エネルギーを新しい時代へ

FY2022 Investors Meeting

(Note1) The company's fiscal year (FY) is from April 1 to March 31 of the following year in this material.
FY2022 denotes the period from April 1, 2022 to March 31, 2023.
(Note2) The Company has voluntarily adopted International Financial Reporting Standards (IFRS) from the consolidated financial statements for the fiscal year ended March 31, 2023 (FY2022).
Therefore, the following pages and thereafter have been prepared in accordance with IFRS.

JERA Co., Inc.

April 28, 2023

© 2023 JERA Co., Inc. All Rights Reserved.

Outline of Financial Results

Consolidated Statement of Profit or Loss

(Unit: Billion Yen)

	FY2022(A)	FY2021(B)	Change(A-B)	Rate of Change(%)
Revenue (Net sales)	4,737.8	2,769.1	1,968.7	71.1
Operating profit	138.3	39.7	98.5	248.2
Profit	17.8	5.6	12.1	214.4
<Reference> Profit excluding time lag	200.3	248.5	-48.2	-19.4

Consolidated Statement of Financial Position

(Unit: Billion Yen)

	As of Mar 31,2023(A)	As of Mar 31,2022(B)	Change(A-B)	Rate of Change(%)
Assets	9,172.3	8,495.1	677.2	8.0
Liabilities	7,132.6	6,763.4	369.2	5.5
Equity	2,039.7	1,731.6	308.0	17.8
Interest-bearing liabilities	3,510.8	2,639.1	871.6	33.0

© 2023 JERA Co., Inc. All Rights Reserved.

Key Points of Financial Results

【Revenue】

- Revenue **increased by 1,968.7 billion yen (up 71.1%) to 4,737.8 billion yen** mainly due to an increase of income unit price in electrical energy sales.

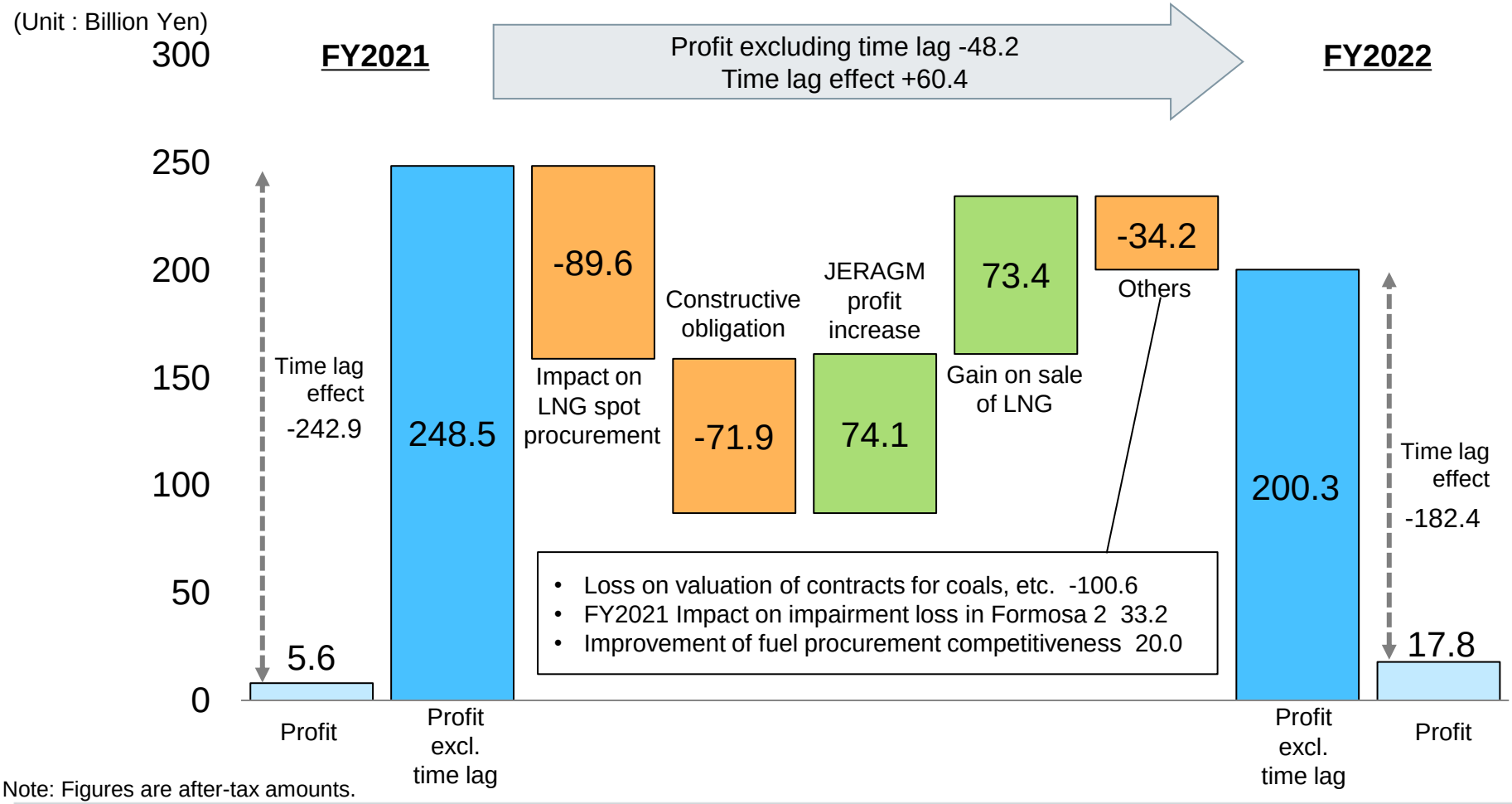
【Profit】

- Profit **increased by 12.1 billion yen from the same period last year 5.6 billion yen and rose to profit of 17.8 billion yen.**
  - ・The losses from time lag decreased.
    (+60.4 billion yen [-242.9 billion yen to -182.4 billion yen])
  - ・Profit excluding time lag decreased.
    (-48.2 billion yen [248.5 billion yen to 200.3 billion yen])
- Profit excluding time lag decreased mainly due to the impact on LNG spot procurement and the constructive obligation booking, etc., despite JERA Global Markets Pte. Ltd. (JERAGM) profit increase and gain on sale of LNG.

© 2023 JERA Co., Inc. All Rights Reserved.

Change Factors of Consolidated Profit / Loss

- Profit excl. time lag decreased by 48.2 billion yen from the previous year due to the impact on LNG spot procurement and the constructive obligation booking, despite JERAGM profit increase and gain on sale of LNG.

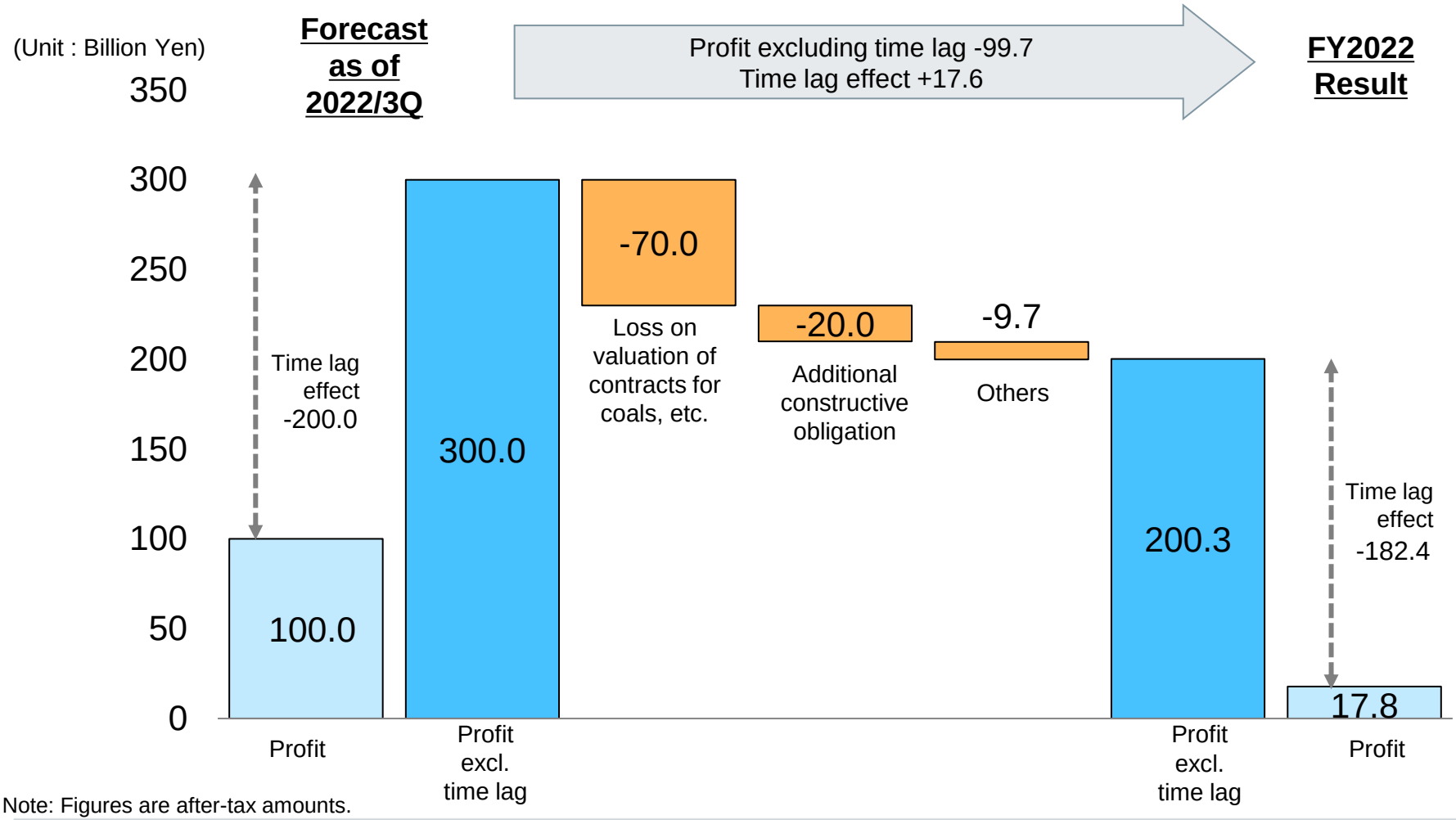


Note: Figures are after-tax amounts.

© 2023 JERA Co., Inc. All Rights Reserved.

Comparison with the Forecast as of FY2022/Q3

- Compared to the forecast as of 2022/Q3, profit excluding time lag decreased by 99.7 billion yen, due to the loss on valuation of contracts for coals, etc. and additional constructive obligation, etc.



Note: Figures are after-tax amounts.

© 2023 JERA Co., Inc. All Rights Reserved.

