

Management Overview

November 2020



The Okinawa Electric Power Company, Inc.

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Overview of Okinawa Prefecture



Basic Data

Population:	1,458,730
No. of Households	615,773
Area	2,283 km ²
Climate	Subtropical / Oceanic
Location	26° 12N 127° 41E
Prefectural GDP	¥4354.0billion
Tourism Revenue	¥704.7billion

- ◇ 160 islands scattered over a sea area lying about 1,000 kilometers east and west and about 400 kilometers north and south.
- ◇ Okinawa has attracted attention for its advantages and potentials.
 - Geographical characteristics as being located in the center of East Asia.
 - The highest birth rate in Japan.
 - Rich nature and mild climate.
- ◇ Making good use of such advantages and potentials, initiatives are underway
 - Promotion of tourism.
 - Clustering of international logistics industry.

Population, No. of Households as of September 1, 2020

Area as of July 1, 2020

Prefectural GDP as of Estimated results FY 2019

Tourism Revenue as of FY 2019

(Source: Okinawa Prefecture, Geographical Survey Institute)

Corporate Overview of OEPC

- The Okinawa Electric Power Company (OEPC) supplies electricity to 37 inhabited islands including Okinawa main island.
- OEPC maintains 11 isolated systems that are not connected with the transmission lines of other power companies.
- OEPC has no nuclear and hydroelectric power plants and depends on fossil fuels for its power supply.

Established	May 15, 1972
Capital	¥7,586 million
Total assets	¥373.941 billion (Non-consolidated) ¥408.789 billion (Consolidated)
Employees	1,543 (Consolidated : 2,752)

Security code	9511
Service area	Okinawa Prefecture
Generating facilities	Steam-power generators 5 locations 1,629 thousand kW (Oil 2 locations 375 thousand kW) (Coal 2 locations 752 thousand kW) (LNG 1 locations 502 thousand kW) Gas turbine generators 5 locations 326 thousand kW Internal-combustion power generators 13 locations 190 thousand kW Wind power generators 5 locations 2 thousand kW Total 2,147 thousand kW

(as of March 31, 2020)

Ratings

Rating agency	S&P	Moody's	R&I
Rating	A+	A1	AA
Outlook (direction)	Stable	Stable	Stable

* Ratings on long-term preferred debts as of October 31, 2020

Financial Results for FY2020 2Q YTD (Year-on-Year Comparison)

(Unit: million yen, X)

	Consolidated (A)			Non-consolidated (B)			(A) / (B)	
	FY2019 2Q YTD (Results)	FY2020 2Q YTD (Results)	Rate of Change	FY2019 2Q YTD (Results)	FY2020 2Q YTD (Results)	Rate of Change	FY2019 2Q YTD (Results)	FY2020 2Q YTD (Results)
Sales	111,032	104,496	-5.9%	106,366	100,124	-5.9%	1.04	1.04
Operating income	8,762	10,924	+24.7%	8,483	10,490	+23.7%	1.03	1.04
Ordinary income	8,398	10,724	+27.7%	8,214	10,372	+26.3%	1.02	1.03
Net income	6,453 [*]	8,251 [*]	+27.9%	6,405	8,115	+26.7%	1.01	1.02

* Net income attributable to owners of parent.

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

【Revenue】

- Decrease in Sales due to decrease in Electricity sales volume and income from the Fuel cost adjustment system in Electric business.

【Expenditure】

- Decrease in Fuel costs and Purchased power costs in Electric business.

Annual Outlook Summary FY2020

(Unit: million yen, X)

	Consolidated(A)				Non-consolidated(B)				(A) / (B)	
	FY2019 (Results)	FY2020 (Forecasts)		Change (II) - (I)	FY2019 (Results)	FY2020 (Forecasts)		Change (II) - (I)	FY2019 (Results)	FY2020 (Forecasts)
		Announced in Jul. 2020 (I)	Announced in Oct. 2020 (II)			Announced in Jul. 2020 (I)	Announced in Oct. 2020 (II)			
Sales	204,296	188,700	190,300	+1,600	194,471	178,400	180,200	+1,800	1.05	1.06
Operating income	10,326	10,000	10,000	-	8,236	8,100	8,100	-	1.25	1.23
Ordinary income	9,311	9,300	9,300	-	7,321	7,500	7,500	-	1.27	1.24
Net income	6,705*	7,000*	7,000*	-	5,651	5,900	5,900	-	1.19	1.19

* Net income attributable to owners of parent.

**Consolidated : Decrease in Sales (2 consecutive years),
Ordinary income almost unchanged from the previous year**
Non-consolidated: Decrease in Sales, Increase in Income (2 consecutive years)

[Comparison with previous forecasts (Jul.2020)]

