

The English version is a translation of the original Japanese version.
Please note that if there is any discrepancy, the Japanese version will take priority.

Summary of FY2021 3rd Quarter Earnings Results

Forward Looking Statements

The following contains statements that constitute forward-looking statements, plans for the future, management targets, etc. relating to the Company and/or the J-POWER group. These are based on current assumptions of future events, and there exist possibilities that such assumptions are objectively incorrect and actual results may differ from those in the statements as a result of various factors.

Furthermore, information and data other than those concerning the Company and its subsidiaries/affiliates are quoted from public information, and the Company has not verified and will not warrant its accuracy or appropriateness.

※Display of Figures

- ✓ All figures are consolidated unless stated otherwise.
- ✓ Amounts less than 100 million yen and electric power sales volume less than 100 million kWh shown in the consolidated financial data have been rounded down. Consequently, the sum of the individual amounts may not necessarily agree with figures shown in total columns.

Renovation Work for Shimamaki Wind Farm, Hokkaido

Target in FY2025 : Renewable energy development, 1,500MW and over



Shimamaki Wind Farm

Capacity 750kW×6 units (4,500kW)

- Power generation for more than 20 years from June 2000

(Shimamaki village, Shimamaki-gun, Hokkaido)



New Shimamaki Wind Farm

Capacity 4,300kW×1 unit

- Renovation work started in May 2021
- Commercial operation (scheduled to start in 2022)

*In addition to Shimamaki, Tomamae (31MW), Sarakitomanai(15MW), and Nikaho-Kogen (25MW) are under construction for replacement (refer to [p 23](#))

Progress of renovation work

Before windmill removal



After removal

Table of Contents

I . Summary of FY 2021 Third Quarter Earnings Results	
Summary of FY2021 Third Quarter Earnings Results	...5
Key Data	...6
FY2021 Third Quarter Earnings Results (Main Factors for Change)	...8
Breakdown of Increase / Decrease Factors of Consolidated Ordinary Income	...9
Consolidated: Revenue / Expenditure Comparison	...10
Consolidated: Balance Sheet	...11
(Reference) Recovery of Facility Troubles	...12
II . Summary of FY2021 Earnings Forecast	
Summary of FY2021 Earnings Forecast	...14
Key Data	...15
FY2021 Earnings Forecast (Main Factors for Change)	...16
Breakdown of Increase / Decrease Factors of Consolidated Ordinary Income Forecast	...17
APPENDIX	...18



Summary of FY 2021 Third Quarter Earnings Results

Summary of FY2021 Third Quarter Earnings Results

(Unit: billion yen)

Increased sales and decreased profits 【year on year】

Main reason for increase in consolidated operating revenue

- Electricity sales price hike

Main reasons for decreases in consolidated operating income, consolidated ordinary income, profit attributable to owners of parent

- Decreased incomes due to troubles at power plants, increased purchased electricity cost from JEPX, fuel costs and facilities maintenance costs such as repair costs
- Increased foreign exchange loss, etc.

Consolidated	FY2020 3rd Quarter (Apr.-Dec.)	FY2021 3rd Quarter (Apr.-Dec.)	Year-on-year change	
Operating Revenue	606.2	709.5	103.2	17.0 %
Operating Income	74.9	63.9	(11.0)	(14.7)%
Ordinary Income	67.0	54.8	(12.1)	(18.2)%
Profit attributable to owners of parent	56.0	40.3	(15.6)	(28.0)%

Non-consolidated	FY2020 3rd Quarter (Apr.-Dec.)	FY2021 3rd Quarter (Apr.-Dec.)	Year-on-year change	
Operating Revenue	384.0	498.1	114.0	29.7 %
Operating Income	27.4	17.2	(10.1)	(37.0)%
Ordinary Income	62.8	57.1	(5.6)	(9.0)%
Profit	55.7	55.0	(0.7)	(1.3)%

Key Data (Electric Power Sales)

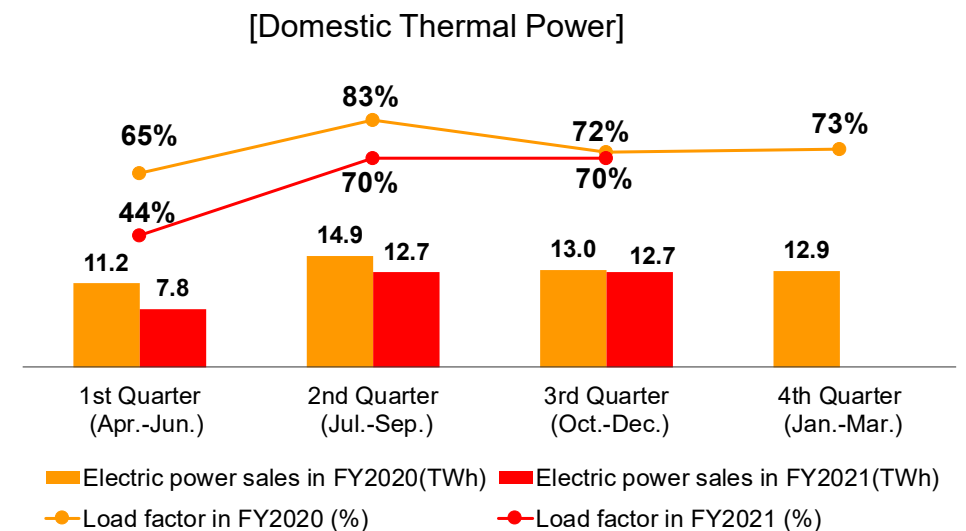
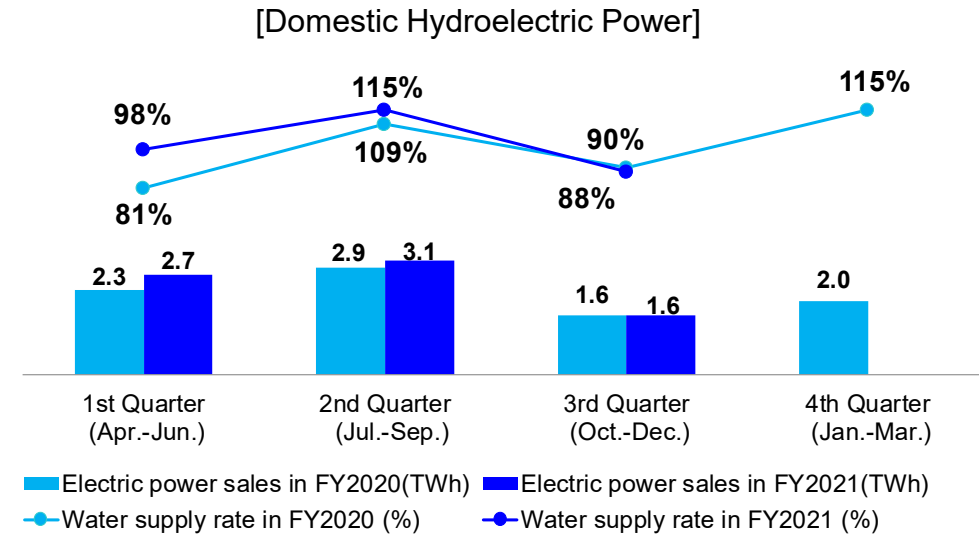
	FY2020 3rd Quarter (Apr.-Dec.)	FY2021 3rd Quarter (Apr.-Dec.)	Year-on-year change	
Electric Power Sales (TWh)				
Electric Power Business	54.7	53.8	(0.9)	(1.7)%
Hydroelectric Power	6.8	7.6	0.7	10.6 %
Thermal Power	39.1	33.2	(5.8)	(15.0)%
Wind Power	0.7	0.8	0.0	1.3 %
Other ^{*1}	7.9	12.0	4.1	53.1 %
Overseas Business ^{*2}	9.0	9.0	0.0	0.6 %
Water supply rate	92%	101%	+9 points	
Load factor ^{*3}	76%	62%	(14) points	

*1 Electric power sales volume of electricity procured from wholesale electricity market, etc.

*2 Electric power sales volume of overseas consolidated subsidiaries (Electric power sales volume of equity method affiliated companies is not included)

*3 Load factors of thermal power show the results for non-consolidated only

Electric Power Sales for each Quarter



Key Data (Operating Revenue)

- 【Electricity business】 In spite of lower utilization ratio of thermal power plants due to facility troubles, the volume of electricity sales to retailers increased ending with a slight fall in sales volume. Meanwhile, overall incomes rose since electric power business income increased due to soaring resource prices and due to increased incomes from JEPX resulting from price increase.
- 【Other business】 Incomes rose mainly because the sales of our subsidiary having interests in Australian coal mines increased due to soaring coal prices.

	FY2020 3rd Quarter (Apr.-Dec.)	FY2021 3rd Quarter (Apr.-Dec.)	Year-on-year change			FY2020 3rd Quarter (Apr.-Dec.)	FY2021 3rd Quarter (Apr.-Dec.)
Operating Revenue (Billion yen)	606.2	709.5	103.2	17.0 %	Foreign exchange rate at the end of September (Yen/US\$)	105.80	111.92
Electric Power Business	471.1	567.2	96.1	20.4 %	Foreign exchange rate at the end of September (Yen/THB)	3.34	3.30
Electric Power Sales	424.7	528.4	103.7	24.4 %	Foreign exchange rate at the end of September (THB/US\$)	31.66	33.92
Renewables ^{*1}	92.8	97.7	4.8	5.2 %	Average foreign exchange rate (Yen/US\$)	106.11	111.14
Transmission / Transformation	37.4	36.3	(1.0)	(2.7)%			
Overseas Business ^{*2}	107.2	102.4	(4.8)	(4.5)%			
Other Business ^{*3}	27.8	39.8	11.9	43.0 %			

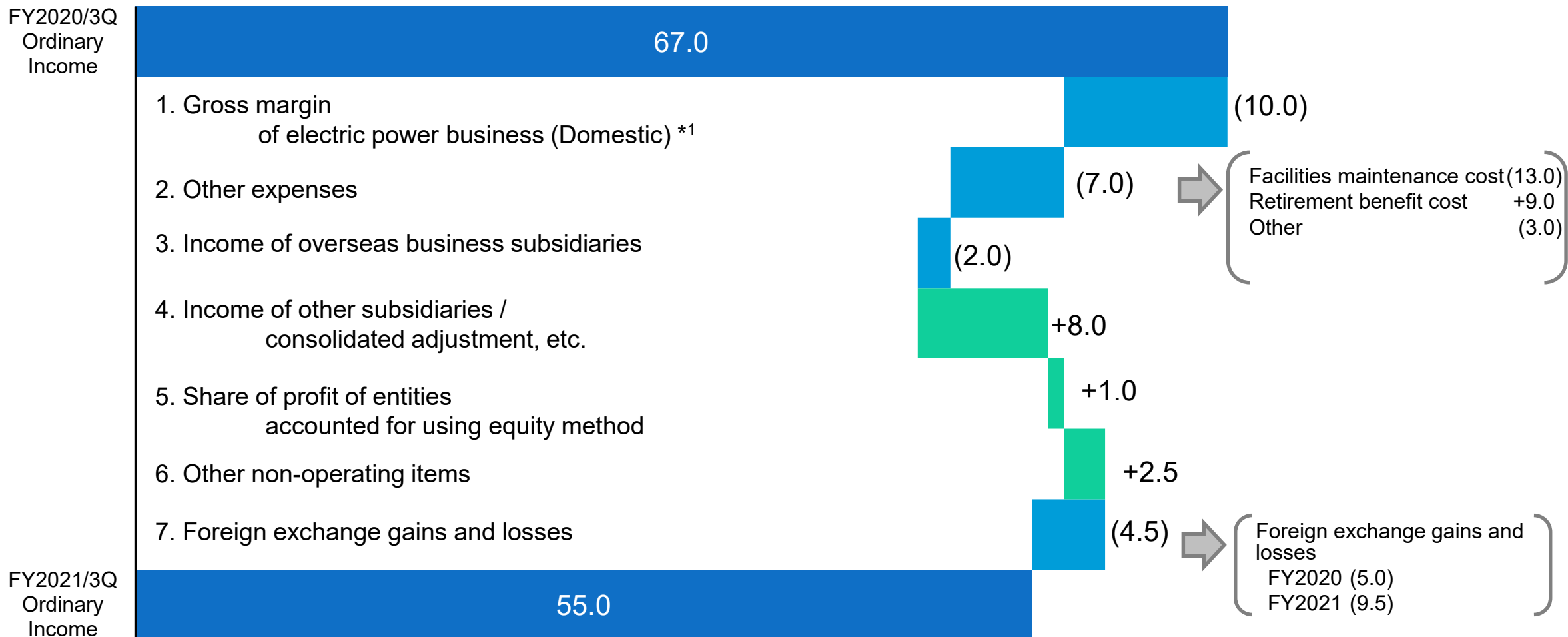
*1 Hydroelectric and wind power

*2 Sales for the overseas business segment (Sales from overseas consolidated subsidiaries and overseas consulting business, etc.)

*3 "Other Business" is composed of "Electric Power-Related Business" segment and "Other Business" segment

FY2021 Third Quarter Earnings Results (Main Factors for Change)

(Unit: billion yen)



*1 Gross margin of electric power business (Domestic) : Domestic electric power business revenue (hydro, thermal, wind and other) – fuel costs, etc.

Breakdown of Increase / Decrease Factors of Consolidated Ordinary Income

(Unit: billion yen)

1. Gross margin of electric power business (Domestic) (10.0)

- Profit fall due to increased unscheduled outages
- Decreases in sales volume and price in base load market
- Wholesale contracts with EPCOs: improved fuel margin
- Fall in gross profit from JEPX trading due to fuel costs hike
- Increased sales of renewable energy, etc.