Consolidated Statement of profit or loss

(Unit: Billion Yen)

	FY2022(A)	FY2021(B)	Change(A-B)	Main Factors of Changes
Revenue (Net sales)	4,737.8	2,769.1	1,968.7	• Increase of income unit price
Operating expenses	4,600.9	2,686.2	1,914.6	• Increase of fuel costs
Other operating income / loss	1.3	-43.1	44.4	• Share of profit / loss of investments accounted for using equity method, etc.
Operating profit	138.3	39.7	98.5	
Financial income	27.1	18.3	8.7	
Financial costs	63.1	19.4	43.7	• Increase of interest paid +19.9 • Exchange loss +18.2
Profit before tax	102.2	38.6	63.6	• Decrease of time lag loss +83.9(-337.3 → -253.4) • Decrease of profit excluding time lag -20.2(375.9→ 355.7)
Income tax expense	-63.3	28.2	-91.5	
Profit attributable to non-controlling Interests	147.7	4.7	142.9	
Profit	17.8	5.6	12.1	

© 2023 JERA Co., Inc. All Rights Reserved.

Key Elements

	FY2022(A)	FY2021(B)	Change(A-B)
Electrical Energy Sold (TWh)	255.1	255.5	-0.4
Crude Oil Prices(JCC) (dollar/barrel)	102.7	77.2	25.5
Foreign Exchange Rate (yen/dollar)	135.5	112.4	23.1

Note: Crude Oil Prices(JCC) for FY2022 is tentative.

© 2023 JERA Co., Inc. All Rights Reserved.

Consolidated Statement of Financial Position

(Unit: Billion Yen)

	As of Mar 31,2023(A)	As of Mar 31,2022(B)	Change(A-B)	Main Factors of Changes
Cash and cash equivalents	1,360.9	456.4	904.4	• Increase in JERAGM, JERA, etc.
Property, plant and equipment	2,387.8	2,192.4	195.4	• Progress in replacing domestic thermal power plants, etc.
Investments accounted for using equity method	1,112.7	965.5	147.2	
Others	4,310.8	4,880.7	-569.8	• Decrease of derivative assets (JERAGM, etc.) -696.9
Assets	9,172.3	8,495.1	677.2	
Interest-bearing liabilities	3,510.8	2,639.1	871.6	• Borrowings +780.9 (Subsidiaries +314.9) • Commercial Paper -198.0 • Corporate Bonds +288.6
Others	3,621.8	4,124.3	-502.4	• Decrease of derivative liabilities (JERAGM, etc.) -603.5
Liabilities	7,132.6	6,763.4	369.2	
Equity attributable to owners of parent	2,022.8	1,724.8	298.0	• Perpetual subordinated loan +199.3 • Foreign currency translation adjustments +122.3 • Profit +17.8 • Dividends paid -83.1
Non-controlling interests	16.8	6.8	10.0	
Equity	2,039.7	1,731.6	308.0	

© 2023 JERA Co., Inc. All Rights Reserved.

Status of Management Targets (Financial Soundness)

- Net DER had continued to deteriorate until 2022/2Q due to rising interest-bearing debt, but has improved after 3Q due to calming resource prices and capital-based financing
- Continue to adhere to financial discipline in order to achieve the management target of 1.0x Net DER or less in FY2025

	2021/4Q	2022/2Q	2022/4Q
Net DER	1.27	1.66	1.01
		【Deteriorate】Increase in debt mainly due to the expansion of time lag losses	【Improve】Enhancement of owned capital by capital-based financing, and increase of cash
Equity Ratio	20.3%	15.0%	22.1%
		【Deteriorate】Increase of JERAGM derivative assets due to the rising resource price	【Improve】 Decrease of JERAGM derivative assets and capital-based financing

※2022/2Q numbers are Japanese GAAP based

© 2023 JERA Co., Inc. All Rights Reserved.

Consolidated Statement of Cash Flows

- Cash flows from operating activities improved sharply due to a decrease of JERAGM margins, etc.

(Unit: Billion Yen)

		FY2022(A)	FY2021(B)	Change(A-B)
Operating cash flow		450.7	-318.2	768.9
Investment cash flow	**Purchase of property, plant, and equipment**	-303.4	-288.5	-14.8
	Purchase of investment securities	-27.0	-382.8	355.7
	Others	-38.9	22.0	-61.0
		-369.4	-649.3	279.8
Free cash flows		81.2	-967.5	1,048.7
Financial cash flow	**Increase (decrease) in interest-bearing debt**	780.7	889.9	-109.2
	Dividends paid *1	-84.2	-33.4	-50.8
	Others	99.7	-57.8	157.5
		796.2	798.7	-2.4
Increase (decrease)in cash and cash equivalents (minus indicates decrease)		904.4	-144.6	1,049.0

*1 Excluding Dividends paid to non-controlling interests

© 2023 JERA Co., Inc. All Rights Reserved.

Segment Information

(Unit: Billion Yen)

	FY2022(A)		FY2021(B)		Change(A-B)		Main Factors of Changes in Profit / Loss
	Revenue	Profit / Loss	Revenue	Profit / Loss	Revenue	Profit / Loss	
Fuel Related	585.7	201.3	454.7	146.1	131.0	55.1	•JERAGM profit increase +74.1
Overseas Power Generation	8.6	-6.5	4.1	-34.7	4.5	28.2	•(2021) Impairment loss in Formosa 2 +33.2 •Profit decrease in overseas IPPs -21.1
Domestic Thermal Power Generation and Gas Supply	6,153.4	-11.0 154.8※2	3,118.3	-121.4 131.0※2	3,035.1	110.4 23.7※2	•Gain on sale of LNG +73.4 •Improvement of fuel procurement competitiveness +20.0 •Impact of fuel inventory unit prices +14.7 •Impairment loss, etc. +29.4 •Impact on LNG spot procurement -89.6 •Constructive obligation -71.9
Adjustments ※1	-2,010.0	-165.8 -149.2※2	-808.1	15.7 6.2※2	-1,201.8	-181.6 -155.4※2	•Loss on valuation of contracts for coals, etc. -100.6
Consolidated	4,737.8	17.8 200.3※2	2,769.1	5.6 248.5※2	1,968.7	12.1 48.2※2	

※1 : “Adjustments” includes headquarter expenses and consolidation adjustments such as intersegment eliminations

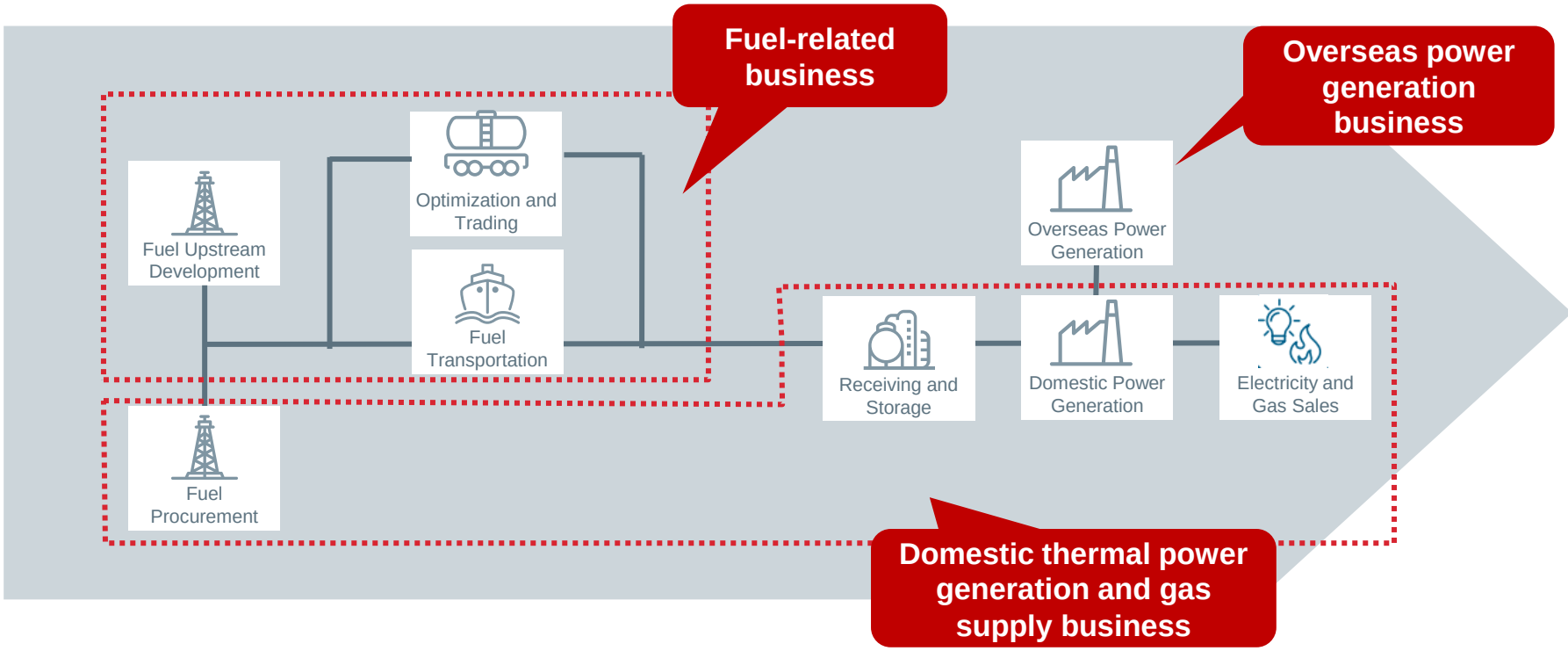
※2 : Excluding the effect of time lag

We will review how segment disclosures should be, for the next fiscal year.

© 2023 JERA Co., Inc. All Rights Reserved.

(Reference) : JERA's Value Chain and Segment

- JERA owns the entire supply chains for fuel and thermal power generation, from fuel upstream business (development of gas fields) to transportation and storage (fuel terminal operation) to power generation and wholesaling.
- We have three business segments; "Fuel-related business" for investment in fuel upstream, transportation and trading business, "Overseas power generation business" for investment in overseas power generation business, and "Domestic thermal power generation and gas supply business" for sales of electricity and gas in Japan.



© 2023 JERA Co., Inc. All Rights Reserved.

FY2023 Forecast

- Profit excl. time lag is expected to be 150 billion yen, -50 billion yen from FY2022 due to decreased gain on sale of LNG and JERAGM profit decrease, despite the impact of the fire incident at the Freeport LNG terminal and constructive obligation booking in FY2022.
- Profit is expected to be around 300 billion yen due to the time lag turns into gain.
- Results may fluctuate based on changing fuel markets and other factors.