【Revenue】

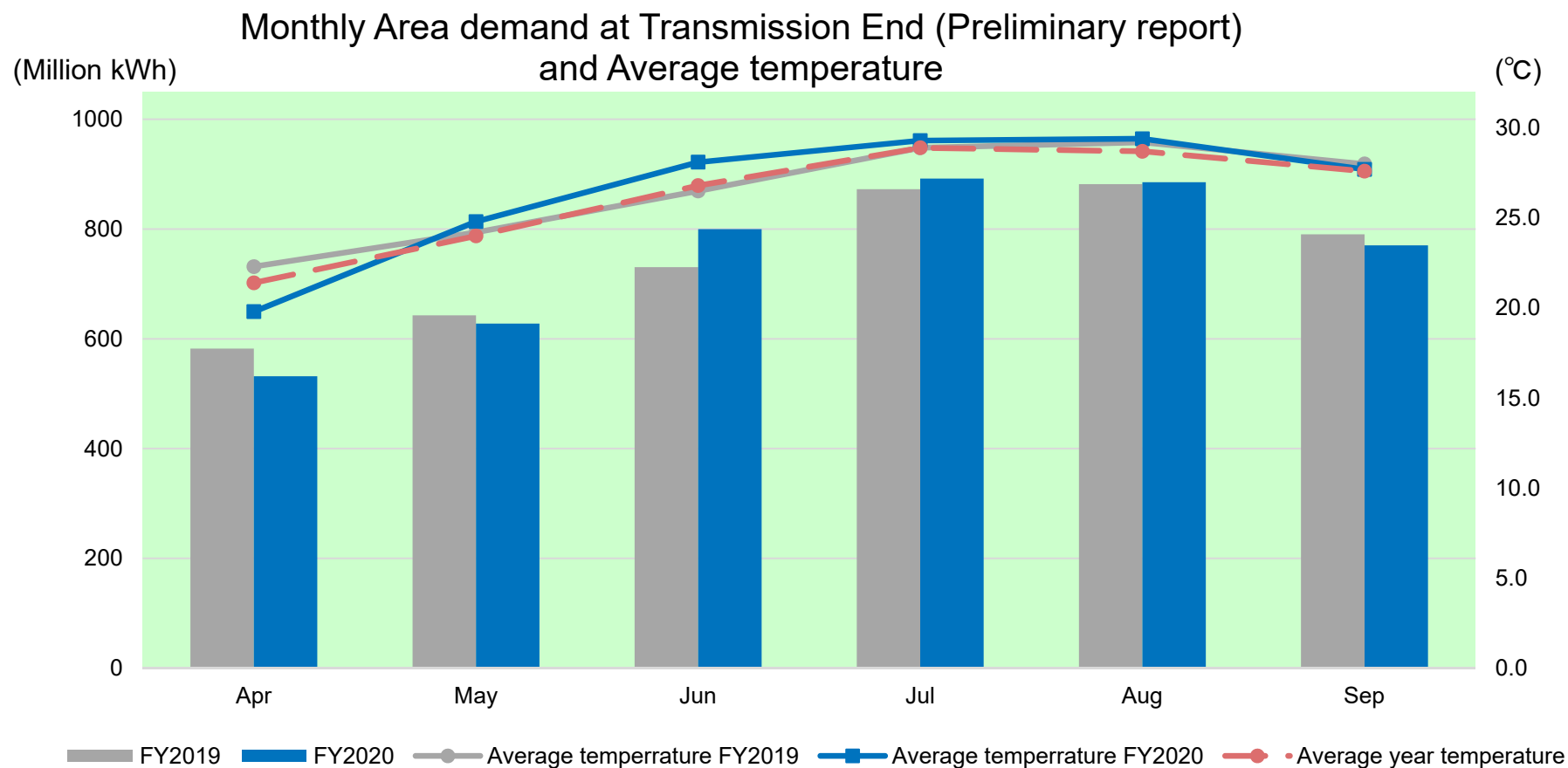
- Increase in Electricity sales due to increase in Electricity sales volume in Electric business.

【Expenditure】

- Increase in Fuel costs and Purchased power costs in Electric business.

The impact due to spread of the novel coronavirus after October 2020 has not been considered in this forecast because it is extremely difficult to calculate.

Electric Energy Demand (Results) (1/2)



Monthly Area demand at Transmission End
(Preliminary report)

	Apr	May	Jun	Jul	Aug	Sep	1st Half
FY2020	532	628	800	892	886	771	4,508
FY2019	582	643	731	873	882	791	4,502
Rate of Change	-8.6	-2.3	+9.5	+2.2	+0.4	-2.6	+0.1

Average temperature

	Apr	May	Jun	Jul	Aug	Sep	1st Half
FY2020	19.8	24.8	28.1	29.3	29.4	27.7	26.5
FY2019	22.3	24.2	26.5	28.9	29.2	28.0	26.5
Climatological Normals	21.4	24.0	26.8	28.9	28.7	27.6	26.2

Electric Energy Demand (Results)(2/2)

Electricity Sales Volume

(Unit: million kWh, %)

	FY2019 2Q YTD (Results)	FY2020 2Q YTD (Results)	Change	Rate of Change
Lighting	1,610	1,656	+46	+2.9
Power	2,356	2,243	-113	-4.8
Total	3,966	3,899	-67	-1.7

<Lighting>

The demand for Lighting increased compared with Year-on-Year due to higher temperature compared with previous year.

<Power>

The demand for Power decreased compared with Year-on-Year due to the impact of the spread of the novel coronavirus and switching to other suppliers.

■ Power Generation Infrastructure and Power Generated and Received

(Unit: million kWh, thousand kW)

		FY2019 2Q YTD		FY2020 2Q YTD		Change	Rate of change
		Electricity generated	Com- position ratio	Electricity generated	Com- position ratio		
OEPC	Coal	1,836	43.2%	1,756	42.2%	-80	-4.4%
	Oil	607	14.3%	584	14.0%	-23	-3.8%
	LNG	809	19.1%	852	20.4%	+43	+5.3%
	Total	3,252	76.6%	3,192	76.6%	-60	-1.8%
Other		994	23.4%	975	23.4%	-19	-1.9%
Total		4,246	100.0%	4,167	100.0%	-79	-1.9%

<Power Generated and Received>

- Power generated and received was 4,167 million kWh, down 1.9%.*
- Electricity generated of OEPC's Coal-fired thermal power was down 4.4%.*
- Electricity generated of OEPC's Oil-fired thermal power was down 3.8%.*
- Electricity generated of OEPC's LNG-fired thermal power was up 5.3%.*

*Comparison with the same period of the previous year.

