

Financial Summary

2nd Quarter of FY2022

(April 1, 2022 – September 30, 2022)

October 28, 2022

 **Tohoku Electric Power Co., Inc.**

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**2nd Quarter of FY2022
Financial Results**

Key points of financial results and forecasts

Financial Results for the second quarter of FY2022

Increase in revenue, but decrease in income

(First time in 4 years since FY2018)

- Operating revenue : mainly due to an increase in fuel cost adjustment charges
- Ordinary loss : mainly due to an increase in electricity procurement costs resulting from rising fuel prices and JEPX prices, and rapidly weakening yen

Financial and Dividend Forecasts for FY2022

No Change from the release in July 2022

Summary of Financial Results

- **Operating revenue** **¥1,339.7 billion (a year on year increase of ¥466.5 billion)**
 - Operating revenue increased mainly due to an increase in fuel cost adjustment charges resulting from rise in fuel prices.
- **Ordinary loss** **- ¥131.9 billion (a year on year decrease of ¥171.8 billion)**
 - Ordinary income/loss decreased mainly due to an increase in electricity procurement costs resulting from rising fuel prices and JEPX prices, and rapidly weakening yen.
- **Net Loss Attributable to Owners of Parent** **- ¥136.3 billion (a year on year decrease of ¥170.5 billion)**

【Summary of Consolidated Financial Statements】

(billions of yen)

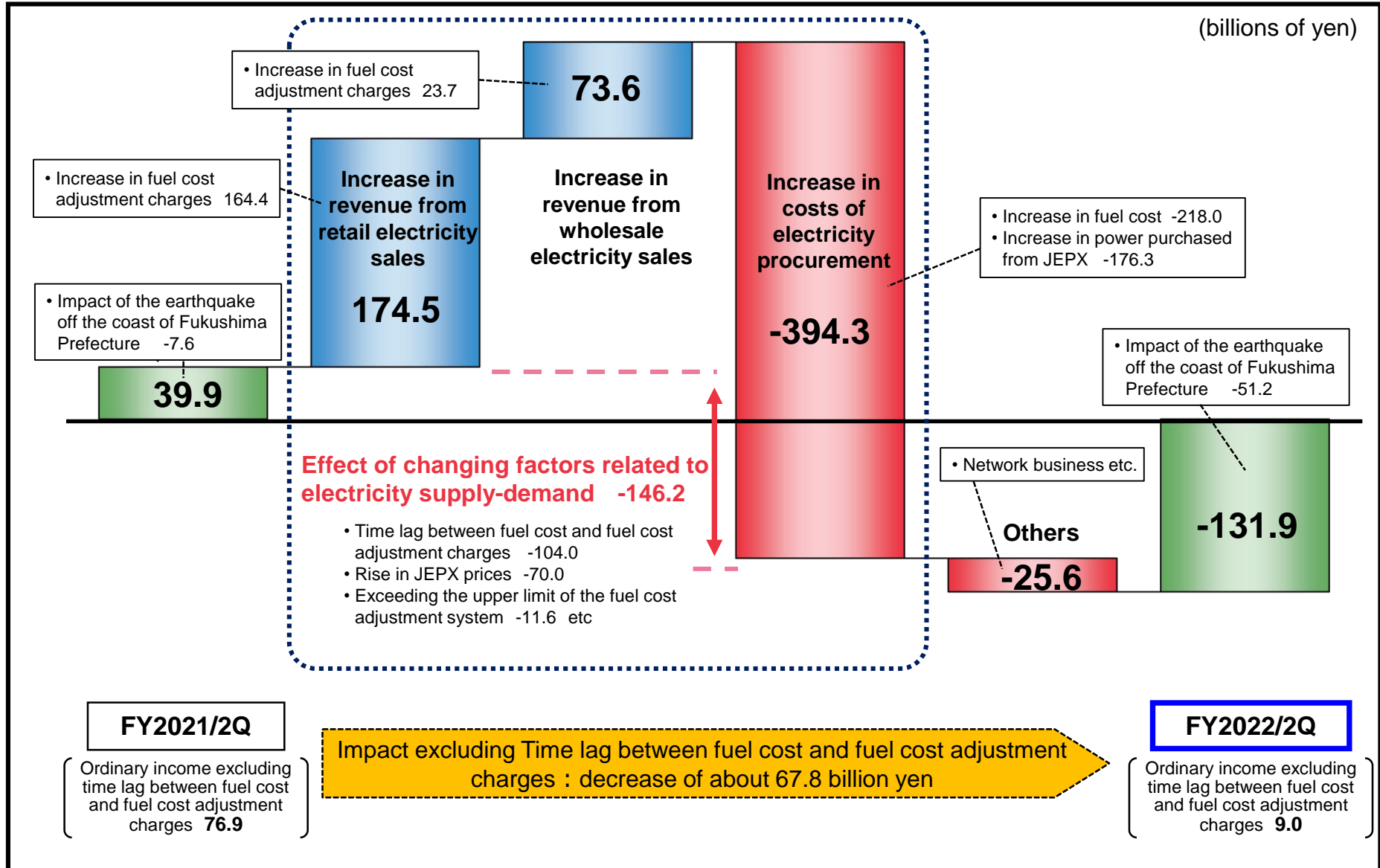
	FY2021/2Q (A)	FY2022/2Q (B)	Change (B) - (A)	Change (B) / (A)
Operating Revenue	873.1	1,339.7	466.5	153.4 %
Ordinary Income(Loss) ^{*1}	39.9	(131.9)	(171.8)	-
	[76.9]	[9.0]	[(67.8)]	[11.8 %]
Net Income(Loss) Attributable to Owners of Parent	34.2	(136.3)	(170.5)	-
Consolidated Cash Income ^{*2}	175.7	110.3	(65.3)	62.8 %

*1 Lower figures exclude time lag between fuel cost and fuel cost adjustment charges.

*2 Consolidated Cash Income = Operating income + Depreciation + Amortization of nuclear fuel + Share of profit of entities accounted for using equity method
(Operating income doesn't include time lag between fuel cost and fuel cost adjustment charges.)

Changing Factors in Consolidated Ordinary Income from the Corresponding Period Last Year

Decrease of 171.8 Billion Yen (39.9 → -131.9)



➤ **Retail electricity sales**

31.4 TWh (a year on year decrease 0.1 TWh)

Retail electricity sales volume decreased due to the impact of intensifying competition.

➤ **Wholesale electricity sales**

7.8 TWh (a year on year increase 0.2 TWh)

Wholesale electricity sales volume increased due to an increase in volume of wholesale electricity sales inside our franchise area.

(GWh)

Electricity Sales*1	FY2021/2Q (A)	FY2022/2Q (B)	Change (B) - (A)	Change (B) / (A)
Lighting (Residential)	8,887	8,716	(171)	98.1 %
Power	22,621	22,716	95	100.4 %
Retail Electricity Sales*2	31,509	31,432	(77)	99.8 %
Wholesale Electricity Sales*3	7,616	7,841	225	103.0 %
Total of Electricity Sales	39,124	39,274	150	100.4 %

*1 Individual figures of Tohoku Electric Power Co., Inc., excluding network business.

*2 Retail Electricity Sales includes electric power for business use.

*3 Wholesale Electricity Sales includes the volume of specified power interchange.

(billions of yen)

Major Factors	FY2021/2Q (A)	FY2022/2Q (B)	Change (B) - (A)
Crude Oil CIF Price (\$/bbl.)	70.3	111.9	41.6
Exchange Rate (¥/\$)	110	134	24
Hydro Power Flow Rate (%)	95.2	101.8	6.6
Nuclear Power Utilization Rate (%)	-	-	-

Sensitivity to Major Factors	FY2021/2Q (A)	FY2022/2Q (B)	Change (B) - (A)
Crude Oil CIF Price (\$/bbl.)	0.6	1.2	0.6
Exchange Rate (¥/\$)	1.4	2.9	1.5
Hydro Power Flow Rate (%)	0.4	1.2	0.8

Electricity Supply

(GWh)

Electricity Supply ^{*1}	FY2021/2Q (A)	FY2022/2Q (B)	Change (B) - (A)	Change (B) / (A)
Own Generated Power ^{*2}	28,980	26,539	(2,441)	91.6%
Hydro	4,452	4,695	243	105.4%
Thermal	24,263	21,534	(2,729)	88.8%
Nuclear	-	-	-	-
Renewables	264	311	47	117.8%
Power Interchanges and Purchased Power ^{*3,4}	14,159	16,819	2,660	118.8%
	(2,715)	(2,707)	8	99.7%
Used at Pumped Storage and others	(105)	(182)	(77)	172.8%
Total of Electricity Supply ^{*3}	40,319	40,469	150	100.4%

*1 Individual figures of Tohoku Electric Power Co., Inc., excluding network business.

*2 "Own Generated Power" shows sending end (electric power generated by the generator minus the electric power used in the power station).

*3 "Power Interchanges and Purchased Power" and "Total of Electricity Supply" partly include projected volume.