2. Other expenses (7.0)

- Increase in maintenance cost (13.0)
- Decrease in retirement benefit cost +9.0
- Decrease in cost in various items (3.0)

3. Income of overseas business subsidiaries (2.0)

Thailand consolidation project (2.0)
(Fall in availability incomes and rise in maintenance costs resulting from periodic inspections)

4. Income of other subsidiaries / consolidated adjustment, etc. +8.0

- Increase in profit due to the rise of coal price in Australian coal mines, which one of our subsidiaries owns through proportional consolidation

5. Share of profit of entities accounted for using equity method +1.0

Overseas +1.0

- Increase in profit in US projects
- Decrease in profit of Chiahui due to sale of shares in the previous fiscal year

Domestic ±0

6. Other non-operating items +2.5

- Decreased interest payable, valuation loss/gain on derivatives, etc.

7. Foreign exchange gains and losses*1 (4.5)

- Q3 2020 (5.0) → Q3 2021 (9.5)

Foreign exchange rate(THB/USD)

	At the end of December of the previous year	At the end of September*2
FY2020	30.15	31.66
FY2021	30.04	33.92

*1 Foreign exchange valuation gains and losses mainly on US dollar-denominated debt in power generation projects in Thailand

*2 The settlement period of overseas subsidiaries is from January to December

Consolidated: Revenue / Expenditure Comparison

(Unit: billion yen)

	FY2020 3rd Quarter	FY2021 3rd Quarter	Year-on-year change	Main factors for change
Operating Revenue	606.2	709.5	103.2	
Electric power business	471.1	567.2	96.1	
Overseas business	107.2	102.4	(4.8)	
Other business	27.8	39.8	11.9	
Operating Expenses	531.3	645.5	114.2	Electric power business +112.9, Overseas business (2.4), Other business +3.8
Operating Income	74.9	63.9	(11.0)	
Non-operating Revenue	18.1	19.9	1.7	
Share of profit of entities accounted for using equity method	12.3	13.5	1.1	
Other	5.8	6.4	0.6	
Non-operating Expenses	26.1	29.0	2.9	
Interest expenses	17.7	16.5	(1.2)	
Foreign exchange losses	4.9	9.7	4.8	
Other	3.3	2.7	(0.6)	
Ordinary Income	67.0	54.8	(12.1)	Electric power business (14.4), Overseas business (4.7), Other business +6.7
Extraordinary income	9.7	-	(9.7)	
Total income taxes	15.4	12.0	(3.3)	
Profit attributable to owners of parent	56.0	40.3	(15.6)	

Consolidated: Balance Sheet

(Unit: billion yen)

	FY2020 End of FY	FY2021 End of 3Q	Change from prior year end	Main factors for change
Non-current Assets	2,475.2	2,537.2	62.0	
Electric utility plant and equipment	1,107.3	1,076.1	(31.2)	Non-consolidated (23.2), Subsidiaries and others (8.0)
Overseas business facilities	286.9	265.7	(21.1)	
Other non-current assets	91.1	91.2	0.0	
Construction in progress	588.2	641.7	53.5	Non-consolidated+12.1, Subsidiaries and others +41.3
Nuclear fuel	75.3	75.4	0.1	
Investments and other assets	326.1	386.8	60.7	Long-term investments +63.5 (Includes impact of foreign exchange revaluation on long-term investment of entities accounted for using equity method+9.7)
Current Assets	366.7	359.8	(6.9)	
Total Assets	2,841.9	2,897.0	55.1	
Interest-bearing debt	1,664.6	1,701.7	37.0	Non-consolidated +39.9, Subsidiaries and others (2.8)
Other	323.5	300.8	(22.7)	Accrued taxes (29.0)
Total Liabilities	1,988.2	2,002.5	14.2	
Shareholders' equity	814.7	841.5	26.7	Increase in retained earnings
Accumulated other comprehensive income	(5.6)	9.1	14.7	Foreign currency translation adjustment +9.7, Deferred gains or losses on hedges+8.3
Non-controlling interests	44.5	43.9	(0.6)	
Total Net Assets	853.6	894.5	40.8	
D/E ratio (x)	2.1	2.0		
Shareholders' equity ratio	28.5%	29.4%		

(Reference) Recovery of Facility Troubles

(As of January 31, 2022)

Situation of facility trouble		Status
Isogo Unit1, Unit2 1,200MW	Suppressed operation due to fire in the coal storage silo(approx.75%) since October 20, 2020	• Resumed full operation on July 22, 2021
Tachibanawan Unit1 1,050MW	Trouble on medium-pressure steam turbine caused on December 25, 2020	• Resumed operation on July 10, 2021 • Suppressed operation (approx.60%) • The complete recovery date is not determined
Matsushima Unit2 500MW	Boiler tube leaks caused on February 9, 2021	• Resumed operation on June 12, 2021
Matsuura Unit1, Unit2 2,000MW	Destruction of coal unloader caused on April 4, 2021	• Resumed operation on July 14, 2021
Kashima 600MW	Stop operation due to the trouble on generator on May 4, 2021	• Resumed operation on July 22, 2021
Matsushima Unit1 500MW	Boiler tube leaks caused on June 17, 2021	• Resumed operation on August 6, 2021
Tachibanawan Unit2 1,050MW	Trouble in Gas Gas Heater(GGH) Reheater caused on September 1, 2021	• Resumed operation on October 15, 2021
Matsuura Unit 1 1,000MW	Boiler tube leaks caused on November 23, 2021	• Resumed operation on December 9, 2021



Summary of FY2021 Earnings Forecast

Summary of FY2021 Earnings Forecast

Revised earnings forecast released on October 29, 2021 (no change with dividends forecast)

Increased incomes and increased profits expected (as compared to previous forecasts)

▣ Main reason for expected increase in incomes

- Increased revenue from electricity sales to JEPX due to price increase

▣ Main reason for expected increase in profits

- JEPX price increase
- Increase in gross profit of electricity business due to ingenuity of fuel procurement

(Unit: billion yen)

Consolidated	FY2020 Result	FY2021 Forecast	Comparison with FY2020 Result		FY2021 Previous Forecast*	Comparison with Previous Forecast
Operating Revenue	909.1	1,030.0	120.8	13.3 %	990.0	40.0
Operating Income	77.7	74.0	(3.7)	(4.9)%	44.0	30.0
Ordinary Income	60.9	63.0	2.0	3.4 %	41.0	22.0
Profit attributable to owners of parent	22.3	46.0	23.6	106.2 %	30.0	16.0

Non-consolidated	FY2020 Result	FY2021 Forecast	Comparison with FY2020 Result		FY2021 Previous Forecast*	Comparison with Previous Forecast
Operating Revenue	589.9	739.0	149.0	25.3 %	706.0	33.0
Operating Income	77.8	5.0	(72.8)	(93.6)%	(22.0)	27.0
Ordinary Income	114.0	45.0	(69.0)	(60.5)%	18.0	27.0
Profit	15.5	46.0	30.4	196.2 %	26.0	20.0

	Cash dividends per share		
	Interim	Year end	Annual
FY2020	35 yen	40 yen	75 yen
FY2021	35 yen	40 yen (forecast)	75 yen (forecast)

* Earnings forecast released on October 29, 2021

Key Data

- As for sales forecast, incomes are expected to increase due to increased sales to JEPX resulting from price increase
- Assumed exchange rate was changed to the rate at end of December

	FY2020 Result	FY2021 Current Forecast	Comparison with FY2020 Result		FY2021 Previous Forecast ^{*5}	Comparison with Previous Forecast
Electric Power Sales (TWh)						
Electric Power Business	74.5	73.3	(1.2)	(1.6)%	72.8	0.5
Hydroelectric Power	8.9	9.4	0.5	6.2 %	9.8	(0.4)
Thermal Power	52.1	47.4	(4.7)	(9.1)%	46.7	0.6
Wind Power	1.2	1.1	(0.0)	(3.4)%	1.1	(0.0)
Other ^{*1}	12.3	15.2	2.9	24.3 %	15.0	0.2
Overseas Business^{*2}	11.0	11.5	0.4	3.8 %	12.1	(0.6)
Operating Revenue (Billion yen)	909.1	1,030.0	120.8	13.3 %	990.0	40.0
Electric Power Business	731.3	824.0	92.6	12.7 %	787.0	37.0
Electric Power Purchase	670.9	760.0	89.0	13.3 %	727.0	33.0
Transmission/Transformation	49.6	49.0	(0.6)	(1.4)%	49.0	0.0
Overseas Business^{*3}	138.0	147.0	8.9	6.5 %	145.0	2.0
Other Business^{*4}	39.7	59.0	19.2	48.4 %	57.0	2.0

	FY2020 Result	FY2021 Current Forecast	FY2021 Previous Forecast ^{*5}
Water supply rate	96%	101%	103%
Load factor	75%	66%	65%
Foreign exchange rate at term end (end of December 2021)			
Yen/USD	103.50	115.02	105.00
Yen/THB	3.44	3.43	3.60
THB/USD	30.04	33.42	30.04

*1 Electric power sales volume of electricity procured from wholesale electricity market, etc.

*2 Electric power sales volume of overseas consolidated subsidiaries (Electric power sales volume of equity method affiliated companies is not included.)

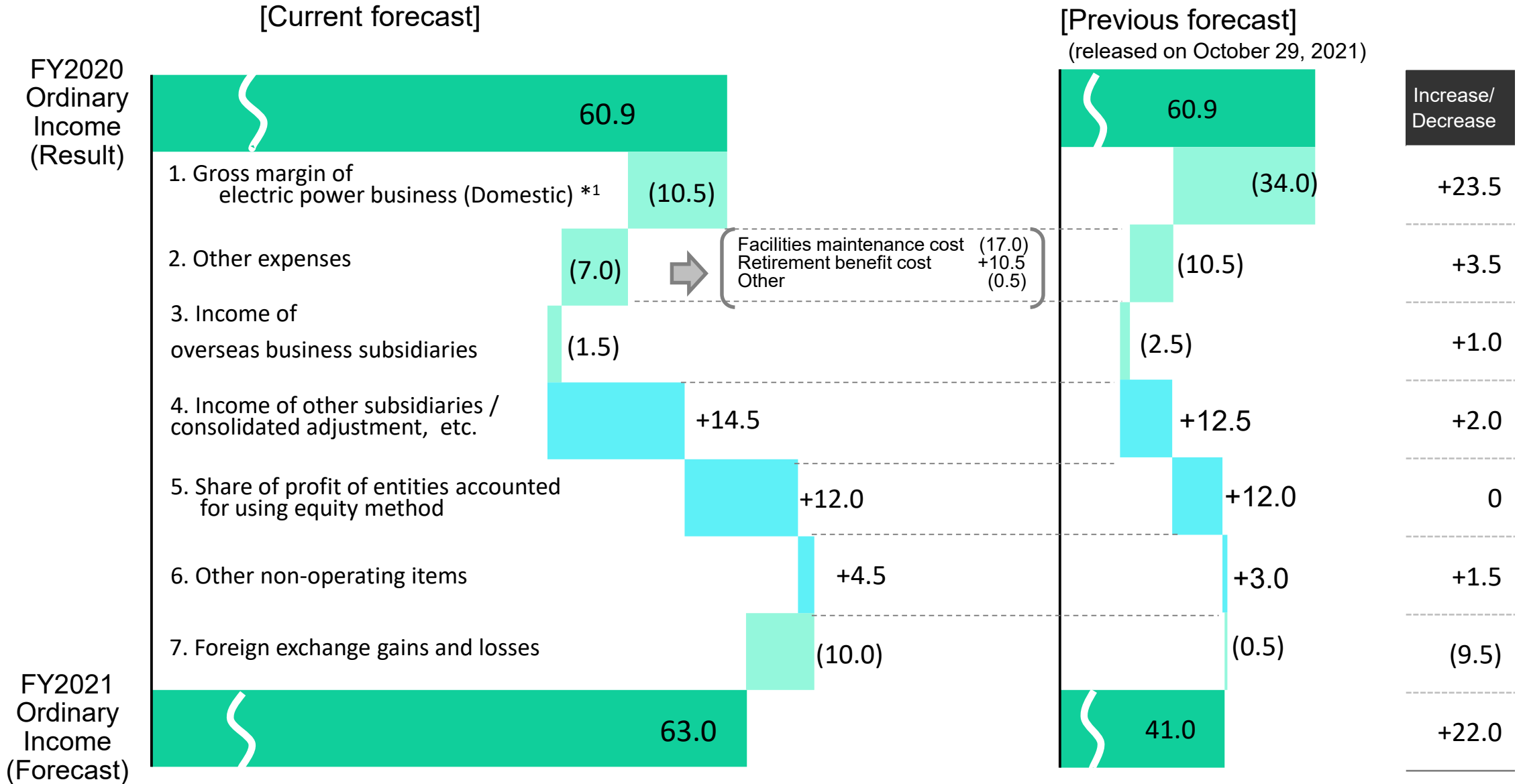
*3 Sales for the overseas business segment (Sales from overseas consolidated subsidiaries and overseas consulting business, etc.)

*4 "Other business" is composed of "Electric power-related business" segment and "Other business" segment.

*5 Earnings forecast released on October 29, 2021

FY2021 Earnings Forecast (Main Factors for Change)

(Unit: billion yen)



*1 Domestic electric power business revenue (hydro, thermal, wind and other) – Fuel costs, etc.

Breakdown of Increase / Decrease Factors of Consolidated Ordinary Income Forecast

(Unit: billion yen)

1. Gross margin of electric power business (Domestic) +23.5

- Wholesale contracts with EPCOs: improved fuel margin
- Market trade: improved gross profit due to decreased fuel costs and increased sale prices

2. Other expenses +3.5

- Actual results and scrutinized forecast of cost

3. Income of overseas business subsidiaries +1.0

- Thailand consolidation project +10
Increased energy margin, decreased facilities maintenance costs
exchange rate fluctuations, etc.