Electric Energy Demand (FY2020 and Long-term Outlook)

Electricity sales volume (FY2020 Outlook)

(Unit: million kWh, %)

	FY2019 Results	FY2020 Forecasts	YoY Rate of Change
Lighting	2,946	2,990	+1.5
Power	4,370	4,236	-3.1
Total	7,316	7,226	-1.2

* At this time, the impact due to spread of the novel coronavirus is not considering because it is unclear.

(Lighting)

Demand for lighting is expected to be higher year-on-year due to higher temperature in summer compared with previous year, despite the impact to customers switching to other suppliers. (YoY growth:+1.5%)

(Power)

Demand for power is expected to be lower year-on-year due to the impact to customers switching to other suppliers and spread of novel coronavirus, despite an increased demand due to new commercial and accommodation facilities being built. (YoY growth:-3.1%)

(Total)

As explained above, the total electricity sales volume is expected to be 7,226 million kWh, short of the previous year. (YoY growth:-1.2%)

Electricity sales volume (Long-term Outlook)

(Unit: million kWh, %)

	FY2008 Results	FY2018 Results	FY2029 Forecasts	2008-2018 Annual average growth rate	2018-2029 Annual average growth rate
Lighting	2,887	2,960	2,824	0.3 (0.2*)	-0.4 (-0.3*)
Power	4,589	4,493	3,819	-0.2 (-0.2*)	-1.5 (-1.3*)
Total	7,476	7,453	6,643	-0.0 (-0.1*)	-1.0 (-0.9*)

* Adjusted for the influence of temperature.

(Lighting)

Demand for lighting is expected to decrease due to the impact of customers switching to other suppliers, despite an increased demand resulting from growth in the number of population and households.(Annual average growth:-0.3%*)

(Power)

On the Assumption that the novel coronavirus infection converges, demand for power is expected to decrease due to the impact of customers switching to other suppliers, despite an increase in commercial and accommodation facilities and food manufacturers due to growth in the number of population and tourists. (Annual average growth:-1.3%*)

(Total)

As explained above, the total electricity sales volume is expected to be 6,643 million kWh. (Annual average growth:-0.9%*)

Capital Expenditures Plan (Electric Business)

- Capital investment in FY 2020 is expected to be around 40 billion yen due to the aging of power sources and an increase in the construction and replacement of power distribution facilities.
- Although costs for responding to aging of supply facilities are expected to increase, efforts are made to level off investment amounts.

Trends in the Capital Investment Amount

(Unit: 100million yen)

FY By facilities		2017		2018		2019		2020
		Results	(Plan)	Results	(Plan)	Results	(Plan)	(Plan)
Power sources		34	(60)	26	(41)	63	(67)	(115)
Supply facilities	Transmission	39	(57)	57	(88)	63	(87)	(86)
	Transformation	21	(26)	23	(32)	39	(59)	(76)
	Distribution	59	(74)	61	(79)	48	(77)	(106)
	Subtotal	120	(157)	141	(200)	151	(224)	(267)
Others		14	(17)	5	(7)	16	(6)	(27)
Total		168	(235)	173	(247)	230	(297)	(409)

Note: The figures may not exactly match the figures because of rounding.

[Major Projects in Capital Investments in FY 2020]

Power sources: Miyako Daini Power Plant No.6,7

Kin Thermal Power Plant Wood
biomass supply system
Makiminato Gas engine Power Plant

Supply facilities: Responding to increasing demand

Replacement of aging facilities
Responding to shortened power outage times
Responding to supply reliability

