



erex Co., Ltd. [9517]

**To become a pioneer in the new
era of electric power with
renewable energy at its core**

Supplementary Materials for the 1H of FY March 31, 2024

(6 Months Ended September 30, 2023)

November 10, 2023

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- 1. Summary of Financial Results for the 1H of FY March 2024**
 2. Revised Forecasts for FY March 2024
 3. Revised Forecasts for FY March 2025
 4. Toward New Growth (Outlook for 2030)
- Appendix (Reference Material Toward 2030)

Financial Results for the 1H of FY March 2024 (6 Months Ended Sep 30, 2023)

- Net sales declined by JPY16.6 billion YoY due to decreased demand for high-voltage retail and lower wholesale prices to JEPX
- The change of sales strategy to linkage to market-linked plan in the low-voltage retail and the decline in retail demands made the surplus of procured power. It was forced to be sold at cheaper prices at JEPX and resulting in negative spread.
- Unit prices of retail market-linked menus and wholesale unit prices declined as JEPX prices were low as compared to the previous year

(JPY Billion)	1H of FY March 2023 (Results)	1H of FY March 2024 (Results)	Increase/Decrease	YoY Comparison
Net Sales	137.5	120.8	△16.6	△12.1%
EBITDA*	10.7	△8.9	△19.7	-
SG&A Expenses	5.3	5.3	0.0	0.6%
Operating Income	10.7	△10.7	△21.4	-
Ordinary Income	7.5	△9.2	△16.7	-
Net Income *	4.5	△11.1	△15.6	-

*EBITDA... Income before income taxes + Interest expense + Depreciation + Amortization of goodwill, etc.

*Net income attributable to the owners of the parent company

[Note] Tentative accounting treatment had been applied for business combination in the previous fiscal year, but since the calculation of market value, etc. as of the date of the business combination was completed, the accounting treatment was finalized in the current fiscal year. As a result, some of the amounts of goodwill, etc. for the previous fiscal year have been changed.

- Net sales declined by JPY13.9 billion YoY due to a decrease in demands for high-voltage retail and wholesale
- Unit prices at retail and wholesale to JEPX fell as JEPX prices were low despite record high summer temperatures due to nationwide electric power conservation measures and excess supply capacity
- Ordinary income decreased by JPY10.4 billion YoY due to significant increase in procurement costs, etc.
- Net income decreased by JPY10.2 billion YoY, partly due to the reversal of deferred tax assets

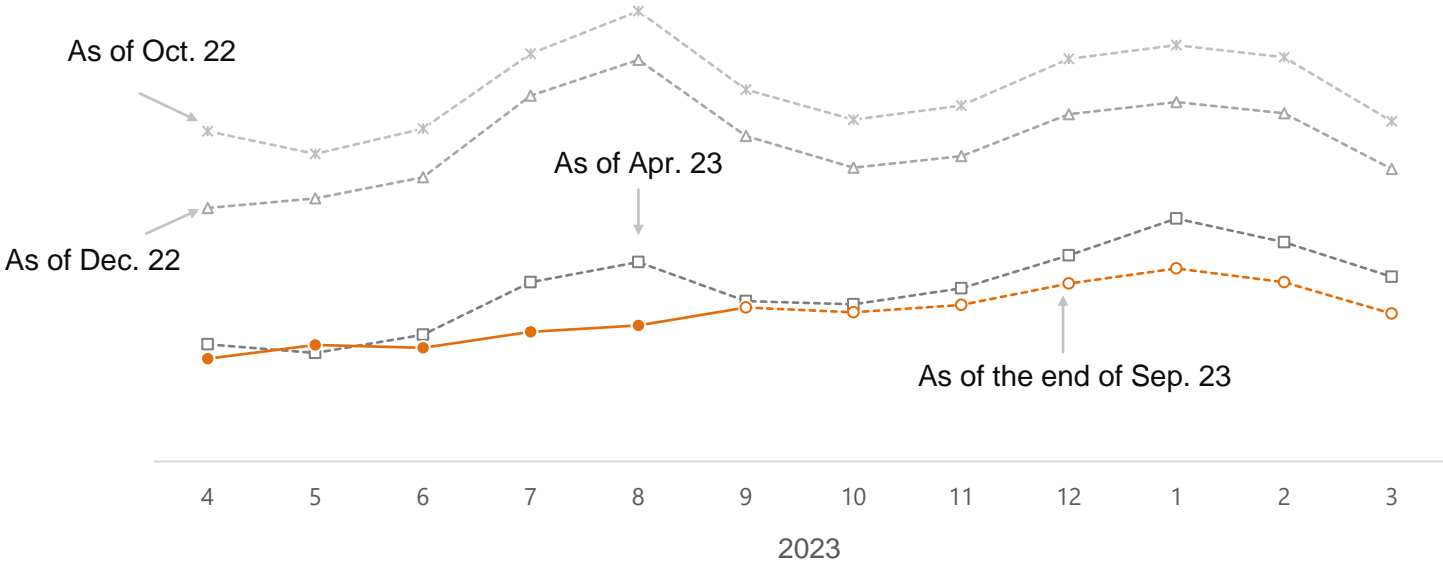
(JPY Billion)	2Q of FY March 2023 (Results)	2Q of FY March 2024 (Results)	Increase/Decrease	YoY Comparison
Net Sales	78.9	64.9	△13.9	△17.6%
EBITDA*	7.0	△6.2	△13.3	-
SG&A Expenses	2.6	2.6	△0.0	△3.3%
Operating Income	7.6	△4.7	△12.4	-
Ordinary Income	5.3	△5.0	△10.4	-
Net Income *	2.8	△7.3	△10.2	-

*EBITDA... Income before income taxes + Interest expense + Depreciation + Amortization of goodwill, etc.

*Net income attributable to the owners of the parent company

- Significant discrepancy between “FY2023 JEPX prices assumed in FY2022” and “actual FY2023 price levels” was generated, especially during the summer season when prices did not rise much, resulting in a larger discrepancy. Financial results deteriorated as procured power sources secured during FY2022 in preparation for JEPX price hikes made us lose competitiveness

Tokyo Area Baseload Futures Prices (yen/kWh)



Observation	Annual Average
Oct. 22	37.1
Dec. 22	30.9
Apr. 23	16.5
End of Sep. 23	13.9

*At the time of observation

*Analyzed and prepared by erex Group

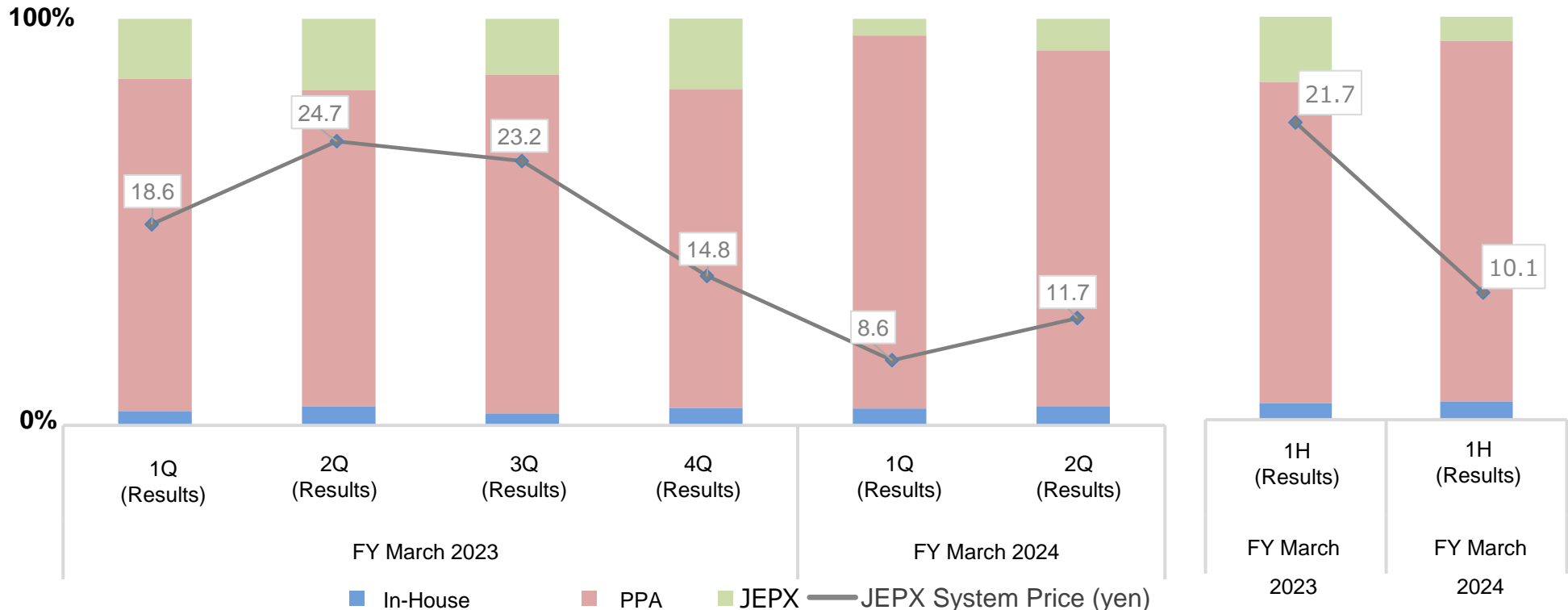
Power Procurement Mix for the 1H of FY March 2024

- JEPX price was down 11.6 yen as compared to the previous year
- As a result of securing sufficient PPA power sources for retail demands in preparation for the risk of JEPX price hike, procurement from the cheaper JEPX could hardly be utilized due to the decline in retail demands
- In-house power generation was largely in line with the plan, but was slightly less than the plan due to the impact of output curtailment, etc.

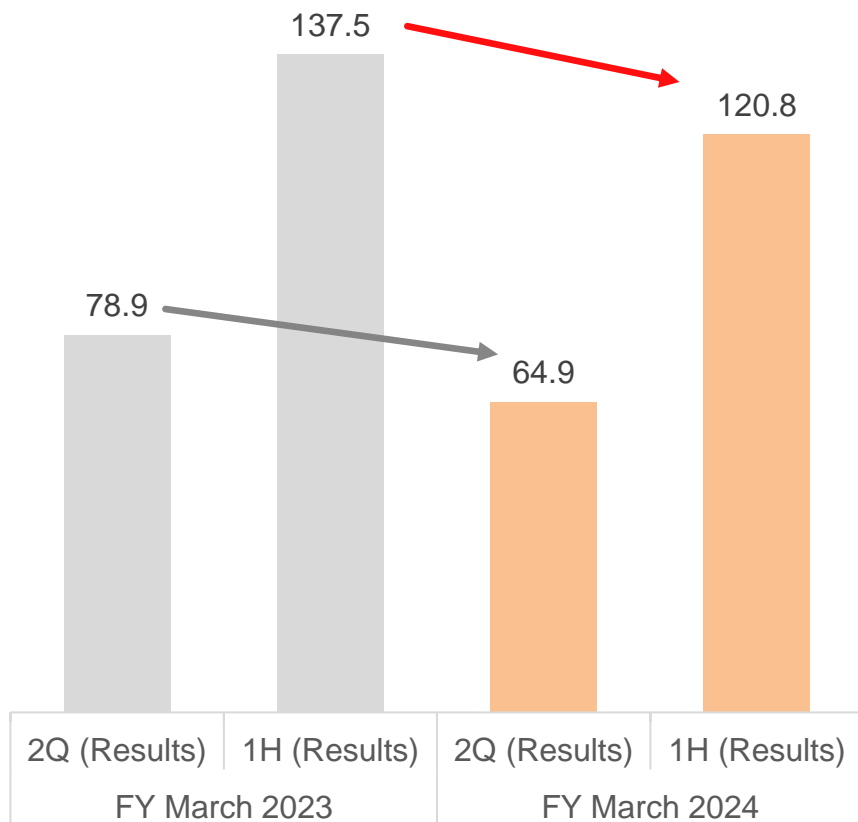


erex Group's normal procurement strategy of "increasing market procurement ratio when the market is cheap" could not be executed

Procurement Mix and JEPX Price Trends (System Price)



(Unit: JPY Billion)



Net Sales JPY120.8 Billion

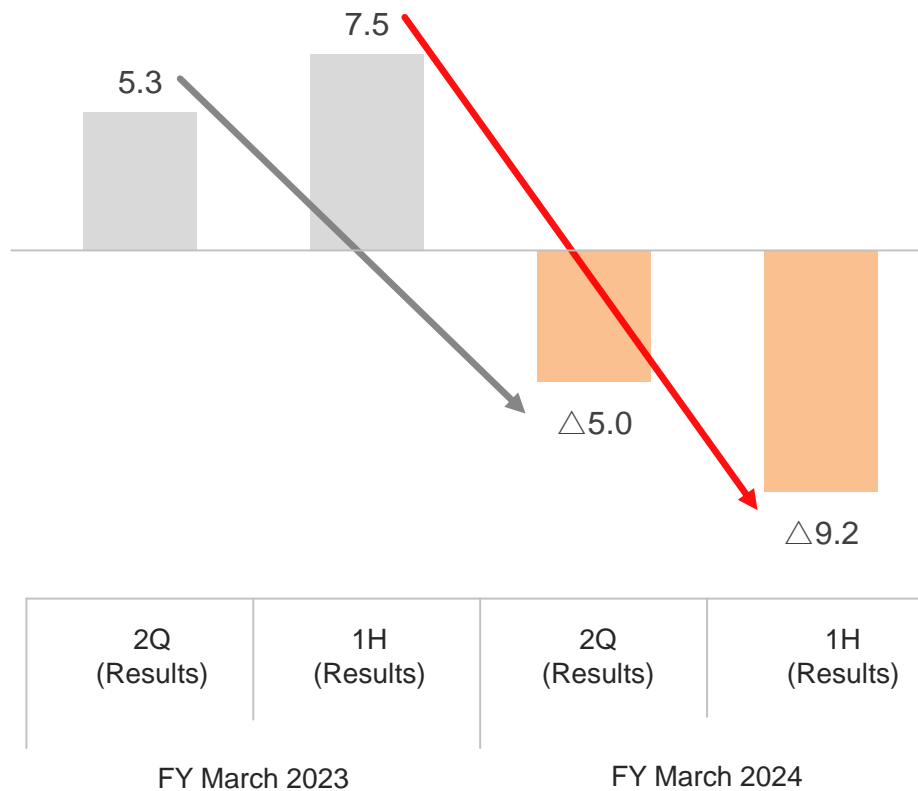
△ 12.1% YoY

	Net Sales (Composition Ratio)	
	1H of FY March 2023 (Results)	1H of FY March 2024 (Results)
High Voltage Retail	28.7	24.7 *1
Low Voltage Retail	19.1	19.9 *1
Wholesale (Including Sales to 3rd Parties by Power Plants)	87.4	*2 → 70.7
Fuel Sales to 3rd Parties, City Gas, etc.	2.2	5.5

*1: Including subsidies to mitigate drastic changes

*2: Buzen Biomass Power Plant is excluded from the scope of consolidation from the current fiscal year due to a change in operating rules

(Unit: JPY Billion)



Ordinary Income Δ JPY9.2 Billion

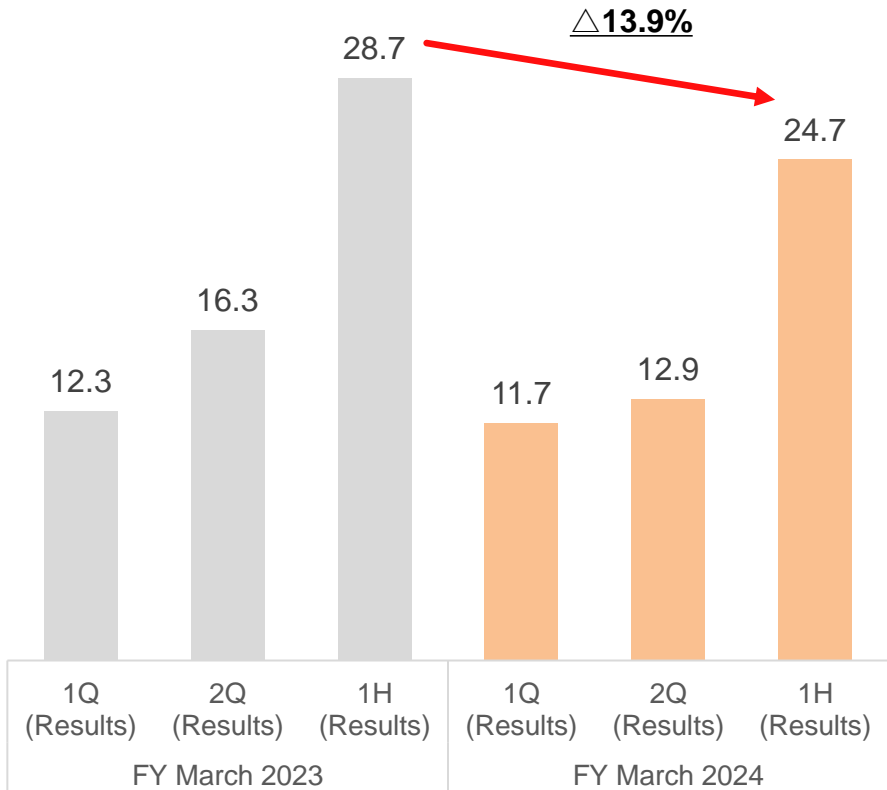
- Cost of sales increased significantly due to the procurement of relatively expensive power sources
- The change of sales strategy to linkage to market-linked plan in the low-voltage retail and the decline in retail demands made the surplus of procured power. It was forced to be sold at cheaper prices at JEPX and resulting in negative spread.
- At Itoigawa Power Plant, high-priced coal inventory caused a significant decline in profits
- Higher unit sales prices of high-voltage retail contributed to retail business earnings
- Derivative transactions in preparation for market price declines generated net profits, reducing a portion of the significant operating loss

