the country)
- In the PV-TPO business (free PV + storage battery installation service), there are restrictions on installation conditions (roof shape, age of the building, etc.)
- Given that it is a small independent system, it is necessary to secure adjustment power against output fluctuations and to deal with inertia in the power system

## Progress in addressing issues

- ✓ Preparations are underway for a wind condition study to resolve issues related to the introduction of large wind turbines, and the feasibility of introducing wind power generation is under consideration. In addition, interviews with manufacturers and experts are underway.
- ✓ The introduction to new installation locations such as floating solar as well as the expansion of renewable energy introduction through off-site PPA schemes are under consideration.
- ✓ PV-TPO business is being promoted. We will continue our efforts to promote electrification by combining “karE-roof” and “all electrification” for general housing. For businesses, moreover, there is a need for carport-type systems, etc. We will continue to consider adding lineups and develop services that customers can choose from.
- ✓ Makiminato gas engine is being operated as an adjusting power source.
- ✓ We will continue working on grid stabilization and aim to advance grid stabilization technology using storage batteries and other means.



## Issues for “Reducing CO<sub>2</sub> emissions from Thermal Power Plants”

- Difficulty in introducing high-efficiency SC and USC due to demand scale restrictions, etc.
  - ☞ Management Reference Materials p.12
- Indispensable as an adjusting power with the expanded introduction of renewable energy (Even at present, the Gushikawa coal-fired power plant stops operations about 250 times a year)
- At present, there are no institutional measures for investment recovery applicable to the Company (Difficult to utilize the “Long-Term Decarbonized Power Source Auction” and the “Price Differential Support and Base Development Support” related to hydrogen and ammonia)
- Use of hydrogen and ammonia is effective in reducing CO<sub>2</sub> emissions from thermal power sources, but there is a high degree of uncertainty in terms of technology, price, and procurement in the future (Costs are higher in island regions, where economies of scale are difficult to exploit)

## Progress in addressing issues

- ✓ We will continue our efforts to expand the use of LNG, and to use and expand prefectural biomass co-firing for coal-fired power generation.
- ✓ To expand the use of biomass, the utilization of unused wood waste existing in the prefecture is under consideration.
- ✓ The hydrogen co-firing power generation validation tests is underway at the Yoshinoura Multi Gas Turbine Power Plant from March 2024.
- ✓ We will work diligently to establish the necessary technology for the transition to thermal zero emission and to achieve economic feasibility.
- ✓ Since policy and financial support is important, we will utilize subsidies and lobby the government and other entities.

# Initiatives to Achieve Carbon Neutrality (Remote Islands in the Prefecture)

## Initiatives to expand the introduction of renewable energy in remote islands in the prefecture

- We supply power to 38 inhabited islands, including the main island of Okinawa, and operate 10 independent power systems outside the main island.
- Remote islands have a high cost structure due to their small size and geographic remoteness. As an initiative to reduce costs, we are promoting the reduction of burning fuels through the utilization of renewable energy.
- When introducing a high percentage of renewable energy to a small power system such as a remote island, the stable supply of electricity is an issue due to the variability and instability of the renewable energy output.
- Along with the introduction of renewable energy, we have been working on the development of grid stabilization technology using storage batteries, etc.
- Based on the idea to avoid strong winds, such as typhoons, we have introduced a tiltable wind power generation equipment, whose tower can be tilted nearly 90 degrees to the ground, to four remote islands (Haterumajima, Minamidaitojima, Taramajima, and Agunijima).



Achieved 100% renewable energy operation for about consecutive 10 days by using MG sets driven by surplus electricity generated by wind power on Haterumajima.

## [Examples of initiatives on remote islands in the prefecture]

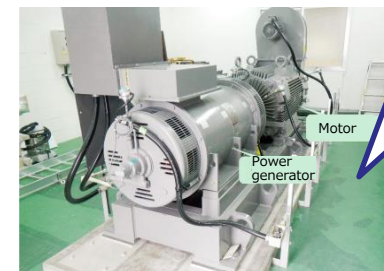
- Tiltable wind power generation equipment