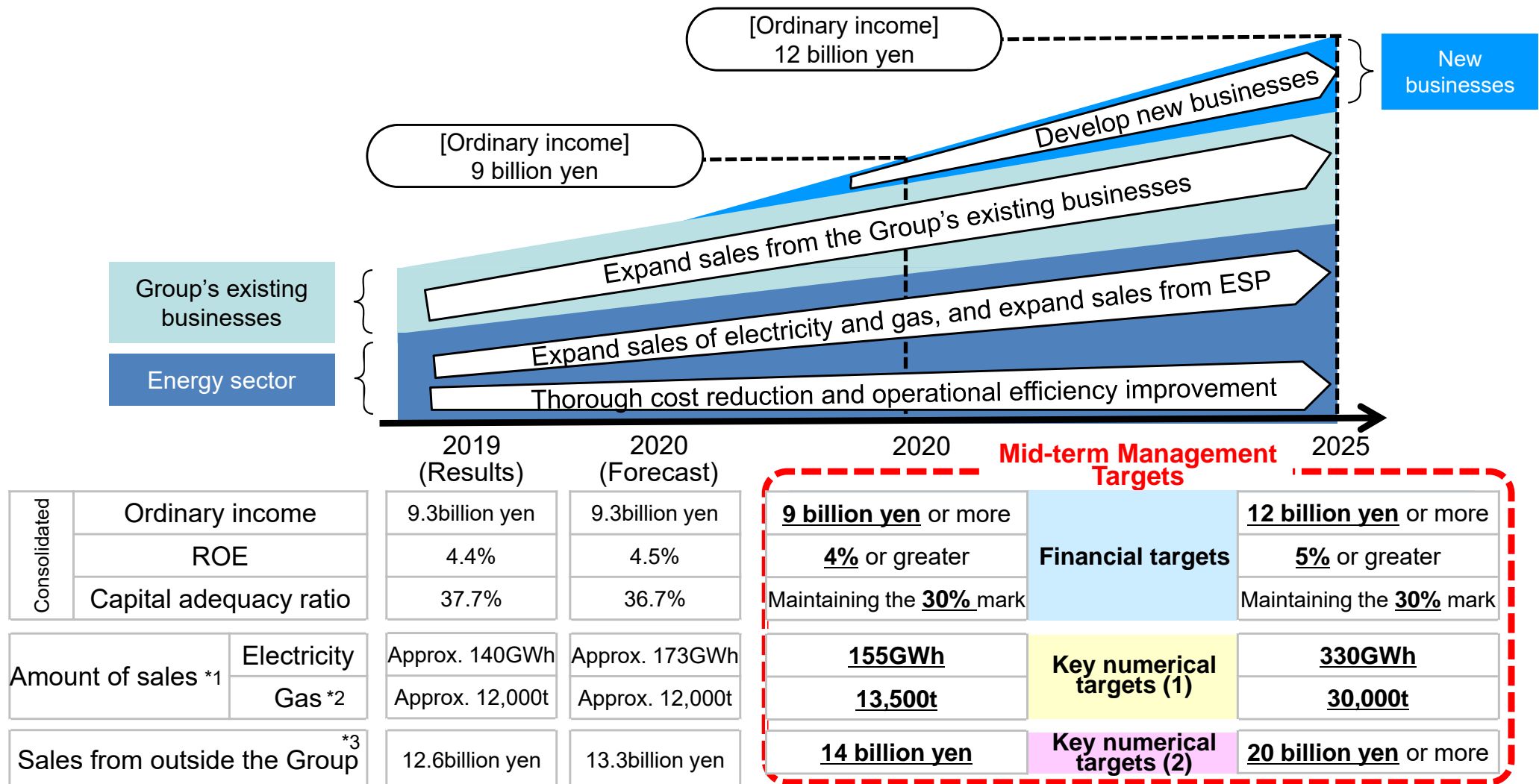
Business environment and challenges

Item	Overview and Challenges
Sales	<ul style="list-style-type: none"> ■ The population and the number of households will continue increasing, but the number of tourists has decreased recently. ■ The demand for Electric Power in Okinawa area will increase, but the rate of its increase has been slowing down. ■ The entry of power producer and supplier has advanced competition. ■ Challenges will be sales expansion of electricity and gas.
Profitability	<ul style="list-style-type: none"> ■ Due to shift from coal to LNG, burden of fuel cost reduces profit. ■ A challenge will be to improve profitability. ■ The cost structure must be reviewed.
CF	<ul style="list-style-type: none"> ■ Capital investment will increase due to the implementation of the Mid-Term Management Plan. ■ No large-scale electric power development is planned for the time being.
Capital composition	<ul style="list-style-type: none"> ■ Equity capital is secured at the level necessary for financial stability. ■ A challenge is to improve capital efficiency.

Mid-Term Management Plan (2019-2021)

What we aim to be

The OEPC Group Vision sets out our vision for the future, pledging to “design and propose new value through services to support both corporate and individual customers” through our core business as a total energy supplier and to “become a unified business group that grows and develops hand-in-hand with the community.”



*1. Cumulative total from FY2016

*2. Exclude the amount of wholesale supplies provided to former general gas utilities

*3. Sales other than electricity business

Initiatives to Achieve Mid-Term Management Targets

- We will implement “expand group’s revenue”, “thorough cost reduction and operational efficiency improvement”, and “further strengthening the stable supply of energies” for realizing “what we aim to be” and achieving mid-term management objectives.
- In May 2019, we established the Strategy Promotion Task Force to conduct cross-divisional studies, and accelerated consideration for the achievement of the following measures and implemented them in succession. We established the Strategy Promotion Office in July 2020 for aiming to build a strong corporate structure to survive the competition.

Expanding the top line

Measures to expand electricity sales and prevent switching to others

- ✓ Promotion of all-electrification and half-electrification
- ✓ Introducing the member site and point services
- ✓ Strengthen marketing to customers who have switched
- ✓ Strengthening value-added services for corporations

Measures to expand gas supply and ESP businesses

- ✓ Developing energy supply areas
- ✓ Development of demand along the route by laying gas pipelines
- ✓ Bundled sales of electricity and gas

Planning a real estate business strategy

- ✓ Participating in urban development; Returned former U.S.military base sites
- ✓ Participating in PPP/PFI projects in the prefecture
- ✓ Effective using real estate owned

LNG utilization measures

- ✓ Changing remote island power generation fuels to LNG
- ✓ Developing LNG bunkering business

Utilization of distributed power sources

- ✓ Acquisition of small-scale system microgrid technology
- ✓ Developing post-FIT-related services
- ✓ Developing third-party solar ownership model

Aggressive rationalization and infrastructure development

Aggressive efficiency improvement

- ✓ Reviewing facility patrols and inspection cycles
- ✓ Fundamentally reviewing branch and sales office operations (substitution, consolidation, outsourcing and abolition)
- ✓ Consideration about the medium- to long-term composition of power supply

Developing infrastructure

- ✓ Introducing of power plant IoT infrastructure

Promoting digital transformation

- ✓ Realizing work styles that do not choose place and means
- ✓ Promoting digitization and automation of operations
- ✓ Developing cyber security and system infrastructure, utilizing data, and others

* Underline: Execution phase

Measures to expand electricity sales and prevent switching to others

- Amid the ongoing shift away of demand due to the full liberalization of the retail electricity market, the Company will endeavor to increase sales of electricity and prevent switching to others in order to win out in the competition through the continued selection by customers.