- Price hikes completed. Unit sales price significantly increased
- As JEPX prices were at low levels, price competition intensified. erex Group worked to build up demands but was unable to do so at certain price level to ensure sufficient profits

Net Sales

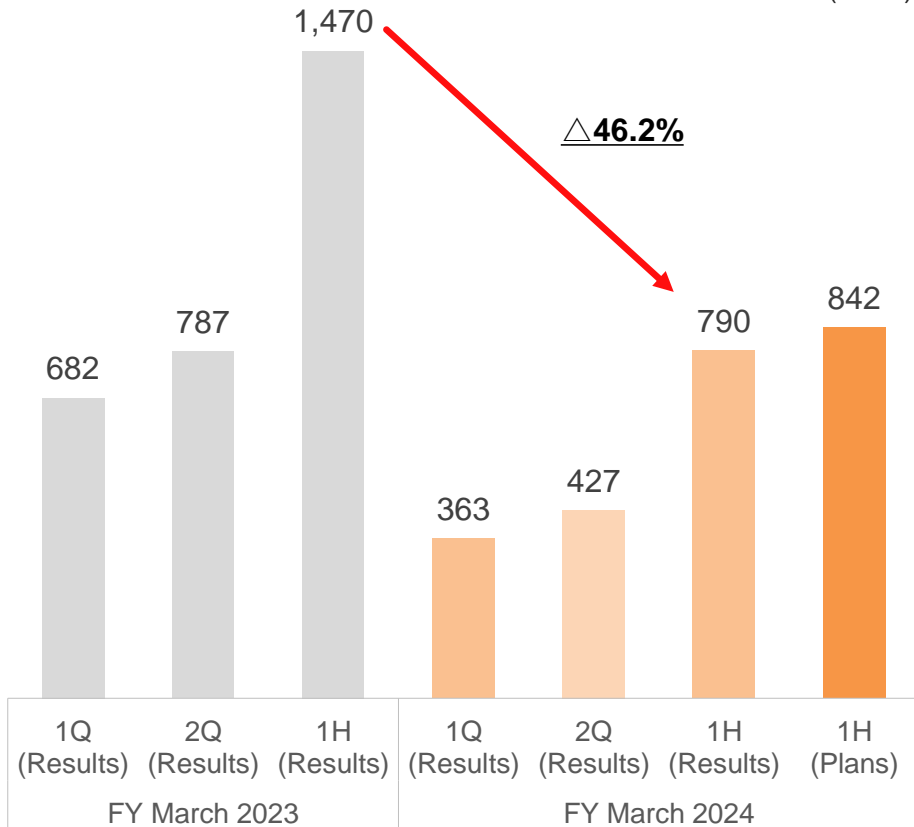
(JPY Billion)

*Including subsidies to mitigate drastic changes



Power Sales Volume

(GWh)

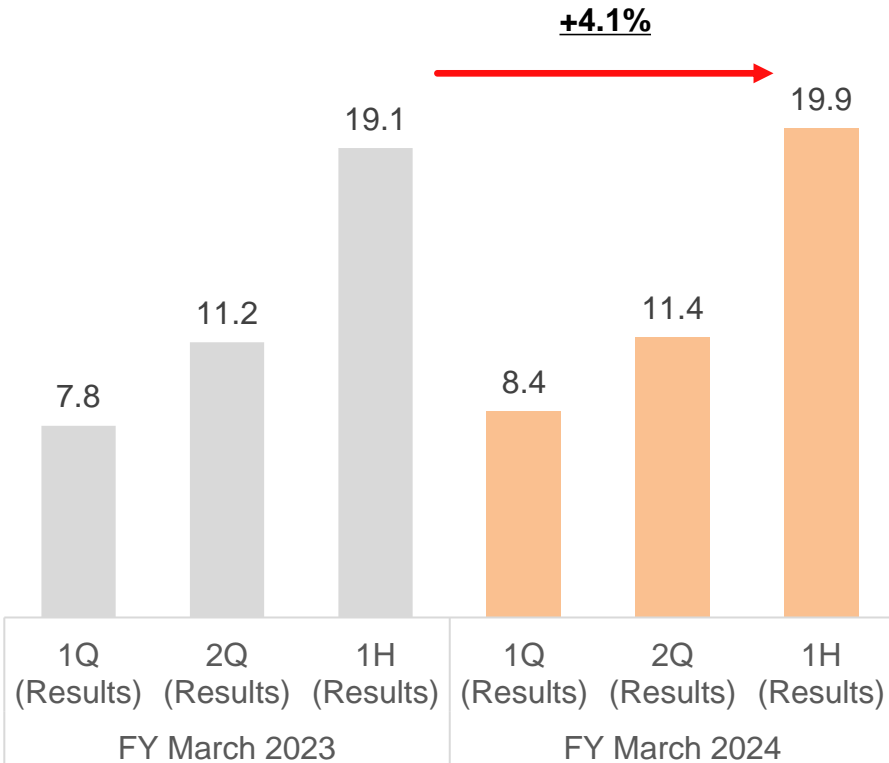


- Profitability stabilized due to the switch to market-linked plans, but unit prices declined due to lower JEPX prices
- Power sales volume was flat, while the number of customers fell by 2.8%, exceeding plans

Net Sales

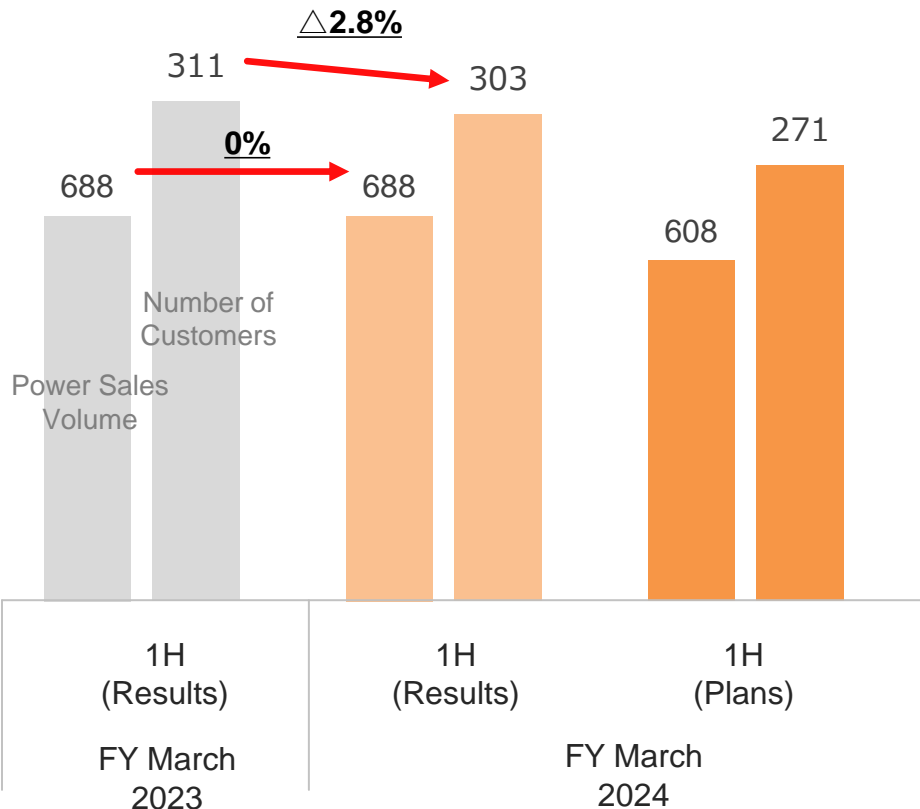
(JPY Billion)

*Including subsidies to mitigate drastic changes



Power Sales Volume & Number of Customers

(Power Sales Volume: GWh)
(Number of Customers: thousands)

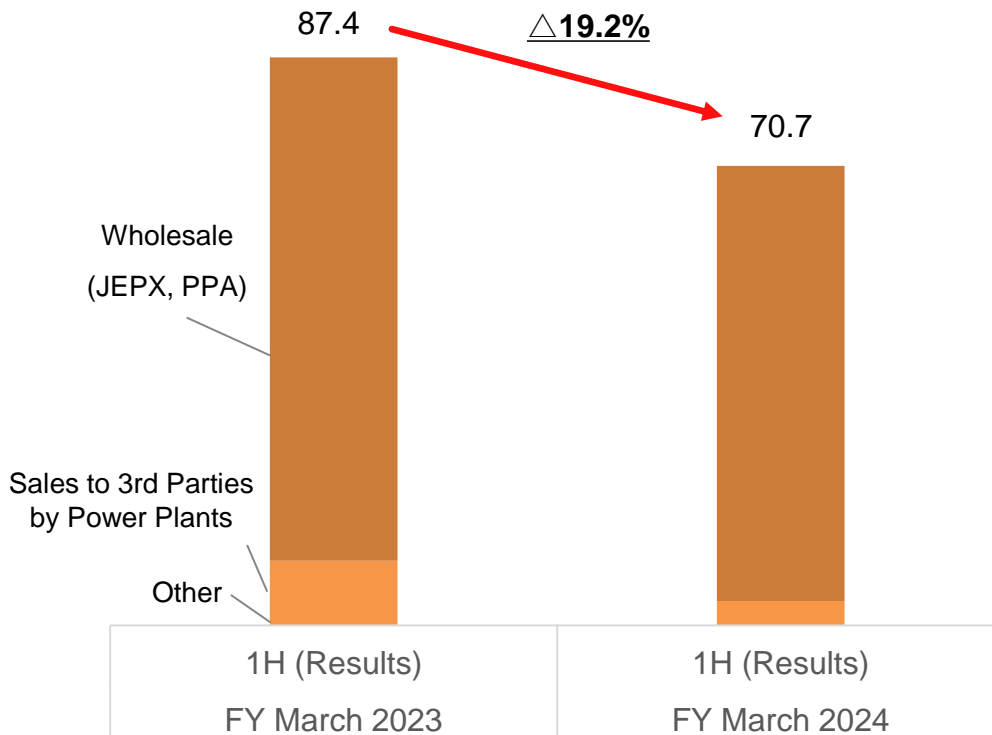


Highlights for the 1H of FY March 2024 (Wholesale)

- While the unit sales price of PPA was higher than the previous year and the sales volume also expanded, contributing to an increase in net sales, the unit price of JEPX wholesale fell sharply and sales volume also declined. Overall, net sales decreased.
- Buzen Biomass Power Plant was excluded from consolidation

Net Sales

(JPY Billion)



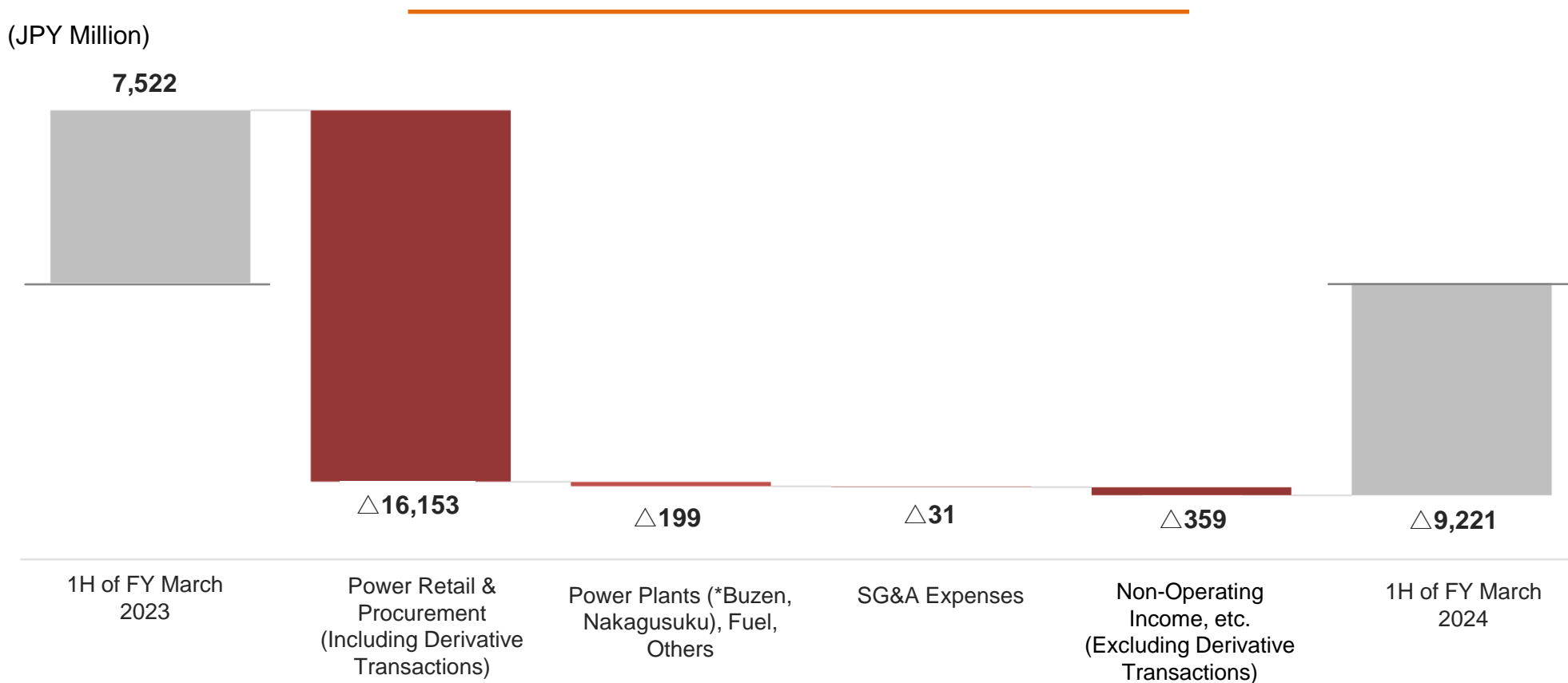
	(1) BL Market Average unit price for FY2023	(2) JEPX (23/4/1 - 9/30)	(2) - (1)
East (Tokyo)	31.8 yen	11.9 yen	△19.9 yen

*Reference

- Due to changes in the system (from FY2023 procurement), opportunities for new power companies to access power sources in the following year are limited to the **baseload market** and **bidding** by major power companies
- These were utilized to ensure a certain level of supply capacity within 2022, but as **mentioned above, the procurement cost was significantly inferior**, and retail competitiveness was also reduced

Ordinary Income

(JPY Million)



* Buzen Biomass Power Plant is excluded from the scope of consolidation from the current fiscal year due to a change in operating rules

(1) Power Retail & Procurement: △16,153

- Cost of sales increased significantly due to overpriced power sources procured in the previous year
- The change of sales strategy to linkage to market-linked plan in the low-voltage retail and the decline in retail demands made the surplus of procured power. It was forced to be sold at cheaper prices at JEPX and resulting in negative spread. As a results, the profits decreased significantly.
- High-voltage sales volume declined significantly, but unit prices increased due to the effect of price hikes
- Power derivatives: +5,116, etc.

(2) Power Plants (Buzen, Nakagusuku), Fuel, Others: △199

- Exclusion of Buzen from the scope of consolidation (from FY March 2024): △802
- Increase in power generation costs, etc. of Nakagusuku Power Plant, etc.: △246
- Fuel sales to 3rd parties, etc.: △282
- Tosa Power Plant FIP subsidy: +975, etc.

(3) SG&A Expenses: △31

- Agency fees (decrease): +322
- Sales promotion expenses (decrease): +171
- Outsourcing expenses (increase): △227
- System-related expenses (increase): △184
- Others: △112

(4) Non-Operating Income, etc.: △359

- Foreign exchange gains: △537, etc.