- Solar demonstration facility



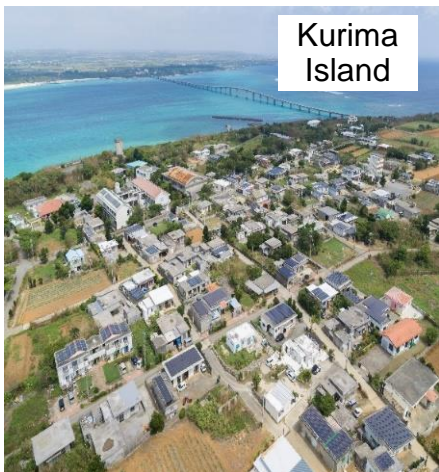
- MG set demonstration



## Example: Microgrid Demonstration Project in the Kurima Island Region

- The project was approved by the Ministry of Economy, Trade and Industry (METI) for the "Regional Microgrid \* Development Project", a subsidized project, a microgrid demonstration facility was constructed on Kurimajima and the demonstration project started in January 2022.
- In May 2022, for the first time in Japan, we separated the microgrid target area from the original power transmission and distribution network, and succeeded in supplying electricity using existing power distribution lines using only a combination of photovoltaic power generation installed on the customer side and our company's MG storage batteries.
- Since the start of the demonstration, we have conducted three operational drills to verify micro-grid operation technology using solar power generation and storage batteries as the main power sources. In the event of a power outage on Miyakojima in April 2024, the microgrid was put into operation to help shorten the outage time in the target area.
- We will continue to accumulate knowledge through operational training during typhoon power outages, etc., as well as through actual operation, and work to establish reliable microgrid operation technology.
- By establishing microgrid technology, we will consider expanding the technology to other remote islands in order to contribute to the realization of a sustainable society and strengthen decarbonization and electric power resilience, which are growing social needs.

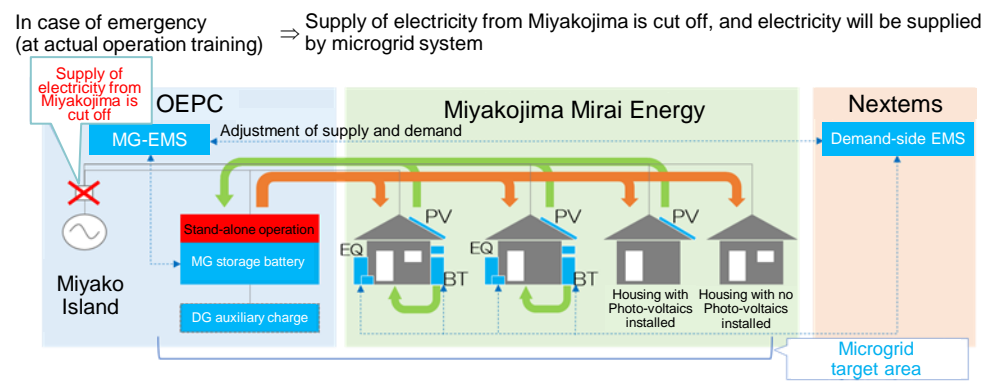
\* A regional microgrid is a system that uses regional renewable energy in an area of a certain size.



Kurima Island



### Microgrid overview

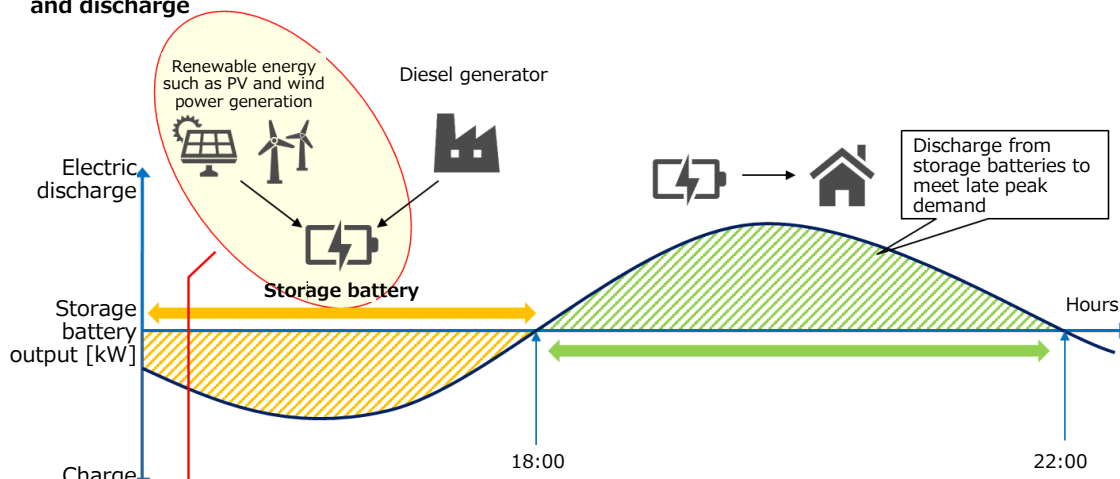




## Example: Installation of storage batteries to supply Miyako No. 2 Power Plant

- Demand for electricity is increasing in the Miyakojima grid, but due to the increase in FIT and other interconnection, the peak demand for our power generation facilities is during the evening hours (18:00-22:00), so we will install storage batteries to ensure supply capacity during this time period.
- The storage batteries to be introduced this time will store electricity during the daytime from diesel generators and natural variable power sources such as solar power generation installed in each home, etc., and discharge it from the storage batteries when evening peaks occur.
- As a result of the storage of electricity from solar power generation, etc., the suppression of renewable energy output will be reduced, which is expected to contribute to the expansion of renewable energy introduction in Miyakojima City, which is designated as a leading decarbonization area by the Ministry of the Environment.