(Unit: Billion Yen)

	FY2023 Forecast (A)	FY2022 Result (B)	Change (A-B)	Rate of Change (%)
Profit	300.0	17.8	Approx. 280.0	1,585.4
Time lag effect	150.0	-182.4	Approx. 330.0	-
Profit excl. time lag	150.0	200.3	Approx. -50.0	-25.1

【Key Data】

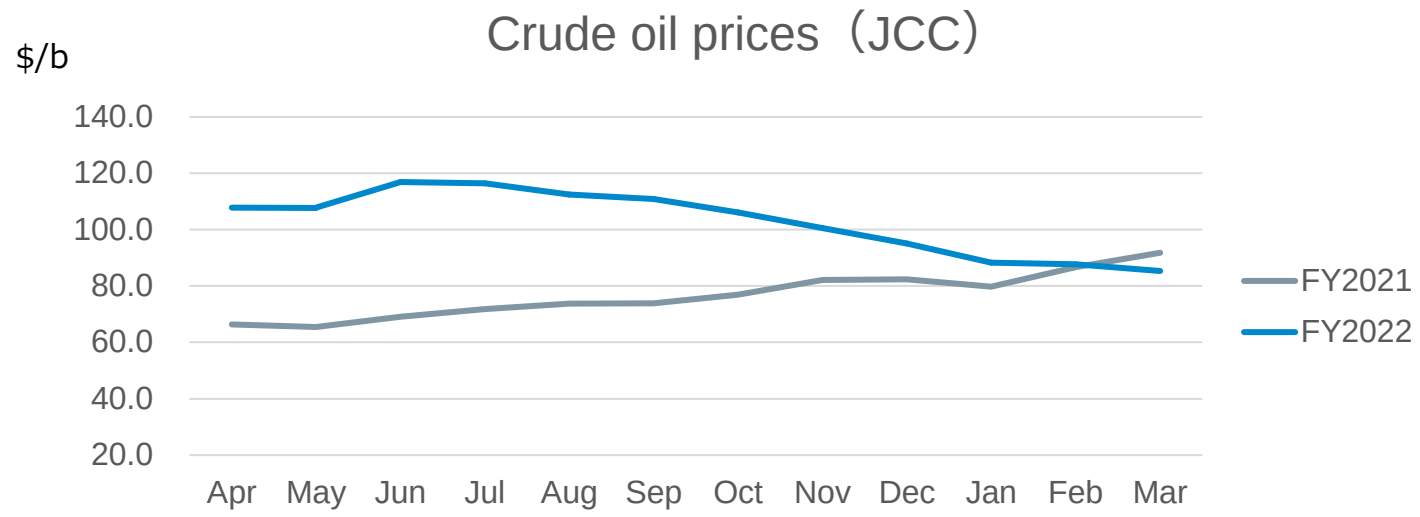
	FY2023 Forecast	FY2022 Result
Crude oil prices(JCC) (dollar/barrel)	Approx. 77	Approx. 103
Foreign exchange rate (yen/dollar)	Approx. 127	Approx. 135

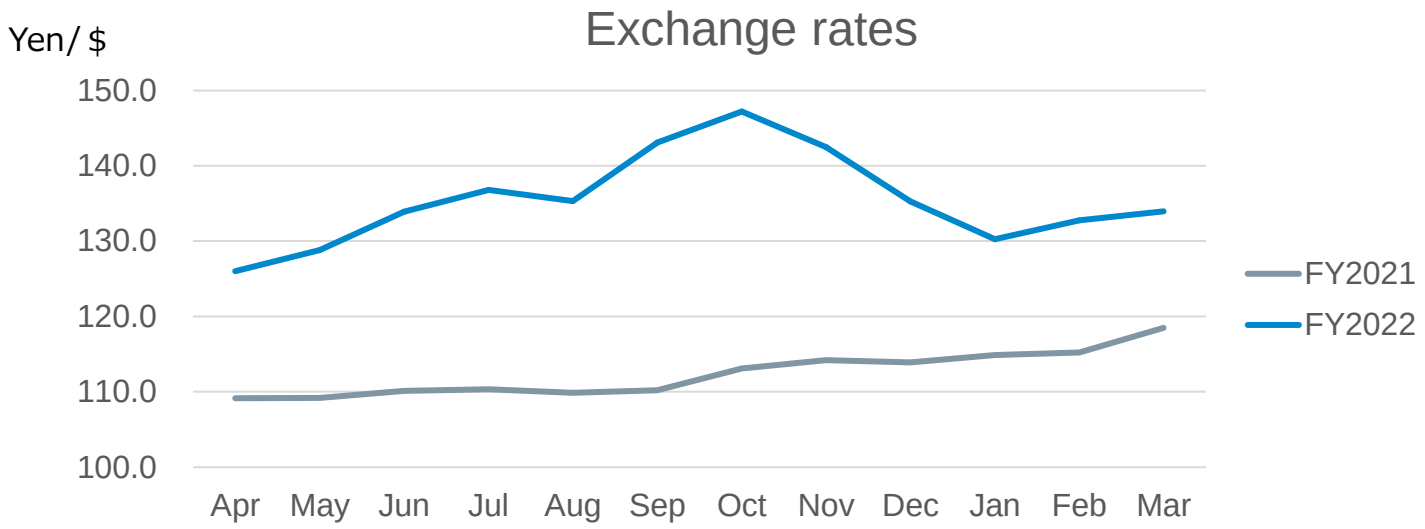
© 2023 JERA Co., Inc. All Rights Reserved.

Appendix

© 2023 JERA Co., Inc. All Rights Reserved.

Trends in crude oil price and exchange rates

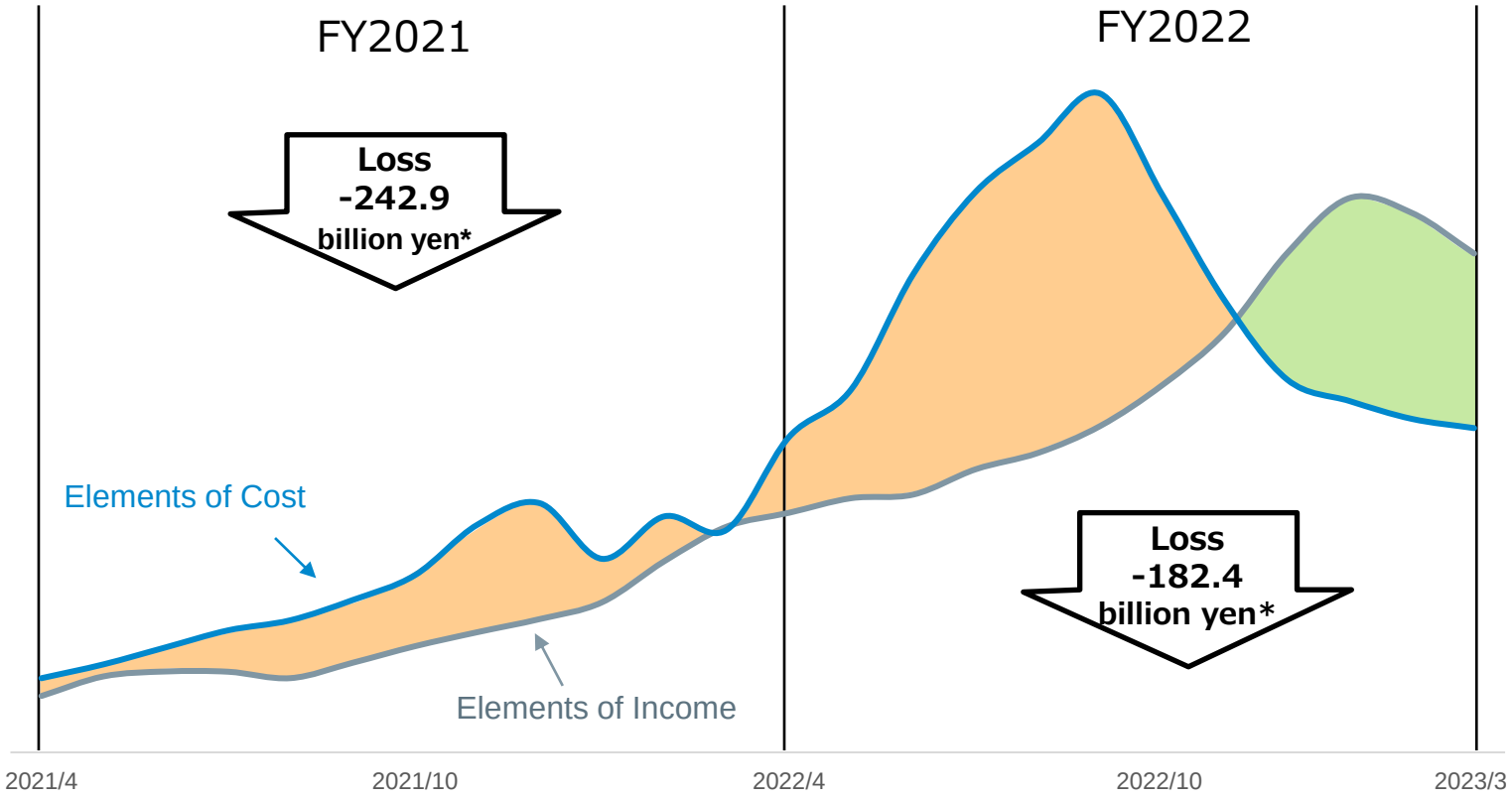




© 2023 JERA Co., Inc. All Rights Reserved.