Summary of the Consolidated Balance Sheet



(JPY Billion)	FY March 2023 (End of the Period)	1H of FY March 2024		
		Results	Increase/ Decrease	Major Reasons for Increase/Decrease
Current Assets	79.3	66.1	△13.2	<ul style="list-style-type: none"> Decrease in cash and deposits Decrease in accounts receivable/trade due to a decrease in the number of customers
Noncurrent Assets	92.7	82.0	△10.6	<ul style="list-style-type: none"> Decrease in “buildings and structures” and “machinery and delivery equipment” due to the exclusion of Buzen New Energy (BNE) from the scope of consolidation Increase in investments in affiliates (due to exclusion of BNE from consolidation)
Total Assets	172.1	148.2	△23.9	
Current Liabilities	48.4	39.7	△8.6	<ul style="list-style-type: none"> Decrease in accounts payable/trade due to shorter turnover period Decrease due to payment of income taxes payable
Noncurrent Liabilities	49.7	44.3	△5.3	<ul style="list-style-type: none"> Decrease in long-term loans payable (due to exclusion of BNE from consolidation) Increase due to issuance of bonds
Total Liabilities	98.1	84.1	△14.0	
Capital Stock	57.5	45.2	△12.3	<ul style="list-style-type: none"> Decrease due to net loss and dividend payment
Accumulated Other Comprehensive Income	4.4	10.1	5.7	<ul style="list-style-type: none"> Increase in deferred hedge gain/loss on foreign exchange forward contracts
Noncontrolling Shareholders' Interest	11.9	8.7	△3.2	<ul style="list-style-type: none"> Due to exclusion of BNE from consolidation
Total Net Assets	73.9	64.0	△9.8	
Cash & Deposits	33.6	22.1	△11.4	<ul style="list-style-type: none"> Due to exclusion of BNE from consolidation Decrease due to increase in working capital and payment of income taxes
Interest-Bearing Debt	55.1	51.1	△4.0	<ul style="list-style-type: none"> Decrease in long-term loans payable (due to exclusion of BNE from consolidation) Increase due to issuance of bonds
Equity Ratio	36.0%	37.3%	1.3%	<ul style="list-style-type: none"> Decrease in liabilities due to exclusion of BNE from consolidation Decrease in shareholders' equity due to net loss

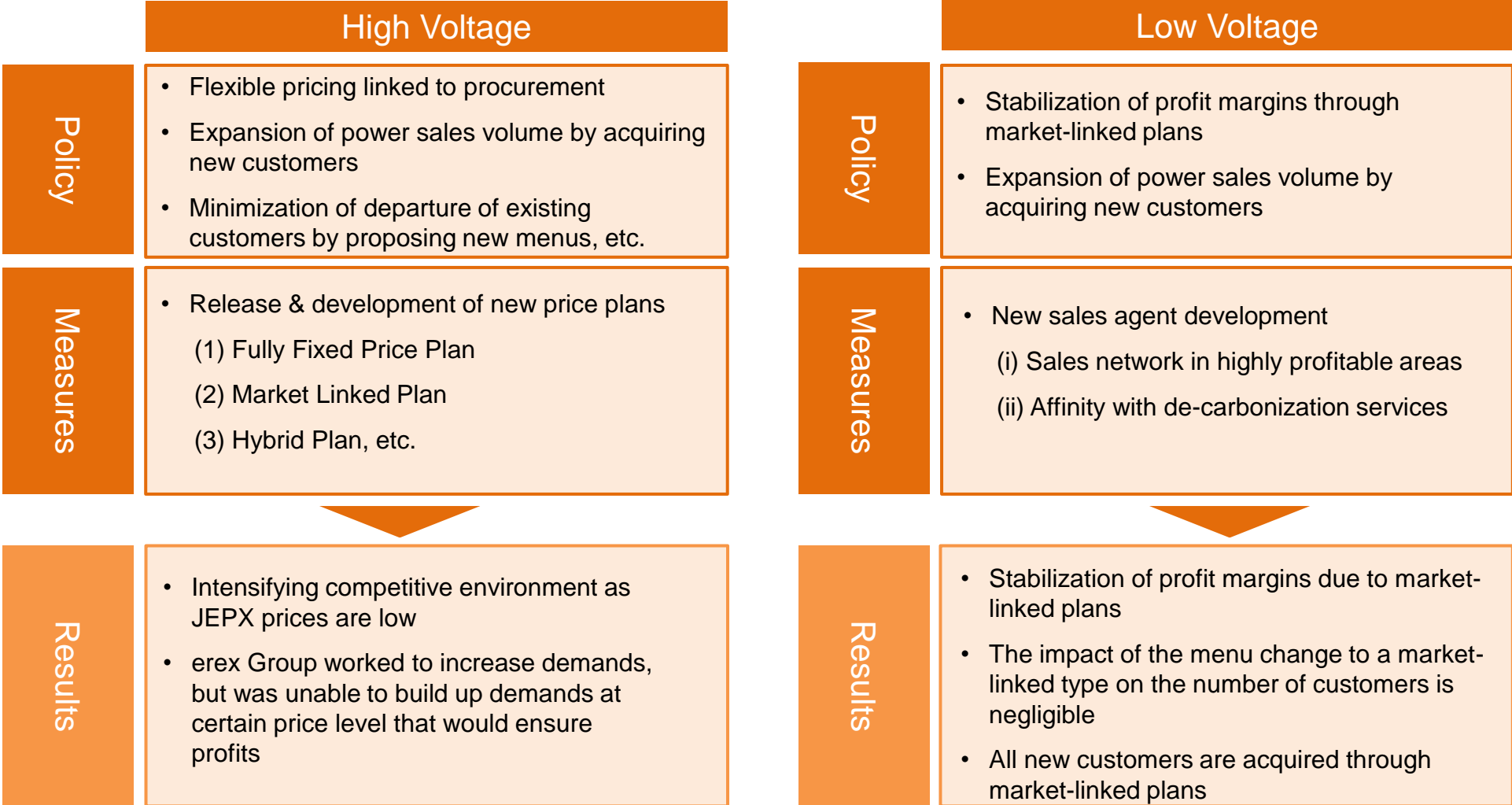
Consolidated Statement of Cashflow (JPY Billion)



	1H of FY March 2023	1H of FY March 2024	
		Results	Factors Causing Changes from the Beginning Balance
Cash and Cash Equivalents at the Beginning of the Period	26.7	33.4	
Cash Flow from Operating Activities	23.3	Δ 15.1	
Income before Income Taxes	7.5	Δ 9.2	
Depreciation and Amortization	2.7	1.7	Decrease due to exclusion of BNE from consolidation
Increase/Decrease in Working Capital*	9.5	Δ 3.3	Decrease in accounts payable/trade due to shorter turnover period
Income Taxes Paid	Δ 1.3	Δ 3.8	
Others	4.8	Δ 0.4	
Cash Flow from Investing Activities	Δ 4.7	Δ 0.8	Payments for construction in progress (Vietnam)
Cash Flow from Financing Activities	1.0	10.6	Increase in corporate bonds, short-term and long-term loans payable
Effect of Exchange Rate Changes on Cash and Cash Equivalents	0.2	0.3	
Decrease in Cash and Ccash Equivalents due to Exclusion from Consolidation	-	Δ 6.4	Decrease due to exclusion of BNE from consolidation
Cash and Cash Equivalents at the End of the Period	46.7	22.0	
Free Cash Flow	18.6	Δ 15.9	Decrease in cash flow from operating activities
Net Interest-Bearing Debt	9.8	30.3	

*Accounts receivable/trade + Inventories + Accrued revenues - Accounts payable/trade

- erex Group exhibited a booth at an event of gas companies to expand the number of new sales agents (low voltage)
- Due to intensifying price competition, profits could not be accumulated at a sufficient level
- Profitability stabilized due to market-linked plans for low-voltage retail, but unit sales prices declined



Power Generation Results for the 1H of FY March 2024

- All power plants were broadly on schedule, with the exception of Itoigawa Power Plant
- At Itoigawa Power Plant, the utilization rate was decreased to avoid deteriorating profitability due to high coal inventory prices
- Output curtailment orders significantly increased in all areas of Tohoku, Shikoku, Kyushu, and Okinawa
- Saiki changed the periodic repair schedule from twice/year to once/year to improve utilization

Power Plant Name	Power Generation Volume (GWh)			Output Curtailment
	Plans	Results	vs Plans	
Tosa	63	61	97%	26 times
Saiki	188	178	95%	92 times
Buzen	237	225	95%	66 times
Ofunato	228	232	102%	15 times
Nakagusuku	158	155	98%	7 times
Itoigawa	331	146	44%	None

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Factors for the Revision to the Financial Forecasts

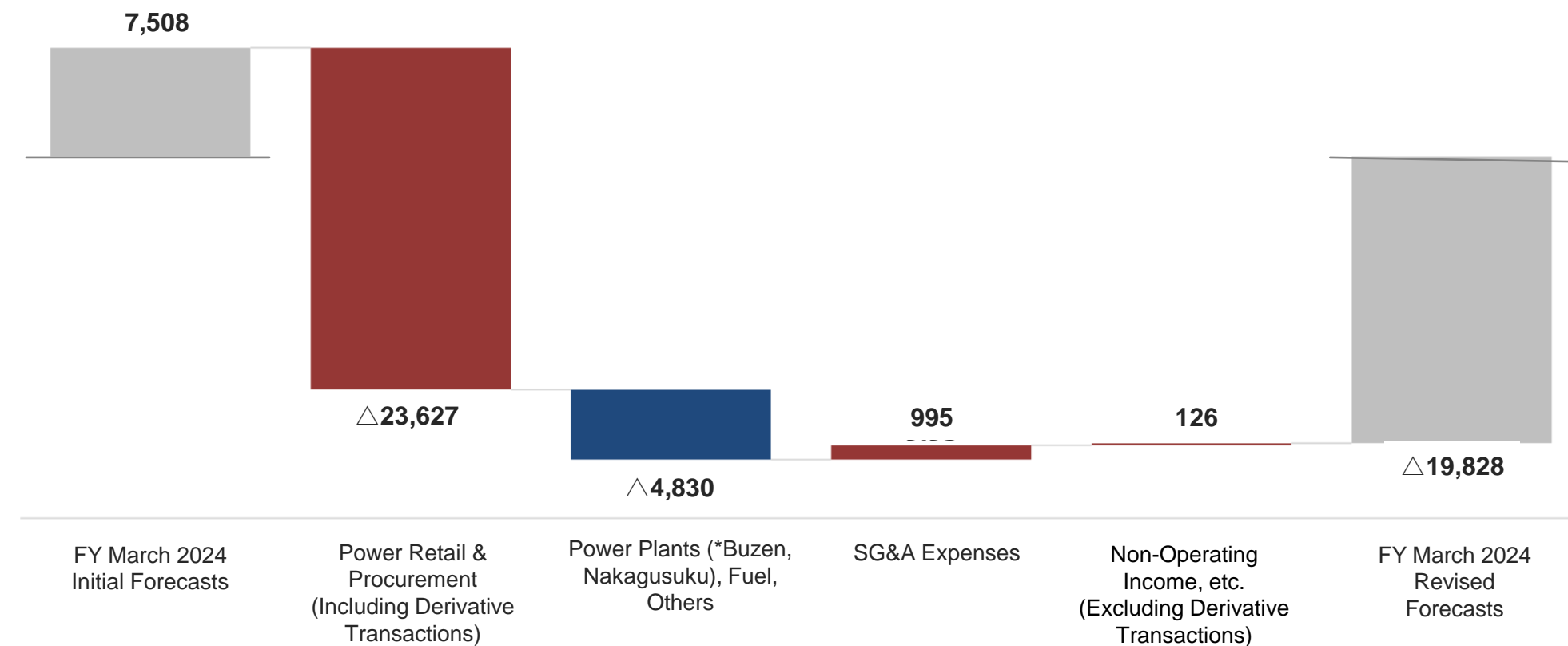
- Cost of sales will remain high in the 2H due to procurement of relatively expensive power sources throughout the year
- It is continued that the change of sales strategy to linkage to market-linked plan in the low-voltage retail and the decline in retail demands made the surplus of procured power which was forced to be sold at cheaper prices at JEPX and resulting in negative spread.
- erex Group worked to increase demands in order to improve profitability, but as JEPX prices remained at a low level and price competition is intensifying, and was unable to increase demands at a level that is sufficient to secure profits
- Itoigawa Power Plant experienced a significant decrease in profit in the 1H due to the impact of expensive coal inventory. Although power generation costs are expected to be reduced in the 2H and thereafter in light of the decline in coal prices, the plant, for the full year, will not be able to make up for profit decline in the 1H

(JPY Billion)	FY March 2024 Cumulative Total for Full Year (Initial Plans)	FY March 2024 Cumulative Total for Full Year (Revised Plans)	Increase/Decrease
Net Sales	228.0	219.4	▲8.6
Operating Income	7.7	▲21.3	▲29.0
Ordinary Income	7.5	▲19.8	▲27.3
Net Income *	4.4	▲22.0	▲26.4

*Net income attributable to the owners of the parent company

Ordinary Income

(JPY Million)



(JPY Million)

(1) Power Retail & Procurement: \triangle 23,627

- Cost of sales will remain high in the 2H due to procurement of relatively expensive power sources throughout the year
- Surplus of procured power sources generated by reduced demands has to be sold as wholesale at low-priced JEPX, resulting in continued negative spread
- erex Group worked to increase demands in order to improve profitability, but as JEPX remains at a low level and price competition is intensifying, has not been able to increase demands at a level that is sufficient to secure profits
- Itoigawa Power Plant experienced a significant decrease in profit in the 1H due to the impact of expensive coal inventory. Although power generation costs are expected to be reduced in the 2H and thereafter in light of the decline in coal prices, the plant, for the full year, will not be able to make up for the decline in profits in the 1H

(2) Power Plants (Nakagusuku), Fuel, Others: \triangle 4,830

- Increase in cost of power generation at Nakagusuku: \triangle 953
- Fuel sales to 3rd parties, etc.: \triangle 4,796
- Tosa Power Plant's FIP subsidy: +576, etc.

(3) SG&A Expenses: +995

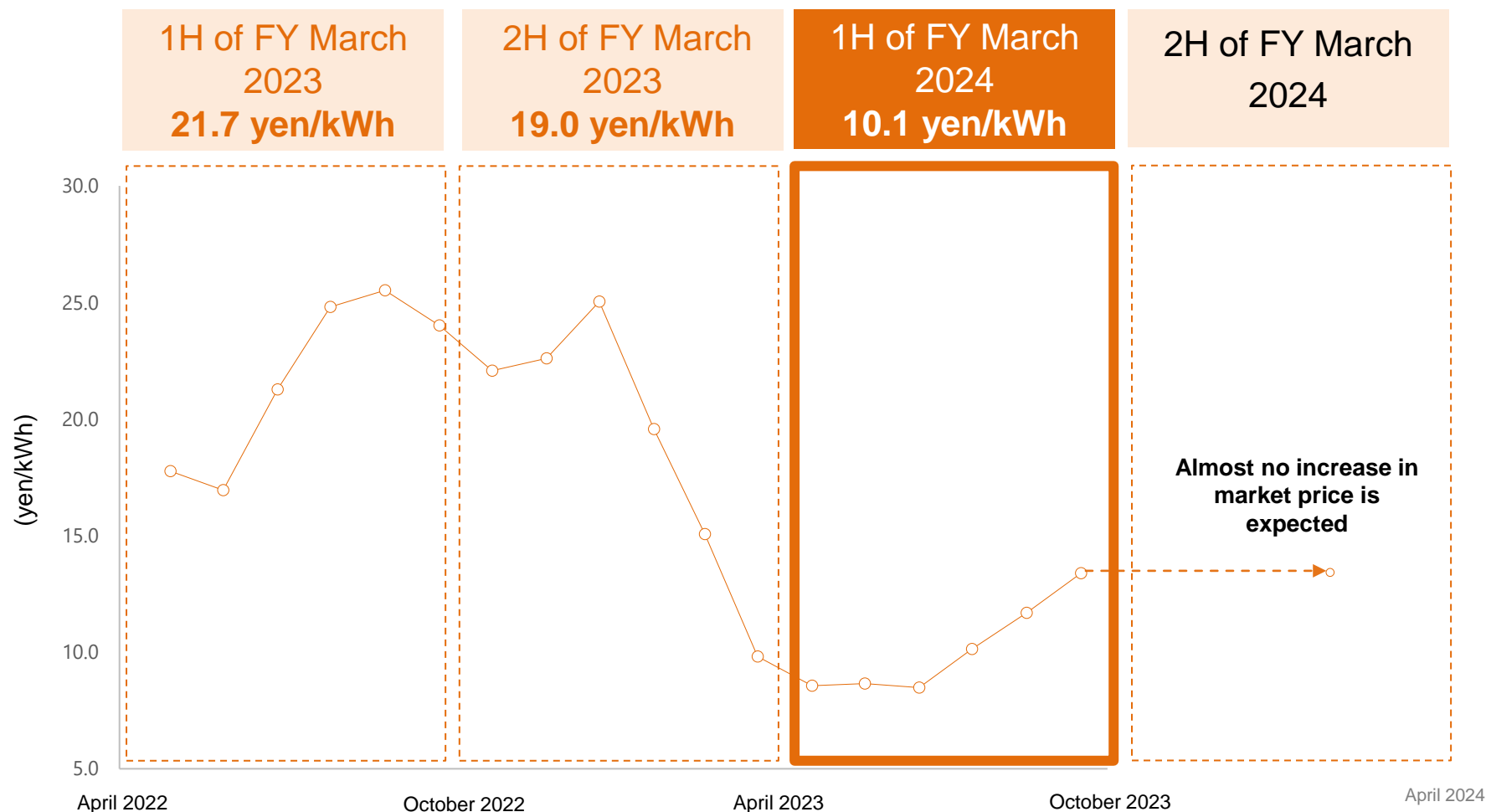
- Sales promotion expenses (decrease): +419
- Personnel expenses (decrease): +182, etc.