Image of electricity storage and discharge



Contributing to the expansion of renewable energy introduction in the Miyakojima grid

- Summary of storage batteries to supply Miyako No. 2 Power Plant
- Rated output: 12,000 kW
- Rated capacity: 48,000 kWh
- Battery type: Lithium-ion battery
- Number of containers: 20 units
- PCS output: 2,590 kVA x 5 units
- Start of commercial operation: May 2025 (scheduled)

<Image of completion>



\*Partially processed from Google Map

# Group Businesses (Examples of Initiatives: Promotion of Business Overseas and Outside the Region)

- OEPC established “SeED Okinawa LLC” jointly with five group companies to promote the development of energy business outside the region, by leveraging the knowledge and technologies cultivated with electric business such as the expansion of renewable energy introduction in remote islands, operation of grid stabilization devices, etc. (April 2021)
- As social demands for countermeasures against global warming increase further worldwide, we will contribute to the realization of a low-carbon society and sustainable society, by further spreading renewable energy in the island regions of Asia and the Pacific where we can leverage the strengths of our group.

## Overseas Construction Project Achievements

- Introduction of tilttable wind power in Tonga (JICA grant aid)



A regional microgrid construction project in Kurima Island, Miyakojima City.

100% supply of renewable energy in Hateruma Island

**Expand the Group's earnings by further developing overseas business areas**

## Initiatives of SeED OKinawa's activities outside the area in Japan and overseas

- Papua New Guinea
- Iwojima and Minami-torijima
- Republic of Palau
- Galapagos Islands, Ecuador **NEW**
- Four Pacific nations **NEW** (Fiji, Samoa, Micronesia, and Palau)