*4 As for "Power Interchanges and Purchased Power", the top is Received and the bottom is Transmitted.

Segment Information (Consolidated)

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(billions of yen)

	FY2021/2Q(A)		FY2022/2Q(B)		Change (B) - (A)		Major factors for change
	Operating Revenue*	Ordinary Income	Operating Revenue*	Ordinary Income	Operating Revenue*	Ordinary Income	
Power Generation and Sales	669.8	44.9	1,010.4	(131.4)	340.5	(176.3)	<ul style="list-style-type: none"> Operating revenue increased due to an increase in fuel cost adjustment charges. Ordinary income decreased due to a significant increase in electricity procurement costs resulting from rising fuel prices and JEPX price, and weakening yen.
	635.2		910.4		275.2		
Network	322.1	18.3	541.3	7.5	219.2	(10.8)	<ul style="list-style-type: none"> Operating revenue increased mainly due to an increase in the volume of wholesale supply of renewable energy. Operating income decreased due to an increase in costs of supply-demand adjustment.
	127.3		304.8		177.5		
Construction	120.2	(2.2)	123.8	0.4	3.5	2.7	<ul style="list-style-type: none"> Even with an increase in general construction orders related to electrical facilities, operating revenue decreased due to a decrease in construction orders of thermal power production facilities. Operating income increased thanks to a decrease in raw material costs.
	69.0		65.8		(3.1)		
Others	92.9	6.6	108.7	7.2	15.7	0.6	<ul style="list-style-type: none"> Ordinary income increased due to foreign exchange gain.
	41.5		58.5		16.9		
Subtotal	1,205.1	67.6	1,784.3	(116.1)	579.1	(183.8)	
Adjustment	(332.0)	(27.6)	(444.6)	(15.7)	(112.5)	11.9	
Total	873.1	39.9	1,339.7	(131.9)	466.5	(171.8)	

* Lower figures of operating revenue are sales to outside customers.

Results of Major Consolidated Subsidiaries

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(billions of yen)

		FY2021/2Q (A)	FY2022/2Q (B)	Change (B)-(A)	Note	
Power generation and Sales	Sakata Kyodo Power Co., Ltd.	Operating Revenue	17.9	32.9	15.0	• Increase in sales unit price due to rise in fuel price
		Ordinary Income	(1.3)	1.4	2.7	
	Tohoku Sustainable & Renewable Energy Co., Inc.	Operating Revenue	5.0	5.1	0.1	• Increase in sales volume of FIT(wind and solar)
		Ordinary Income	1.8	2.0	0.2	
Construction	YURTEC CORP.	Operating Revenue	91.4	92.7	1.2	• Increase in indoor wiring work
		Ordinary Income	1.2	2.1	0.9	
	Tohoku Electric Power Engineering & Construction Co., Inc.	Operating Revenue	28.4	27.0	(1.4)	• Decrease in thermal power related construction (Operating Revenue) • Decrease in outsourcing costs of thermal power related construction described above (Ordinary Income)
		Ordinary Income	(0.5)	0.5	1.1	
Others	NIHONKAI LNG CO., LTD.	Operating Revenue	5.4	6.4	1.0	• Increase in sales unit prices due to rise in LNG price
		Ordinary Income	0.6	0.7	0.1	
	Tohoku Intelligent Telecommunication Co., Inc.	Operating Revenue	11.9	12.0	0.0	• Increase in general construction (Operating Revenue) • Reduction of line unit price for general customers (Ordinary Income)
		Ordinary Income	2.2	1.8	(0.4)	
	Toinx Co., Ltd.	Operating Revenue	9.2	9.4	0.1	• Increase in solution services for affiliated companies (Operating Revenue) • Increase in outsourcing and license fees (Ordinary Income)
		Ordinary Income	0.5	0.4	(0.1)	
	Kitanihon Electric Cable Co., Ltd.	Operating Revenue	13.8	16.2	2.4	• Increase in sales of wires
		Ordinary Income	0.5	1.0	0.4	

* The amounts before elimination of inter-company transaction

Balance Sheets (Consolidated)

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(billions of yen)

	Mar. 31, 2022 (A)	Sep. 30, 2022 (B)	Change (B) - (A)	Major factors for change
Total Assets	4,725.6	4,896.2	170.5	
Non-current Assets	3,809.1	3,814.6	5.5	
Current Assets	916.5	1,081.5	165.0	Notes and accounts receivable - trade : 64.0 Cash and deposits : 37.2
Total Liabilities	3,946.6	4,239.8	293.1	
Non-current Liabilities	2,754.0	3,035.1	281.1	Bonds : 318.3 Long-term loans : (31.6)
Current Liabilities	1,192.5	1,204.5	11.9	
Net Assets	778.9	656.4	(122.5)	Net loss attributable to owners of parent : (136.3)

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Interest-Bearing Liabilities	2,760.3	3,138.6	378.3	Bonds : 378.3 CP : 37.0 Loans : (36.9)
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Equity Ratio	14.8%	11.8%	(3.0%)
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Statements of Income (Consolidated) (1/2)

(billions of yen)

	FY2021/2Q (A)	FY2022/2Q (B)	Comparison	
			(B) - (A)	(B) / (A)
Operating Revenue	873.1	1,339.7	466.5	153.4%
Electric utility	760.3	1,214.8	454.5	159.8%
Other business	112.7	124.8	12.0	110.7%
Operating Expenses	824.0	1,465.9	641.1	177.9%
Electric utility	715.6	1,343.0	627.3	187.7%
Other business	108.4	122.9	14.5	113.4%
Operating Income(Loss)	49.0	(126.2)	(175.3)	-
Non-operating income	2.2	5.2	2.9	232.1%
Non-operating expenses	11.3	10.8	(0.4)	95.8%
Ordinary Income(Loss)	39.9	(131.9)	(171.8)	-
Provision of reserve for fluctuation in water levels	-	0.0	0.0	-
Extraordinary gain	7.5	-	(7.5)	-
Income taxes	12.9	3.1	(9.8)	24.2%
Net income attributable to non-controlling interests	0.3	1.2	0.9	399.3%
Net income(loss) attributable to owners of parent	34.2	(136.3)	(170.5)	-

Statements of Income (Consolidated) (2/2)

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(billions of yen)

		FY2021/2Q (A)	FY2022/2Q (B)	Change (B) - (A)	Change (B) / (A)	Major factors for change	
Revenue	Electric utility operating revenue	Revenue from Electricity Sales	514.9	703.7	188.8	136.7%	Increase in fuel cost adjustment charges
		Lighting (Residential)	201.1	238.4	37.3	118.5%	
		Power	313.7	465.3	151.5	148.3%	
		Sales of power to other utilities and other companies	189.5	446.7	257.1	235.6%	Increase in volume of market transactions
		Other revenue	55.8	64.3	8.4	115.2%	
		Sub total	760.3	1,214.8	454.5	159.8%	
	Other operating revenue	112.7	124.8	12.0	110.7%		
	[Operating Revenue]	[873.1]	[1,339.7]	[466.5]	[153.4%]		
	Non operating revenue	2.2	5.2	2.9	232.1%		
	Total revenue	875.3	1,344.9	469.5	153.6%		
Expenses	Electric utility operating expenses	Personnel	70.3	69.4	(0.9)	98.7%	
		Fuel	172.3	405.5	233.2	235.4%	Rise in CIF price
		Maintenance	59.4	71.3	11.8	120.0%	
		Depreciation	80.2	85.5	5.2	106.6%	
		Power purchased from other utilities and other companies	206.8	585.1	378.2	282.9%	Increase in volume of market transactions
		Taxes, etc.	41.9	42.7	0.8	102.1%	
		Nuclear power back-end cost	3.5	3.6	0.0	102.0%	
		Other expenses	80.9	79.5	(1.4)	98.3%	
		Sub total	715.6	1,343.0	627.3	187.7%	
	Other operating expenses	108.4	122.9	14.5	113.4%		
	Non operating expenses	11.3	10.8	(0.4)	95.8%		
	Total expenses	835.4	1,476.8	641.4	176.8%		
	[Operating Income(Loss)]		[49.0]	[(126.2)]	[(175.3)]	[-]	
Ordinary Income(Loss)		39.9	(131.9)	(171.8)	-		
Provision of reserve for fluctuation in water levels		-	0.0	0.0	-		
Extraordinary gain		7.5	-	(7.5)	-	Gains on sales of securities	
Income taxes		12.9	3.1	(9.8)	24.2%		
Net income attributable to non-controlling interests		0.3	1.2	0.9	399.3%		
Net income(loss) attributable to owners of parent		34.2	(136.3)	(170.5)	-		

Statements of Cash Flows (Consolidated)

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(billions of yen)