(4) Non-Operating Income, etc.: +126

- Foreign exchange gains: +878
- Investment loss on equity method: \triangle 489
- Interest expense: \triangle 230, etc.

- JEPX prices (system prices) were low in the 1H of FY March 2024. If the same trend continues, unit sales price of electric power will also be at low level, resulting in lower net sales

System Price Trends



*At the time of observation

Issues Encountered

- The gap between the power procurement price and power sales price and the gap between the power procurement volume and the power sales volume both widened, forcing wholesale of power sources procured at high prices to JEPX at low prices, resulting in negative spread
- High-priced coal inventory at Itoigawa Power Plant was a major factor in the significant decline in profit
- Increased costs due to higher biomass fuel prices
- Overseas business is rapidly advancing to the execution stage, and there is an urgent need to develop a system to respond to this situation

Strategic Response for the 2H
and Beyond

Organizational Transformation

To avoid further increase of loss in the current fiscal year
To return to profitability in the next fiscal year

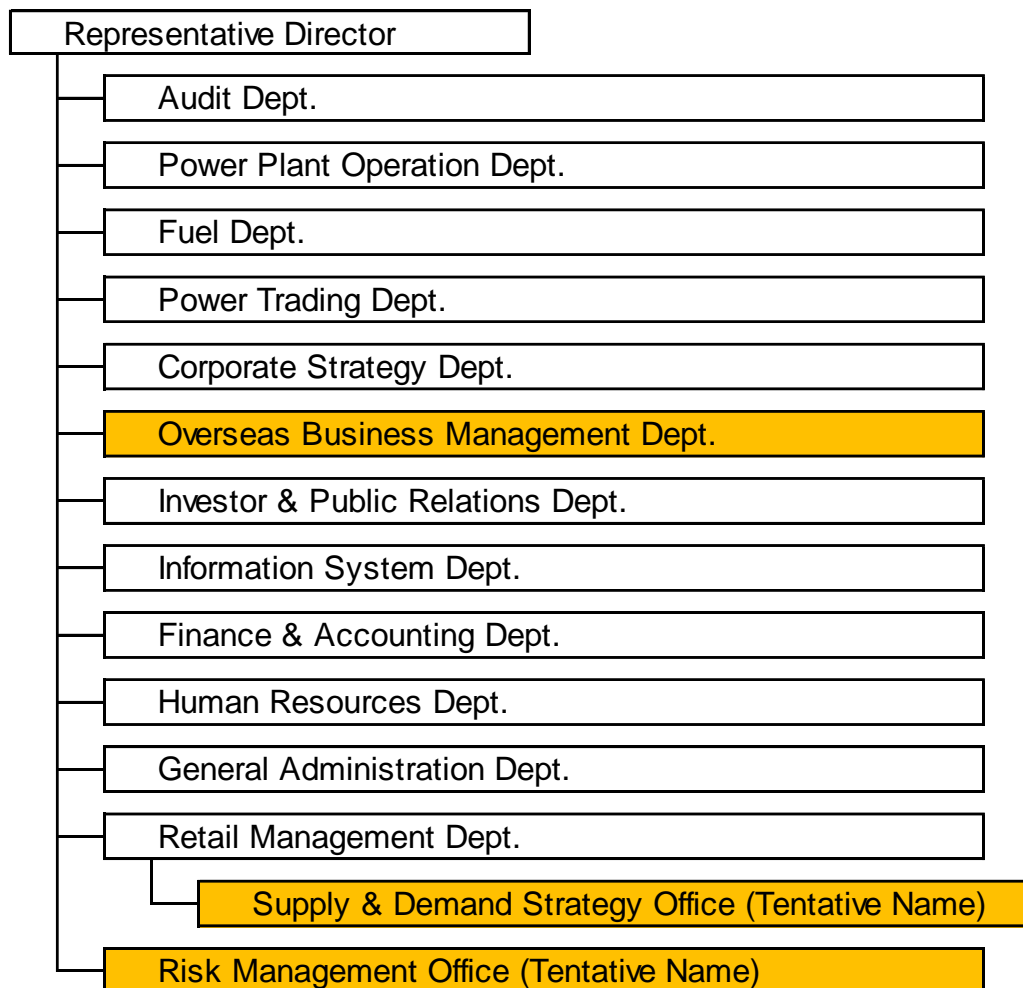
Aims of Organizational Transformation

- In order to achieve a recovery in financial results in the next fiscal year and beyond, it has been determined that not only a review of business operations but also organizational transformation are necessary
- In addition to expanding business areas, mainly overseas, erex Group will strengthen cooperation between divisions in order to cope with the rapidly changing business environments in Japan

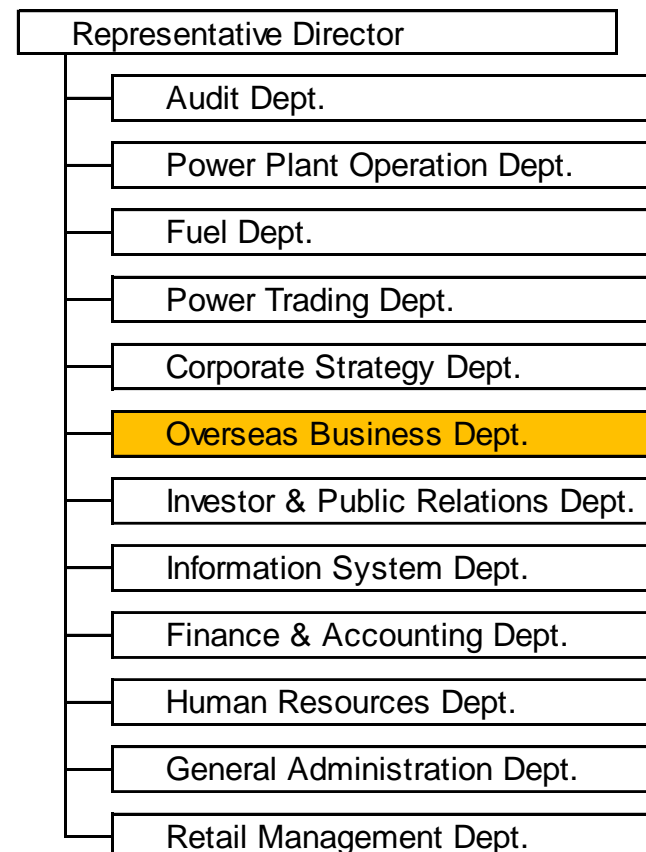
Background and Role

<p>Creation of Risk Management Office (Tentative Name)</p>	<p>[Background]</p> <ul style="list-style-type: none"> • The reason for significant deterioration in financial results this time was that PPA procurement amount was more than needed in trading, but at the same time, interdepartmental collaboration, such as "procurement & sales", "power generation & fuel" and "power generation & procurement" became an important issue <p>[Role]</p> <ul style="list-style-type: none"> • This office will strengthen the risk management system by identifying risks among divisions and promptly implementing countermeasures through participation of responsible persons of each division in the Risk Management Office, including each business division such as power generation, fuel, trading, and retail, as well as each administrative division such as corporate planning, finance, and accounting • The Risk Management Office is also responsible for confirming trading positions, developing risk management methods, and managing overseas business risks
<p>Creation of Supply & Demand Strategy Office (Tentative Name)</p>	<p>[Background]</p> <ul style="list-style-type: none"> • The significant deterioration in financial results this time was due to the widening gap between the power procurement and sales prices and the gap between the power procurement and sales volume <p>[Role]</p> <ul style="list-style-type: none"> • Coordination between retail and market trading divisions will be strengthened to prevent recurrence of similar events. In addition, the development of new rate menus will be integrated with procurement strategies. Specifically, "aggressive sales" function integrated with management strategy and power source procurement will be strengthened
<p>Creation of Overseas Business Management Dept.</p>	<p>[Background]</p> <ul style="list-style-type: none"> • The Overseas Business Department was in charge only of the Cambodian hydropower project, and teams were set up for each project for the Vietnam project and other overseas projects <p>[Role]</p> <ul style="list-style-type: none"> • As part of the growth strategy for 2030, erex Group plans to significantly expand its overseas business, and the Overseas Business Management Dept. will be in charge of promoting its overseas business centrally • Specialized and cross-functional groups such as "Finance Group" will be established within the Overseas Business Management Department in order to promote projects in various countries

New Organization



Former Organization

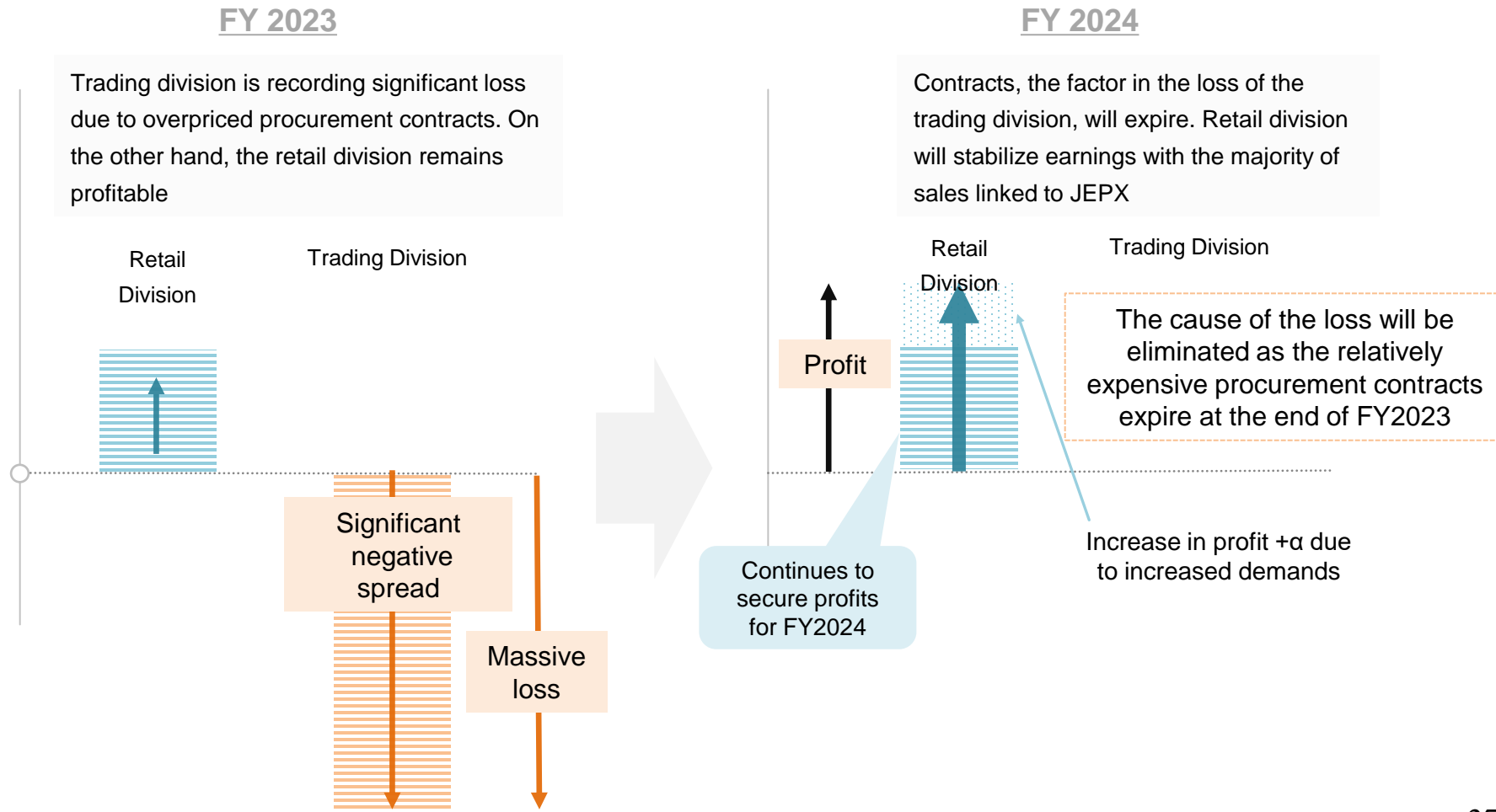


	Issue	Measures/Outlook
Retail Trading	Increase in Demands	<ul style="list-style-type: none"> - Competitive proposals centered on market-linked menus are made as JEPX remains at a low level, resulting in net increase trend in demands - Shift to market-linked retail sales creates no excess procurement - Demands are aggressively built up through expansion of agencies
	Relatively Expensive PPA Power Sources	<ul style="list-style-type: none"> - By the end of FY2023, all relatively expensive PPA contracts will expire - No significant over/under risk in the trading department will be generated because market-linked menus are representing most of the contracts
Power Generation Fuel	Decline in Competitiveness of In-House Power Sources	<ul style="list-style-type: none"> - Itoigawa Power Plant will be utilized as a price-competitive power source as the cost of power generation decreases due to falling coal prices - Competitiveness is strengthened by increasing the number of operating days (e.g., changing the periodic repair at Saiki Power Plant to once a year)
	Rising Biofuel Prices	<ul style="list-style-type: none"> - Fuel procurement cost will increase due to mandatory use of certified material from FY2024 - Overall fuel procurement costs are reduced by reducing the number of vessels deployed and transportation costs through the use of foreign exchange forward contracts and long-term contracts for large vessels <p>- See page 29 for approach and efforts for the biomass fuel business</p>

Organizational transformation to be implemented: Creation of Supply & Demand Strategy Office (tentative name), Risk Management Office (tentative name), etc.

Illustrative Image of Financial Result Improvement in Retail/Trading Divisions

- In FY2023, the retail division is still sufficiently profitable relative to JEPX and in-house power sources
- Relatively expensive procurement contracts that are damaging revenues in FY2023 will expire in FY2023
- In FY2024, earnings will be stabilized through in-house power sources and procurement from JEPX by retail's linkage to the market



- After a sharp rise in JEPX prices in FY2022, prices have fallen in FY2023, and it is essential to respond to changes in the market environment
- Differentiation strategy will be strengthened by expanding rate plans, including CO2-free plans

2H of FY2023

FY2024 and Beyond

What erex Group aims to be

- To contribute to de-carbonization of customers through power supply
- To provide inexpensive power through in-house power generation and cost reduction
- To create new value through the use of electricity futures, etc.