Image of Time Lag（FY2021－FY2022）

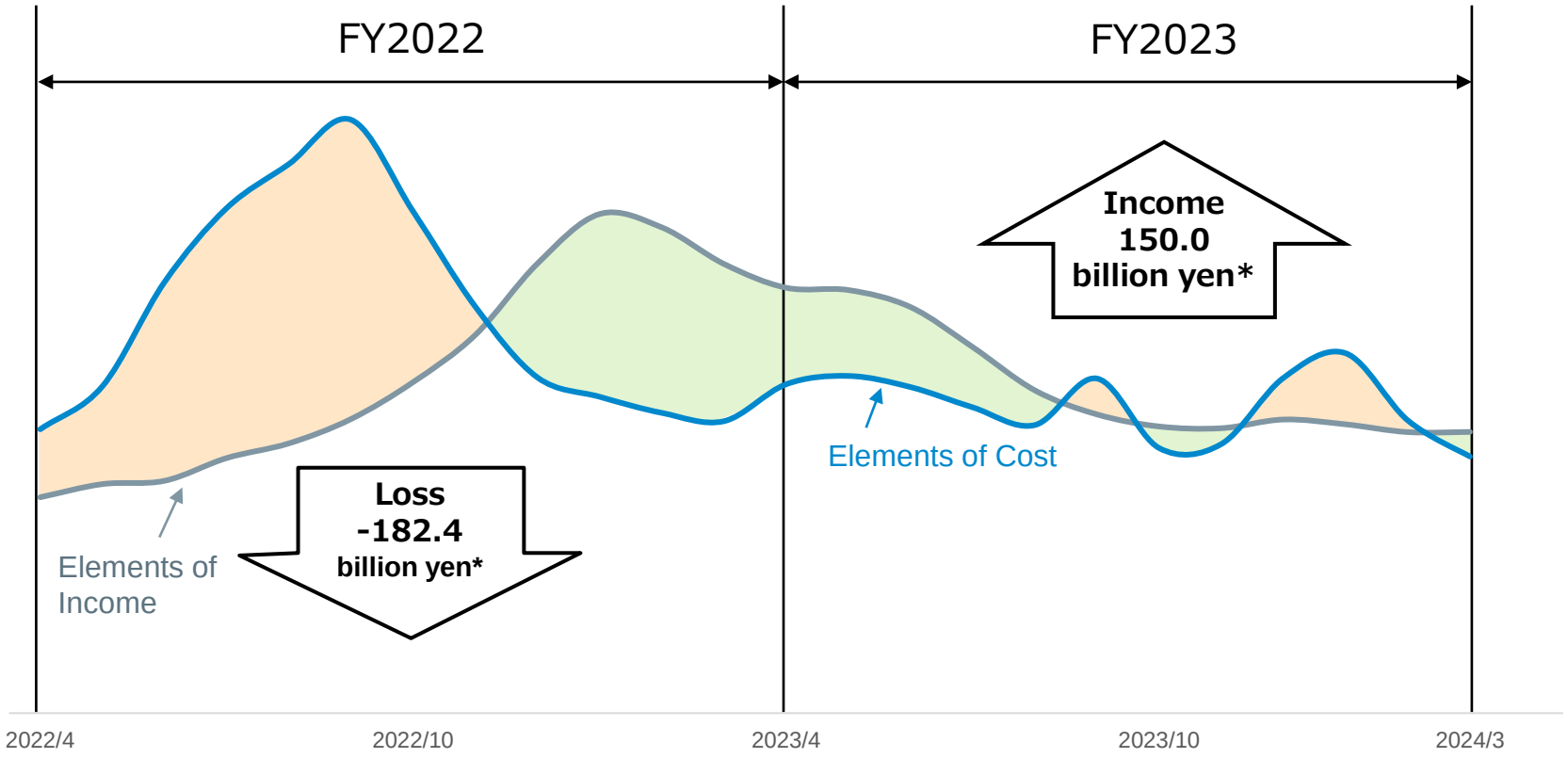
- Time lag is profits and losses due to the time difference between changes in fuel prices and their reflection in sales prices.
- The impact on profits and losses will be neutral in the medium to long term.



* Figures are after-tax amounts.

© 2023 JERA Co., Inc. All Rights Reserved.

Image of Time Lag（FY2022－FY2023）



* Figures are after-tax amounts.

© 2023 JERA Co., Inc. All Rights Reserved.

Electrical Energy Sold and Electrical Power Generated

【Electrical Energy Sold(TWh)】

	Apr to Jun	Jul to Sep	Oct to Dec	Jan to Mar	Total
FY2022	57.9	69.9	63.6	63.7	255.1
FY2021	53.7	64.6	64.9	72.3	255.5

【Electrical Power Generated(TWh)】

		Apr to Jun	Jul to Sep	Oct to Dec	Jan to Mar	Total
FY2022		52.8	63.5	58.0	60.8	235.1
	LNG	41.7（79%）	47.0（74%）	43.9（76%）	45.8（75%）	178.4（76%）
	Coal	11.2（21%）	16.5（26%）	14.0（24%）	15.0（25%）	56.7（24%）
	Others	0 （0%）	0 （0%）	0 （0%）	0 （0%）	0 （0%）
FY2021		53.4	61.7	62.3	69.9	247.3
	LNG	41.2（77%）	46.8（76%）	48.4（78%）	55.8（80%）	192.3（78%）
	Coal	12.2（23%）	14.9（24%）	13.8（22%）	14.1（20%）	55.0（22%）
	Others	0 （0%）	0 （0%）	0 （0%）	0% （0%）	0 （0%）

*The total may not match due to rounding.

© 2023 JERA Co., Inc. All Rights Reserved.

Impact of IFRS Adoption (FY2021)

- The impact of adopting IFRS on profit is -19 billion yen, mainly because gain on sale of investment securities is directly recorded in other comprehensive income. BS experienced on-balancing of lease contracts and increase/decrease of derivative assets and liabilities.

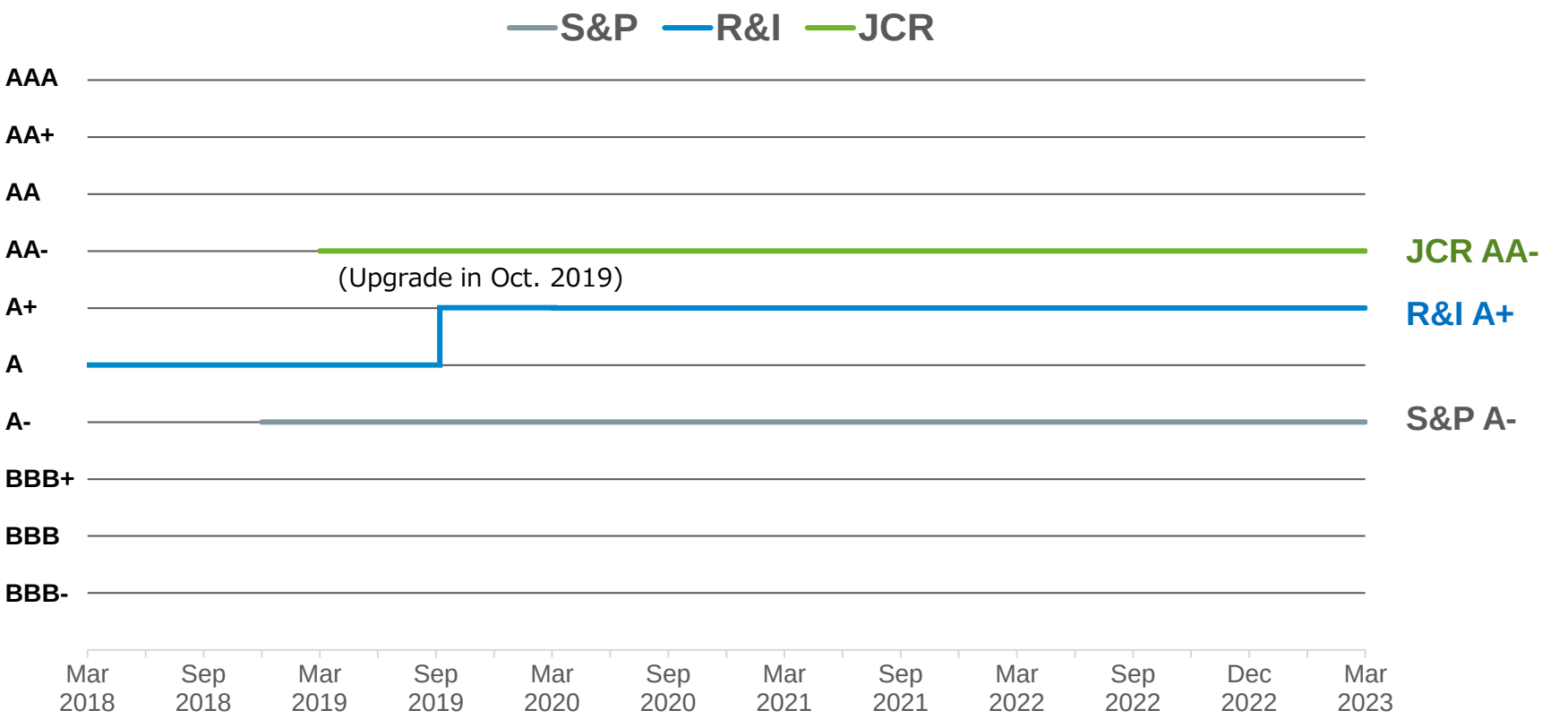
(Unit: Billion Yen)

		IFRS (A)	Japanese GAAP (B)	Variance (A-B)	Major differences
PL	Revenue (Net sales)	2,769.1	4,435.2	-1,666.1	•Netting of realized gains/losses for JERAGM fuel sales contract -1,625.7 (Cost of sales also decreased by the same amount)
	Profit	5.6	24.6	-19.0	•Gain on sale of investment securities transfered to OCI -14.6 •Subsidiaries' fiscal period adjustment -7.8 •Non-amortization of goodwill 3.2
BS	Total assets	8,495.1	8,722.1	-227.0	•Lease use rights capitalized 314.9 •Derivative assets -515.5
	Total liabilities	6,763.4	6,747.8	15.6	•Lease liability 324.1 •Derivative liabilities -356.1
	Total equity	1,731.6	1,974.3	-242.7	•Equity attributable to owners of parent -84.8 •Non-controlling interests -157.8

© 2023 JERA Co., Inc. All Rights Reserved.

Credit Ratings

【 Issuer Credit ratings history 】



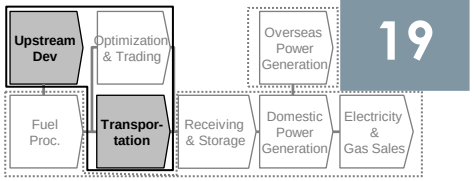
© 2023 JERA Co., Inc. All Rights Reserved.

Reference:
Overview and topics of each segment

© 2023 JERA Co., Inc. All Rights Reserved.

Fuel-related Business:

Overview of Fuel-related Business



[Fuel Upstream / Fuel Transportation Business]

- By leveraging the world's largest LNG transaction volume (FY2022: Approximately 35 million tons*) and participating in LNG upstream projects, we acquire Equity LNG and information that contributes to procurement and trading. Additionally, our ownership of upstream interests and fuel carriers contributes to our highly consistent, flexible, and competitive fuel supply.

*JERA Group as a whole

Upstream Project

Project Name	Country	LNG production / liquefaction capability	JERA's stake *1
Darwin LNG Project	Australia	Approx. 3.7 million tons/year	6.132%
Gorgon LNG Project	Australia	Approx. 15.6 million tons/year	0.417%
Ichthys LNG Project	Australia	Approx. 8.9 million tons/year	0.735%
Wheatstone LNG Project	Australia	Approx. 8.9 million tons/year	Gas field: 10%, LNG plant: 8%
Freeport LNG Project (Train1)	United States	Approx. 5.15 million tons/year	25%
Freeport LNG Development, L.P.*2	United States	Approx. 15.45 million tons/year*3 for all three lines	25.7%
Barossa gas field Project	Australia	LNG production and liquefaction capacity is the same scale as Darwin LNG Project.	12.5%

*1 The stake of Wheatstone LNG Project represents the ratio of shares held through PE Wheatstone which JERA invests in
*2 Freeport LNG Project Management Company
*3 Including 5.15 million tons/year from Train 1

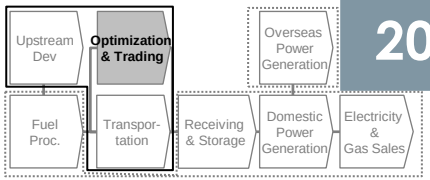
- In June 2022, a fire incident occurs at the Freeport LNG terminal, shutting down operations at the terminal.
  In 2023, regulatory approvals for resumption of production were obtained one by one. Production has resumed at all trains.

Train	Production status (As of March 31, 2023)
All train (1・2・3)	Received approval for resumption of production and production has already resumed.