4. Income of other subsidiaries / consolidated adjustment, etc. +2.0

- Increased profits of the subsidiary having interests in Australian coal mines
- Decreased cost in subsidiaries

5. Share of profit of entities accounted for using equity method 0

6. Other non-operating items +1.5

- Increase in income of insurance

7. Foreign exchange gains and losses*1 (9.5)

- Foreign exchange losses (9.5)

Foreign exchange rate(THB/USD)

	At the end of December of the previous year	At the end of December*2
FY2020	30.15	30.04
FY2021	30.04	33.42

*1 Foreign exchange valuation gains and losses mainly on US dollar-denominated debt in power generation projects in Thailand

*2 The settlement period of overseas subsidiaries is from January to December

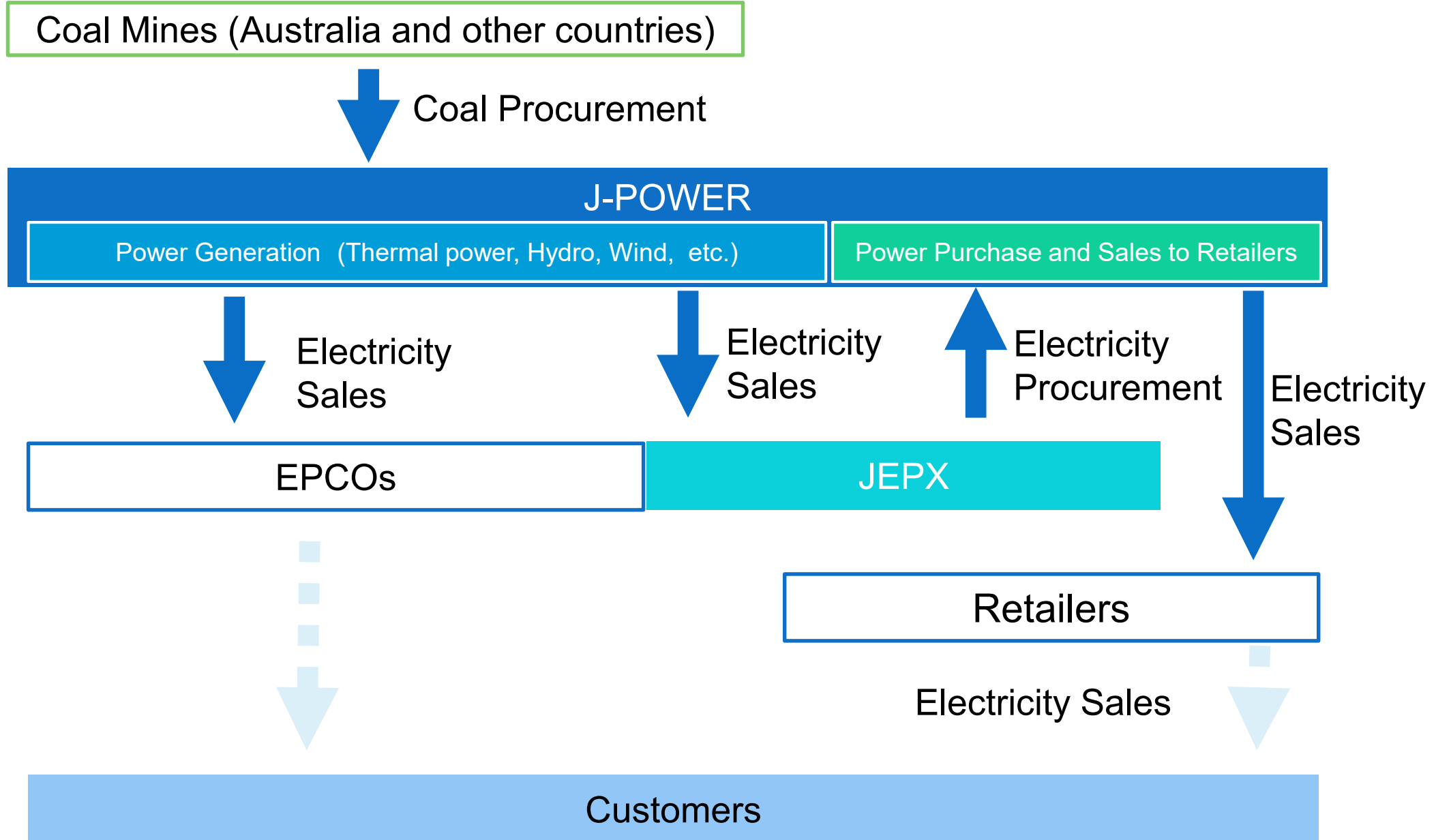
A photograph of several offshore wind turbines in the ocean under a clear blue sky. The turbines are white with yellow bases. The image is partially obscured by a white diagonal shape on the right side of the slide.

Appendix

APPENDIX

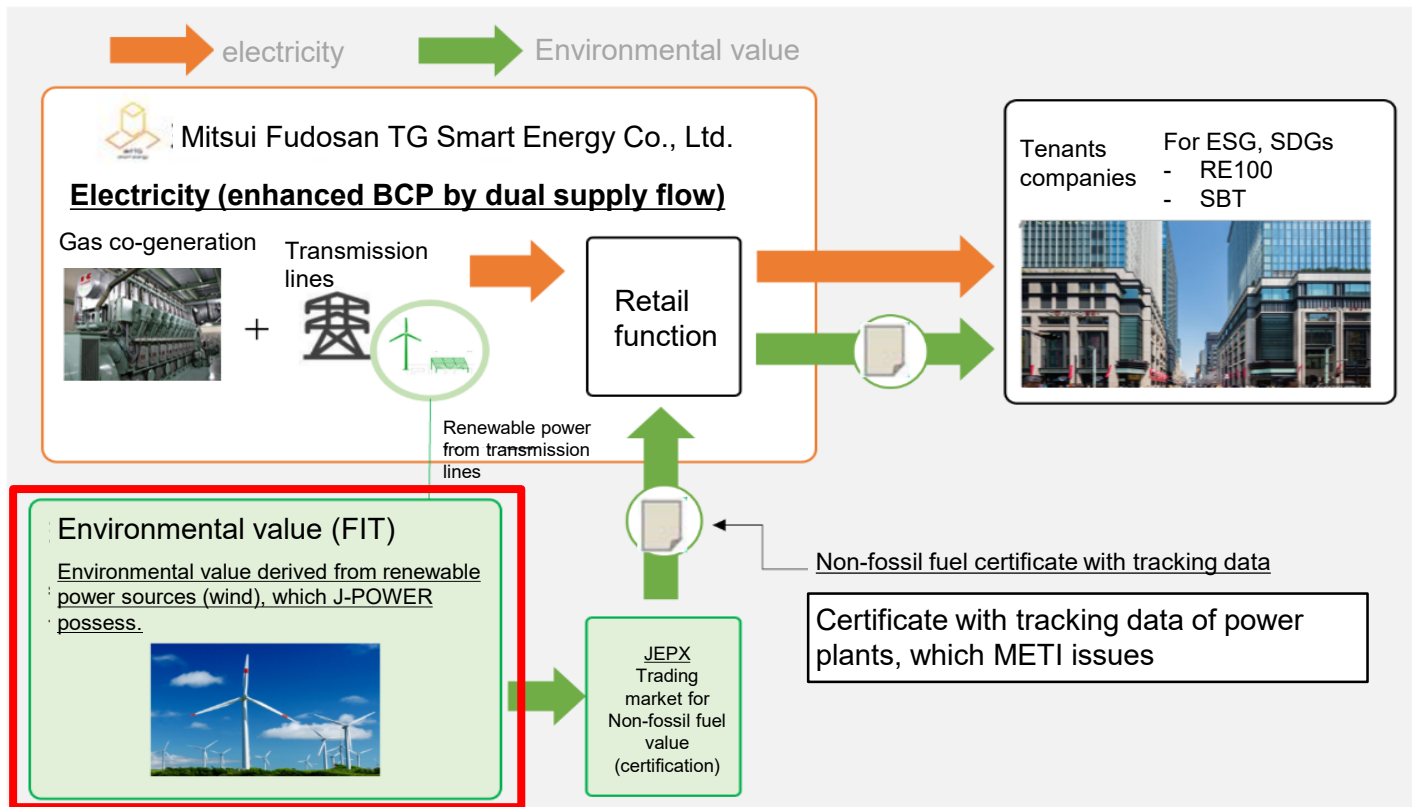
Main Flow of Electricity Sales in Japan	...	20	Overseas Main Projects Under Construction / Development	...	33
Changed Supplied Electricity to “Smart Energy Project in Nihonbashi / Toyosu ” Green	...	21	Phasing Out of Inefficient Coal-fired Thermal Power	...	35
Expansion of Renewable Energy	...	22	Phasing Out of Inefficient Coal-fired Thermal Power / Indicator for Efficiency	...	36
Renewable Energy Development Projects	...	23	Actions Taken towards HVDC Transmission System	...	37
Ohma Nuclear Power Project	...	25	Consolidated: Revenues and Expenses	...	38
Response to the New Safety Standards at the Ohma Nuclear Power Plant	...	26	Non-consolidated: Operating Revenues & Expenses	...	39
Osaki CoolGen Project	...	27	Consolidated: Segment Information	...	40
Upcycling Existing Thermal Power Plants – GENESIS Matsushima	...	28	Consolidated: Cash Flow	...	41
Australian Brown Coal Hydrogen Pilot Test Project	...	29	Consolidated: Key Ratios and Key Data	...	42
Carbon Recycling Test Projects	...	30	Monthly Electricity Sales	...	43
Overview of Gundih CCUS Project	...	31			
Zero Emission from Power Source (Work for Stable Procurement of Biomass Fuels)	...	32			

Main Flow of Domestic Electricity Business

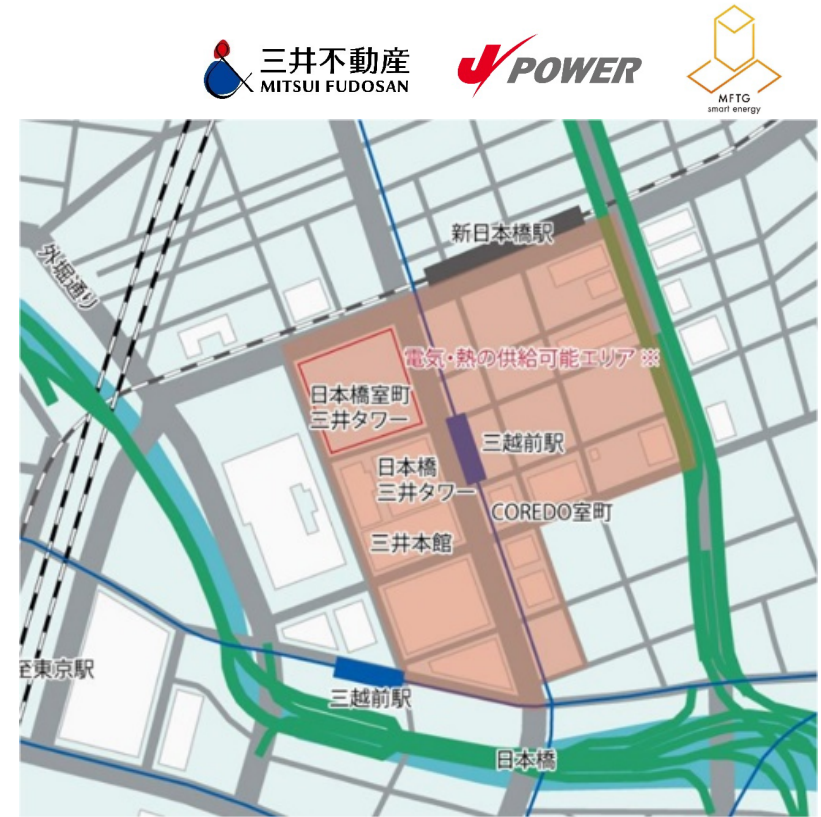


Changed Electricity to “Smart Energy Project in Nihonbashi / Toyosu” Green

- Realized to change electricity supplied to “Smart energy project in Nihonbashi/Toyosu”, which Mitsui Fudosan Co.,Ltd. and Tokyo Gas Co.,Ltd. advance, green (becoming virtually renewable electricity) through utilizing environmental value derived from J-POWER group’s wind farms
- First case in specified power transaction and distribution business



Mechanism of green electricity (image only)