✓ Promotion of all-electrification and half-electrification

- Starting to offer the "Rikka Denka Lease", a new lease service plan of the electrical appliance.
- Strengthening cooperation with local home appliance stores and housing equipment manufacturers.
- Expanding sales channels further.
- Conducting promotion for solar power facility installers.
- Implementing a campaign to give a gift of Amazon Prime.

✓ Introduction of a member site and point services

- Started "OEPC more - E," a member site where one can earn points with their electricity bills (September 2020).
- Provide various services through the member site.
- Support customers' comfortable and affluent lives.

✓ Strengthening of sales activities for customers who have left the Group

- Offer the optimal rate menu that meets customer needs.
- Strengthen consulting activities for energy.

1

Saving and using "OEPC E Points"

"OEPC E-Points" can be used for shopping, support for professional sports teams, and donations for social activities, among others.



2

Visualization service

Display electricity rates and solar power sales rates with the graph. Enable energy analysis such as comparison with similar households.



3

Information provision service

Post useful columns and local information for people's life



4

Participatory services

People can earn points by participating in various campaigns, events and questionnaire surveys!

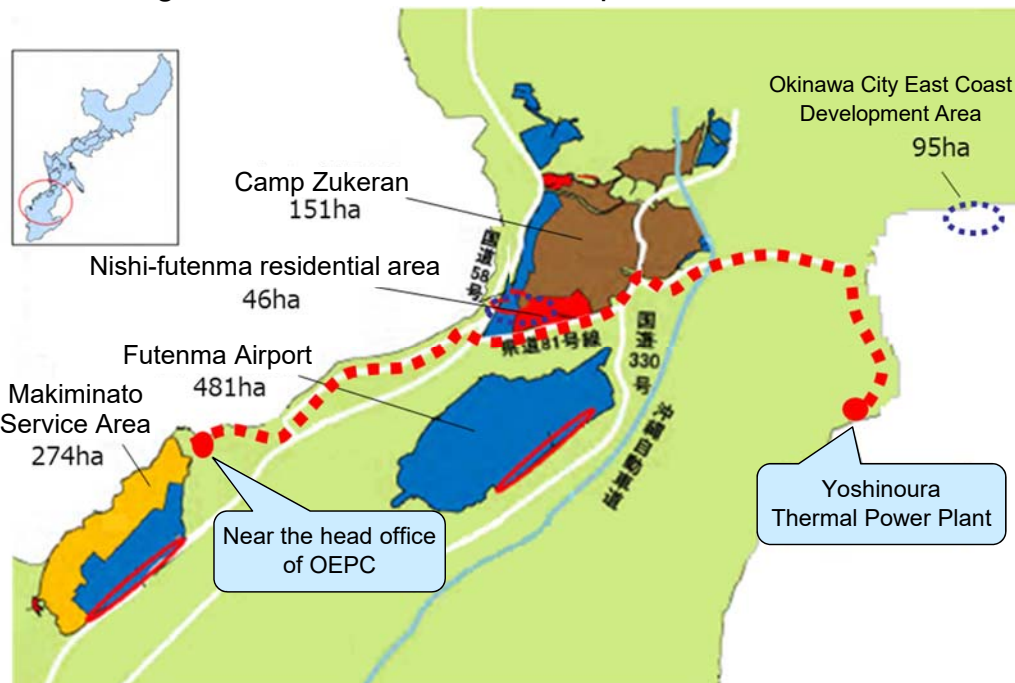


Measures to expand gas supply and ESP businesses

- The Company will promote the gas supply business and strengthen its efforts in the ESP business as a "Comprehensive energy service provider" to meet diversifying customer needs.

✓ Development of demand along the route by laying gas pipelines

- Install gas conduits in areas where heat demand is expected due to the development of former military base sites and others to acquire demand in line with customers' change of fuels and urban development.

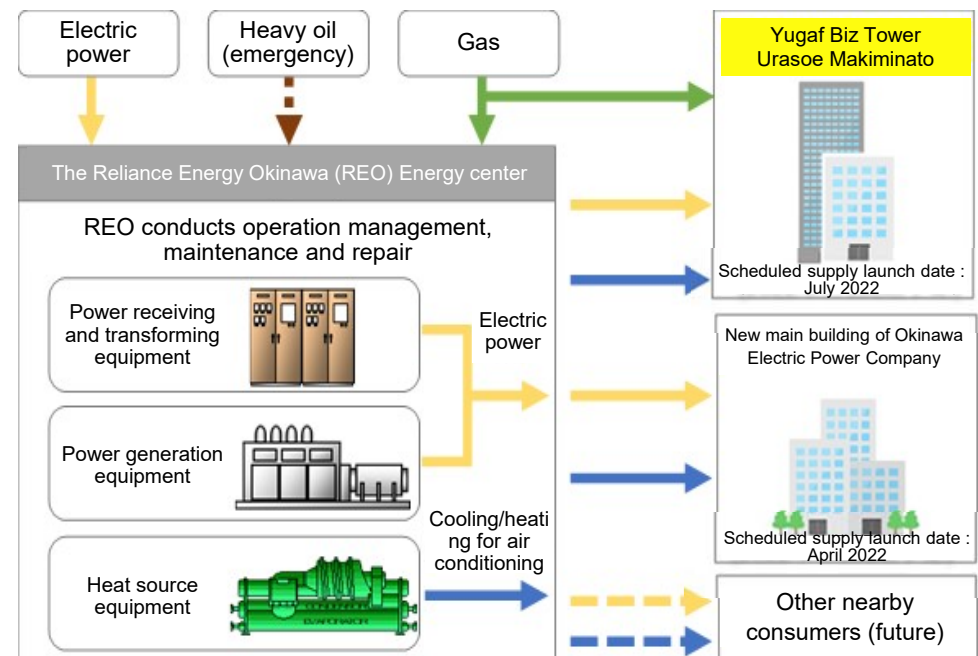


[Overview of equipment]