To Become the Power Retailer of Choice

High Voltage

- To offer new value such as fully fixed plans utilizing electricity futures
- To provide price-competitive menus through market-linked menus
- To provide PPA menu utilizing non-FIT solar power

- To strengthening de-carbonization solutions
- To accelerate offering fully fixed and hybrid plans

Low Voltage

- To accelerate customer's CO2-free
- To strengthening Web channel
- To develop new sales agents

- Aiming to **become a major player in biofuels** by further expanding business domain in overseas biomass power generation execution and domestic business (mega-bio/fuel conversion)

	Field	Past Points	Points to Strengthen Efforts in the 2H of FY2023 & Beyond
Up Stream ↑	Development	<ul style="list-style-type: none"> Development of sorghum and other fuels Research and investigation of unused bioresources 	<ul style="list-style-type: none"> To accelerate development of sorghum and other fuels To strengthen research and study efforts, taking into account the perspective of CO2 credits
	Manufacturing	<ul style="list-style-type: none"> Direct approach to palm oil mills and pellet factories 	<ul style="list-style-type: none"> To expand the number of fuel procurement sites such as Indonesia, Malaysia, Vietnam, Cambodia, the Philippines, etc. and strengthening storage sites, etc. To construct a large biomass terminal in Saiki for flexible operation of PKS and pellets
	Storage	<ul style="list-style-type: none"> In-house managed fuel storage facility (stockpile) in Southeast Asia 	<ul style="list-style-type: none"> Investment decision to build pellet factories in YB/TQ province (disclosed) Implementation of pellet factory M&A in Vietnam under consideration
	Transportation	<ul style="list-style-type: none"> In-house biomass fuel carrier 	<ul style="list-style-type: none"> To expand the area of utilization of in-house biomass fuel carriers To pursue further transportation efficiency through expansion of handling volume
Down Stream ↓	Distribution	<ul style="list-style-type: none"> Optimized combination of long-term and spot contracts by leveraging one of the largest transaction volumes in Japan 	<ul style="list-style-type: none"> To supply stable & competitive fuel by expanding upstream (handling volume target for 2030 is 14.2 million tons) To expand revenues through external sales, in addition to supply and usage at in-house power sources

To maximize Southeast Asia's biomass potential and contribute to de-carbonization

1. Summary of Financial Results for the 1H of FY March 2024
 2. Revised Forecasts for FY March 2024
 - 3. Revised Forecasts for FY March 2025**
 4. Toward New Growth (Outlook for 2030)
- Appendix (Reference Material Toward 2030)

(JPY Billion)	FY March 2024 Full Year Total (Forecasts)	FY March 2025 Full Year Total (Forecasts)	Increase/Decrease
Net Sales	219.4	200.0	-
Operating Income	▲21.3	4.7	26.0
Ordinary Income	▲19.8	4.3	24.1
Net Income *	▲22.0	2.8	24.8

*Net income attributable to the owners of the parent company

Based on the following changes in the business environment, erex Group has decided to withdraw the mid-term business plan announced on May 12, 2023, because it has determined that it is necessary to restructure the business to match the business environment

Changes in the Domestic Business Environment

- JEPX prices has remained low even during the high-demand summer season, and the risk of incurring losses due to the gap between the procurement price of power sources and the JEPX price has become apparent
- Price competition has intensified in the retail business as JEPX remains low
- Power generation and fuel businesses need to be revised in light of the significant depreciation of the yen, the current level of fossil fuel prices and wholesale power markets

Progress of Overseas Business

- Potential projects in Vietnam and Cambodia are now in the execution stage with a scale and speed beyond what was envisioned at the time
- New issue of handling CO2 credits has arisen

In light of the increasing speed of changes in the business environment and the growing probability that strategy will be forced to be changed with speed in the future, erex Group has decided to announce its vision for 2030, instead of formulating a three-year outlook plan

[Original Plan]

Announced on May 12, 2023

(JPY Billion)	FY March 2024 Full Year Total	FY March 2025 Full Year Total	FY March 2026 Full Year Total	FY March 2031 Full Year Total
Net Sales	228.0	242.3	278.7	510.0
Operating Income	7.7	7.7	12.9	-
Ordinary Income	7.5	9.0	14.6	25.0
Net Income	4.4	6.1	9.5	-

[Revised Plan]

(JPY Billion)	FY March 2024 Full Year Total	FY March 2025 Full Year Total	FY March 2026 Full Year Total	FY March 2031 Full Year Total
Net Sales	219.4	200.0	-	535.8
Operating Income	▲21.3	4.7	-	-
Ordinary Income	▲19.8	4.3	-	60.2
Net Income	▲22.0	2.8	-	-

1. Summary of Financial Results for the 1H of FY March 2024
2. Revised Forecasts for FY March 2024
3. Revised Forecasts for FY March 2025
- 4. Toward New Growth (Outlook for 2030)**

Appendix (Reference Material Toward 2030)

As of 2030

Ordinary Income of **JPY60.2 billion** in Japan and overseas

Net Sales **JPY535.8** Billion
 Ordinary Income **JPY60.2** Billion

+α *

* Upside from fuel conversion in Vietnam and fuel business in other countries

[Breakdown]

Vietnam Business	Net Sales	192.1	Cambodia Business	Net Sales	39.2	Domestic Business	Net Sales	304.5
	Ordinary Income	31.6		Ordinary Income	13.7		Ordinary Income	14.9

- Southeast Asian countries are expected to continue to grow economically, and with that growth, energy consumption will also continue to increase. On the other hand, the trend toward de-carbonization is irreversible, and de-carbonization efforts need to be accelerated
- Southeast Asian countries are rich in biomass resources due to their climatic conditions, and the biomass business is strongly expected to be one of the solutions to the issues in Southeast Asia

Great Business Opportunities

Biomass business as a solution to social issues that Southeast Asia is facing

01 Securing stable power supply

- ✓ Southeast Asia, where economic growth continues, has a steadily rising demand for electric power and requires a base power source that can provide a stable supply

02 Securing a de-carbonization power supply

- ✓ The trend toward de-carbonization is irreversible and must be advanced in order to address the global economy

03 Contribution to employment

- ✓ Many jobs can be created in power plant operation as well as fuel collection, processing, transportation, and power plant maintenance

04 Improvement of living environment

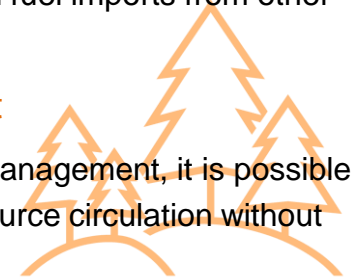
- ✓ By efficiently converting biomass resources that are burned in the field into electricity, air quality and other aspects of the living environment can be greatly improved

05 Improvement of energy self-sufficiency

- ✓ By utilizing domestic biomass, it is possible to reduce electricity imports and fossil fuel imports from other countries

06 Bioresource management

- ✓ Through proper resource management, it is possible to achieve sustainable resource circulation without illegal logging



- erex Group plans to expand business significantly in the future by taking advantage of know-how, etc. accumulated through business developments in Southeast Asian countries, centering on Vietnam and Cambodia

Business Case Study in Vietnam

- 20MW biomass PJ underway in Hau Giang Province, Vietnam (scheduled to start operations in FY2024)
- Construction of pellet factories has been started in Yen Bai/Tuyen Quang Province

Power Generation Capacity	20 MW
Power Sold to	Vietnam Electricity (EVN)
Investment Ratio (erex)	51% (Plan)
Power Sales Price	8.47 ¢/kWh

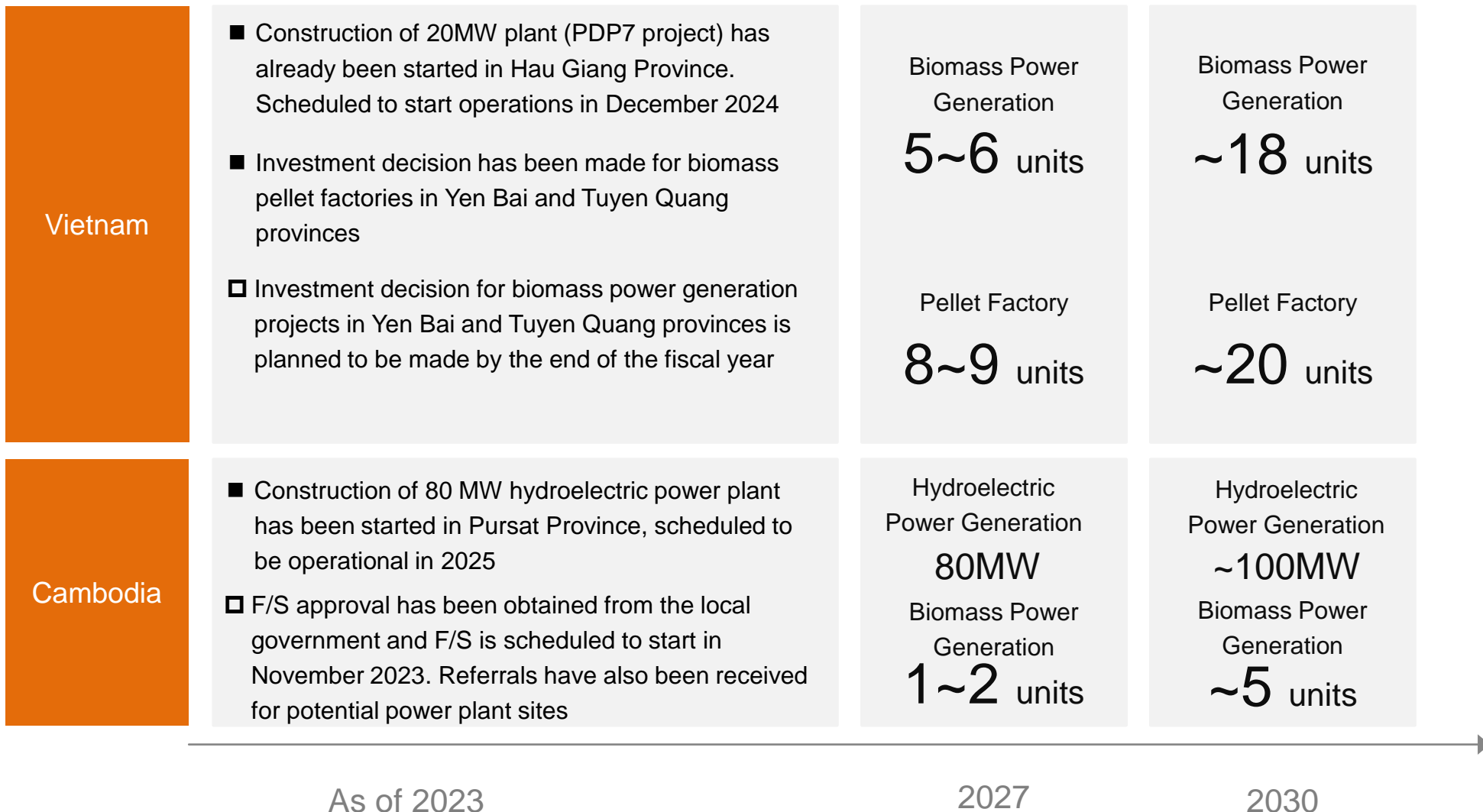


Business Case Study in Cambodia

- 80MW hydropower PJ underway in Pursat Province, Cambodia (scheduled to start operations in 2025)
- Study of additional downstream hydropower development has been started

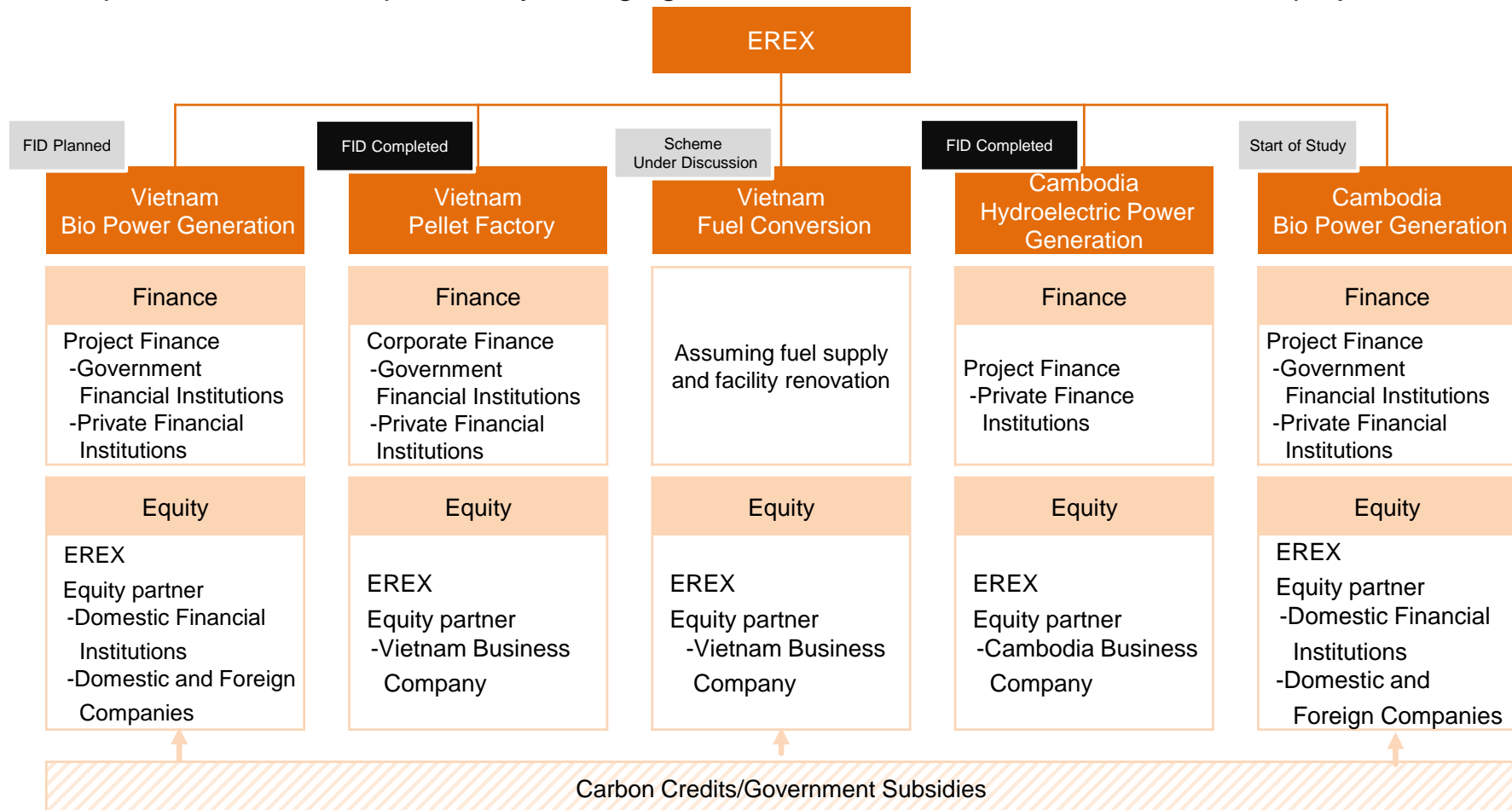
Power Generation Capacity	80 MW (369 GWh/year)
Power Sold to	Electricité du Cambodge (EDC)
Investment Ratio (erex)	51% (Plan)
Power Sales Price	7.9 ¢/kWh



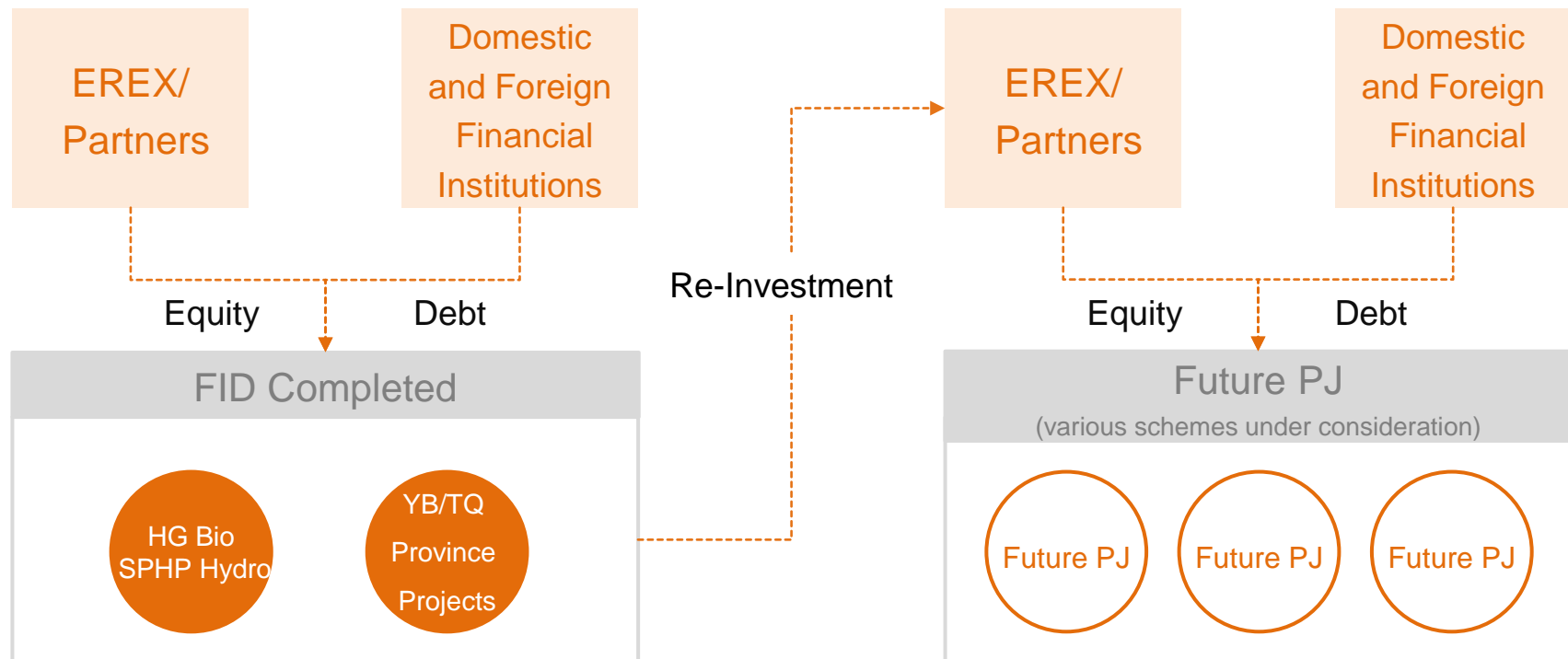


Overseas PJ Financing Scheme (Current Status)

- erex Group plans to finance overseas power plant construction and fuel development projects with project finance from government/private financial institutions and corporate finance, depending on the type of project
- The equity portion will be majority invested by erex Group. Discussions are underway with potential partners, including domestic financial institutions, major construction companies, and overseas business companies
- erex Group aims to maximize profitability through government subsidies and carbon credits for projects