Electricity supply area, Nihonbashi energy center

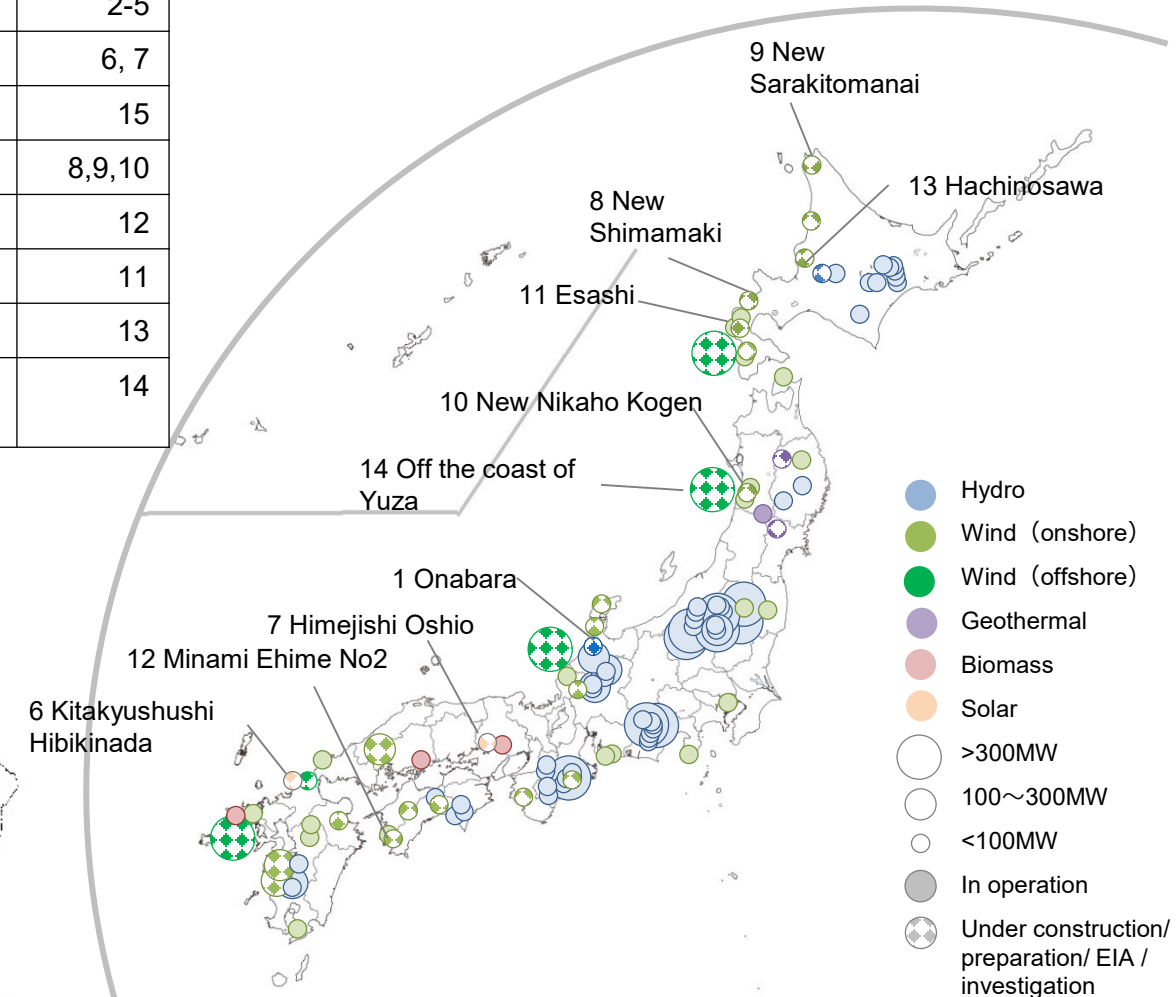
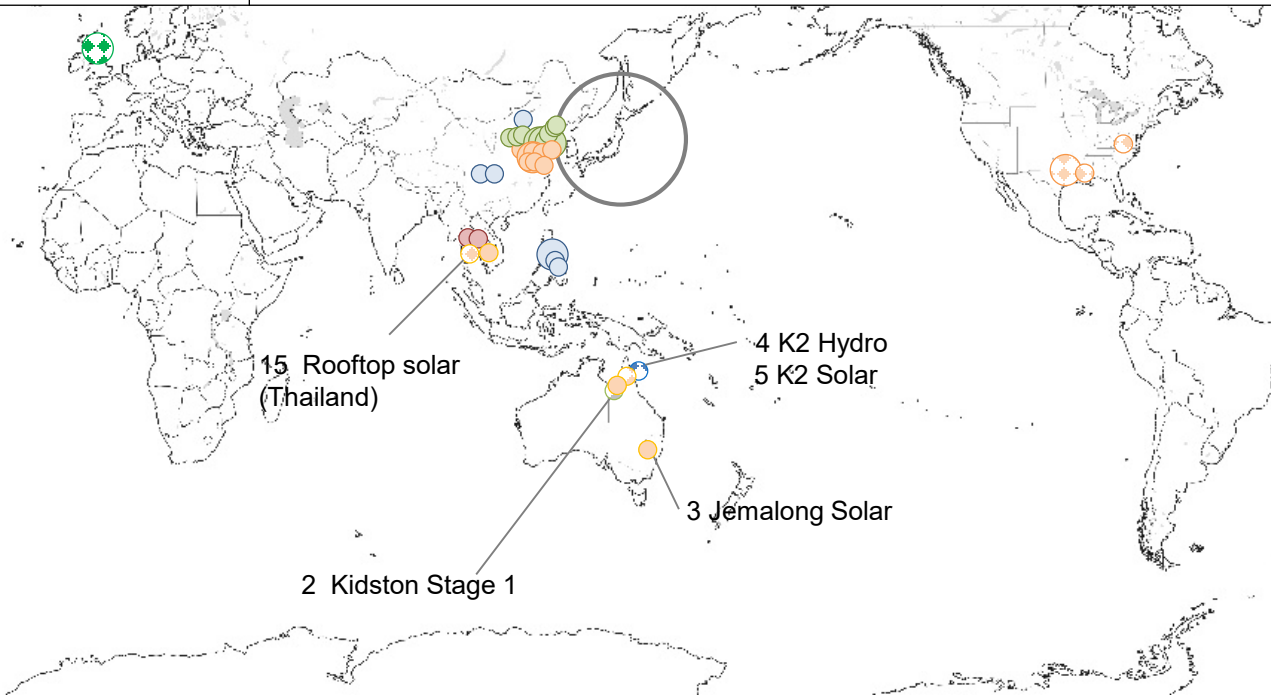
* 1 "Smart Energy Project": The name of a project that stably supplies electricity and heat through the specified power transmission and distribution business implemented by Mitsui Fudosan TG Smart Energy Co., Ltd. A business that maintains and operates power transmission and distribution equipment such as transmission lines, substations, and distribution lines, notifies the Minister of Economy, Trade and Industry of the business of delivering electricity to specific supply points, and has been registered for retail supply

Expansion of Renewable Energy

Progress in FY2021

(As of December 31, 2021)

Hydroelectric	Started preparation for construction of Onabara power plant	1
Solar Pumped hydro	Acquired 10% stake of Genex Power Limited	2-5
	Acquired two solar power projects	6, 7
	Start of rooftop solar business in Thailand	15
Onshore wind	Started replacement work at three existing sites	8,9,10
	Started construction of Minami Ehime No.2 Onshore Wind Farm	12
	Started joint construction of Esashi Wind Farm	11
	Conducted jointly in "Hachinosawa wind power project (tentative name)"	13
Off-shore wind	"Started joint environment assessment of "(tentative name) Yuza off-shore wind power project in Yamagata prefecture"	14



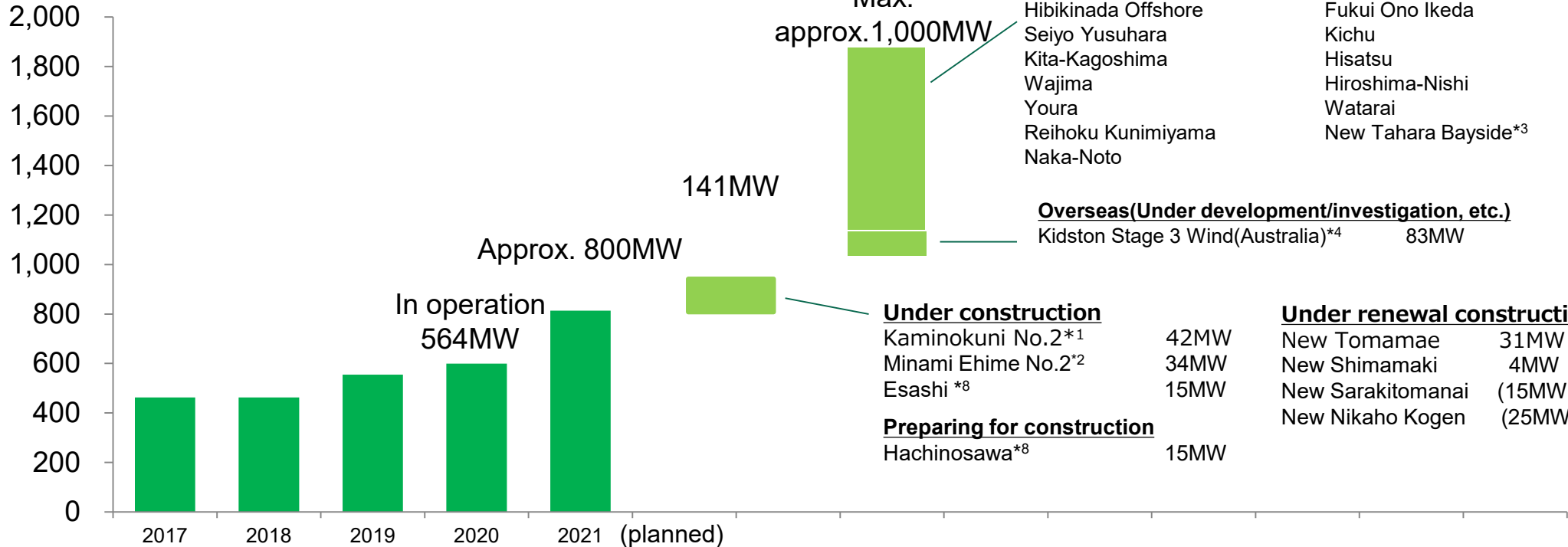
* Size of circles indicate owned capacity (in case capacity is TBD, estimated maximum owned capacity)
 * Developers of offshore wind projects outside port area in Japan are decided by bidding after each sea are designated as a promoting area. The indicated capacities for offshore wind projects outside port area which are jointly implemented with other companies are estimated maximum gross capacities

Renewable Energy Development Projects (Wind)

(As of December 31, 2021)

Onshore and offshore (port area)

(Owned capacity, MW)



Offshore (outside port area)

Category	Project Name	Capacity (MW)
Under research for development	Saikai Offshore*5	
	Hiyama-area Offshore	
	Awara Offshore*6	
	Yuza Offshore*7	
		Max. approx. 1,850MW in total

Note: capacity with () is not included in the bar graph.
 - Renewal projects with no capacity increase under “Construction underway/ preparing” and “Under environmental impact assessment”, where existing windmills continue to operate

*1 Presents only phase 1 construction. Total plan amounts up to 120.4MW *2 Total plan amounts up to 40.8MW
 *3 Estimated capacity increase with replacement *4 Conducted jointly with Genex Power Limited. The owned capacity includes 10% stake in Genex in addition to the 50% stake held by the Company under the development funding agreement.
 *5 Conducted jointly with SUMITOMO CORPORATION *6 Conducted jointly with Mitsui Fudosan Co., Ltd. *7 Joint environment assessment as a consortium
 *8 Conducted jointly with SymEnergy Inc. Owned capacity considering future share of SymEnergy Inc.

Renewable Energy Development Projects (Hydro, Geothermal, Solar)

(As of December 31, 2021)

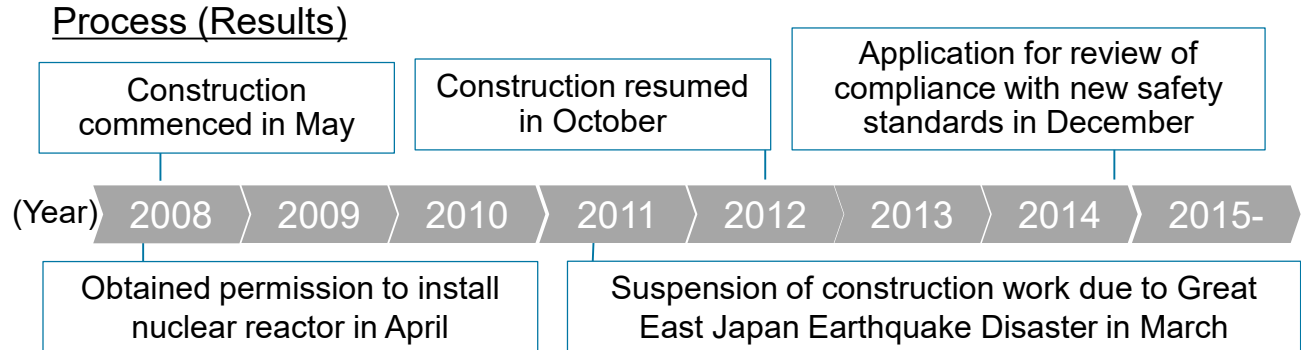
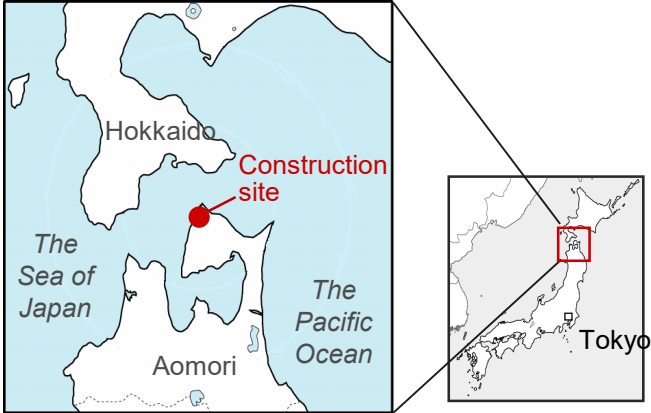
Hydro	Project	Capacity	Ownership	Owned capacity	Note
	Shinkatsurazawa/ Kumaoui	17.0MW	100%	17.0MW	Start of operation : FY2022 (planned)
	Ashoro Repowering	-	100%	-	Completion of construction : FY2022 (planned)
	Ogamigo Repowering	20.0MW→21.3MW	100%	20.0MW→21.3MW	Completion of construction : FY2023 (planned)
	Nagayama Repowering	37.0MW→39.5MW	100%	37.0MW→39.5MW	Completion of construction : FY2025 (planned)
	Onabara	1.0MW	100%	1.0MW	Start of operation : FY2024 (planned)
	K2 Hydro (Australia, Pumped hydro)	250MW	10%	25MW	Start of operation : 2024 (planned)
Geo-thermal	Project	Capacity	Ownership	Owned capacity	Note
	Onikobe Replacement	14.9MW	100%	14.9MW	Start of operation: April 2023 (planned)
	Appi	14.9MW	15%	2.2MW	Start of operation: April 2024 (planned)
	Takahinatayama-area	-	-	-	Under research for development
Solar	Project	Capacity	Ownership	Owned capacity	Note
	Kitakyushushi Hibikinada (JPN)	30MW	100%	30MW	Start of operation: FY2024 (planned)
	Himejishi Oshio (JPN)	2MW	100%	2MW	Start of operation: FY2024 (planned)
	Wharton (USA)	350MW	25%	87.5MW	Start of operation: After 2022 (planned)
	Refugio (USA)	400MW	25%	100.0MW	Start of operation: After 2023 (planned)
	Birchwood (USA)	50MW	50%	25MW	Start of operation: After 2023 (planned)
	K2 Solar (Australia)	270MW	10%	27MW	Start of operation : After 2024 (planned)
Rooftop solar (2 projects, Thailand)	total 1.2MW	60%	0.7MW	Start of operation : After 2022 (planned)	