- (1) Service commencement: Scheduled for FY2023
- (2) Equipment specifications: Pressure (high pressure specification), diameter (300 mm), conduit extension (about 14 km)

✓ Developing energy supply areas

- We will develop the energy supply business for areas mainly from the energy center that will be built on the premises of the OEPC. For example, we are looking to supplying to buildings on the premises, and supplying to multipurpose building that is planned to be constructed nearby. (Scheduled supply launch date : Spring 2022)



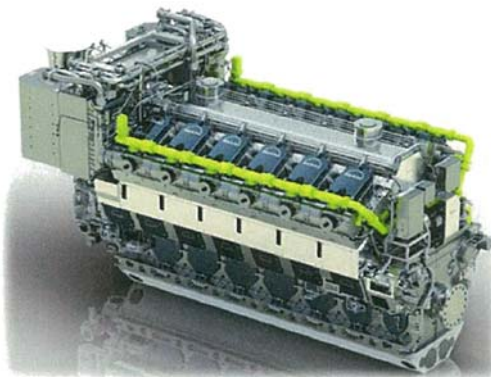
LNG utilization measures

- Aiming to utilize LNG, which the Company procures stably, not only for the main island electricity business and gas supply business, but also for other uses.
- In order to reduce CO2 emissions and improve energy security, A dual fuel engine that can use both heavy oil and LNG will be introduced at Miyako Island in FY2021.

✓ Changing remote island power

Miyako dual fuel engine overview

- Miyako Daini Power Plant No.6,7
Power generation capacity: 12,000 kW x 2
Scheduled start of operation:
Within FY 2021

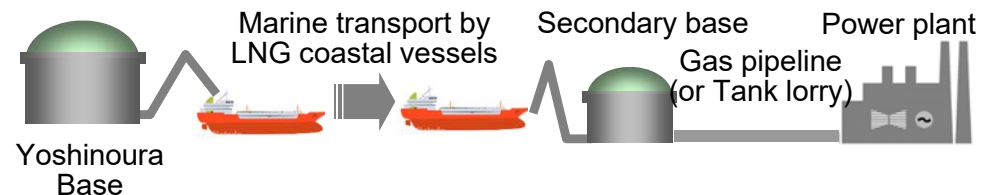


Engine capable of discretionally switching between C-heavy oil and natural gas

LNG transportation scheme to remote islands (under consideration)

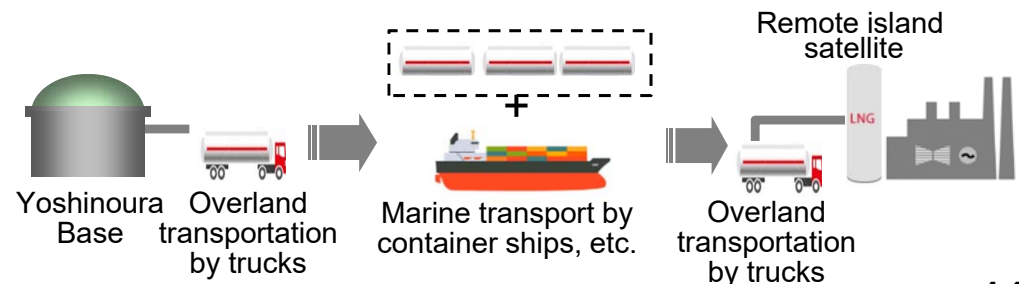
LNG transportation scheme will be established after comprehensively considering operational issues and economic efficiency.

[Coastal Shipping Scheme (Image)]



OR

[ISO Tank Container Transportation Scheme (Image)]

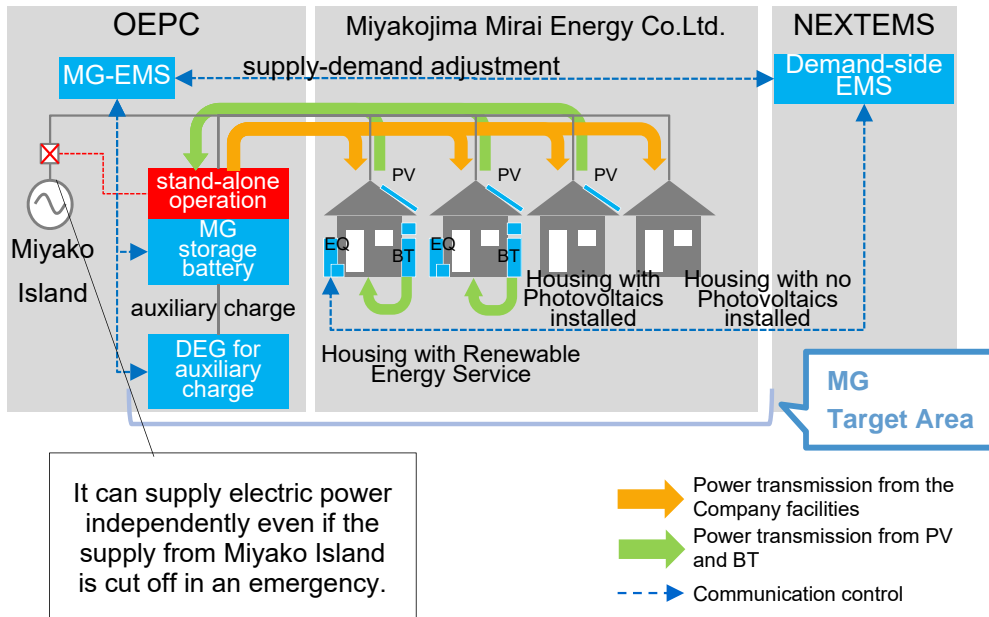


Utilization of distributed power sources

- In view of the widespread use of distributed power sources, striving to utilize distributed power sources and develop business models.