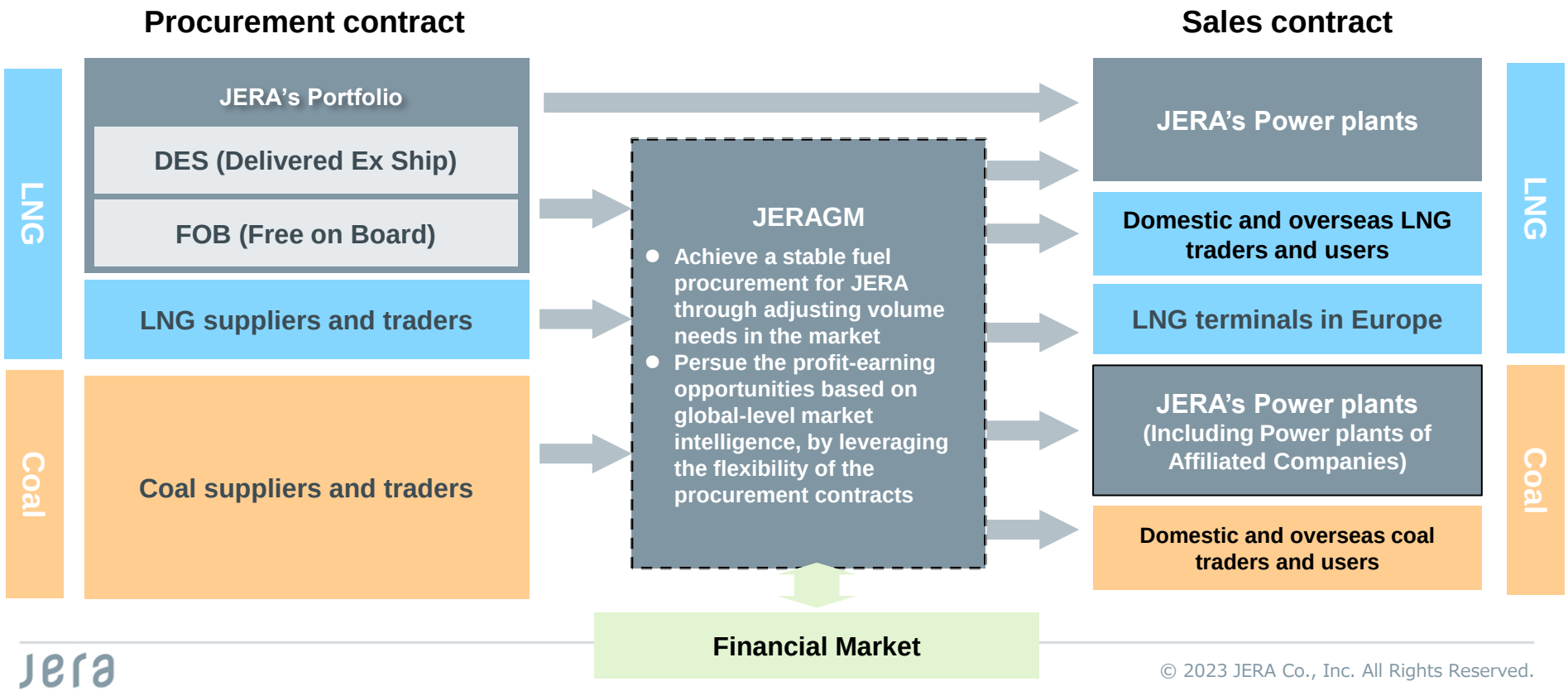
© 2023 JERA Co., Inc. All Rights Reserved.

Fuel-related Business:

Trading Business

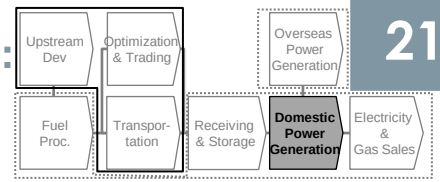


- In addition to the Singapore headquarters, JERAGM has offices in the United Kingdom, the Netherlands, the United States, and Japan, and approximately 300 employees engage in asset-backed trading.
- Utilizing a global trading network, JERAGM meets the world's largest demand for LNG and coal in JERA's domestic power generation business. Leveraging this commercial flow, JERAGM has been able to achieve both the enhancement of supply stability and the expansion of profits by efficiently capturing profit opportunities through transactions with markets and third parties and by expanding transaction volume.
- JERAGM trades within the limited volume under the governance of the Board of Directors elected by shareholders.



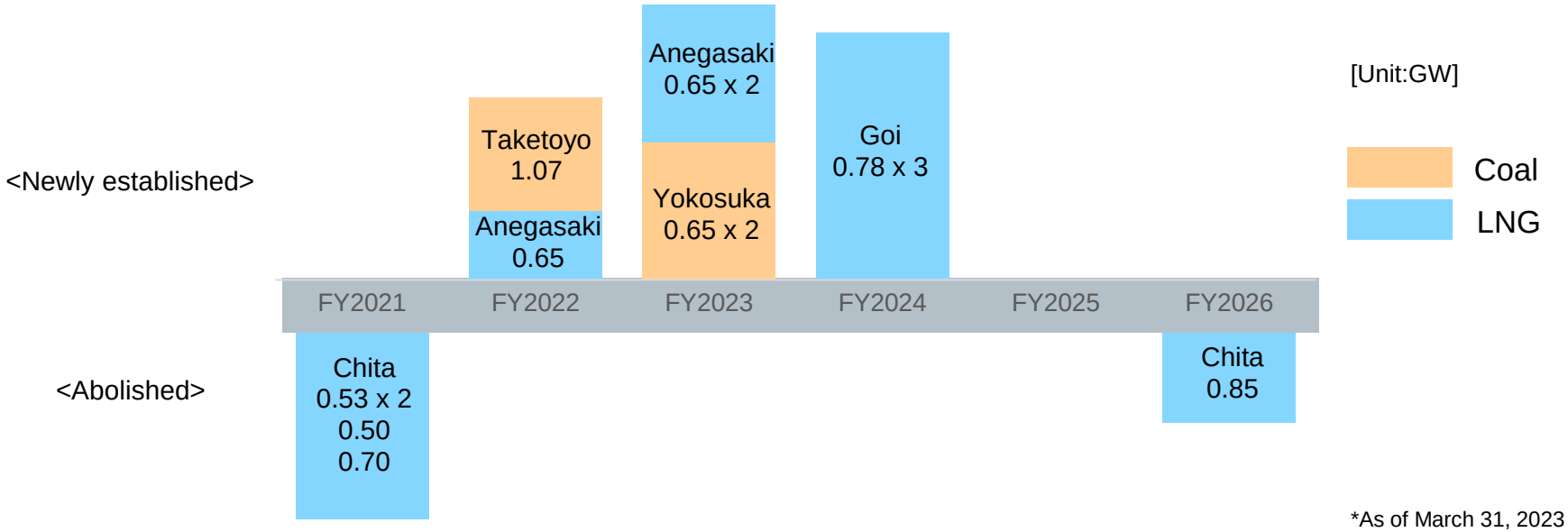
© 2023 JERA Co., Inc. All Rights Reserved.

Domestic Thermal Power Generation and Gas Supply Business: Progress of Replacement of Thermal Power Plants in Japan



Replacement Plan

- Shifting to the latest high-efficiency thermal power generation facilities at three locations: Anegasaki, Yokosuka and Goi. Comercial operation has already started on August 5, 2022 for Taketoyo Thermal Power Station Unit 5 and on February 1, 2023 for Anegasaki Thermal Power Station New Unit 1.
- Unit 1 to 4 of Chita Thermal Power Station were abolished in FY2021, and Unit 5 is planned to be abolished in FY2026. Construction of Unit 7 and 8 is under consideration (environmental impact assessment has been done).



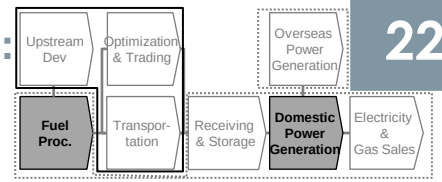
*As of March 31, 2023

Development point	Status of development
Anegasaki	Full-scale construction started in February 2020. Construction progress: 99%
Yokosuka	Full-scale construction started in August 2019. Construction progress: 97%
Goi	Full-scale construction started in April 2021. Construction progress: 78%

© 2023 JERA Co., Inc. All Rights Reserved.

Domestic Thermal Power Generation and Gas Supply Business:

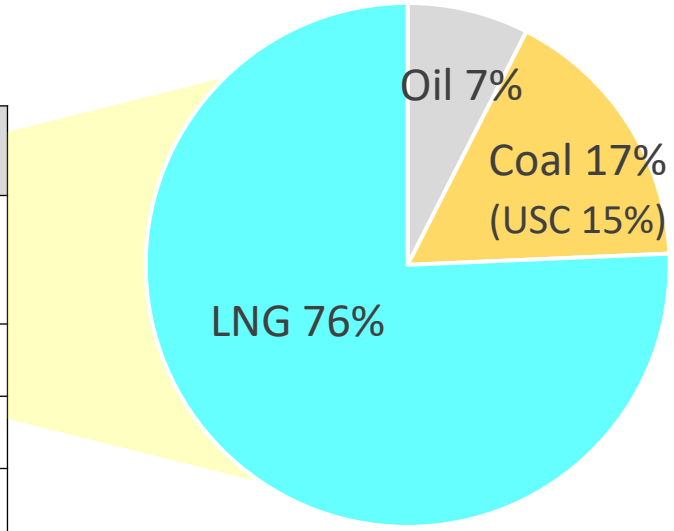
Composition of Power Sources



- Our power generation composition is characterized by a large share of LNG, which has low CO_2 emissions.
- In coal, ultra super critical power generation system (USC), which emits comparatively small amount of CO_2, accounts for a large proportion. We will shut down all inefficient coal power plants by 2030*1.

Composition of Power sources*2

Fuel	Capacity (Generator output)
Coal (USC)	10.32 GW (8.92 GW)
LNG*3	46.44 GW
Oil	4.60 GW
Total	61.36 GW



*1 Press release on October 13, 2020 “Towards Zero CO_2 Emissions in 2050”
https://www.jera.co.jp/english/information/20201013_539

*2 As of March 31, 2023. Includes capacity under construction.
Excludes capacity of affiliates.

*3 Includes LPG and City Gas.

© 2023 JERA Co., Inc. All Rights Reserved.