	FY2021/2Q (A)	FY2022/2Q (B)	Change (B) - (A)	Major factors for change
Cash Flows from Operating Activities	(16.4)	(191.5)	(175.0)	
Cash Flows from Investing Activities	(128.5)	(138.1)	(9.6)	
Cash Flows from Financing Activities	131.0	365.5	234.4	Bonds : 251.8 Loan : 9.1 CP : (28.0)
Net Cash Flows	(13.6)	36.3	49.9	
Cash and cash equivalents at end of the period	195.9	314.7	118.8	
Free Cash Flows*	(138.1)	(322.9)	(184.7)	

*Our definition;

Free Cash Flows = (Cash Flows from Operating Activities) + (Cash Flows from Investing Activities) – (Interest and dividend income) – (Interest expenses)

■ Consolidated Financial Forecasts for FY2022 (No Change from the release in July 2022)

(billions of yen)

	Operating Revenue	Operating Loss	Ordinary Loss	Net Loss Attributable to Owners of Parent
FY2022 forecast	2,740.0	(180.0)	(200.0)	(180.0)

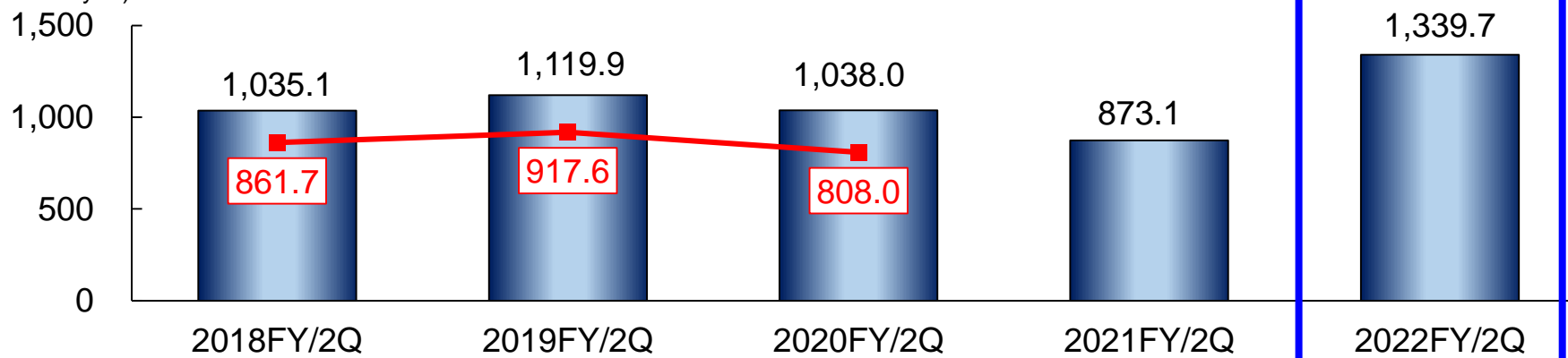
■ Dividend Per Share (No Change from the release in July 2022)

(yen)

	Interim	Year-end (Forecast)	Annual (Forecast)
Dividend Per Share	0	0	0

■ Operating Revenue

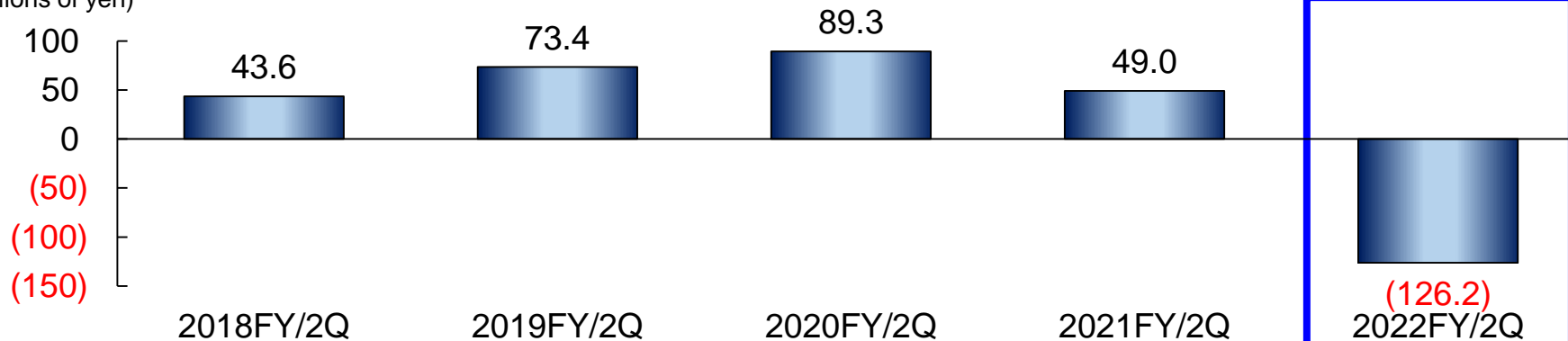
(billions of yen)



Note : Red line shows operating revenue (consolidated) excluding grant under act on purchase of renewable energy sourced electricity, the surcharge for promoting renewable energy sourced electricity, and the self-contracted portion due to indirect auction, etc. FY2021 is after the application of the "Accounting Standard for Revenue Recognition."

■ Operating Income

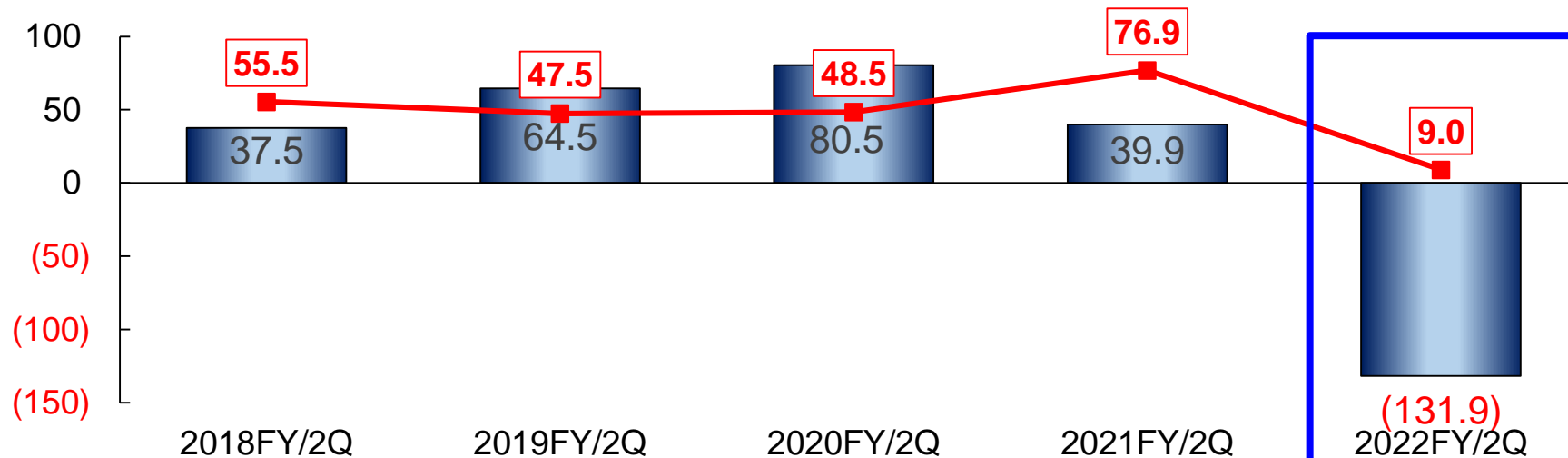
(billions of yen)



	2018FY/2Q	2019FY/2Q	2020FY/2Q	2021FY/2Q	2022FY/2Q
Operating Income on Operating Revenue Ratio (Consolidated basis)	4.2%	6.6%	8.6%	5.6%	-9.4%
Operating Income on Operating Revenue Ratio using above red line (Consolidated basis)	5.1%	8.0%	11.1%		

■ Ordinary Income

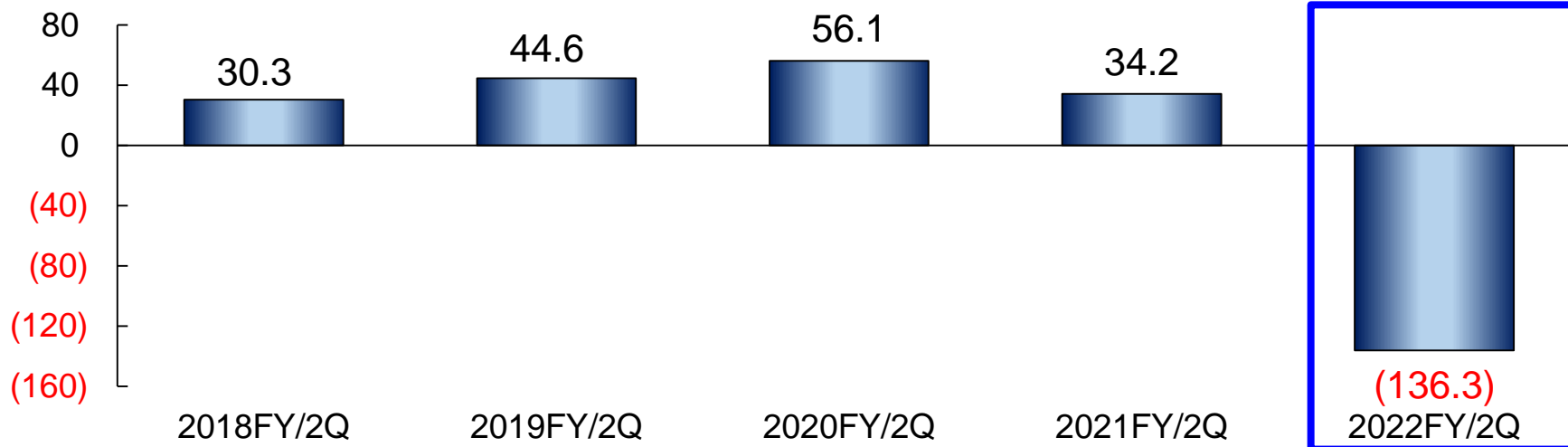
(billions of yen)



Note : Red line shows operating revenue (consolidated) excluding time lag between fuel cost and fuel cost adjustment charges.