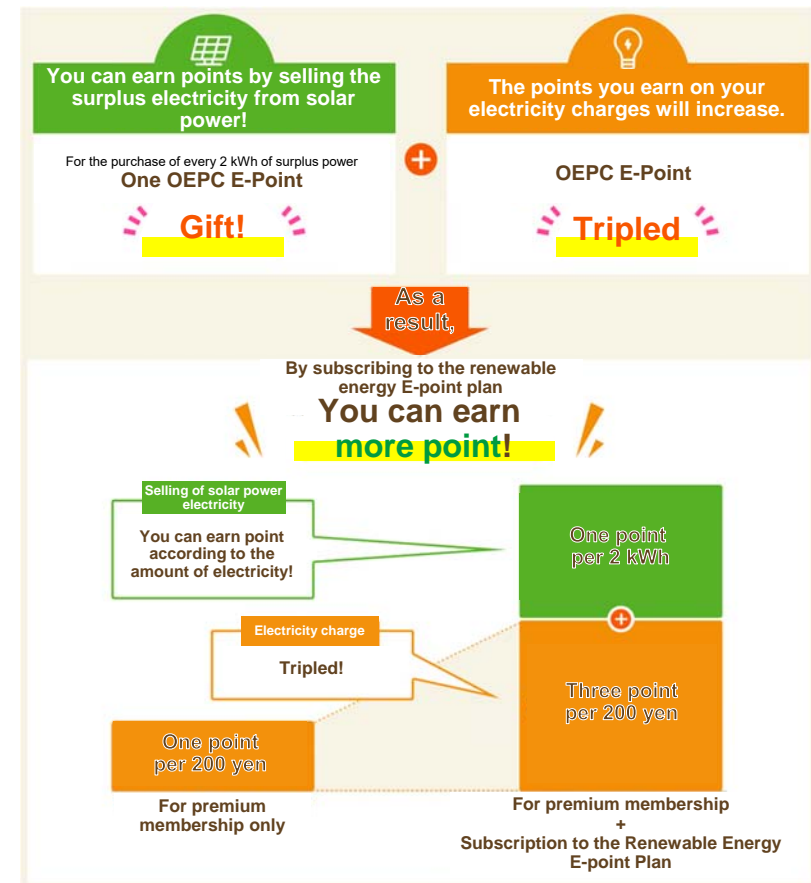
✓ Acquisition of small-scale system microgrid technology

- Started a regional microgrid construction project in Kurima Island, Miyakojima City.
- Striving to reduce the outage time by real local production and consumption of renewable energies and securing of energy sources in times of emergency.
- Aiming to realize decarbonization, strengthening of electric power resilience, and a sustainable society, which are increasingly in demand from the society.



✓ Developing post-FIT-related services

- For customers who have graduated from FIT, the Company has started the “Renewable Energy E-Point Plan,” which earns them points more easily in the member site. (September 2020)



Aggressive efficiency improvement

- In light of changes in the business environment, we are promoting a review of internal rules that contribute to improving operational efficiency and profitability without being constrained by conventional ideas.

✓ Reviewing facility patrols and inspection cycles

- We reviewed safety regulations across the entire facilities divisions on the premise of maintaining stable supply.



Power generation

[Statutory inspection of boilers and steam turbines]
Cycle: 2 years/4 years \Rightarrow 6 years at maximum



Power transmission

[Inspection of concrete poles, etc.]
Cycle: 4 years \Rightarrow 5 years



Power transformation

[Inspection of main circuit breakers]
Cycle: 12 years \Rightarrow Condition management as needed



Power distribution

[Patrol of distribution facilities]
Cycle: 2 years \Rightarrow 4 years
[Inspection on grounding resistance of pole transformers]
Cycle: 5 years \Rightarrow 10 years

Power generation facilities

(Statutory inspection of boilers and steam turbines)

- We got the certifies(System S) which enables an extension of the cycle for statutory inspections at three power plants that are Yoshinoura, Gushikawa and Kin.
- We can now plan flexible self-inspection while maintaining the reliability of facilities.
- We strengthened the monitoring of facilities' conditions by using power plant IoT infrastructure.

Cycle \ Year	0	1	2	3	4	5	6
Conventional (2 years/4 years)	Statutory		Statutory		Statutory		Statutory
System S (6 years at maximum)	Statutory	(Formulation of flexible voluntary inspection plans)					Statutory

✓ Fundamentally reviewing branch and sales office operations

- We conducted examination to improve efficiency from the perspectives of substitution, consolidation, outsourcing and abolition.
- Going forward, we will shift personnel to new operations that are increasing profits by improving efficiency.