Ohma Nuclear Power Project

- In December 2014, J-POWER submitted to NRA* an application for permission for alteration of reactor installment license and an application for construction plan approval in order to undertake review of compliance with the new safety standards
- The impact of earthquakes and Tsunamis are being reviewed by NRA
- Sincerely and appropriately respond to compliance reviews and aim to restart full scale construction work quickly
- Strive for more polite information communication and mutual communication so that we can gain the understanding and trust of the community

Overview of the Project

Location	Ohma-machi, Shimokita-gun, Aomori Prefecture
Capacity	1,383MW
Type of nuclear reactor	Advanced Boiling Water Reactor (ABWR)
Fuel	Enriched uranium and uranium-plutonium mixed oxide (MOX)
Commencement of operations	To be determined



* Nuclear Regulation Authority

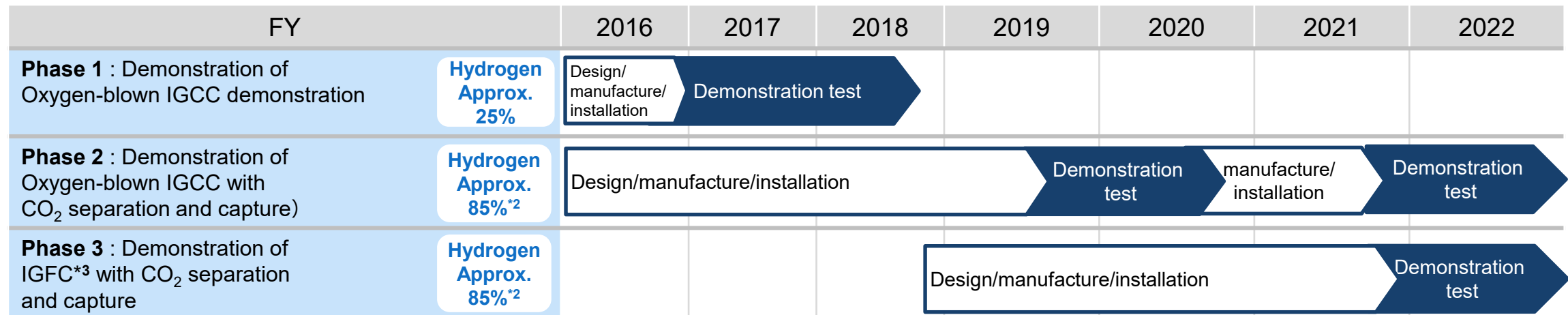
Osaki CoolGen Project

- Demonstration test *1 of a system that produces coal gasification gas containing hydrogen and uses it to generate electricity is underway
- In Phase 2, the basic performance (CO₂ recovery rate of 90% or more, CO₂ recovery purity of 99% or more) has been confirmed in the demonstration test until the end of February 2021. In the future, we will continue to conduct demonstration tests to improve the accuracy of the results so far. We started construction of installation of the equipment in March 2021 for the third phase demonstration test

Company	Osaki CoolGen Corporation (Ownership: J-POWER 50%, Chugoku Electric Power Company 50%)		Output	166MW
Location	Chugoku Electric Power Company Osaki Power Station premises (Hiroshima)	Generation type	Oxygen-blown IGCC (Gas turbine: 1,300°C class)	



*IGCC (Integrated Coal Gasification Combined Cycle): An integrated power generation system with a twin-turbine configuration; the gas produced from coal is used as fuel to drive a gas turbine, the exhaust gas from which and others is used to drive a steam turbine.



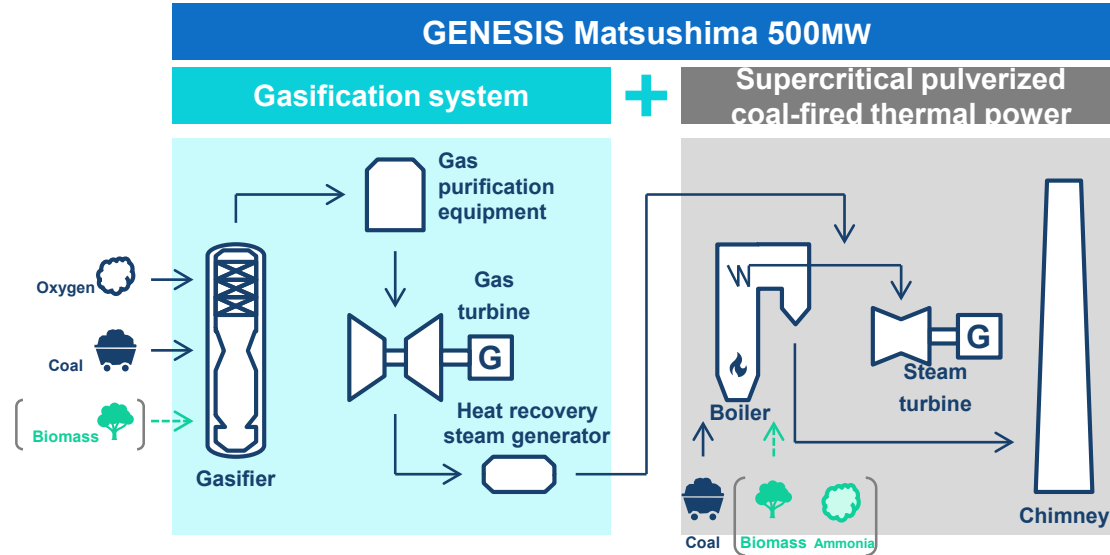
*1 The project is subsidized by the New Energy and Industrial Technology Development Organization (NEDO), a national research and development organization.

*2 Hydrogen concentration after CO₂ separation and capture. For power generation, the concentration will be lowered for burning due to restrictions on the capability of the turbine used in the demonstration test.

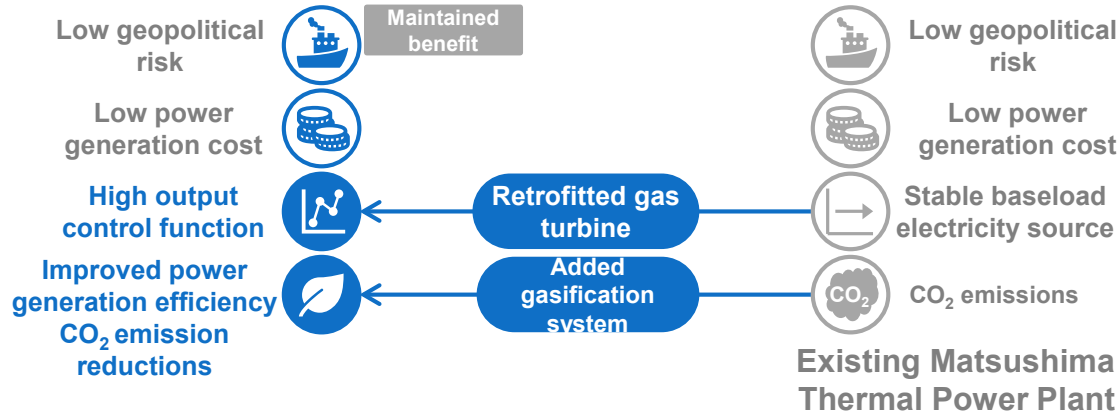
*3 IGFC (Integrated Coal Gasification Fuel Cell Combined Cycle): Power generation system combining fuel cells with gas and steam turbines in a triply integrated configuration

Upcycling Existing Thermal Power Plants –GENESIS Matsushima

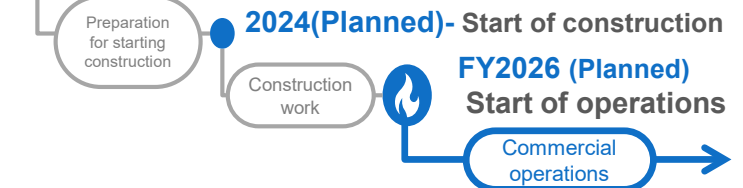
- J-POWER will take the first step in CO₂-free hydrogen power generation at the Matsushima Plant that paved the way for using imported coal after the oil crisis.
- J-POWER will realize reducing environmental loads as early as possible by applying new technologies to the existing assets in an economically viable way while maintaining a stable power supply.
- On December 24, 2021, it received Minister of METI's opinion regarding planning stage environment consideration document. Currently preparing form of environmental assessment method



GENESIS Matsushima



September 2021- Started Environmental impact assessment



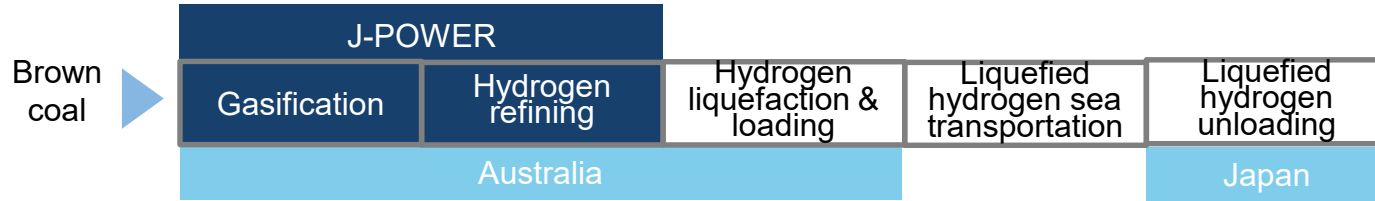
CCUS* carbon recycling ready

* CCUS : Carbon Capture, Utilization, and Storage

Australian Brown Coal Hydrogen Pilot Test Project

- Participating in demonstration test of constructing supply chain which produces hydrogen by gasifying brown coal in Australia and transports it to Japan
- J-POWER has been in charge of brown coal gasification*1 and hydrogen refining facilities*2 . We started producing hydrogen in January 2021 and achieved a hydrogen purity of 99.999% in February. Demonstration tests using multiple lignite and biomass mixed lignite are currently underway (scheduled to be completed by the end of March 2022).
- When commercialized in the future, CO₂ free will be achieved by applying CCS to store CO₂ generated in hydrogen production

Overall View of the Global Hydrogen Supply Chain



Toyota hydrogen engine car that entered the Super Taikyu Series Round 5 (Suzuka) uses hydrogen derived from Australian lignite



Source : HySTRA, J-Power/J-Power Latrobe Valley

Benefits of using brown coal

- Unused
- Abundant resources
- Cheaper than coal

January 2021
Started producing hydrogen



source: Toyota mortar

In June, we imported hydrogen produced from Australian lignite and conducted a drone flight test to confirm its quality.

FY	2019	2020	2021	2022	2023	2024
Demonstration test schedule	Design/manufacture/installation/ test run		Demonstration test			

*1 Sponsored by the New Energy and Industrial Technology Development Organization (NEDO)

*2 Sponsored by the Australian federal government and the Victoria state government

Carbon Recycling Test Projects

- Considering carbon recycling to utilize CO₂ captured in Osaki CoolGen Project

Osaki CoolGen Carbon Recycling Test Project

Company: Osaki CoolGen Corporation (Ownership: J-POWER 50%, Chugoku Electric Power Company 50%)

Demonstration Outline: Manufacturing Liquefaction carbonic acid production 5ton- CO₂ /day

Osaki CoolGen
(IGCC + CO₂ Capture Process
Demonstration facility)



CO₂

Examples of Carbon Recycling

Tomato farm

- Jointly operated by J-POWER and KAGOME in Kitakyushu city
- Utilizing thousands tons of CO₂ annually to promote tomato photosynthesis



Research and development related to biofuel production from microalgae

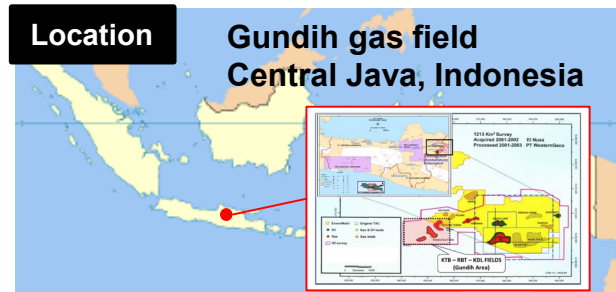
Environmentally friendly concrete

FY	2018	2019	2020	2021	2022	2023	2024
Demonstration test schedule			Design/manufacture/ installation	Demonstration tests			