■ Net Income Attribute to Owners of Parent

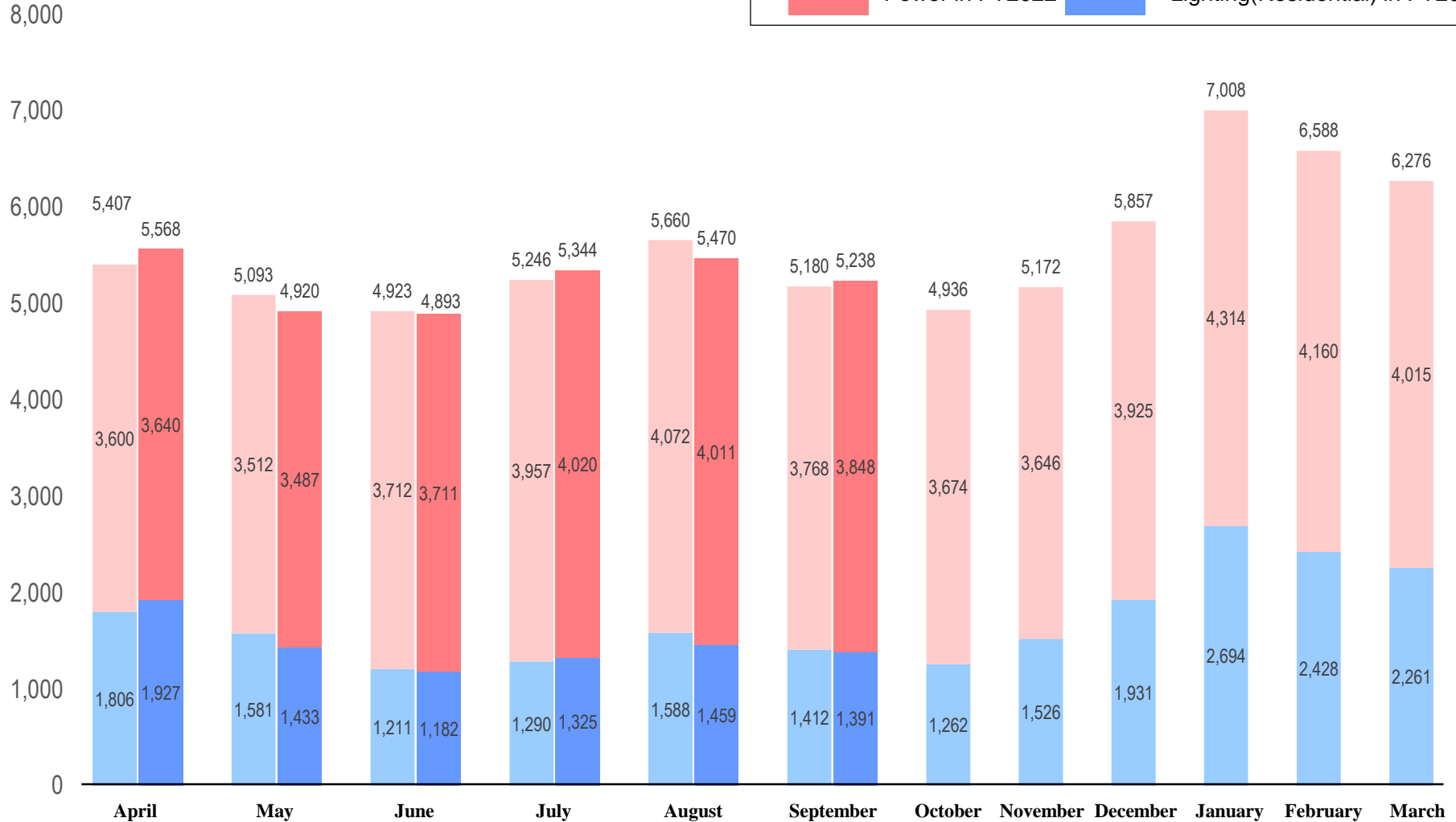
(billions of yen)



Retail Electricity Sales Volume by Month

■ Retail Electricity Sales Volume

(GWh)

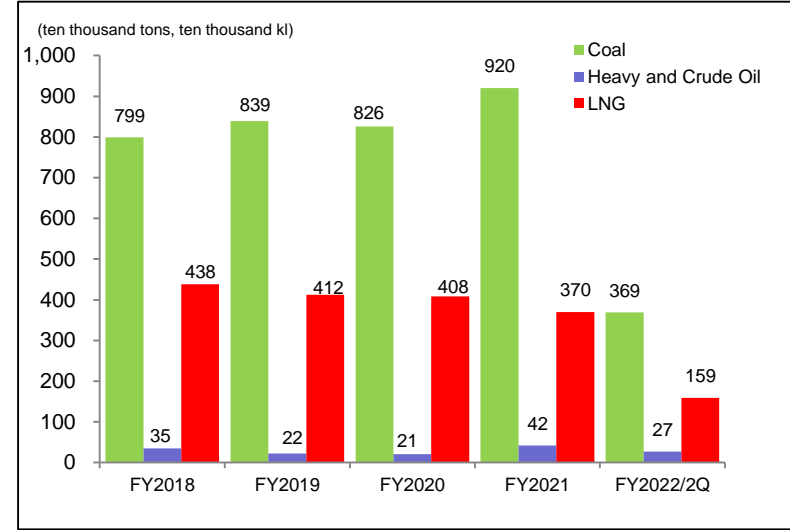


Fuel Consumption Results

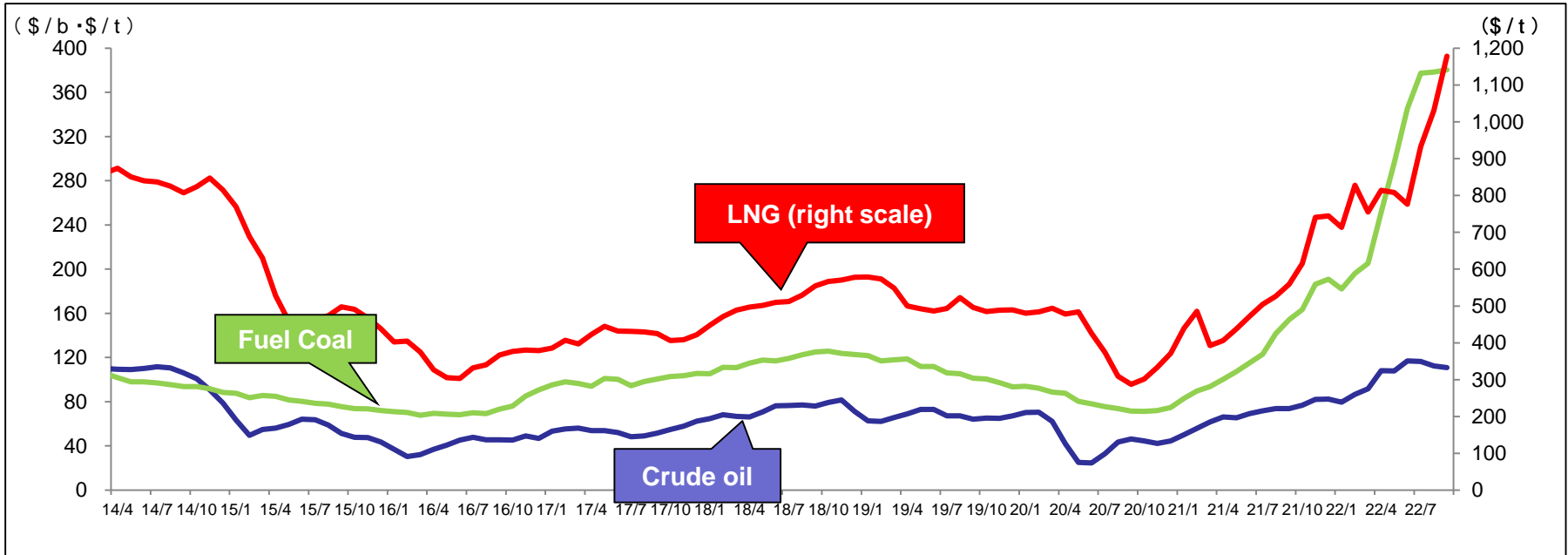
Fuel Consumption

	FY2021/2Q (A)	FY2022/2Q (B)	Change (B) - (A)	(Reference) FY2021
Coal (ten thousand tons)	471	369	(102)	920
Heavy and Crude Oil (ten thousand kl)	5	27	22	42
LNG (ten thousand tons)	168	159	(9)	370