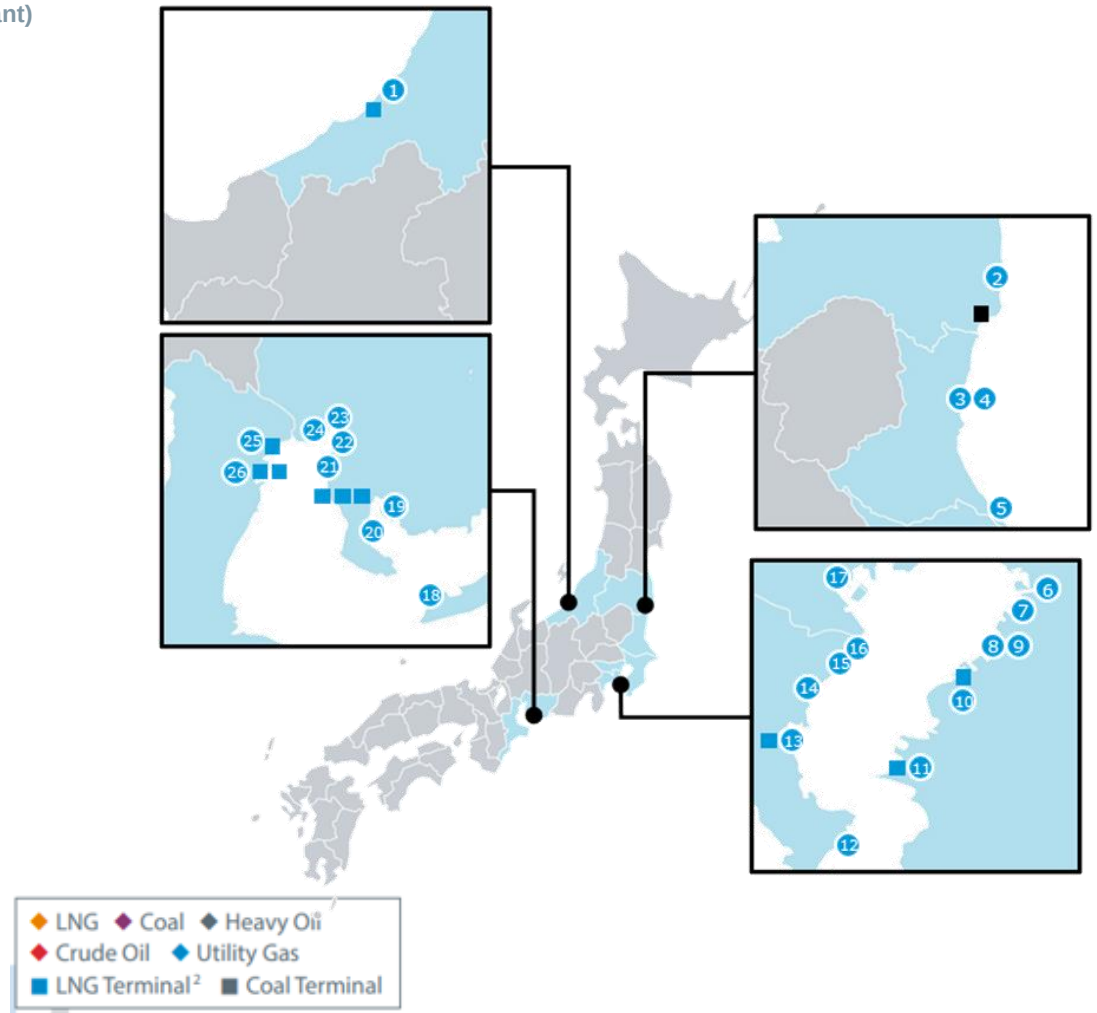
Domestic Thermal Power Plants

List of Thermal Power Plants in Japan[1]

(Total output and fuel type listed for each thermal power plant)

As of March 31, 2023

①	Joetsu	2.38 GW	◆
②	Hirono	4.40 GW	◆◆◆
③	Hitachinaka	2.00 GW	◆
④	Hitachinaka Kyodo <HITACHINAKA GENERATION>	0.65 GW	◆
⑤	Kashima	1.26 GW	◆
⑥	Chiba	4.38 GW	◆
⑦	Goi <GOI UNITED GENERATION> *Scheduled to start operation in FY2024	2.34 GW	◆
⑧	Anegasaki	1.20 GW	◆
⑨	Anegasaki <JERA Power ANEGASAKI> *Scheduled to start operation in phase of 0.65GW each from February 2023	1.941 GW	◆
⑩	Sodegaura	3.60 GW	◆
⑪	Futtsu	5.16 GW	◆
⑫	Yokosuka <JERA Power YOKOSUKA> *Scheduled to start operation in FY2023	1.30 GW	◆
⑬	Minami-Yokohama	1.15 GW	◆
⑭	Yokohama	3.016 GW	◆
⑮	Higashi-Ohgishima	2.00 GW	◆
⑯	Kawasaki	3.42 GW	◆
⑰	Shinagawa	1.14 GW	◆
⑱	Atsumi	1.40 GW	◆◆
⑲	Hekinan	4.10 GW	◆
⑳	Taketoyo<JERA Power TAKETOYO> *Started operation in August 2022	1.07 GW	◆
㉑	Chita	1.708 GW	◆
㉒	Chita Daini	1.708 GW	◆
㉓	Shin-Nagoya	3.058 GW	◆
㉔	Nishi-Nagoya	2.376 GW	◆
㉕	Kawagoe	4.802 GW	◆
㉖	Yokkaichi	0.585 GW	◆



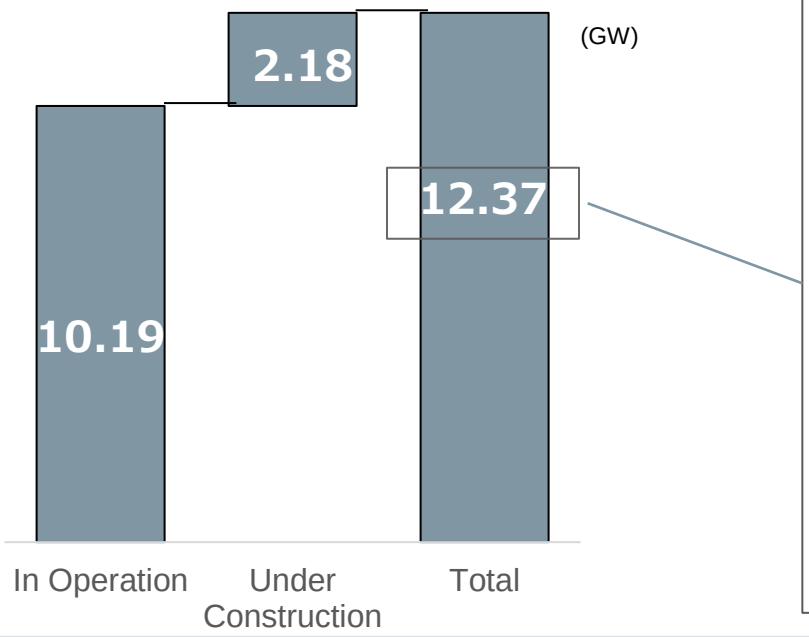
1 Power plant's name <Operator's name>
2 Includes jointly operated terminals in the Chita and Yokkaichi areas

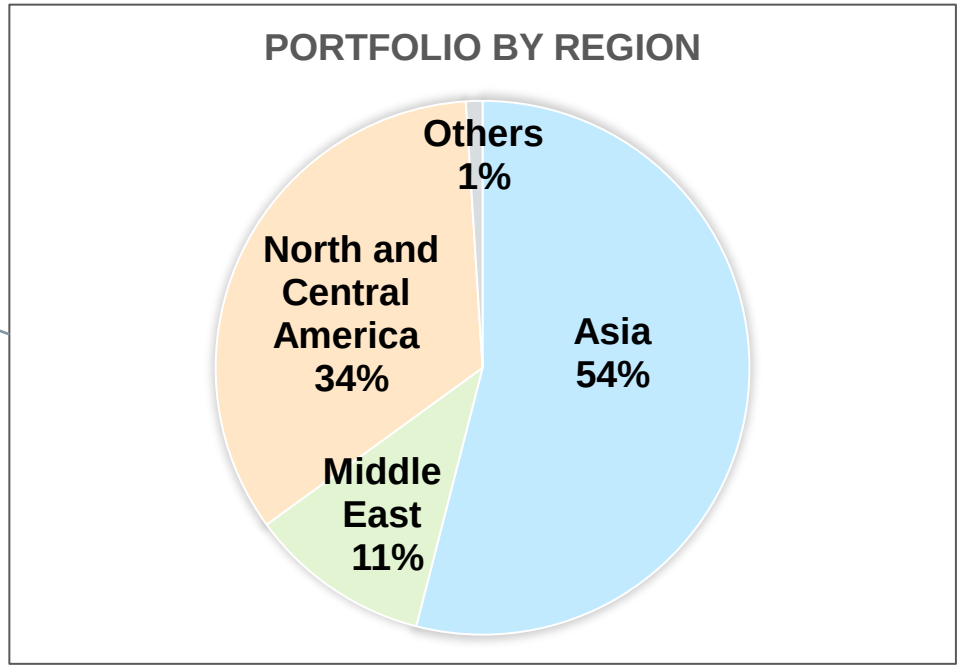
© 2023 JERA Co., Inc. All Rights Reserved.

Overseas Power Generation Business: Portfolio of Overseas Power Generation Business

- JERA is expanding its businesses through the experience gained from existing projects around the world. Total capacity of power generation in overseas projects is 12.37 GW (including under construction).
- In 2022, JERA sold shares in Falcon Gas Thermal Power Co. in Mexico, signed an agreement to acquire 100% of the shares of Parkwind NV in Belgium, and acquired shares in Brady thermal IPP project in the United States and Gia Lai Electricity Joint Stock Company in Vietnam. JERA aims to secure funds and expand earnings by replacing its portfolio through the sale and reinvestment of assets to achieve an optimal asset structure in line with changes in the business.

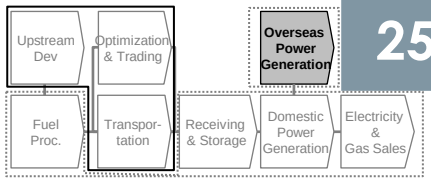
< Power generation capacity (As of March 31, 2023) >





© 2023 JERA Co., Inc. All Rights Reserved.

Overseas Power Generation Business: List of overseas power generation projects (1)



(As of March 31, 2023)

Investment on Platform Companies* *Companies participating in multiple power generation projects

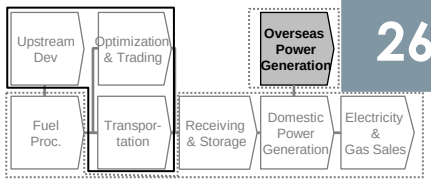
Country	Project Name	Investment ratio	Capacity	Fuel type	Notes
Philippines	TeaM Energy IPP	25.0%~50.0%	2,341 MW	Coal	
Philippines	Aboitiz Power Corporation	27%	4,829 MW	Coal/Oil/ Renewable	Including under construction
Thailand	EGCO Corporation	12.3%	6,202 MW	Coal/Gas/ Renewable	Including under construction
Vietnam	Gia Lai Electricity Joint Stock Company	35.1%	503 MW	Solar/Wind/Hydro	Including under construction
India	ReNew Company	7.2%	13,449 MW	Solar/Wind/Hydro	Including under construction
Bangladesh	Summit Power IPP	22.0%	2,418 MW	Gas	Including under construction
United Kingdom	Zenobe Battery Storage	9.9%	235 MW	-	

IPP Projects（1/2）

Taiwan	Chang Bin/Fong Der/Star Buck Gas Thermal IPP	19.5%~22.7%	3,060 MW	Gas	Including under construction
Taiwan	Formosa 1 Offshore Wind IPP	32.5%	128 MW	Offshore Wind	
Taiwan	Formosa 2 Offshore Wind IPP	49.0%	376 MW	Offshore Wind	Under construction
Vietnam	Phu My Gas Thermal IPP	15.6%	715 MW	Gas	
Indonesia	Cirebon2 Coal Thermal IPP	10.0%	1,000 MW	Coal	Under construction
Thailand	Ratchaburi Gas Power Thermal IPP	15.0%	1,400 MW	Gas	

© 2023 JERA Co., Inc. All Rights Reserved.