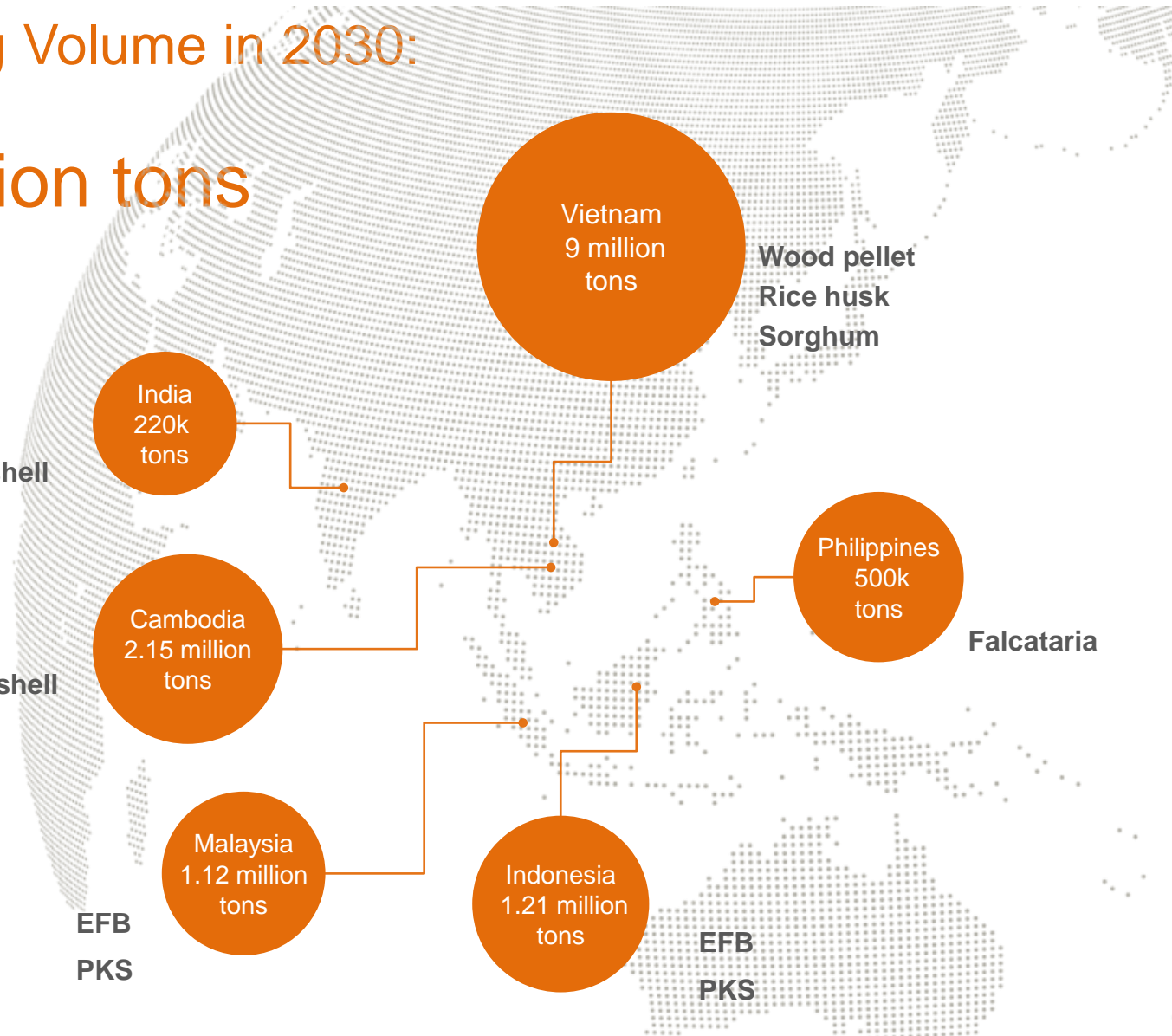


- Overseas project investment is based on the spirit of co-creation. Realization will be ensured by reinvesting profits according to the progress of the project and inviting a wide range of partners from Japan, Vietnam, and other countries (In addition to the ongoing project partners, discussions are underway with several potential partners)
- Financing will be extended through project finance and corporate finance by government and private financial institutions. On the other hand, various schemes, including project carve-outs, will be considered

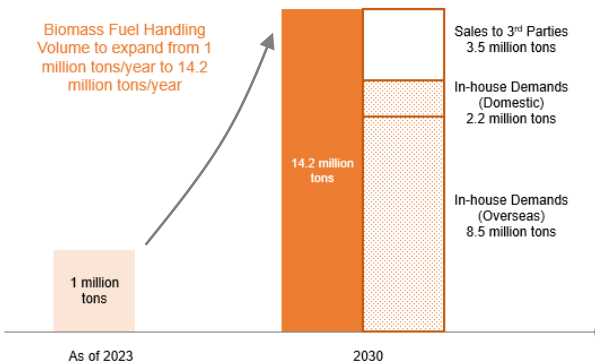


Biomass Fuel Handling Volume in 2030:

14.2 million tons

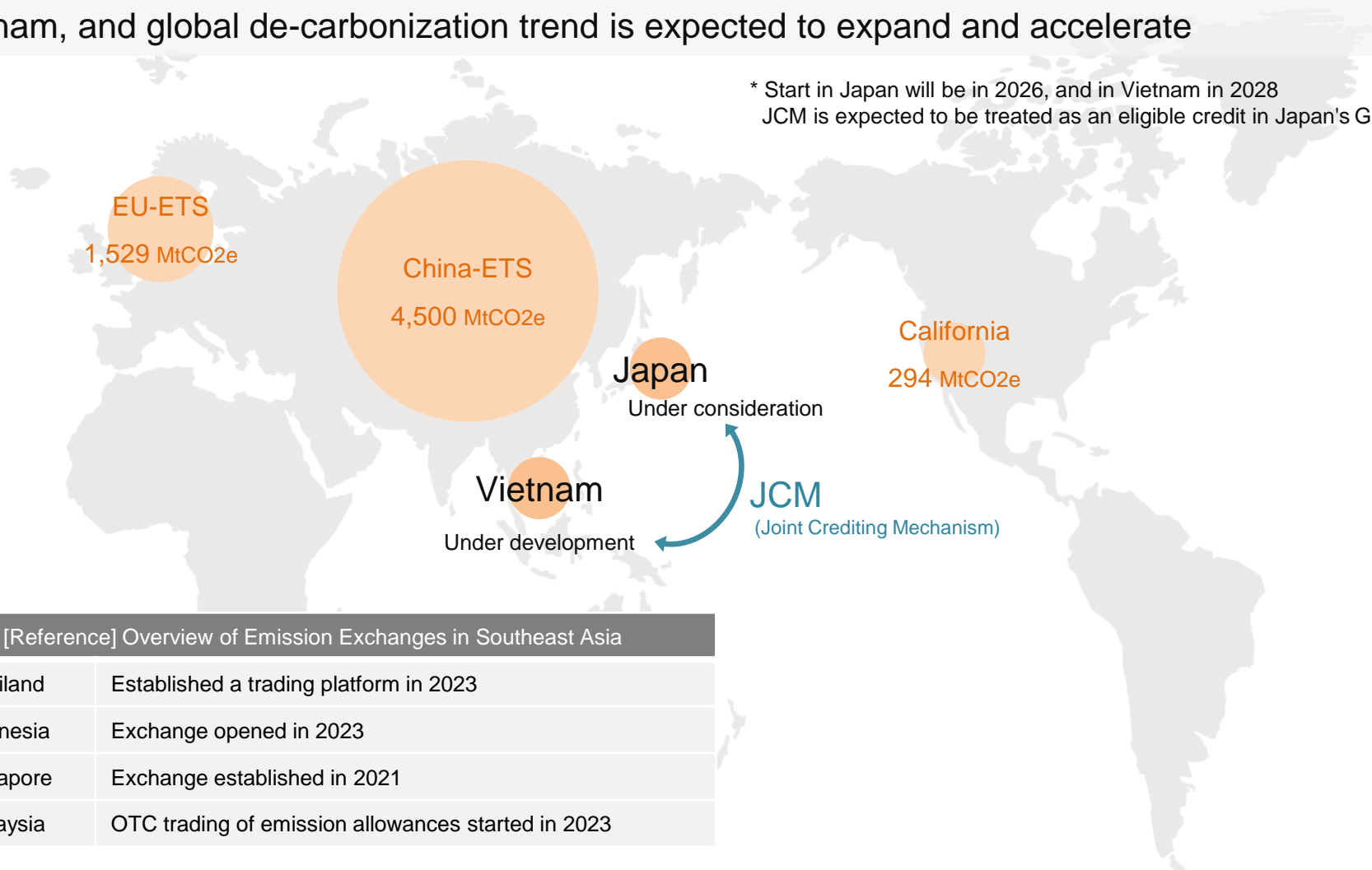


Biomass Fuel Handling Volume to expand from 1 million tons/year to 14.2 million tons/year



As of January 2023, 28 ETS (Emissions Trading System) schemes are in force worldwide
 8 more ETS schemes are expected to be implemented in the future*, including Japan and Vietnam, and global de-carbonization trend is expected to expand and accelerate

* Start in Japan will be in 2026, and in Vietnam in 2028
 JCM is expected to be treated as an eligible credit in Japan's GX-ETS

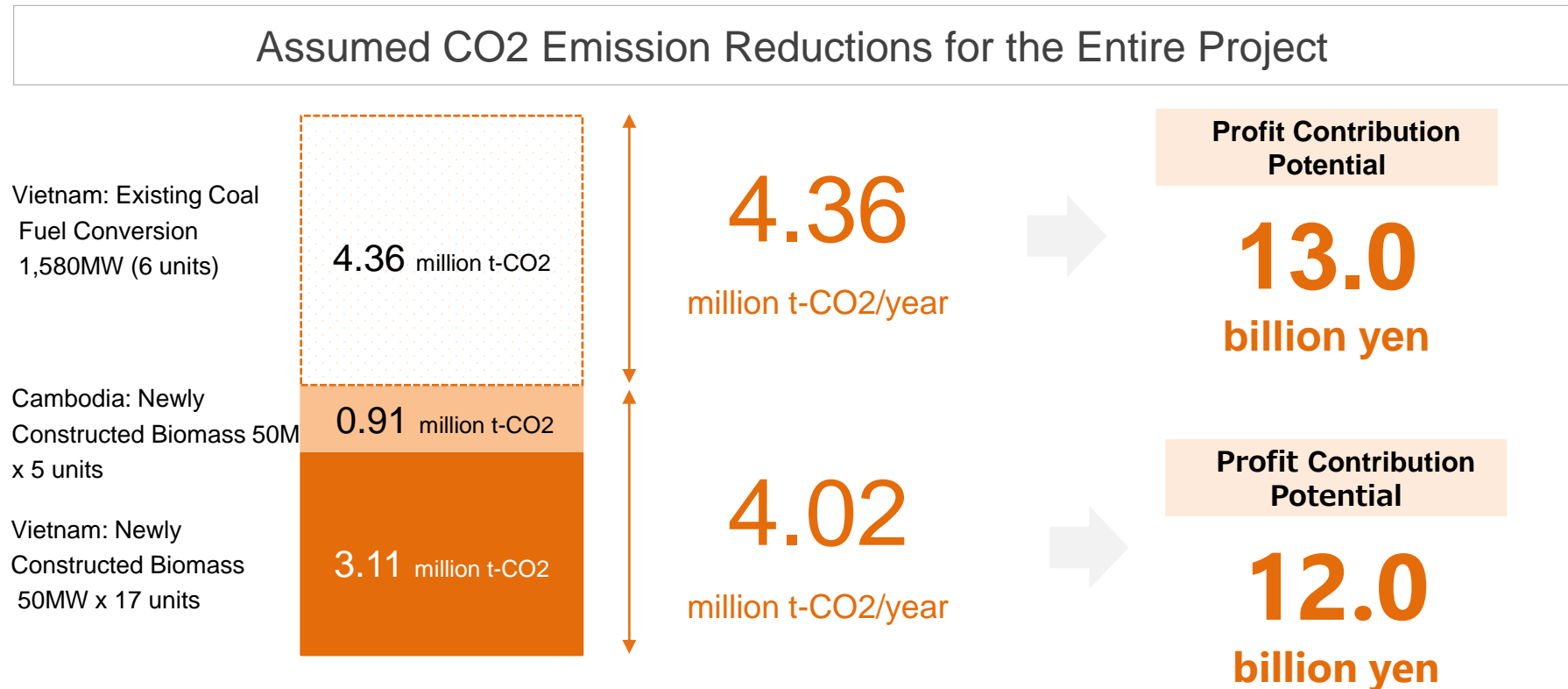


[Reference] Overview of Emission Exchanges in Southeast Asia	
Thailand	Established a trading platform in 2023
Indonesia	Exchange opened in 2023
Singapore	Exchange established in 2021
Malaysia	OTC trading of emission allowances started in 2023

CO2 Credits - erex Group's Approach -

- erex Group reports the project progress regularly to the Japanese and Vietnamese governments
- It is assumed that carbon credits* generated from the project will contribute to earnings in the future
- erex Group's proposal, "Feasibility Study on JCM Credit Generation through Fuel Conversion in Vietnam" was adopted by the Ministry of Economy, Trade and Industry (METI) for its FY2023 "Research of Infrastructure Preparation for Bilateral Credit Acquisition etc. (JCM Feasibility Study) in October 2023. Through this study, erex Group will contribute to the realization of de-carbonization in Vietnam

*Credits in conformance with Article 6.2 of the Paris Agreement are assumed



Assumptions: Emission reductions are calculated at 0.5 kg-CO2/kWh and a value of 3,000 yen/t conservatively.

To Stabilize domestic revenue base and grow overseas business

01 Retail and Trading Business

- Low-voltage (for households) business has already shifted to market-linked menus and will not be exposed to major risks even if market prices fluctuate significantly in the future
- In addition, high-voltage business is also shifting to sales centering on menus that combine market-linked and electricity futures contracts. In the future, excessive power procurement in preparation for market price fluctuations will basically not occur
- Steady growth will be built up by responding to customer needs centered on de-carbonization value

02 Power Generation and Fuel Business

- Although the business environment is becoming a headwind due to higher fuel prices resulting from the strengthening of fuel certification and the depreciation of the yen, erex Group will continue to work for stable operation by steadily securing relatively inexpensive fuel and further improving the efficiency of power plant operations, including reducing planned stoppages, by taking advantage of its position as the largest biomass procurer in Japan
- The value of biomass power generation as a stable, de-carbonization source of power generation is unchanged, and erex Group will steadily promote fuel conversion of Itoigawa coal-fired power plant and a mega non-FIT biomass project planned in Niigata.

03 Other New Businesses

- erex Group will enhance competitiveness by reducing the burden on the capacity market through DR and passing it on to customers
- erex Group plans to respond to growing demand from customers for NON-FIT solar PPA and storage battery projects

Current Initiatives and Future Plans

- High-voltage power business is focusing on sales of menus using power futures, etc. (fully fixed or hybrid of fully fixed and market change), as a result, has shifted to a system in which neither erex Group nor its customers are overly exposed to risk from JEPX price fluctuations
- Low-voltage power business (for households) has already shifted to plans that properly reflect the risk of JEPX price fluctuations. Price competitiveness is strong, partly because market prices have remained inexpensive
- erex Group is accelerating developments of new initiatives centered on de-carbonization value and DR business to meet customer needs

Retail

Trading

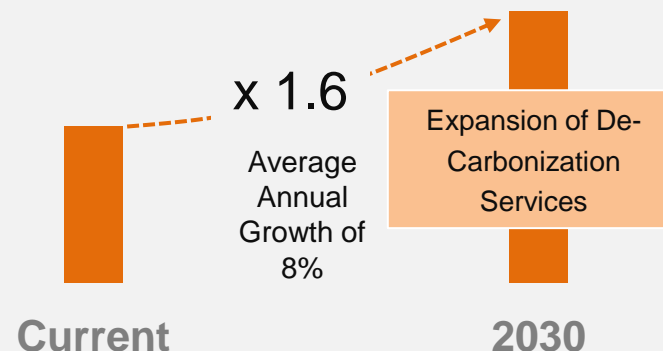
Power Generation

Fuel

- Sakaide Biomass Power Plant will start commercial operations in FY2025
- The world's largest level biomass power plant (300 MW, Niigata Prefecture) will start commercial operations in FY2029
- erex Group promotes coal transition at Itoigawa Power Plant and other facilities by stably supplying inexpensive biomass fuels developed in overseas to domestic projects

Illustrative Image of Growth

Power Supply (total of high-voltage and low-voltage)