*Above figures are fuel consumption of Tohoku EPCO and remote island



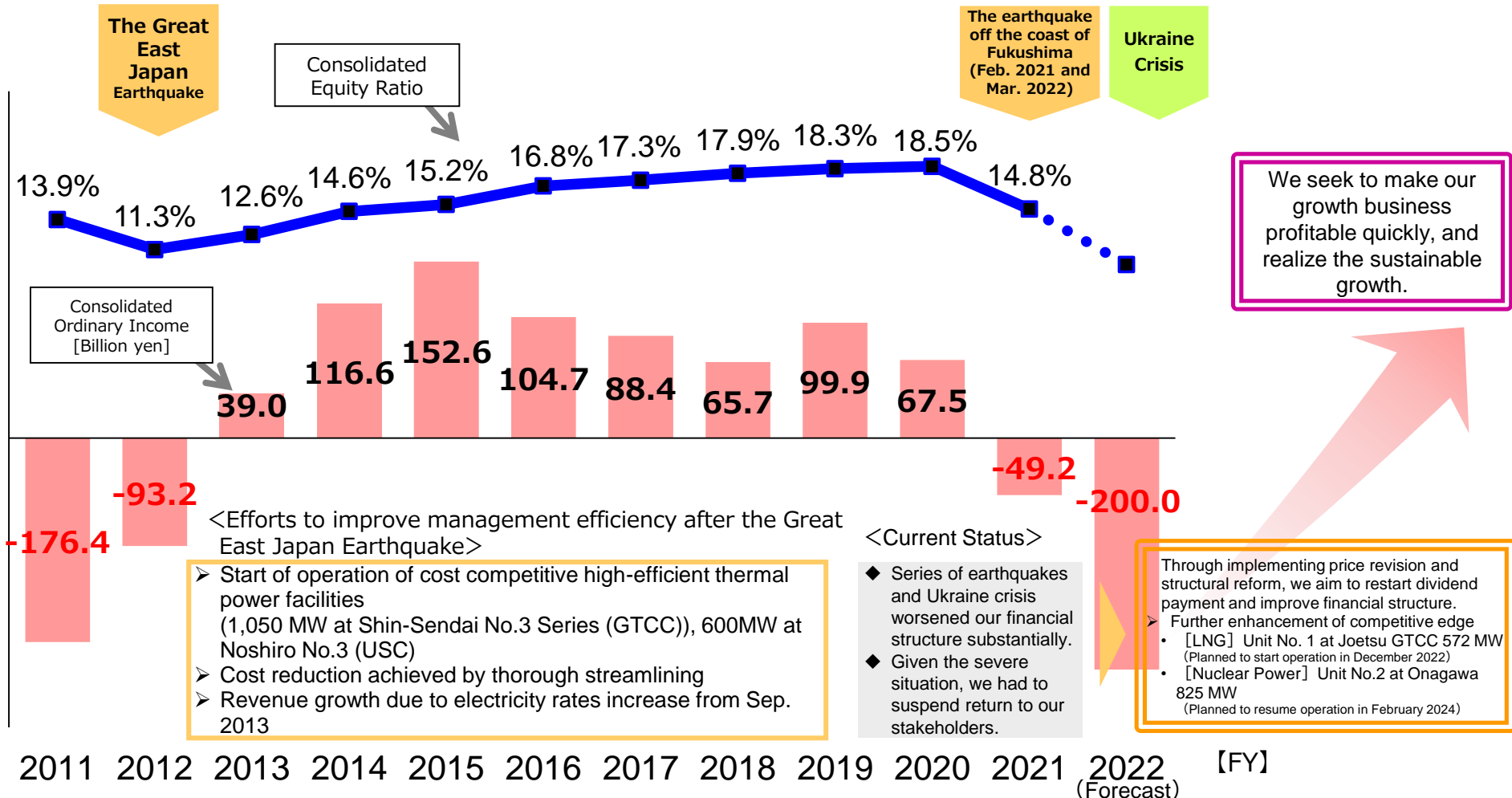
[Reference] Historical CIF Prices of Crude Oil, Fuel Coal and LNG



Initiative to rebuild our financial base

Financial Status since the Great East Japan Earthquake

- We are now facing a severe financial structure due to long-term suspension of our power plants affected by the earthquake off the coast of Fukushima prefecture in February 2021 and March 2022, the rise in fuel prices and JEPX price caused by Ukraine Crisis, and rapidly weakening yen. It is estimated that the consolidated equity ratio for this fiscal year could become even less than the lowest level after the Great East Japan Earthquake.
- Going forward, through various structural efficiency measures described later, we strive to improve both financial status and financial structure.



- Considering our challenging business conditions, we will pursue our management efficiency through the adoption of advanced technology while continuing efforts so far.
- Due to the Ukraine crisis, the amount of efficiency improvement in FY2022 cannot be forecast at this time. However, we work hard to achieve better results than FY2021.
- With our continuous efforts, we will realize rebuilding our business foundation.

Item	Main Initiatives in FY2022	[Reference] Result in FY2021 (Compared to FY2019)
<ul style="list-style-type: none"> ■ Procurement reform initiatives 	<ul style="list-style-type: none"> ✓ Procurement Reform Committee Phase IV started in June 2022. ✓ We will strengthen procurement cost reduction activities in collaboration with business partners 	
<ul style="list-style-type: none"> ■ Enhancing competitiveness of our thermal facilities 	<ul style="list-style-type: none"> ✓ Joetsu Unit 1 will start commercial operations in December 2022. ✓ Higashi Niigata Port Units 1 and 2 planed to be taken out of operation in November 2022. 	<p>Approx. 25.0 billion yen</p>
<ul style="list-style-type: none"> ■ Optimization of value chains from fuel procurement to power generation 	<ul style="list-style-type: none"> ✓ Expansion of local sources in coal procurement ✓ Introduction of various systems to optimize our fuel/electricity procurement ✓ Effective use of options in fuel procurement contracts 	
<ul style="list-style-type: none"> ■ Streamlining business operations 	<ul style="list-style-type: none"> ✓ Introduction of self-BI systems to save labor ✓ Introduction of online document approval system to improve operational efficiency and reduce paper usage 	<p>reduction of workload for 170 people</p>

Responding to the earthquake off the coast of Fukushima and soaring fuel prices

Recovery of thermal power stations

- ✓ Our thermal power stations on the Pacific side were damaged by the Earthquake off the coast of Fukushima in March 2022. Due to long-term suspension, the electricity procurement cost from alternative power sources will increase significantly.
- ✓ We made the best efforts to recover these damaged plants. Therefore, Haramachi Thermal Power Station No.1 and 2 have been restored earlier than the earthquake occurred in February 2021.
- ✓ Other damaged power plants are expected to be restored in FY2022.



Haramachi Thermal Power Station

Countermeasures against soaring fuel prices

Supply-demand optimization	<ul style="list-style-type: none"> • We are utilizing fuel/power futures and other means to control the impact of fluctuations in fuel prices through our strategic subsidiary Tohoku EPCO Energy Trading Co., Inc. • We changed the decommissioning date of Akita Unit 4 . (March 2023 ⇒ July 2024)
Derivatives	<ul style="list-style-type: none"> • To control the impact of fluctuations in fuel prices and foreign exchange, we timely and appropriately conduct hedge transactions.
Procurement method	<p>【Coal】 We have dispersed bargaining session and diversified price indices.</p> <p>【LNG】 We have exercised option to increase volume of existing contracts, and concluded short-term contracts for multiple cargoes.</p>

Energy-Saving

- ✓ Our Campaign "Summer Energy Saving Challenge" (From June 1 to October 31, 2022) received about 280,000 applications.
- ✓ Further more, we launched new campaigns "Winter Energy Saving Challenge," and "eco-friendly campaign."



- For deregulated customers, we announced that electricity charge was revised in July 2022. After that, we determined to “revise unit cost of energy charge rate for high-voltage or extra-high voltage power” and “abolish the cap under fuel cost adjustment system for low-voltage deregulated rate plan” from November 2022 onwards.
- As the fuel price has remained significantly above the upper limit of fuel cost adjustment system since this June, the bottom line for FY2022 in regulated sector is expected to run a deficit of approximately 55.0 billion yen. Therefore, we have begun preparing application for raising the electricity charge for regulated sector.