Overview of Gundih CCUS Project

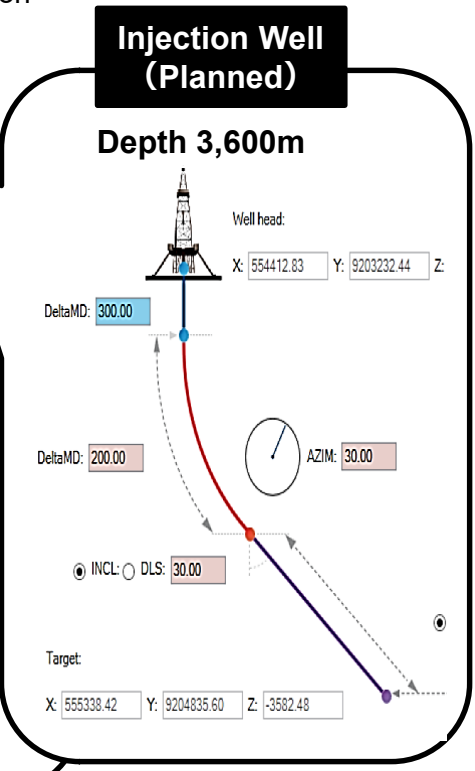
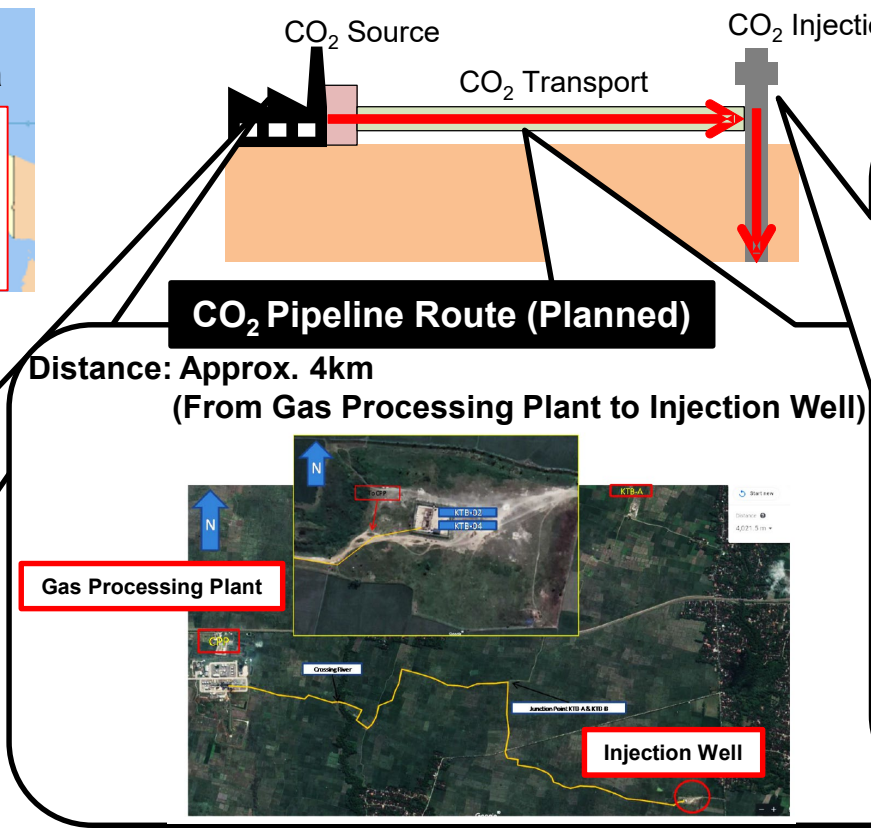
- A CCS demonstration project has been implemented as a JCM (bilateral CO₂ crediting scheme) research project since May 2020, and plans to inject and store CO₂ emitted from natural gas production (300,000 tons- CO₂ /year) in the Gundih gas field in Indonesia
- On June 22, at the 1st Asia CCUS Network Forum, ‘the Asia CCUS Network’ has launched, which is an international industry–academia–government platform aimed at knowledge sharing and improvement of the business environment for CCUS throughout the Asia region
- Gundih CCUS Project is watched by Japanese and Indonesian officials as a flagship project in the Asia CCUS Network

- 【Organizations】**
(Japan)
-JGC
-JANUS
-J-POWER
- (Indonesia)
-Pertamina
-INSTITUT TEKNOLOGI BANDUN



Gas Processing Plant (Existing)

300,000 tons/year of CO₂ to be captured from gas processing plant



Zero Emission from Power Source (Work for Stable Procurement of Biomass Fuels)

- ❑ In 2003 J-POWER started biomass co-firing at our coal-fired power stations (co-firing of oil dried fuel produced from sewage sludge at Matsuura Thermal Power Station)
- ❑ In view of the effective use of unused forestry offcuts seen in Japan, J-POWER have been actively engaging in the production of wood biomass fuels since 2011.
- ❑ With Enviva Partners, LP, a leading supplier of biomass products in U.S, J-POWER have started joint study on the large-scale (max. 5 million ton per year) and long-term supply of wood pellet fuels to Japan.
- ❑ For stable procurement at affordable prices of biomass fuels and to avoid competition with use for food, J-POWER are studying on using as biomass fuel abandoned oil palm trunks so far requiring disposal as waste.

【Miyazaki Wood Pellet】 Production of wood pellets from forestry offcuts



Amount of forestry offcuts acceptable: 80 thousand m3/year
Pellet production capacity: 25 thousand t/year

Co-fired at Matsuura thermal power station
Average co-firing rate: about 0.4%/year
CO2 reduction effect: about 40 thousand tCO2/year

【 Multifaceted business including biomass fuel production in partnership with Green Earth Institute Co., Ltd. (under study) 】 Production of biomass fuels from abandoned wood

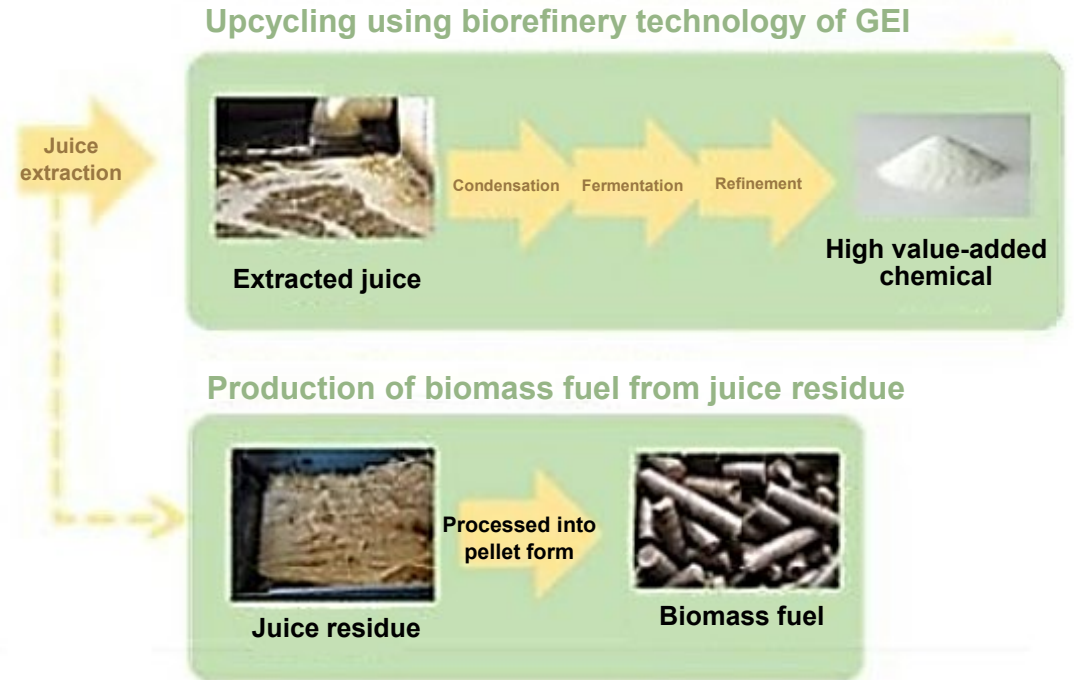


Abandoned oil palm trunks

Periodic replanting



Palm plantation



Overseas Main Projects Under Construction / Development

(As of December 31, 2021)

Project	Overview	Location of the project
<p>Central Java (Indonesia)</p> <p>Capacity: 2,000MW (1,000MW x 2) Type: Coal-fired (USC*1) Ownership: 34% Status: Under construction Start of operation: 2H, 2022</p>	<ul style="list-style-type: none"> • IPP project (newly developed coal-fired power plant) awarded through international tender in Indonesia in 2011. • The plan is to construct a high-efficiency coal-fired power plant in Batang city, Central Java Province. • After startup of operation, the plant will sell electricity to Indonesia's state-owned electric power utility for a period of 25 years. 	
<p>Triton Knoll (UK)</p> <p>Capacity: 857MW Type: Offshore wind Ownership: 25% Status: Under construction Start of operation: 2022</p>	<ul style="list-style-type: none"> • Participating in an overseas offshore wind power project from the construction phase. • A fixed price is guaranteed for 15 years under UK CfD*2 regime. • Taking advantage of the expertise regarding offshore wind power business obtained by participating in this project, J-POWER will accelerate its commitment to promoting its renewable energy business across the world, including Japan. 	
<p>Jackson (USA)</p> <p>Capacity: 1,200MW Type: CCGT*3 Ownership: 100% Status: Under construction Start of operation: 2022</p>	<ul style="list-style-type: none"> • Concluded in June 2019 to construct a new power plant next to Elwood plant now under operation • A greenfield project to build a power plant from scratch • Close to Chicago, a high power-demand area • Electricity is sold in the PJM*4 market 	

*1 USC: Ultra – Supercritical

*2 CfD regime: The CfD is an investment incentive program of UK, which will be granted to wind power generators and other low carbon electric power resources. Accredited electricity generators shall execute the CfD agreement with the LCCC (Low Carbon Contracts Company), a CfD management company owned by the British Government, and then, the parties thereto will make settlements for an electricity price based on the difference between the strike price, which is provided under the agreement, and the reference price, which is determined according to wholesale market prices from time to time.

*3 CCGT: Combined Cycle Gas Turbine

*4 PJM: The independent system operator in the Eastern US that operates the largest wholesale electricity market in the US as well as runs its electric power system.

Overseas Main Projects Under Construction / Development

(As of December 31, 2021)

Project	Overview	Location of the project
<p>Wharton, Refugio (USA)</p> <p>Capacity: Wharton:350MW, Refugio:400MW Type: Solar, Ownership: 25% Status: Under development Start of operation: After2022, after 2023</p>	<ul style="list-style-type: none"> • First renewable project in USA for J-POWER • Texas has abundant solar resource and can expect growth in power demand • Located close to Houston, a high-power demand area 	
<p>Birchwood (USA)</p> <p>Capacity: Solar 50MW Storage 190MW Type: Solar Ownership: 50% Status: Under development Start of operation: After 2023 (Solar)</p>	<ul style="list-style-type: none"> • Third renewable project in USA for J-POWER • Execution of Joint Development Agreement with Fortress Investment Group, LLC • Developing solar generation and energy storage projects in Virginia after closing Birchwood Power in March 2021, which is the coal-fired power plant and J-POWER has owned 50% of its interest 	
<p>Kidston Stage-3 Wind (Australia)</p> <p>Capacity: 150MW Type: Onshore wind Ownership: 50%* Status: Under development Start of operation: 2025</p>	<ul style="list-style-type: none"> • First renewable project in Australia for J-POWER • J-POWER executes Development Funding Agreement with Genex Power Limited for New Wind Project • Leveraging J-POWER's domestic and international wind energy expertise and Genex's renewable energy development capabilities in Australia 	
<p>Rooftop solar (2 projects, Thailand)</p> <p>Capacity: total 1.2MW Type: Solar Ownership: 60% Status: Under development Start of operation: Each project will commence commercial operation after 2022</p>	<ul style="list-style-type: none"> • Utilizing the business foundation formed by large-scale gas-fired development • Work for decentralized power sources to accommodate growing requirements of customers for decarbonization • Aiming to supply CO2-free energy by installing solar photovoltaic systems on customers' factory roofs 	

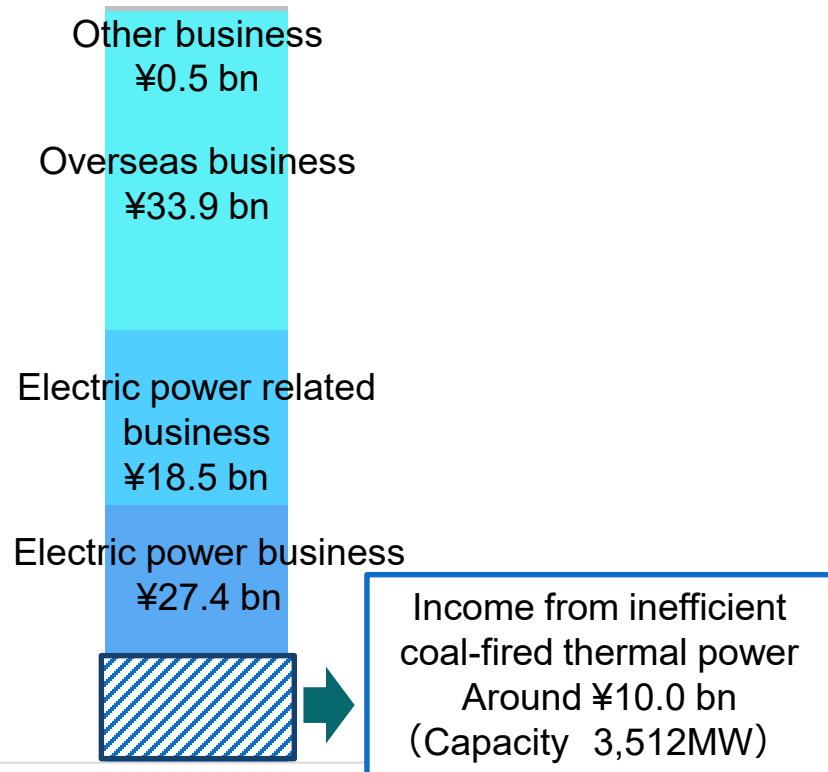
*The owned capacity which includes 10% stake in Genex in addition to the 50% stake held by the Company under the development funding agreement is 55%

Phasing Out of Inefficient Coal-fired Thermal Power

- We showed the future direction of the treatment of inefficient coal-fired thermal power plants in J-POWER “BLUE MISSION 2050”
 - Phasing out aged power plants one after another/Lower emissions (mixed combustion with biomass and ammonia)/Upcycling

Consolidated ordinary income

¥78.0 bn*1



FY2019 Consolidated ordinary income

Challenges for aging thermal power

- ◆ It will be difficult to operate for a long time due to aging
- ◆ Necessity of slimming personnel and cost reduction by changing the operation system of thermal power plants

Efforts toward zero emissions

- Phasing out aged power plants one after another, and approaching to lower emissions (such as expanding the mixed combustion with biomass and introducing the mixed combustion with ammonia)
- Upcycling (adding gasifier to the existing assets)
- Fuel production (CO₂-free hydrogen) by using coal gasification technology and utilize in other industries

Phasing Out of Inefficient Coal-fired Thermal Power Plants

- ◆ CO₂ emission reduction target in 2030: -40%, realization of CO₂-free hydrogen power generation
- ◆ Maintaining the business foundation through the results of efforts toward zero emissions
 - ✓ When investing in large-scale new power plants, it is also important to consider profitability and predictability of investment recovery. Aim to build a new generation portfolio while maintaining and improving profitability
 - ✓ A large-scale power generation business is built on relationships with various stakeholders. Take the time to respond carefully with the understanding of the locals who are greatly affected

*1 Is not equal to the sum of each segment income due to adjustment of inter segment transaction, etc.

Phasing Out of Inefficient Coal-fired Thermal Power / Indicator for

- As a result of government discussions on the phase-out of inefficient coal-fired power plants, regulatory and inductive measures will be introduced to improve the efficiency of coal-fired power plants, considering security of stable supply.