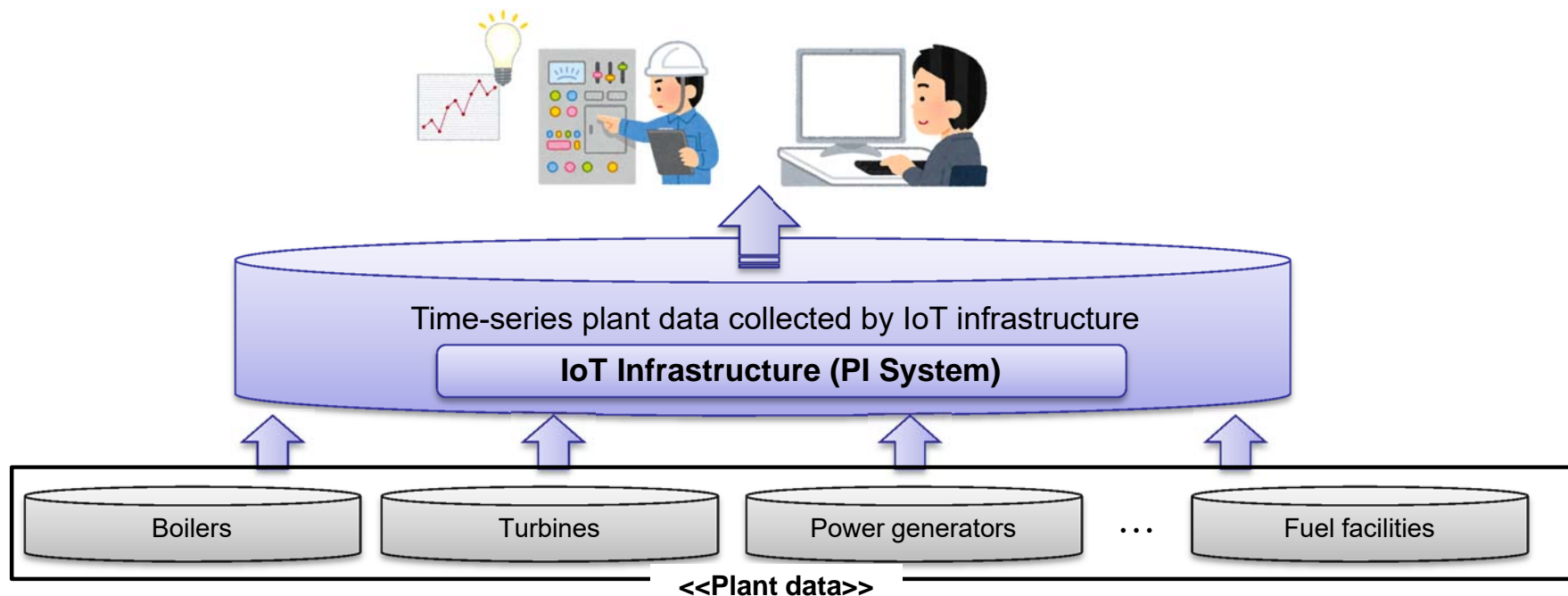
Initiatives for developing infrastructure

- By upgrading operations, we effort to realizing more work efficient, digitizing, automating, stabling supply operations.

✓ Introducing of power plant IoT infrastructure

- Introduce the OSIsoft PI System as IoT infrastructure.
 - Using the system enables sophisticated operation management and efficient operations.
- ◆ FY2019: Yoshinoura Thermal Power Plant (LNG)
 - ◆ FY2020: Gushikawa and Kin Thermal Power Plant (coal)

Sophisticated operation management and efficient operations due to utilize IoT infrastructure (PI System)



Promoting digital transformation

- After we established the DX Promotion Office in July 2020, we will consider how to realizing what we aim to be by “Okiden DX”.
- We are starting examinations by establishing a project to promote digitization and automation of operations and realize work styles that do not choose place and means.

Realizing what we aim to be by “Okiden DX”

Okiden DX is business innovation utilizing human resources and digital technology. Striving for “further strengthening the stable supply of energies” while actively pursuing “aggressive efficiency improvement”, we will secure competitive advantages by creating new values for stakeholders (communities, customers and employees) through initiatives leading to “expanding the top line”.

Stakeholders

Grow and develop together with communities



Integrating proprietary know-how, external knowledge, and digital technology

Companies continuously chosen by customers



Strengthening contacting with customers and providing value in a timely manner

Promoting reforms that enable each employee to play an active role



Combining diverse talents who can work anywhere

OEPC

Realizing aggressive efficiency improvement



Realizing work efficient, digitization and automation operations

Sharing and succeeding a wealth of technology and know-how



Succeeding accumulated experiences and technological capabilities

Expanding the top line



Leveraging data to create value for new businesses

Human Resources x Digital Technology



Business Innovation

Realizing to further strengthen the stable supply



Sophisticating operation of maintenance and inspection, strengthening early recovery capabilities


Fostering DX human resources to realize continuous and sustainable growth



Strengthening IT literacy and developing specialists

Characteristics of the Business Bases

Demand for Energy	<ul style="list-style-type: none"> ◆ Increasing demand for energy due to population growth and increasing tourists. ◆ 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.
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. ◆ Power producer and supplier is currently implementing plans to construct power plants.
Total Energy Services	<ul style="list-style-type: none"> ◆ Started selling gas with the introduction of LNG. ◆ Developing Total Energy Service by taken advantage of our ability to sell electricity and gas.
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. ◆ A sufficient supply capacity is secured after Yoshinoura Thermal Power Plant has started operations.
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.
Measures against global warming	<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.



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】

Budget & Finance Group, Accounting & Finance Department
Okinawa Electric Power Company, Inc.

TEL : +81-98-877-2341 FAX : +81-98-879-1317

Email : ir@okiden.co.jp