Expand the introduction of renewable energy to remote islands in the prefecture

- Acquisition of grid stabilization technology

Overseas consulting projects Achievements

- NEDO demonstration study
- JICA technical cooperation project

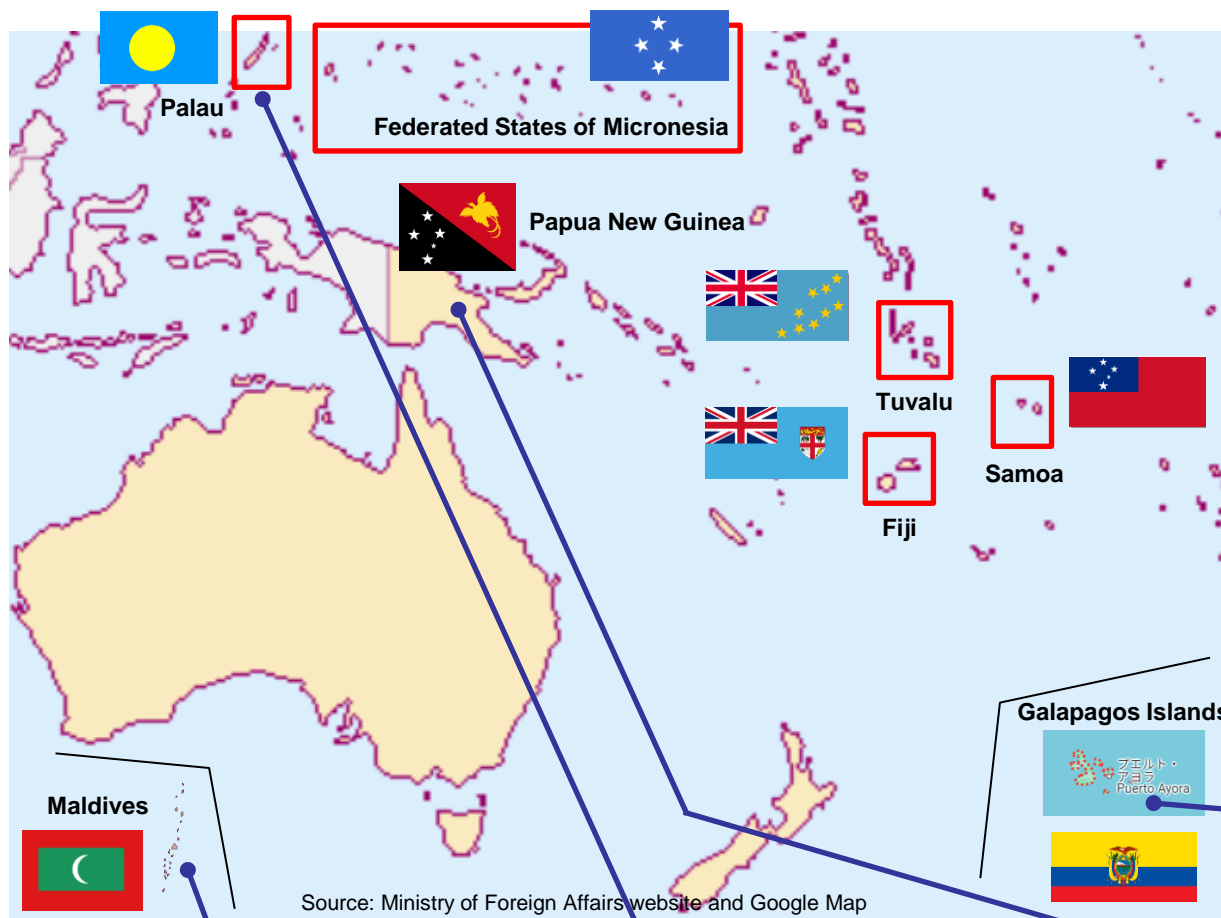


## Presentation at COP28

The company presented its effort for decarbonization in Palau at the 28th Conference of the Parties to the United Nations Framework Convention on Climate Change(COP28) , held in Dubai, United Arab Emirates, in December 2023.

# Group Businesses (Examples of Initiatives: Promotion of Business Overseas and Outside the Region)

- Leveraging the technical capabilities and experience accumulated in the electric power business, the Group is united in its efforts to provide technical support and develop businesses related to the decarbonization of the energy sector in overseas island regions, particularly in Asia and the Pacific.



Demonstration Project for Introduction of Renewable Energy on Iwojima and Minamitorishima  
(Commissioned by Ministry of the Environment)

Reduce CO2 emissions and strengthen resilience by introducing solar power generation, storage batteries, etc. on both islands

Energy Transition PJ in the Oceania Region (wide-area) (JICA technical cooperation project)

Decarbonize the energy sector by strengthening capacity related to power source/grid planning and consumer-side measures to promote energy transitions

\*Targets are five countries in the red box.

Ecuador Galapagos Islands: Fossil Fuel Zero Roadmap Support PJ  
(JICA technical cooperation project)

Demonstration of a de-carbonized seawater desalination system using solar power generation and storage batteries

PV-TPO Project in Palau  
Business development of third-party ownership model of solar and storage batteries in local resort hotels

PJ for Capacity Improvement of Power System Planning and Operation, Papua New Guinea (JICA technical cooperation project)

Technical support to local power companies for power system stabilization and problem solving



## Example: PV-TPO Project in Republic of Palau

- OEPC Group and Tokyu Land Corporation Group will collaborate to introduce solar power generation and storage batteries in resort hotels in Palau, aiming to reduce CO2 emissions by reducing fuel-fired diesel generators owned by the hotels.
- This initiative will establish a model case of a sustainable renewable energy system in the island region, and contribute to the achievement of the carbon neutrality goals set by the countries of the Pacific region through horizontal deployment to the surrounding regions, including within the same country.



Palau Pacific Resort panoramic view



The signing ceremony for the basic agreement on this initiative held at Palau Pacific Resort (from left, Mr. Itami, Operating Officer and General Manager, Tokyu Land Corporation; Mr. Yokoda, CEO and President, SeED Okinawa; and Mr. Tsukahara, General Manager, Pacific Islands Development Corporation, a subsidiary of Tokyu Land Corporation that owns and operates the hotel)

### Project overview

[Target land]	On the grounds of Palau Pacific Resort (a 172-room resort hotel, the largest in the country, owned and operated by the Tokyu Land Corporation Group)	
[Installed facilities]	Solar power generation (DC 668 kW/AC 400 kW), storage battery facilities (output: 100 kW/ capacity 300 kWh)	
[Schedule (plan)]	Commencement of operation in FY2025	
[Role]	Okinawa Electric Power Company Group:	Design, installation, and operation of solar power generation and storage battery facilities
	Tokyu Land Corporation Group:	Support for consultation and coordination with various entities in the country, and provision of locations for installation of solar power generation facilities