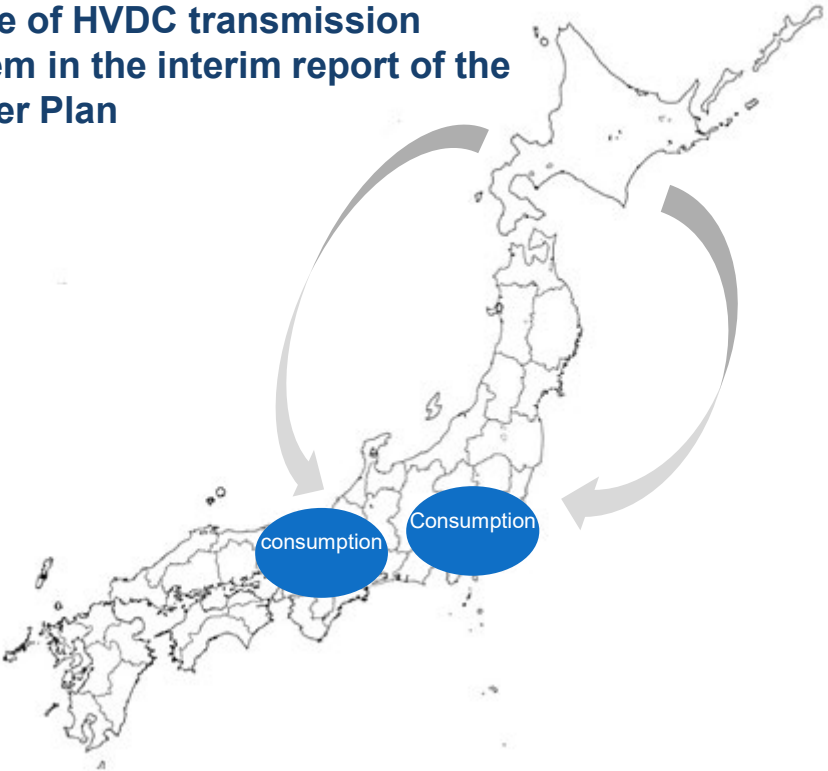
	Energy Conservation Act		<Regulatory measures> New indicator for coal-fired power plants	<Inductive measures> Capacity market
	A indicator	B indicator		
Efficiency standard	Total achievement of target efficiency for each fuel type (A indicator: more and or 1.0) Coal-fired : 41% LN : 48% Oil-fired, etc. : 39%	44.3%	43%	42%
Scope of evaluation	By company		By company	By plant
Scope of calculation	Total weighted average of all fuel type plant's achievement	Weighted average of all fuel type plant's efficiency	Coal	Coal
Method of calculation	Actual efficiency		Actual efficiency	Design efficiency (As of bidding)
Correction of efficiency	Biomass co-firing/Heat utilization		-Biomass co-firing/Heat utilization -Hydrogen or Ammonia co-firing -Adjustment correction according to load factor	Consider equipment improvement by the time of bidding
Others			Concept of adjustment correction Correction [%] = (0.037) × load factor [%] + 3.69	Receipt rate of capacity payment according to load factor Below 50% load factor: 100% Over 50% load factor: 80% (Review of the reduction rate after FY2026 bidding will be considered)

Actions Taken towards HVDC Transmission System

- Japanese government is currently examining “Master Plan” (reinforcement of the national grids) considering the future power development in order to largely expand the renewable energy and secure the resilience.
- Utilization of offshore wind power requires long-distance transmission of massive power to the point of consumption. Therefore, the introduction of HVDC transmission system, which has benefits from the viewpoint of cost, efficiency flexibility of the operation and stability of the grids, is being studied.
- J-POWER Transmission Network Co., Ltd. (J-POWER Transmission), a wholly owned subsidiary of J-POWER, is appointed together with Research Institute for Ocean Economics and Eukote Energy LLC to carry out “the study on the establishment and operation of HVDC transmission system from the offshore wind power” by the New Energy and Industrial Technology Development Organization.

Study Period	From July 2021 to March 2022
Study Content	<ol style="list-style-type: none"> 1. Study on detailed roots for the HVDC transmission system 2. Study on the facility required for HVDC transmission system 3. Study on the cost and schedule for HVDC transmission system 4. Study on the status of overseas HVDC transmission system

Image of HVDC transmission system in the interim report of the Master Plan



J-POWER Group’s HVDC transmission system facilities

- J-POWER Transmission owns and maintains Hokkaido-Honshu HVDC Link and Kii-Channel HVDC Link* (including submarine cables).
- J-POWER Transmission succeeded in constructing Japan's first ultra-high voltage DC power transmission facility and developing a DC CV cable.

*Jointly owned with Kansai Transmission and Distribution, Inc. and Shikoku Electric Power Transmission & Distribution Company, Incorporated

Consolidated: Revenues and Expenses

(Unit: 100 million yen)

	FY2017	FY2018	FY2019	FY2020	FY2020 3Q	FY2021 3Q
Operating revenue	8,562	8,973	9,137	9,091	6,062	7,095
Electric utility operating revenue	6,319	6,937	6,841	7,313	4,711	5,672
Overseas business operating revenue	1,630	1,410	1,790	1,380	1,072	1,024
Other business operating revenue	612	625	505	397	278	398
Operating expenses	7,519	8,185	8,301	8,313	5,313	6,455
Operating income	1,043	788	836	777	749	639
Non-operating revenue	291	188	265	112	181	199
Share of profit of entities accounted for using equity method	97	96	113	27	123	135
Other	193	92	152	84	58	64
Non-operating expenses	309	292	320	280	261	290
Interest expenses	283	263	262	237	177	165
Other	25	28	57	43	83	124
Ordinary income	1,024	685	780	609	670	548
Extraordinary income	-	-	-	94	97	-
Extraordinary losses	33	-	124	57	-	-
Profit attributable to owners of parent	684	462	422	223	560	403

Non-consolidated: Operating Revenues & Expenses

(Unit: 100 million yen)

	FY2017	FY2018	FY2019	FY2020	FY2020 3Q	FY2021 3Q
Operating revenue	6,145	6,469	5,712	5,899	3,840	4,981
Electric power business	6,014	6,336	5,638	5,838	3,806	4,917
Sold power to other suppliers	5,456	5,806	5,104	5,660	3,664	4,825
Other ^{*1}	558	529	533	177	141	90
Incidental business	131	133	74	61	34	63
Operating expenses	5,715	6,282	5,464	5,120	3,566	4,808
Electric power business	5,593	6,157	5,397	5,065	3,536	4,749
Personnel expense	342	324	358	318	240	148
Amortization of the actuarial difference in retirement benefits	(1)	(14)	24	28	21	(53)
Fuel cost	2,573	2,890	2,332	1,937	1,438	1,837
Repair and maintenance cost	634	697	666	441	266	336
Depreciation and amortization cost	534	510	527	552	410	418
Other	1,508	1,734	1,512	1,814	1,180	2,006
Incidental business	122	125	66	55	29	59
Operating income	430	186	248	778	274	172

*1 "Other" shows transmission revenue and other electricity revenue. Due to the split of transmission business in April, 2020, "Other" for FY2020 and FY2021 show only other electricity revenue

Consolidated: Segment Information

(Unit: 100 million yen)

		Electric power	Electric power -related	Overseas	Other	Subtotal	Elimination*	Consolidated
FY2021	Sales	5,689	1,335	1,024	136	8,185	(1,090)	7,095
3Q	Sales to customers	5,672	281	1,024	117	7,095	-	7,095
	Ordinary income	248	109	173	7	540	8	548
FY2020	Sales	4,726	2,405	1,072	114	8,319	(2,257)	6,062
3Q	Sales to customers	4,711	187	1,072	90	6,062	-	6,062
	Ordinary income	393	42	221	7	664	5	670
year-on-year change	Sales	962	(1,070)	(48)	22	(134)	1,166	1,032
	Sales to customers	961	93	(48)	26	1,032	-	1,032
	Ordinary income	(144)	67	(47)	0	(124)	2	(121)

“Electric Power Business”

Mainly J-POWER group’s electric power generation business and transmission/ transformation business. The majority of consolidated revenue is derived from this segment.

“Electric Power-Related business”

These focus on peripheral business essential for the operation of power plants and transmission facilities, such as designing, executing, inspecting and maintaining power facilities and importing and transporting coal. Intra-group transactions account for a large portion of this segment, such as Company’s power plant maintenance, coal transportation activities.

“Overseas business”

Overseas power generation business, overseas engineering and consulting business

“Other business”

Diversified business such as telecommunication, environmental and the sale of coal

* Elimination includes elimination of intersegment sales

Consolidated: Cash Flow

(Unit: 100 million yen)

	FY2017	FY2018	FY2019	FY2020	FY2020 3Q	FY2021 3Q
Operating activities	1,603	1,484	1,592	1,679	1,301	394
Profit before income taxes	990	685	655	646	767	548
Depreciation and amortization	822	799	830	964	713	718
Share of (profit) loss of entities accounted for using equity method	(97)	(96)	(113)	(27)	(123)	(135)
Investing activities	(1,096)	(1,704)	(1,617)	(1,432)	(921)	(1,237)
Purchase of non-current assets	(988)	(1,060)	(1,495)	(1,592)	(1,051)	(820)
Payments of investment and loans receivable	(81)	(744)	(109)	(25)	(21)	(483)
Free cash flow	506	(220)	(24)	246	380	(842)

Consolidated: Key Ratios and Key Data

(Unit: 100 million yen)

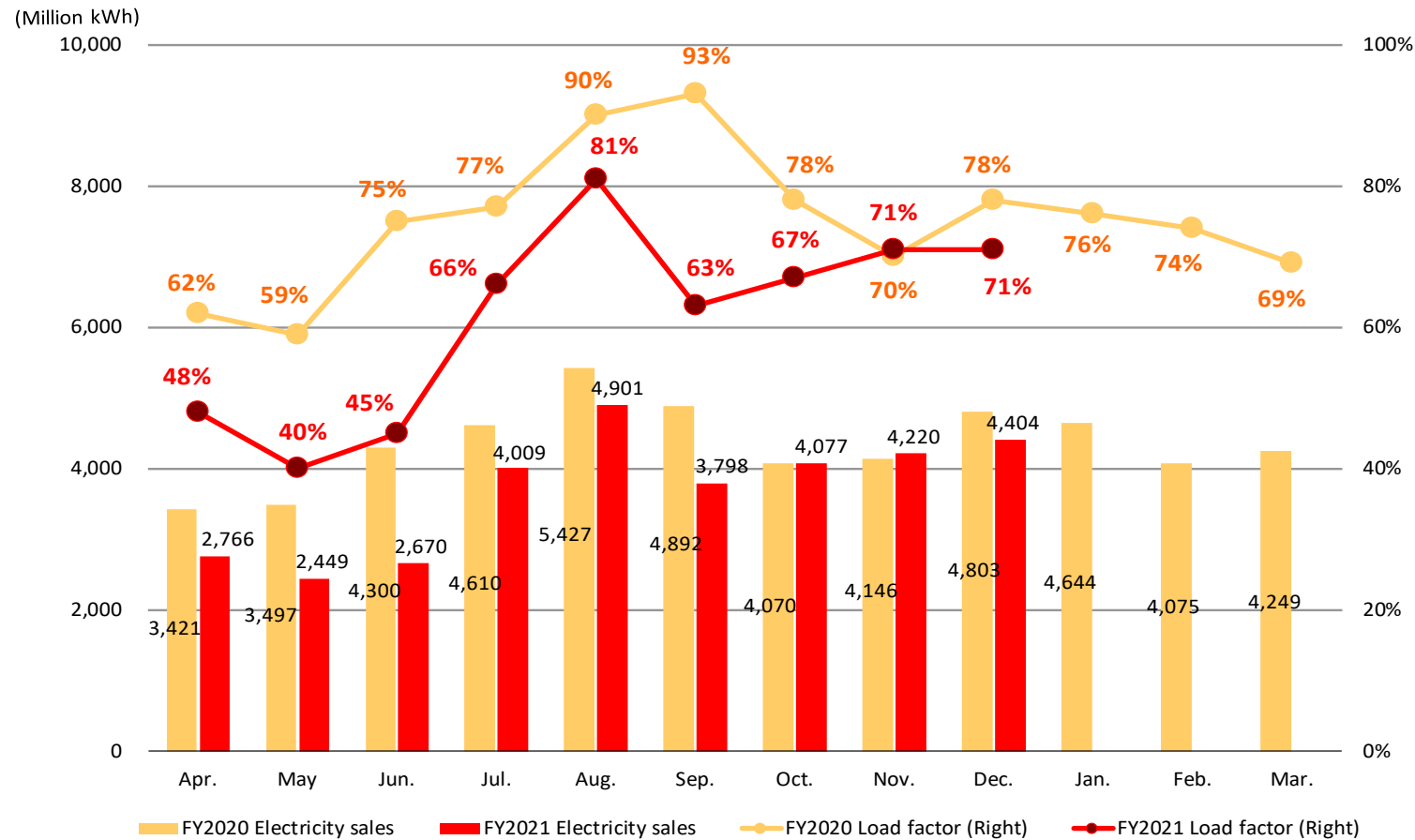
	FY2017	FY2018	FY2019	FY2020	FY2020 3Q	FY2021 3Q
(PL) Operating revenue	8,562	8,973	9,137	9,091	6,062	7,095
Operating income	1,043	788	836	777	749	639
Ordinary income	1,024	685	780	609	670	548
Profit attributable to owners of parent	684	462	422	223	560	403
(BS) Total assets	26,470	27,661	28,053	28,419	28,269	28,970
Construction in progress	5,257	5,820	6,471	5,882	5,552	6,417
Shareholders' equity	7,872	7,974	8,077	8,091	8,213	8,506
Net assets	8,361	8,455	8,573	8,536	8,637	8,945
Interest-bearing debt	15,613	16,428	16,484	16,646	16,484	17,017
(CF) Investing activities	(1,096)	(1,704)	(1,617)	(1,432)	(921)	(1,237)
Free cash flow	506	(220)	(24)	246	380	(842)
(Ref) CAPEX* ¹	(987)	(1,077)	(1,626)	(1,715)	(1,119)	(786)
(Ref) Depreciation and amortization	822	799	830	964	713	718
ROA (%)	3.9	2.5	2.8	2.2	-	-
ROA (ROA excl. Construction in progress) (%)	4.8	3.2	3.6	2.8	-	-
ROE (%)	9.1	5.8	5.3	2.8	-	-
EPS (¥)	373.93	252.68	230.96	121.85	306.32	220.67
BPS (¥)	4,300.98	4,356.54	4,412.84	4,420.39	4,487.30	4,647.12
Shareholders' equity ratio (%)	29.7	28.8	28.8	28.5	29.1	29.4
D/E ratio (x)	2.0	2.1	2.0	2.1	2.0	2.0
Number of shares issued* ² (thousand)	183,049	183,048	183,048	183,048	183,048	183,048