Electricity charge for deregulated customers

High voltage or extra-high voltage power

- **Revising unit cost of energy charge rate**

[Announced in July, implemented in November]

- ✓ For all our customers of high voltage or extra-high voltage power, a revised unit cost is applied to new or updated contracts from November 2022 onwards.
- ✓ Fuel prices and JEPX price still continue to surge even after a revision of unit cost of energy charge rate, while there have been so many applications from new customers. Therefore, it is quite difficult for us to supply electricity while keeping the revised price level for our new customers. Considering such a situation, we started to offer “market-linked rate plan” after September 20, 2022 onwards.

Low voltage

- **Abolishing the cap under fuel cost adjustment system**

[Announced in July, implemented in November]

- ✓ For our deregulated customers under a contract of low-voltage rate plan, we will reflect the fuel adjusted amount on electricity charge after removing the upper limit under the fuel cost adjustment system for electricity charge from November 2022 onwards. (A charge will start in December.)

Electricity charge for regulated customers

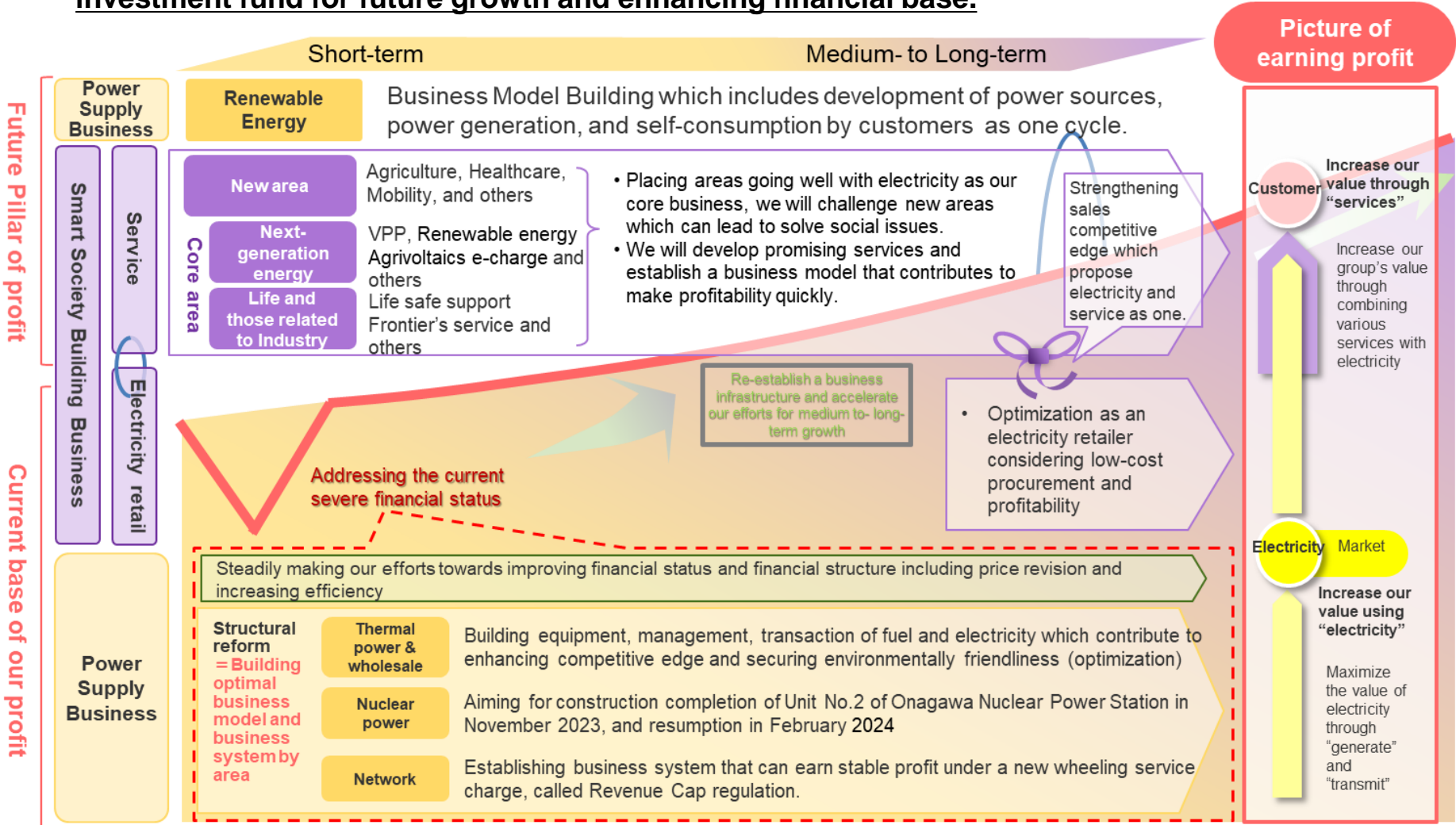
- **Preparation of application for raising electricity charge for regulated sector**

- ✓ As the fuel price has remained significantly above the upper limit of fuel cost adjustment amount since this June, we bore the excess amount during this period. For these reasons, the bottom line for this fiscal year in regulated sector is expected to run a deficit of approximately 55 billion yen.
- ✓ If supply cost continues to exceed our revenue in regulated sector, that may disrupt stable supply of electricity. Therefore, we have begun preparing application for raising the electricity charge for regulated sector.

* In accordance with the revision of electricity charge for regulated customers, there is a possibility that the rate for deregulated customers may be also revised as needed.

Action towards Medium- to Long-term Growth

- Under our Medium- to Long-term Vision “Working alongside next”, our group has developed new services and accelerated carbon neutrality efforts towards building smart society starting from Tohoku region. Although we are facing the current harsh business environment, we are determined to steadily proceed our initiatives for future growth.
- We issued publicly offered hybrid bonds in this September, aiming to balance both securing investment fund for future growth and enhancing financial base.



- In order to realize “Working alongside next”, our group regard renewable energy business including enhancing distribution and transmission network and smart society building business as a medium and long term growth area. Going forward, we will invest approximately ¥400 billion by around 2030, expand our businesses, and increase profitability as soon as possible.

		Scale of Investment by 2030	Major efforts	Effect, Return (Target)
Growth Business	Renewable energy Power resource development	Over 100 billion yen	<ul style="list-style-type: none"> ✓ Aiming for developing 2,000MW as early as 2030 onwards (Strengthening in-house development and expanding the covered area) ✓ Setting out our strategies and plans by seeing the whole picture of renewable energy ✓ Maintaining and expanding of hydropower and geothermal power facilities by drastic repairs of aging facilities ✓ Developing O&M businesses through Tohoku Electric Power Renewable Energy Service 	(FY2030) <input type="checkbox"/> Consolidated cash income Approx. 20 billion yen
	Renewable energy Investment in network (Enforcing power grid)	Approx. 200 billion yen	<ul style="list-style-type: none"> ✓ Expand the capacity of transmission network (Enforcing power grid and core system) ✓ Effective use of the existing network (N-1 power control, Control output fluctuation) ✓ Next-generation devise to distributed network, Smart meter was applied ✓ Optimal control over demand and supply by using renewable, storage batteries, and EMS 	<input type="checkbox"/> Decarbonization <input type="checkbox"/> Sustainable stable power supply <input type="checkbox"/> Optimization of the power transmission and distribution network
	Smart society building business	Approx. 100 billion yen	<ul style="list-style-type: none"> ✓ Tohoku EPCO Frontier: Provide packaged plans that combine “Electricity” with “a variety of services” (Simple Denki with Netflix) and various menus to enrich your life ✓ Tohoku EPCO Solar e Charge: Provide a service that combines solar power with storage batteries (Aozora Charge Service) ✓ VPP business, Renewable energy aggregation business ✓ Regional project, Smart city initiative ✓ Support to safe and secure life, sustainable agriculture, and so on 	(FY2030) <input type="checkbox"/> Sales Approx. 100 billion yen <input type="checkbox"/> Consolidated cash income Approx. 20 billion yen

- ◆ While boosting profitability at early stage, we aim to seek steady growth towards FY2030 onwards through expanding consolidated cash income.
- ◆ We will proceed drastic structural reform of power supply business, as well as maintaining fiscal discipline and securing sound financial situation. We aim to hit the fiscal target stipulated in “Working alongside next” by enhancing capital efficiency in investment.