Overseas Power Generation Business: List of overseas power generation projects (2)



(As of March 31, 2023)

IPP Projects（2/2）

Country	Project Name	Investment ratio	Capacity	Fuel type	Notes
Thailand	Solar Power IPP	49.0%	31 MW	Solar	
Thailand	Wind Power IPP	5.0%	180 MW	Onshore Wind	
Bangladesh	Meghnaghat Gas Thermal IPP	49.0%	718 MW	Gas	Under construction
UAE	Umm Al Nar Gas Thermal IWPP	20.0%	1,550 MW	Gas	
Qatar	Ras Laffan B Gas Thermal IWPP	5.0%	1,025 MW	Gas	
Qatar	Ras Laffan C Gas Thermal IWPP	5.0%	2,730 MW	Gas	
Qatar	Mesaieed Gas Thermal IPP	10.0%	2,007 MW	Gas	
Qatar	Umm Al Houl Gas Thermal IWPP	10.0%	2,520 MW	Gas	
Oman	Sur Gas Thermal IPP	19.5%	2,000 MW	Gas	
Mexico	Valladolid Gas Thermal IPP	50.0%	525 MW	Gas	
United States	Tenaska Gas Thermal IPP	11.1%~17.5%	2,950 MW	Gas	
United States	Carroll County Gas Thermal IPP	20.0%	702 MW	Gas	
United States	Cricket Valley Gas Thermal IPP	38.0%	1,100 MW	Gas	
United States	Linden Gas Thermal IPP	50.0%	972 MW	Gas	
United States	Compass Gas Thermal IPP	50.0%	1,123 MW	Gas	
United States	Brady Thermal IPP	100.0%	1,633 MW	Oil/Gas	
United States	El Sauz Onshore Wind IPP	100.0%	302 MW	Onshore Wind	Under construction
United Kingdom	Gunfleet Sands Offshore Wind IPP	25.0%	173 MW	Offshore Wind	

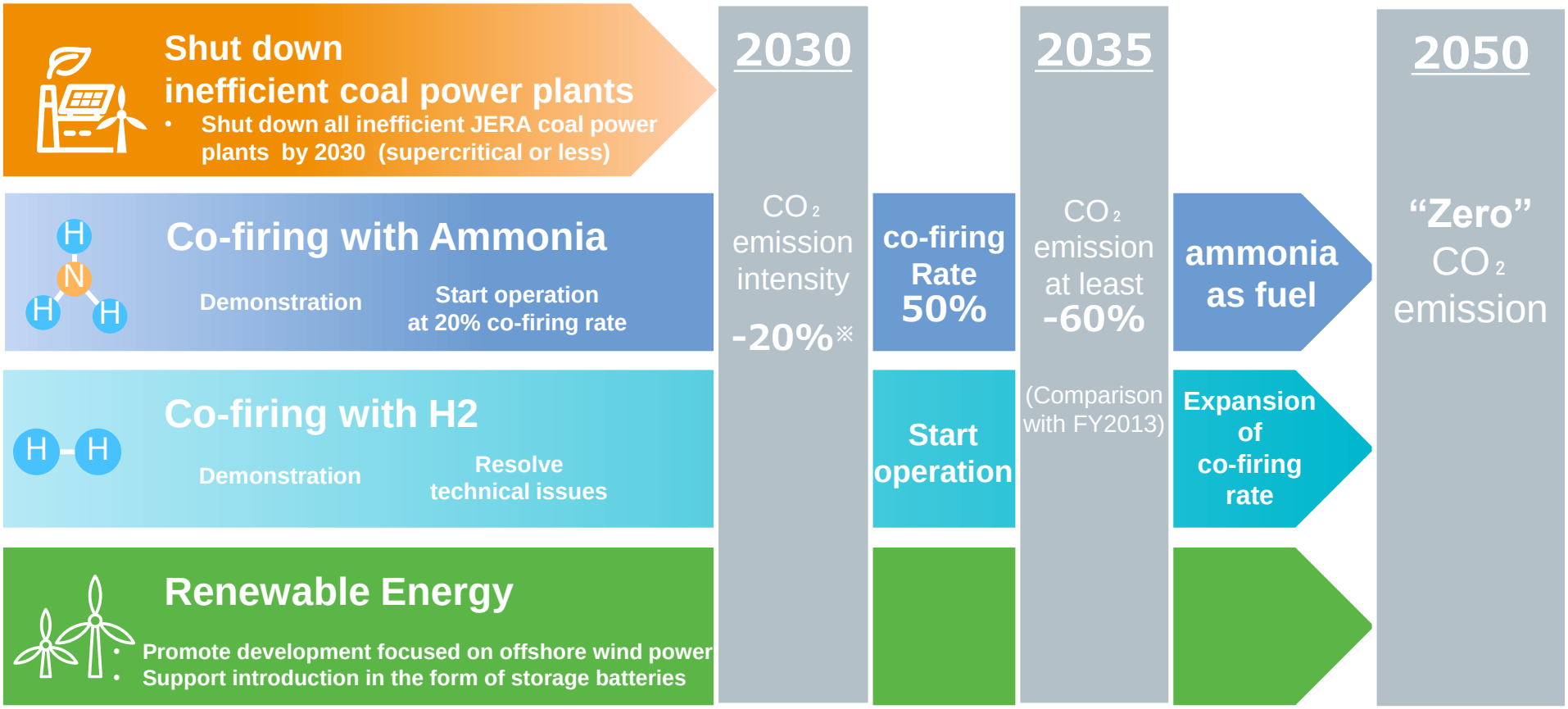
© 2023 JERA Co., Inc. All Rights Reserved.

Reference:
Progress of
JERA Zero CO_2 Emissions 2050

© 2023 JERA Co., Inc. All Rights Reserved.

JERA Zero CO_2 Emissions 2050: Roadmap for its Business in Japan

➢ JERA established “JERA Zero CO_2 Emissions 2050 Roadmap for its Business in Japan”, including four initiatives.

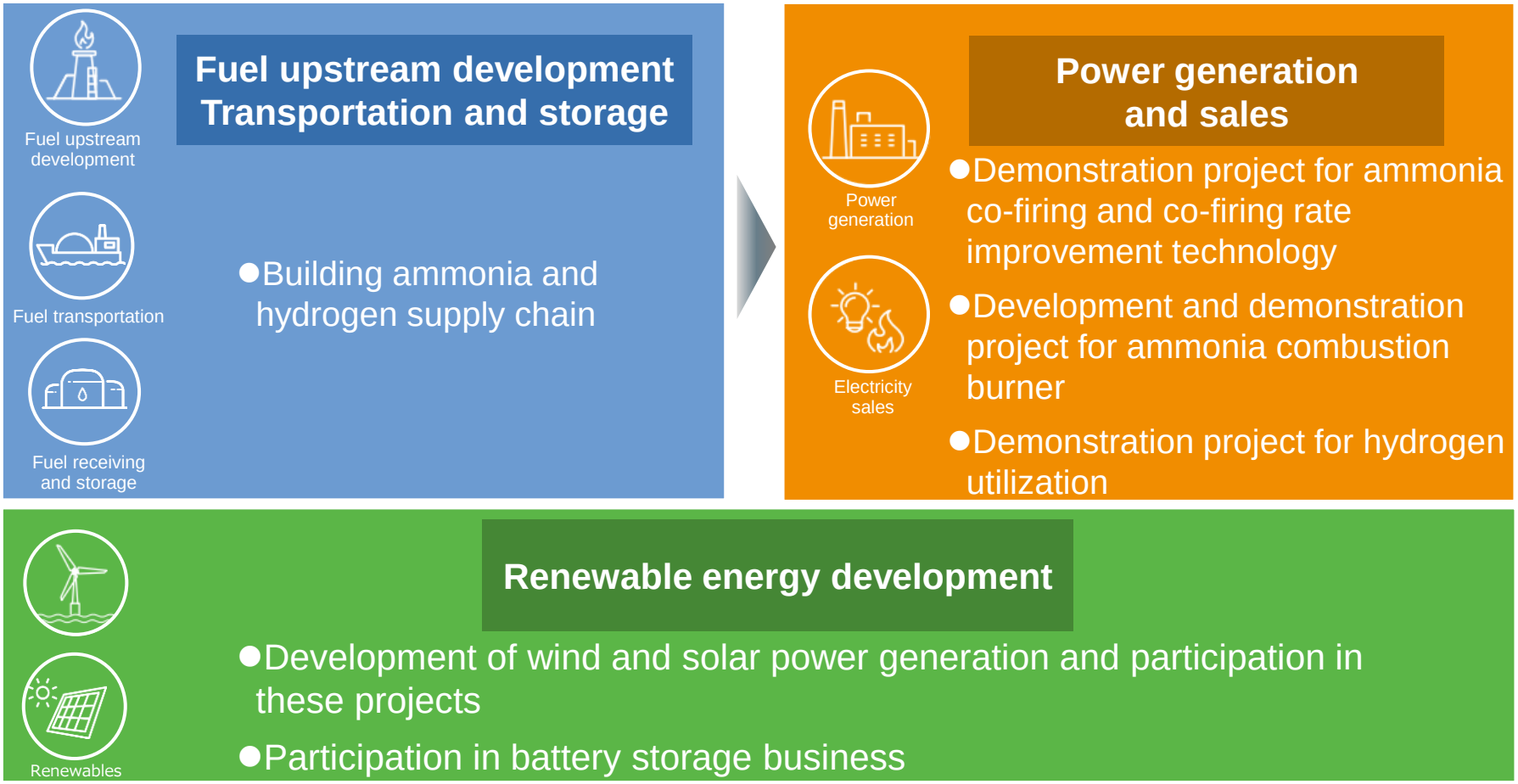


※Reduce carbon emission intensity of thermal power plants by 20% based on the long-term energy supply-demand outlook for FY2030 as set by the government

© 2023 JERA Co., Inc. All Rights Reserved.