Power Generation Output

418MW

Power Plant

6 units

Current

Power Generation Output

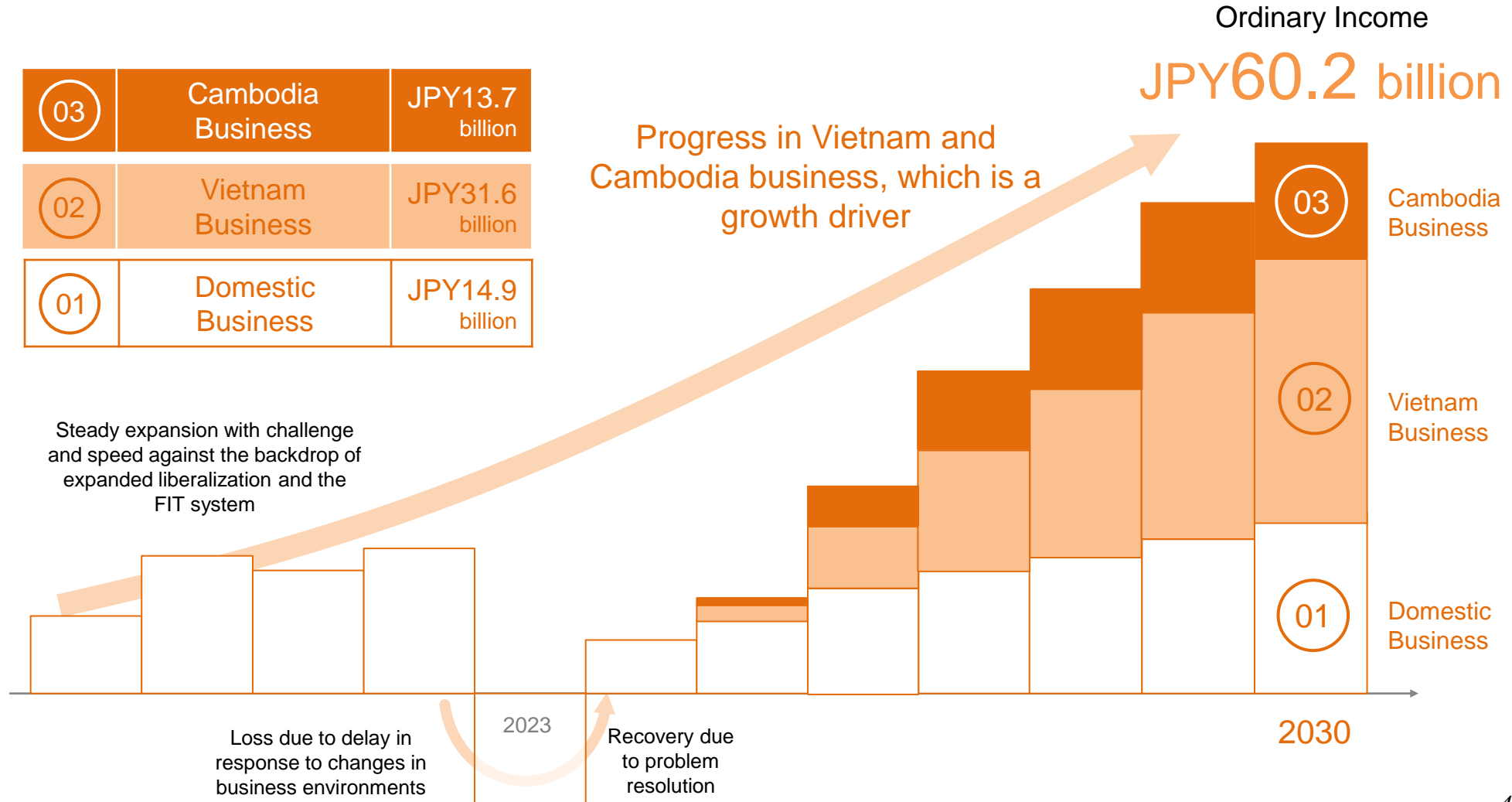
793MW

Power Plant

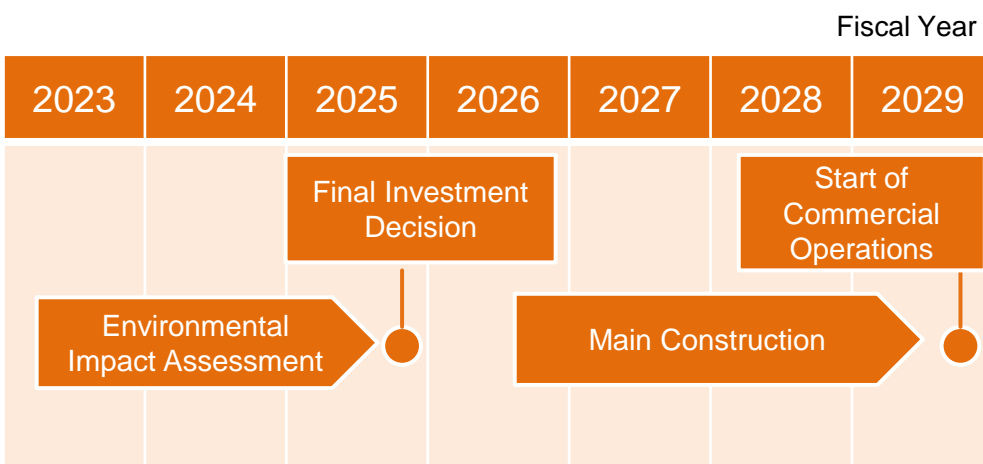
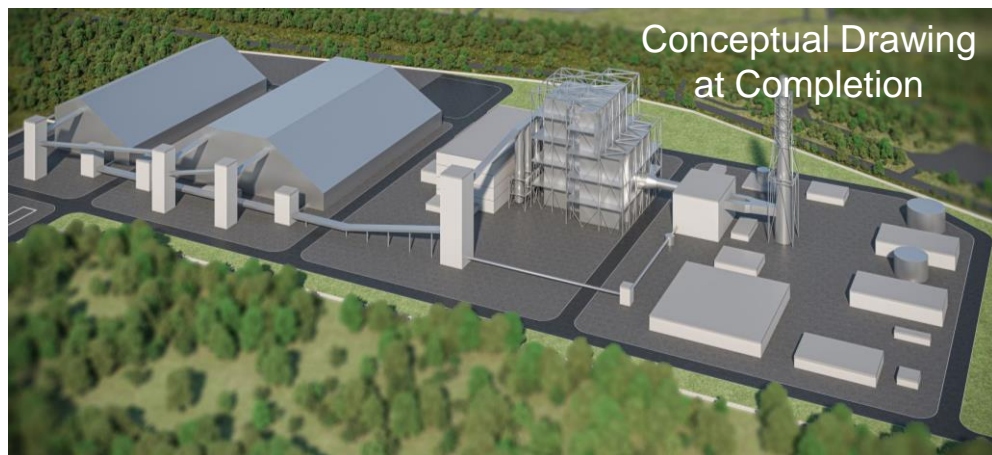
8 units

2030

Aiming for ordinary income of JPY60.2 billion in 2030 with overseas business as a growth engine



- Environmental assessment process is progressing steadily
- Specifically, the Environmental Impact Assessment Methodology Document is scheduled to be submitted on November 30, 2023 (public inspection period from December 1, 2023 to January 5, 2024)



Facility Output	300MW (the world's largest level)
Planned Construction Site	Near Higashikou, Seiro Town, Niigata Prefecture
Boiler Type	Ultra-supercritical pressure re-fired boiler (Biomass combustion method)
Assumed Annual Power Generation	Approx. 2,000 GWh
CO2 Reduction	About 1 million tons per year

Main Initiatives of Hydrogen PJ by the 1H of 2023

- ① April 2022: Fujiyoshida Hydrogen Power Plant started operations
- ② Issues for continuous operation and cost reduction were identified during the operation of the hydrogen power plant
- ③ The identified issues were analyzed and a decision was made as to whether to proceed to the next step (construction of a large-scale hydrogen demonstration facility)

erex Group's current view through the operation of a hydrogen power plant

- ① It has been confirmed that the generator operates stably with hydrogen supplied by the partner company, Hydrogen Technology, Inc.
- ② Electric power generated is connected to TEPCO PG's power grid and sold
- ③ The situation requires continued study and verification to improve the efficiency of the hydrogen production process, and any specific schedules for the next step cannot be foreseen at this point

Future Policies

- ① Hydrogen Technology, Inc. will continue to take the lead in technical studies and verification for cost reduction
- ② Discussions with Hydrogen Technology, Inc. will be continued regarding a business model that utilizes its technology
- ③ Information will be disclosed as needed as progress is made toward reducing hydrogen production costs and increasing the scale of hydrogen production



Appendix

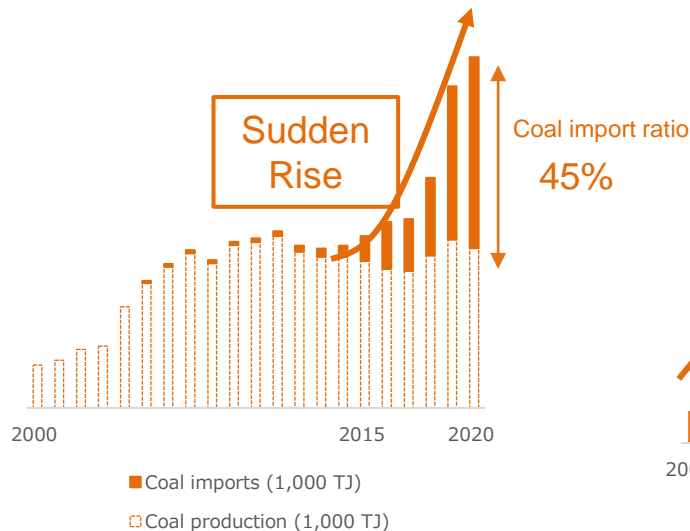
Issues for Asian Countries

Entering “import phase” of fossil fuels and power

➔Facing declining energy self-sufficiency

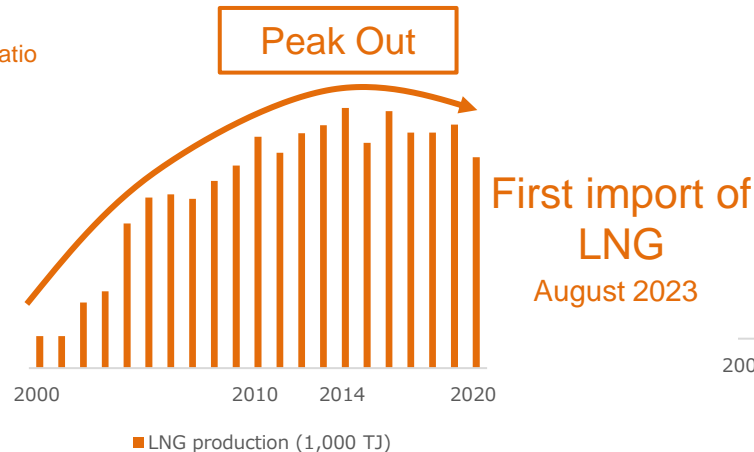
Vietnam: Rising Coal Import Ratio

- ✓ Coal-fired power generation accounts for 39% of Vietnam's power supply mix
- ✓ On the other hand, coal production has remained flat in recent years, and the import ratio is on the rise



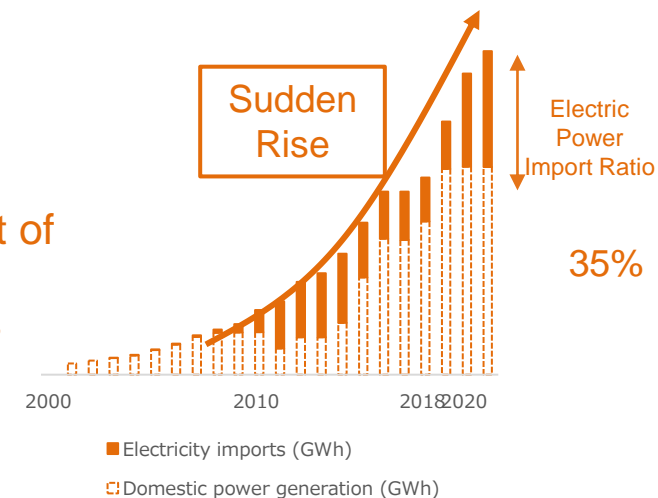
Vietnam: Natural Gas Production Has Peaked Out

- ✓ Natural gas production gradually increased since 2000, peaking in 2014 and then declining
- ✓ LNG imports started in August 2023



Cambodia: Rising Electric Power Import Ratio

- ✓ Electric power demand has quadrupled over the past decade (average annual growth of 18%)
- ✓ Electric power imports from neighboring countries have skyrocketed since 2010



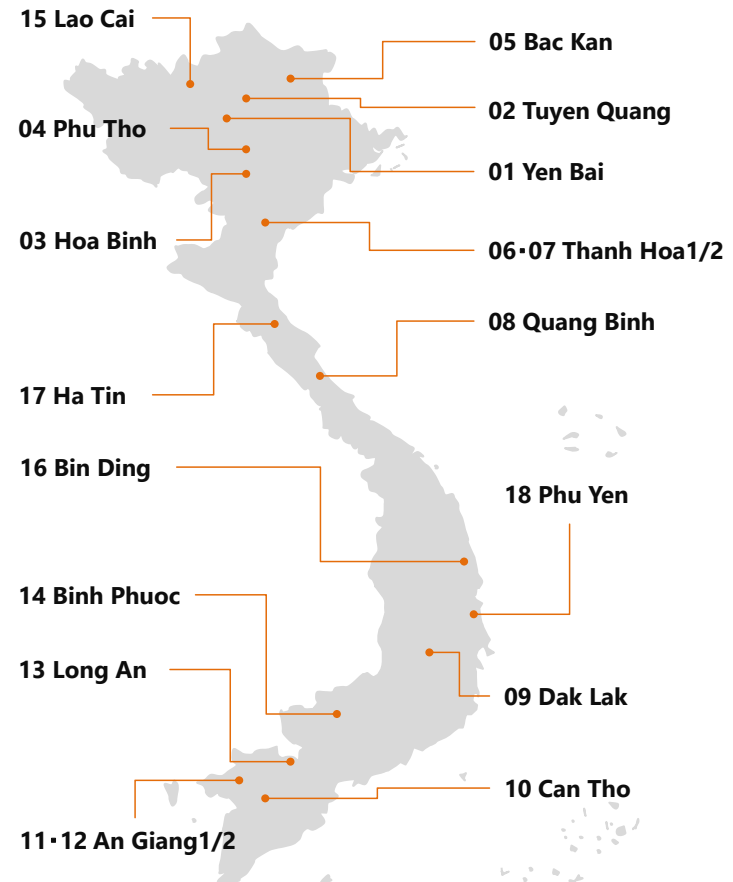
	Notes
Vietnam: Bio-Power Generation	<ul style="list-style-type: none"> - In addition to electricity sales under the FIT system, CO2 credits generated through power generation will also be sold - Assuming 18 units in operation by 2030
Vietnam: Fuel	<ul style="list-style-type: none"> - 20 points of operation, fuel supply for newly constructed bio-power generation, additionally produced wood pellets sold to Japan and other countries
Cambodia: Hydro	<ul style="list-style-type: none"> - 80MW power plant, whose construction has started, is scheduled to start operations in 2025 - Further development (20MW) is under planning downstream
Cambodia: Bio- Power Generation	<ul style="list-style-type: none"> - A request for development has also been received from the government of Cambodia, and F/S is to be conducted by the end of the fiscal year - Assuming up to 5 units to be in operation by 2030
Transitions, etc.	<ul style="list-style-type: none"> - Coal Transition in Vietnam - Wood pellet production business in Malaysia and other countries