*1 Capital expenditure: Increase in tangible and intangible non-current assets

*2 Number of shares issued at the end of the fiscal year (excluding treasury stock)

Monthly Electricity Sales: Domestic Power Generation Business (Thermal Power)

<ul style="list-style-type: none"> Apr. 2020 - Dec. 2020 (cumulative) Load factor ⇒ 76% Electricity sales ⇒ 39.1 TWh 	<ul style="list-style-type: none"> Apr. 2021 – Dec. 2021 Results (cumulative) Load factor ⇒ 62% Electricity sales ⇒ 33.2 TWh
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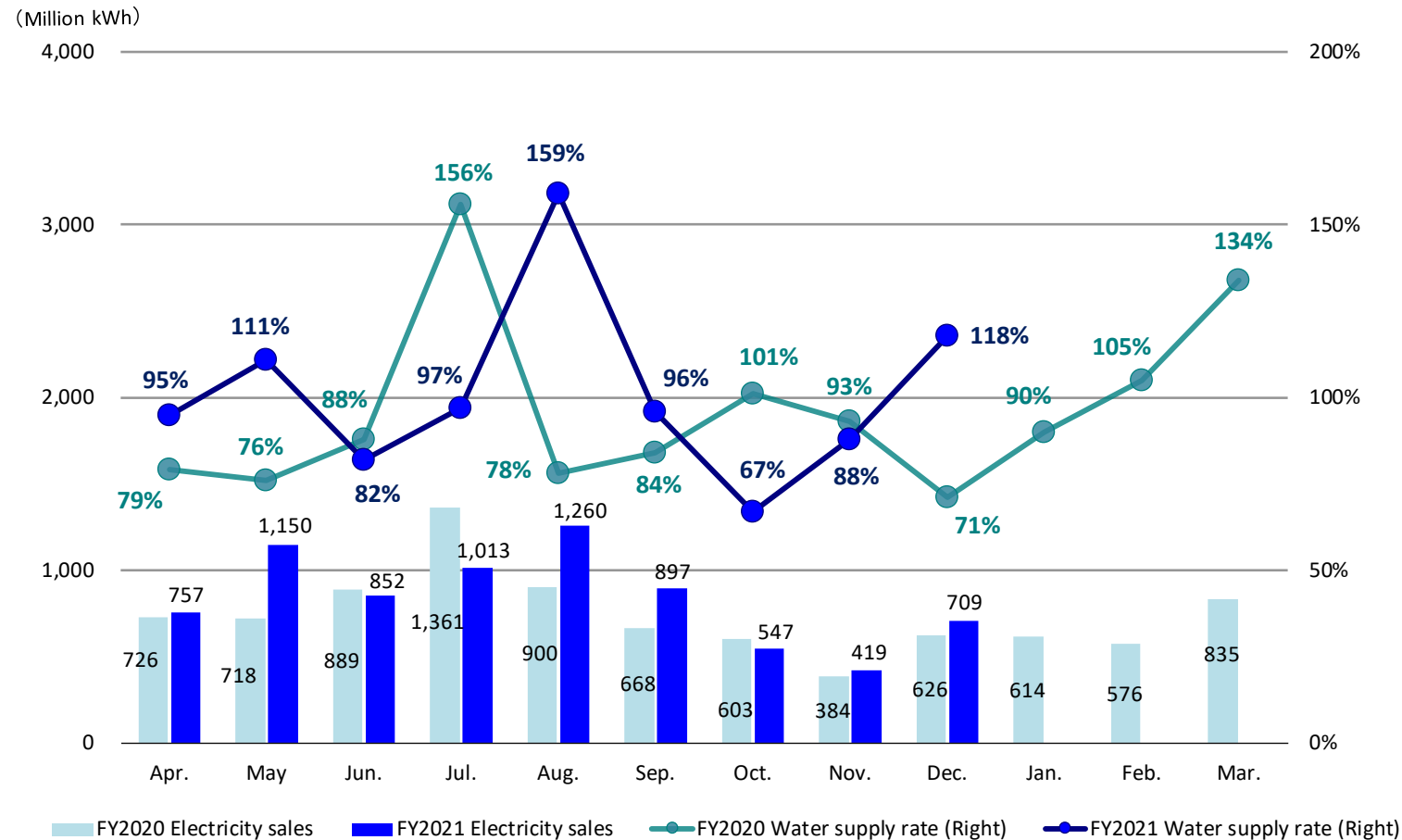


* Load factors of thermal power show the results for non-consolidated only.

* Proportion of equity holding is not taken into account.

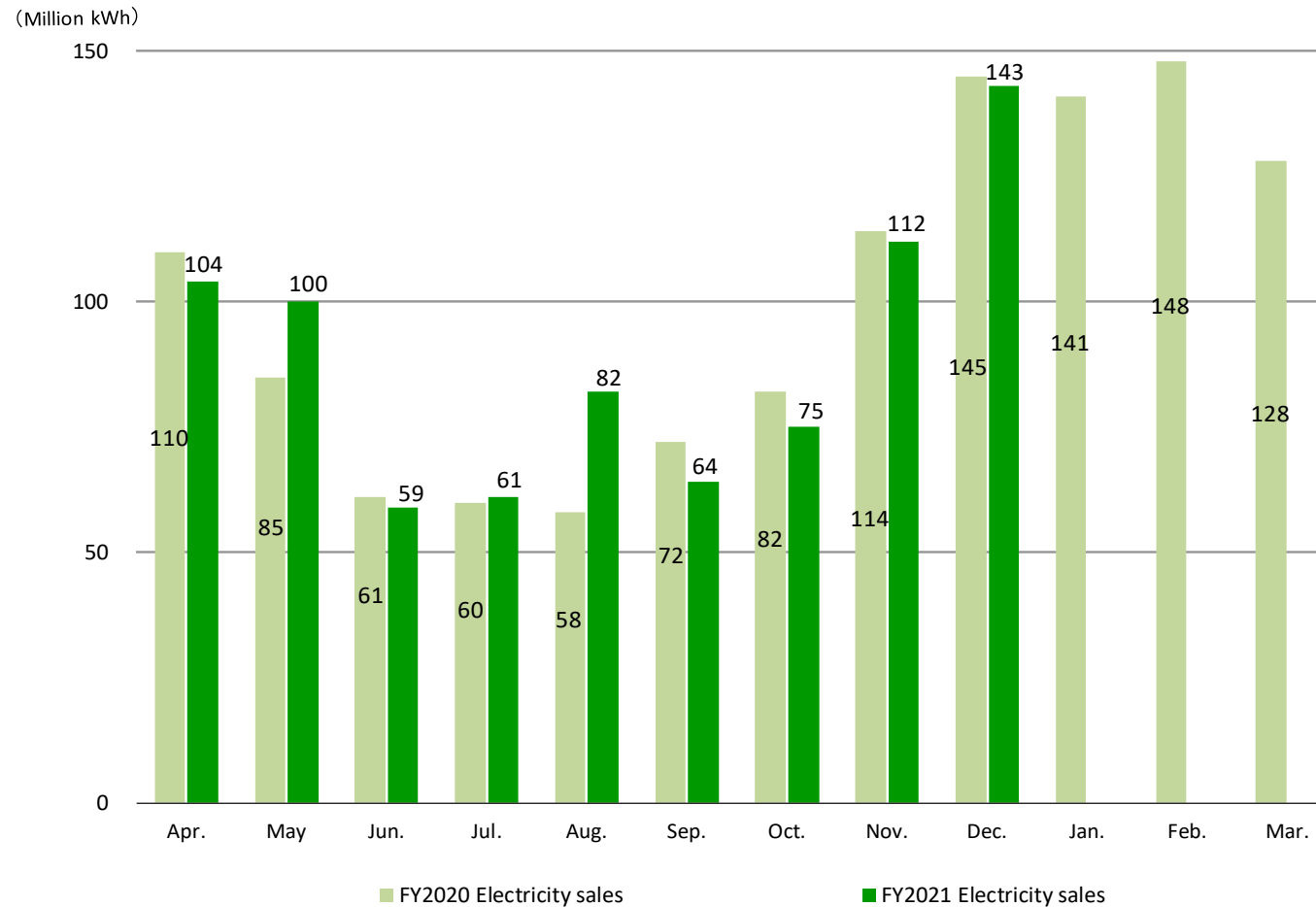
Monthly Electricity Sales: Domestic Power Generation Business (Hydroelectric Power)

<ul style="list-style-type: none"> Apr. 2020 - Dec. 2020 Results (cumulative) Water supply rate ⇒ 92% Electricity sales ⇒ 6.8 TWh 	<ul style="list-style-type: none"> Apr. 2021 - Dec. 2021 Results (cumulative) Water supply rate ⇒ 101% Electricity sales ⇒ 7.6 TWh
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Monthly Electricity Sales: Domestic Power Generation Business (Wind Power)

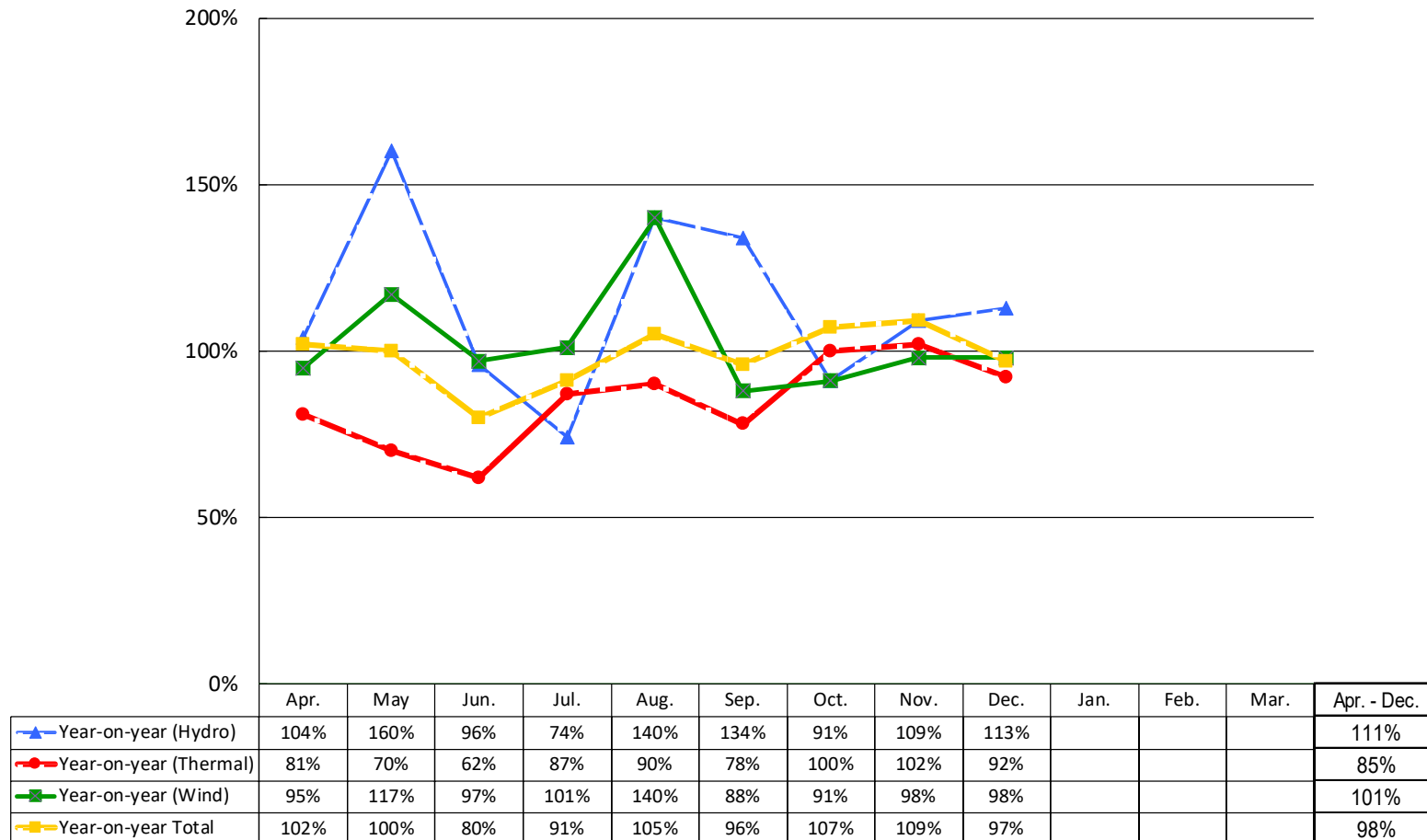
- ▶ Apr. 2020 - Dec. 2020 Results (cumulative) ⇒ 0.79 TWh
- ▶ Apr. 2021 - Dec. 2021 Results (cumulative) ⇒ 0.80 TWh



* Proportion of equity holding is not taken into account.

Change in Monthly Electricity Sales: Domestic Power Generation Business

- ▶ Apr. 2020 - Dec. 2020 Total Results (cumulative) ⇒ 54.7 TWh
- ▶ Apr. 2021 - Dec. 2021 Total Results (cumulative) ⇒ 53.8 TWh



* Total volume includes electricity sales volume of hydro, thermal, wind and electricity procured from wholesale electricity market, etc.



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