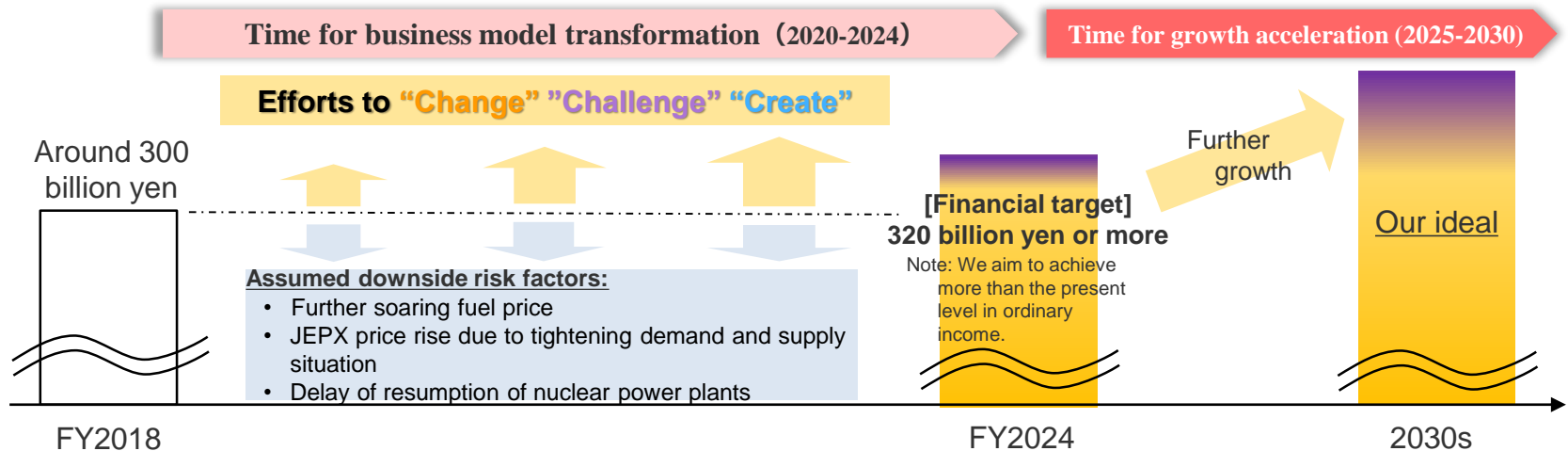
- In order to achieve our vision “Working alongside next,” we have adopted consolidated cash income* as a financial goal and set 320 billion yen or more in FY2024.

[Policy for Financial Goals (Consolidated cash income*)] *Consolidated cash income = operating income + depreciation + amortization of nuclear fuel + share of profit of entities accounted for using the equity method

- ✓ In order to achieve “Working alongside next,” we have adopted consolidated cash income as a financial goal with an indicator that is focused on cash generating capability with the aim of accelerating the input of resources for growth by preventing a decline in profits arising from changes in the present supply and demand and revenue and expenditure structures.
- ✓ Based on the cash level required to maintain a stable power supply, invest in new growth fields, and pay and distribute returns to various stakeholders, we have set 320 billion yen or more in fiscal 2024 as the minimum level to achieve.

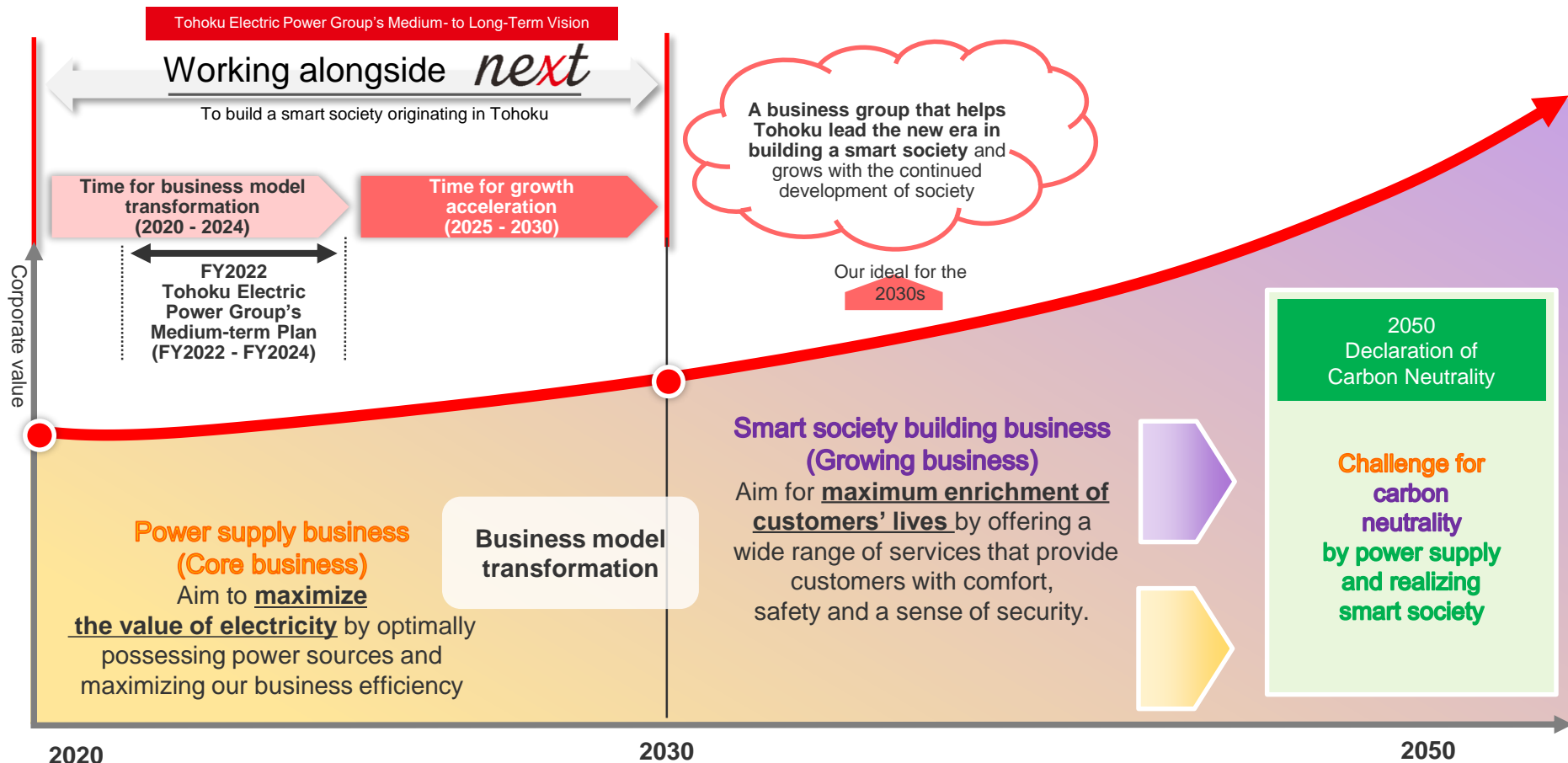
[Policy for Financial Discipline and Capital Efficiency]

Policy in “Working alongside next”	
Financial soundness	Following worsening financial status due to the earthquake off the coast of Fukushima prefecture and Ukraine issues, we keep a close eye on the balance of interest bearing debt. Meanwhile, in order to improve equity (stock) that was substantially decreased as soon as possible, we will continue to monitor the consolidated interest-bearing debt/cash profit ratio, which is an index that takes into account the debt repayment capacity (flow) in addition to consolidated equity-to-asset ratio.
Capital efficiency	Monitor the profitability of individual investment and capital efficiency of the entire corporate group, secure the profitability of the electric business, and early monetize growth businesses by shifting resources, thereby improving return on invested capital.



FY2022 Tohoku Electric Power Group's Medium-term Plan

- Under the Medium- to Long-term Vision of “Working alongside next,” the Tohoku Electric Power Group sets its ideal picture for the 2030s of contributing to “building a smart society of the new era originating from Tohoku” through structural reforms of the electric power supply business and the transformation of business models by quickly achieving profitability with our smart society building business.
- Furthermore, we will strive to achieve carbon neutrality by 2050 through electric power supplies and by realizing a smart society.



Tohoku Electric Power Group's Medium-term Plan

- Regarding FY2022 Tohoku Electric Power Group's Medium-term Plan, we aim to realize a smart society for the new age, starting from Tohoku stipulated in the Medium- to Long-Term Vision "*Working alongside next.*" Then, we will continuously maintain the direction while strengthening and accelerating the current level in terms of "drastic reforms to our power supply business" and "attempt to swiftly achieve profitability in our smart society building business".

Highlights of FY2022 Medium-term Plan

Maintain the current policy direction

Highlight 1 : *Change*
Thoroughly enhancing competitive edge through drastic reforms to our power supply business

Highlight 2: *Challenge*
Attempt to swiftly achieve profitability in our smart society building business

Highlight 3: *Create*
Evolving our management base, which supports the creation of our corporate value

Direction of FY2022 Medium-term Plan based on highlights

In-depth measures contributing to the maximization of profit

- We will transform our business structure to continuously generate profit even under such market environment where structural changes take place so that each function of power supply business will achieve both their own mission and the maximization of profits.
- We will succeed over the competition and increase profits by offering proposals for high value-added service packages from the perspective of power retail sales. At the same time, we will accelerate to build up our proprietary service platforms by quickly following the cycle of service development to sales launch.
- We will enhance sensitivity for the demands of society and changes in expectations by stakeholders, and proactively proceed our group-wide initiatives for ESG-based sustainability.

Realize our Medium- to Long-Term Vision "*Working alongside next*" and attempt to achieve carbon neutrality.