Up to 18 sites to be developed

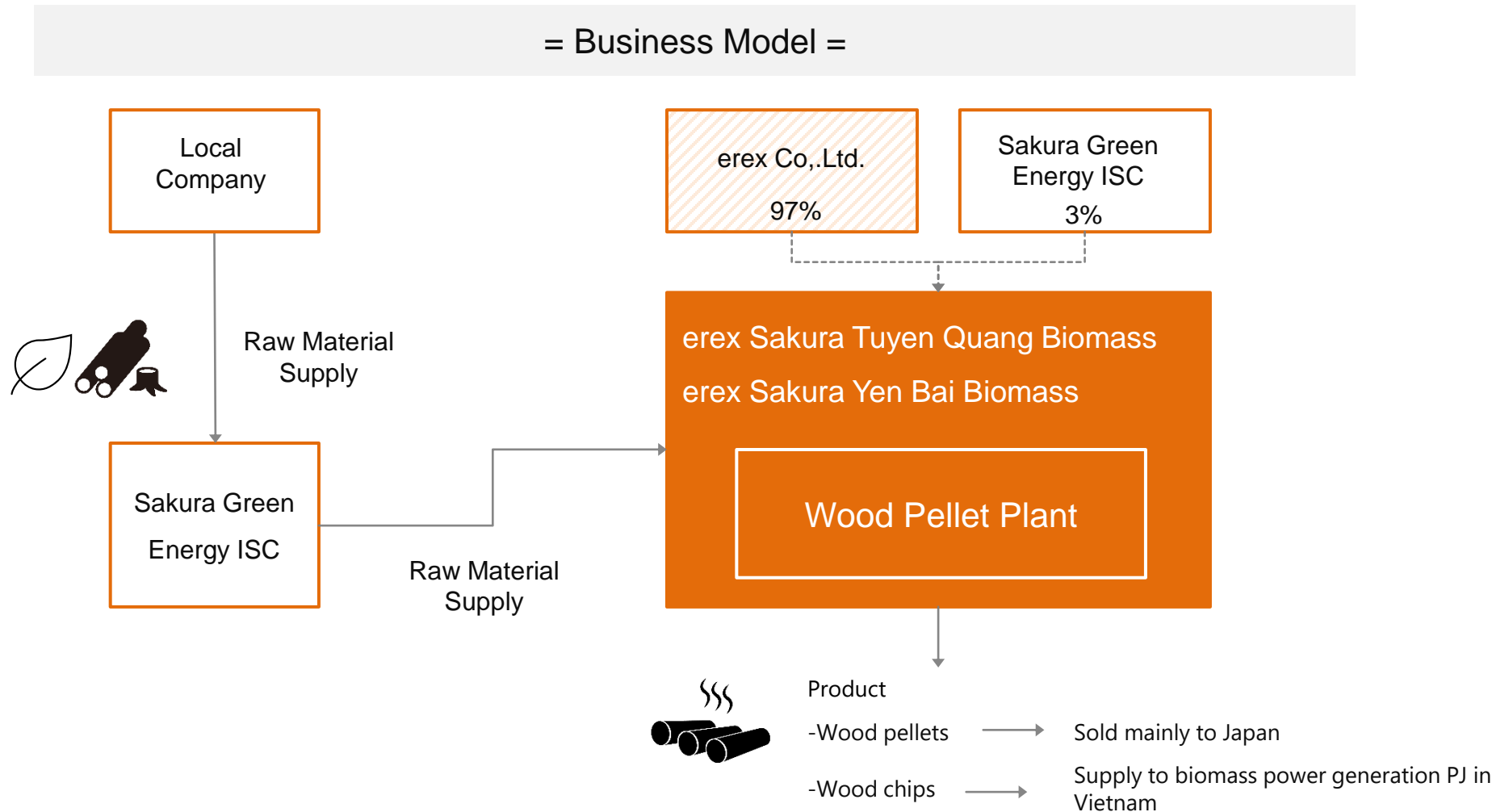
Total: maximum 1,100MW

- In September 2023, based on discussions with various ministries, it was confirmed that there is development potential at up to 18 sites (total of 1,100MW)
- Priority will be given to the two sites 01-Yen Bai and 02-Tuyen Quang as the first two sites, with the aim of starting construction in FY2023 at the earliest
- At each location, it is planned to launch fuel business prior to the power generation business
- The fuel business will not only supply fuel for power generation projects at each site, but also plan to sell biomass fuel to Japan and other countries

PDP8 Candidate Sites for Newly Constructed Biomass Power Generation



Planning to start up fuel business prior to power generation PJ



The following two studies on fuel conversion of coal-fired power plants have been adopted

JCM Feasibility Study

<p>Name of Publicly Invited Project</p>	<p>FY2023 "Research of Infrastructure Preparation for Bilateral Credit Acquisition , etc. (JCM Feasibility Study)" *Project commissioned by the Ministry of Economy, Trade and Industry (Global Environmental Affairs Office, Industrial Science and Technology Policy and Environment Bureau)</p>
<p>Proposal Theme</p>	<p>Feasibility Study on JCM Credit Creation through Fuel Conversion in Vietnam</p>
<p>Objective</p>	<p>The absence of a fuel conversion system and low PPA prices are issues for de-carbonization in Vietnam, and in light of solving these issues by creating JCM credits, the feasibility of fuel conversion as a JCM project is investigated</p>

NEDO International Demonstration Study on Conformity with Demonstration Requirements, etc.

<p>Name of Publicly Invited Project</p>	<p>FY2023 "International Demonstration Project on Japan's Energy Efficiency Technologies (Basic Study)" the 2nd public invitation *Commissioned by NEDO</p>
<p>Proposal Theme</p>	<p>Demonstration Study on High-Ratio Co-firing of Biomass Fuel with Existing Coal-Fired Power Plants to Achieve Decarbonization (Quang Nam Province, Vietnam)</p>
<p>Objective</p>	<p>A study is conducted, aiming to achieve a significant reduction of CO2 emissions while reducing capital investment through high biomass co-firing, and to contribute to both securing a stable power supply and promoting de-carbonization in Vietnam and other Southeast Asian countries as an economical and realistic measure</p>

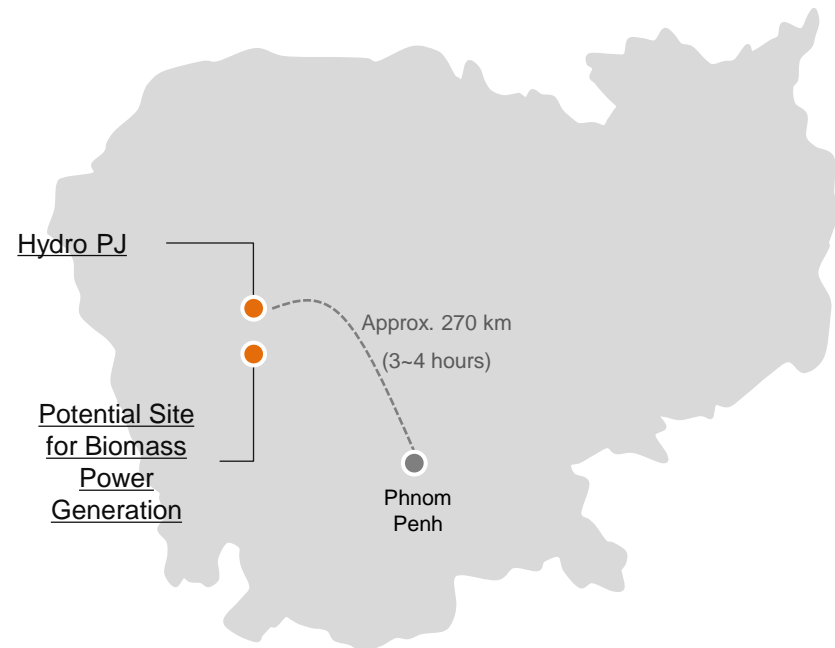
Hydroelectric Power Generation Business

- Construction of an 80MW hydroelectric power plant is underway in Pursat Province
- There is potential for small-scale hydropower development downstream of the power plant above, and a study has been initiated for development

Biomass Power Generation Business

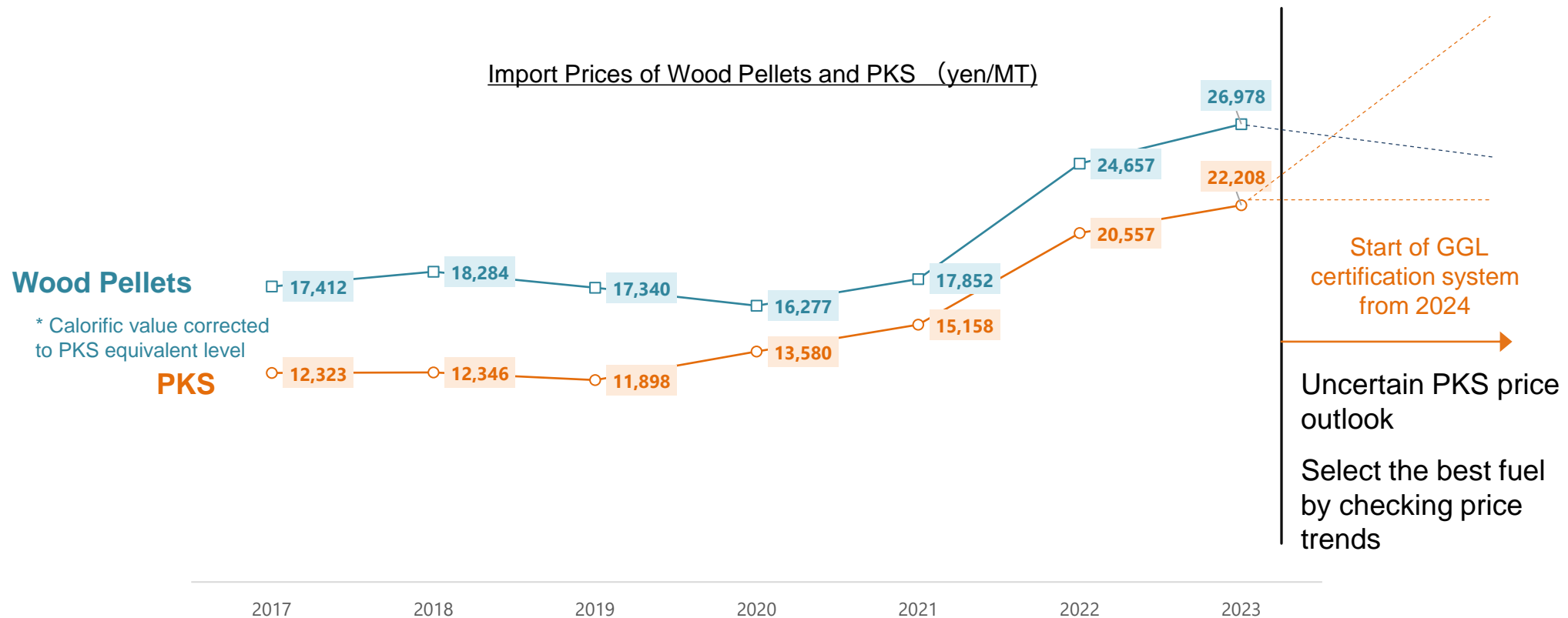
- Initial investigation of biomass power plant has been started (Survey has been approved by the government of Cambodia)
- Activities are accelerated with top priority on securing fuel and confirming candidate sites in Pursat province for early construction start

Cambodia: Power Generation Project MAP

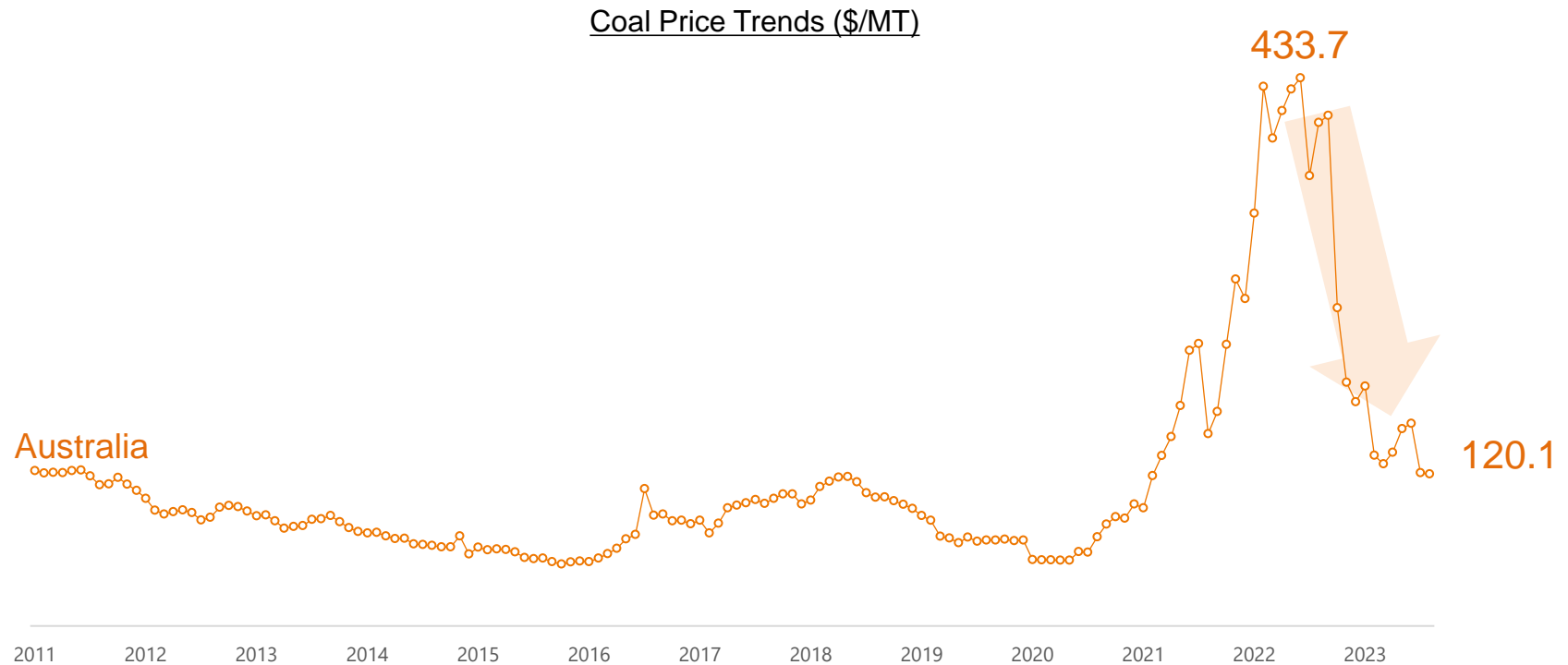


Vietnam Business	Bio-Power Generation	<ul style="list-style-type: none"> - In addition to the HG Province project, for which construction has already started, and the Yen Bai/Tuyen Quang Province project, for which construction is scheduled to start within this year, PDP8 projects will be developed in sequence, with a maximum of 18 units planned to be in operation by 2030 - Purchase price conditions are assumed to be 10-αϕ/kWh in the future, taking inflation and other factors into account - At least 50% of the CO2 value created is assumed to belong to the operator
	Fuel Business	<ul style="list-style-type: none"> - As with the Yen Bai and Tuyen Quang Province project, fuel business will be developed in conjunction with biomass power generation projects to be launched in the future - Revenues not only from fuel supply to power plants but also from sales of wood pellets to 3rd parties are assumed
Cambodia Business	Hydroelectric Power Generation	<ul style="list-style-type: none"> - Construction for the 80MW has already started - New 20MW development is planned downstream with similar economics, and F/S is scheduled by the end of the year
	Bio-Power Generation	<ul style="list-style-type: none"> - F/S is scheduled to start by the end of the year, with construction starting as early as the 2H of FY2024. Up to 5 plants are assumed to be in operation in 2030 - Generation conditions will be discussed, but are assumed to be 10+α ϕ/kWh, based on the electricity cost in Cambodia and electricity import prices from neighboring countries. At least 50% of the CO2 value created is assumed to belong to the operator.

- It has been on an upward trend in recent years due to the slump in lumber supplies from Russia due to the Ukraine war and the effects of the weak yen, but it has started to stabilize since the 1H of 2023
- Rising transportation costs due to Covid-19 are starting to subside
- As for PKS, substitution by wood pellets will be an option in the event of a tight supply-demand situation due to the start of the fuel certification system



- Coal prices skyrocketed in FY2022 due to sanctions against Russia's military invasion, in addition to tightening supply and demand due to changes in energy trends
- Coal prices are starting to stabilize in FY2023, but remain at a higher level than before
- As of October 2023, the price is dropping to around \$120



From Newcastle coal data

	Terminology	Explanation
1	Baseload Power Source	Power sources that can generate power stably day and night, such as nuclear, coal-fired, hydroelectric and geothermal power
2	Baseload Market (BL market)	The purpose is to facilitate access to baseload power sources by new power companies. It is a market in which electricity from baseload power sources (coal-fired power, large hydroelectric power, nuclear power, and geothermal power), which account for nearly 90% of Japan's total supply, is systematically required to be offered and can be purchased by new power companies at a fixed price for one year
3	Former General Electric Utility	10 electric power companies, including Tokyo Electric Power Company and Kansai Electric Power Company, that were previously allowed to monopolize the retail supply of electricity in their service areas
4	Capacity Market	A market in which future supply capacity (kW) is traded, rather than electricity quantity (kWh). As a mechanism to efficiently secure the supply capacity of the entire country into the future, it is a system that converts the supply capacity of power plants, etc. into monetary value and secures supply capacity through the participation of various power generation companies in the market
5	DR (Demand Response)	It is a way for consumers to control their electricity usage, thereby changing electricity demand patterns and balancing the supply and demand of electricity
6	JEPX (Japan Electric Power Exchange)	It is a market established in 2003 where electricity can be bought and sold
7	Wholesale	It is to sell electricity procured from in-house power plants, PPA contracts with power producers, JEPX, etc., to JEPX and PPA contractors such as power retailers, etc.
8	Power Futures Trading	A transaction in which future electricity is bought or sold at a certain price. By trading in futures contracts for a set period of time, even if there is a spike in electricity prices during that time, it is possible to trade electricity at a certain price
9	JCM (Bilateral Crediting Mechanism)	A system whereby developing countries and other countries work together to reduce greenhouse gas emissions and share the results of reductions by both countries
10	Fuel Conversion	Fuel Conversion (in this material, it mainly represents the conversion of fuels from fossil fuels to biomass fuels at thermal power plants)
11	PPA (Power Purchase Agreement)	Long-term contracts between power producers and customers
12	FIT	A system in which the government promises that electric power companies will purchase electricity generated using renewable energy sources (solar, wind, hydropower, geothermal, biomass) at a price set by the government for a certain period of time
13	FIP	Instead of purchasing electricity at a fixed price as in the FIT system, a certain premium (subsidy) is added to the price at which electricity is sold to markets by renewable energy power generation companies
14	Volatility	It indicates the degree of price fluctuation
15	F/S (feasibility study)	It is to research and verify in advance whether or not a planned new business, new product/service, project, etc. is feasible.

ereX

ENERGY RESOURCE EXCHANGE