JERA Zero CO_2 Emissions 2050: Efforts to Achieve Zero CO_2 Emissions in JERA's Value Chain

- JERA is participating in business throughout the value chains, from fuel upstream development, transportation, and storage and to the power generation and electricity sales. We are working with many countries and companies around the world to achieve zero emissions at each stage.



© 2023 JERA Co., Inc. All Rights Reserved.

JERA Zero CO_2 Emissions 2050: Efforts towards Zero CO_2 Emissions （Ammonia and Hydrogen Supply Chain）

➢ To build supply chains for ammonia and hydrogen, JERA collaborates with leading companies in Japan and overseas. The table below summarizes the details of the collaborations announced in the latest one year.

		Business Partners	Contents
Upstream Transportation		Abu Dhabi National Energy Company (UAE)	Concluded MOU to develop projects in the area of decarbonization, including green hydrogen and ammonia production.（February 2023）
		CF Industries（United States）	Concluded MOU for the joint project development and sales & purchase of clean ammonia for the 20% co-firing operations at the Hekinan Thermal Power Plant Unit 4 (January 2023).
		Yara International ASA（Norway）	
		Chevron Corporation (United States)	Signed a Joint Study Agreement to collaborate on multiple lower carbon opportunities, including co-development of lower carbon fuel and hydrogen, and using of liquid organic hydrogen carriers in Asia Pacific region (Australia) and the United States (November 2022).
		Nippon Yusen Kabushiki Kaisha (Japan) Mitsui O.S.K. Lines, Ltd. (Japan)	Concluded MOUs related to cooperation in transporting fuel ammonia, including development of large-volume ammonia carriers and establishment of safe transport systems. (November 2022).
Supply Chain	Japan	Kyushu Electric Power Co., Inc. Chugoku Electric Power Co., Inc. Shikoku Electric Power Co., Inc. Tohoku Electric Power Co., Inc. Hokuriku Electric Power Co., Inc.	Concluded MOU to consider collaboration aimed at the adoption of hydrogen and ammonia as fuel for power generation. (The MOU that was signed in November 2022 by JERA, Kyushu Electric, Chugoku Electric, Shikoku Electric and Tohoku Electric were recently joined by Hokuriku Electric) (December 2023).
		Idemitsu Kosan Co., Ltd.	Concluded MOU stipulating that the two companies will jointly consider establishing a hydrogen supply chain based in the Ise Bay area (June 2022).
		ENEOS Corporation JFE Holdings, Inc.	Concluded MOU and begun to discuss in detail the possibility of establishing a hydrogen and ammonia receiving and supply base and developing a supply project at the Keihin Waterfront Area in Kanagawa Prefecture (April 2022).
	Overseas	Aboitiz Power Corporation (Philippines) Electricity Generating Public Company Limited (Thailand) Summit Power International Limited(Bangladesh)	Concluded MOU on the cooperation in studies to decarbonize business and co-firing using ammonia at a coal-fired power plant(April 2022, January and February 2023).
		IHI Asia Pacific Pte. Ltd.(Singapore)	Concluded MOU on the expansion of ammonia usage in Malaysia(October 2022).
		Uniper Global Commodities S.E. (Germany) Uniper Global Commodities North America L.L.C. (United States)	Concluded MOU on procurement and sale of LNG, and clean ammonia from the United States (September 2022).
		Jurong Port (Singapore) Mitsubishi Heavy Industries Asia Pacific (Singapore)	Concluded MOU to jointly explore establishing a 100% ammonia direct combustion power plant in Singapore(August 2022).Preparing to respond to EOI issued by the Singapore government.

JERA Zero CO_2 Emissions 2050: Efforts towards Zero CO_2 Emission（Power Generation）

Initiatives for Ammonia Co-firing

➢ The following projects have been adopted by NEDO and are currently being implemented.

Project	Development of technologies for carbon recycling and next-generation thermal power generation / Research, development and demonstration of technologies for ammonia co-firing thermal power generation	Green Innovation Fund Program / Establishment of Fuel Ammonia Supply Chains project / Demonstration project to develop technology to increase the ammonia co-firing rate at coal-fired boilers
Overview	• At Hekinan Thermal Power Station Unit 4 (power output: 1 million kW), JERA will aim to achieve **20% co-firing of ammonia by FY2023.** • In addition, small-scale tests using burners of different materials was conducted at Unit 5 of Hekinan Thermal Power Station (power output: 1 million kW).  Hekinan Thermal Power Station	• Ammonia high co-firing burners will be implemented in Hekinan Thermal Power Station Units 4 or 5, with the aim of **increasing the ammonia co-firing rate to 50% or more**. • JERA will plan to develop a burner capable of 50% or more ammonia co-firing by FY2024, and to start 50% or more ammonia co-firing in actual equipment by FY2028. • JERA will plan to develop an ammonia-fired burner suitable for coal boilers and to demonstrate its operation with actual equipment. • We have the plan to develop the burner that can exclusively co-fire ammonia by FY2024, and verify that two units of different boiler types can **co-fire more than 50% ammonia** by FY2028.

Initiatives for Hydrogen Co-firing

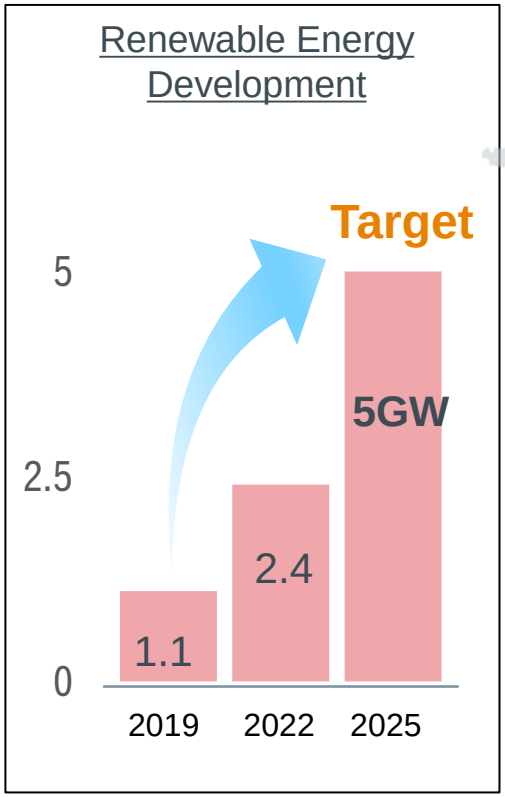
➢ Received notice of acceptance of “Demonstration project related to hydrogen utilization at an LNG thermal power plant in Japan” under Green Innovation Fund program lead by NEDO, and started evaluation of operational and environmental characteristics for hydrogen utilization at existing LNG thermal power plants in Japan from FY2021 to FY2028.

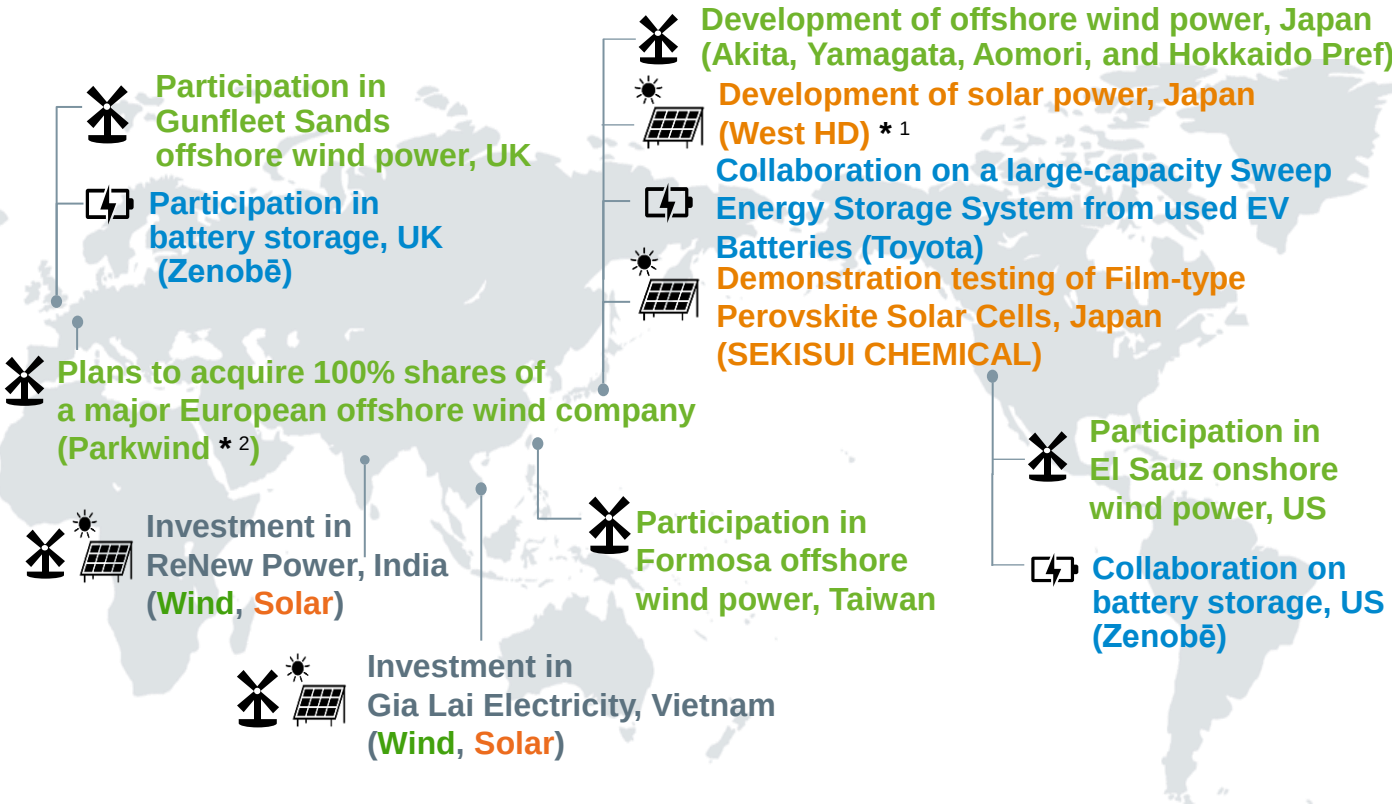
➢ Considering the co-firing with hydrogen at Unit 6 of Linden Gas Thermal Power plant in the United States. We remodeled existing gas turbines and have been conducting trial operation using fuel gas containing hydrogen.

© 2023 JERA Co., Inc. All Rights Reserved.

JERA Zero CO_2 Emissions 2050: Efforts towards Zero CO_2 Emission（Renewable energy development）

- JERA has set a target of 5GW renewable energy development by FY2025, and is widely promoting wind power, solar power, battery storage, etc.





* 1 In November 2022, the first solar power project has started its operation.
* 2 Signed an agreement to acquire 100% of the shares, closing of the transaction is expected in 2023.
Parkwind's equity generation capacity in operation and under construction is 0.6GW, equity generation capacity under development is 4.5GW.

© 2023 JERA Co., Inc. All Rights Reserved.