- We steadily implemented initiatives to improve safety while obtaining the understanding of the local communities.

■ Onagawa Nuclear Power Station

Conformity assessment	<ol style="list-style-type: none"> 1. Permission for application for approval of license amendment (February 26, 2020) 2. Approval for construction plan (December 23, 2021) 3. Currently, assessment on application for approval of safety regulations is underway. (Supplementary application (June 30, 2022))
Construction work on safety measures	Currently, additional ground improvement work for seawalls, installation of venting equipment for containment vessels with filters and earthquake resistant reinforcement construction on pressure control room are underway with the aim of completing the work in November 2023.
Pre-Service Operator Inspections	<p>Since May 2022, Pre-Service Operator inspections have been conducted. The main inspection process is as follows.</p> <ol style="list-style-type: none"> 1. Inspections during the fuel bundles insertion by November 2023 2. Inspections at the beginning stage of criticality reaction operations by February 2024 3. Inspections at the time of construction completion by April 2024. <p>After the inspection described in "2", the reactor start-up operation will be performed. Based on other companies' examples and our past performance, the timing of the generators running in parallel after that is assumed to be February 2024.</p>



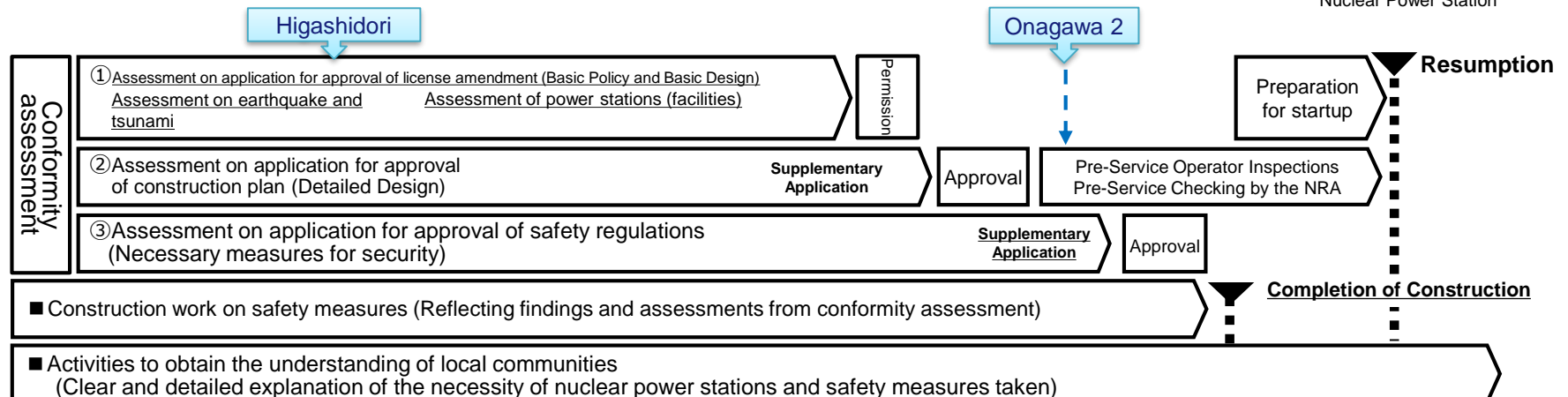
Sea wall 29m above sea level of Onagawa Nuclear Power Station

■ Higashidori Nuclear Power Station

Conformity assessment	<ol style="list-style-type: none"> 1. Currently, the review of the assessment of earthquake and tsunami is underway. *Assessment of ground motion and tsunami standards is underway.
Construction work on safety measures	Currently earthquake resistant construction and installation of venting equipment for containment vessels with filters and emergency response facilities are underway with the aim of completing the work in FY2024.



Panoramic view of Higashidori Nuclear Power Station



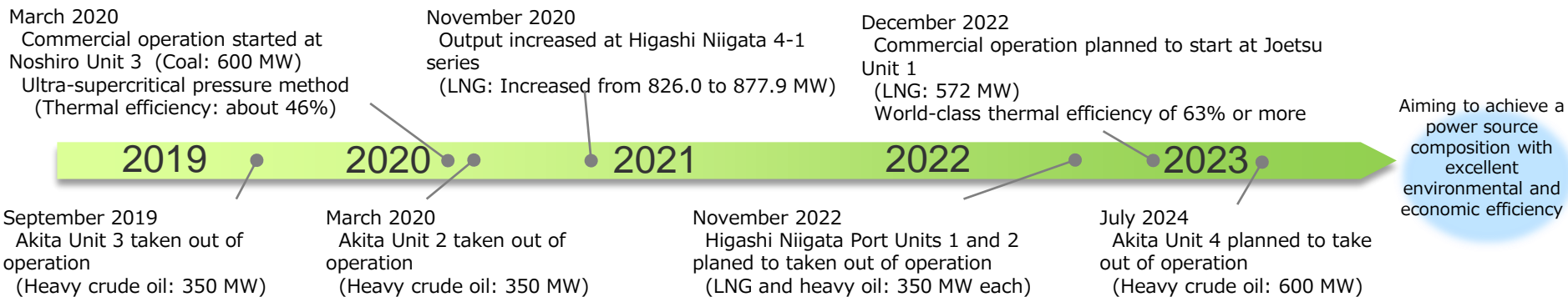
- In “Highlights of FY2022 Tohoku Electric Power Group’s Medium-Term Plan”, we set the target to thoroughly enhance our competitiveness led by drastic reform in electricity supply business. In accordance with this plan, we seek to improve our competitive edge and maximize our profit.
- In addition, in order to pursue net zero by 2050, we will endeavor to achieve a decarbonized society as a whole value chain and realize a smart society. Accordingly, we will contribute to reduce the total amount of carbon emissions in Tohoku region and Niigata prefecture.
- Under such our thoughts, we will further take measures in terms of thermal power generation, such as promoting to develop the high-efficient equipment and shutting down the aging power stations. Then, we will enhance our competitiveness and respond to change in supply and demand along with spreading renewable energy.



Noshiro Thermal Power Unit 3



Joetsu Thermal Power Unit 1 under construction
As of August, 2022



- We are working on the early recovery of power plants damaged by the earthquake off the coast of Fukushima in March 2022, and we expect to be able to restore all power plant units within FY2022.

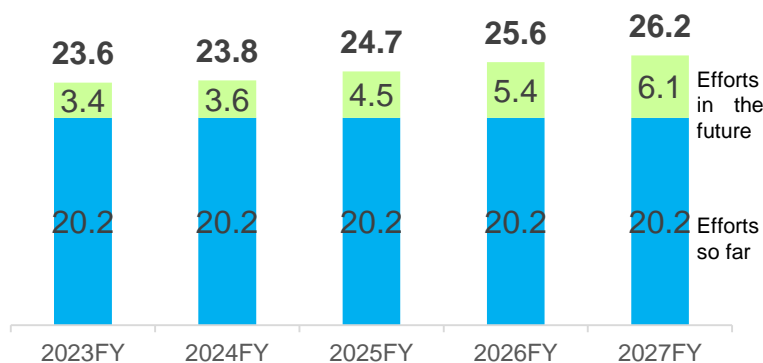
Current Situation of Thermal Power Stations

	Power Station	Unit	Situation when the earthquake occurred	Schedule of restoration
Tohoku Electric Power	Sendai Thermal Power Station	No. 4	<u>Partial damage to bearing stand and sealing fin of turbines</u> (Repaired) • In a test run process of preventive maintenance, problems occurred to gas turbine.	November 24 (Planned)
	Shin Sendai Thermal Power Station	No. 3-1	<u>Automatic suspension of operation of turbine shaft due to excessive shake</u> (No damage was found, but mal-operation of a part of valves was confirmed.)	March 25
		No. 3-2	<u>Automatic suspension of operation of turbine shaft due to excessive shake</u> (No damage was found.)	March 17
	Haramachi Thermal Power Station	No. 1	<u>Partial deformation pipes inside boiler was found.</u>	May 10
		No. 2	<u>Partial deformation and damage of pipes inside boiler was found.</u>	July 13
Soma Joint Thermal Power	Shinchi Power Station	No. 1	<u>Partial deformation and damage of boilers, turbines, and coal unloaders was found.</u>	October 31 (Planned)
		No. 2	<u>Partial deformation of turbines was found.</u> (When the earthquake occurred, main transformer was under suspension due to failure.)	January 13, 2023 (Planned)

- Under the Tohoku Electric Power Group's medium- to long-term vision “Working alongside next,” Tohoku Electric Power Network is striving to further improve cost-efficiency and sophisticate the electric power network.
- To enhance cost-efficiency, Tohoku Electric Power Network have implemented various efficiency improvement measures, such as procurement reform and optimization of personnel plans. Through such efforts, it have achieved an efficiency improvement of 20.2 billion yen.
- Further more, Tohoku Electric Power Network is accelerating the utilization of advanced technologies such as AI and IoT.

Cost Reduction Plan

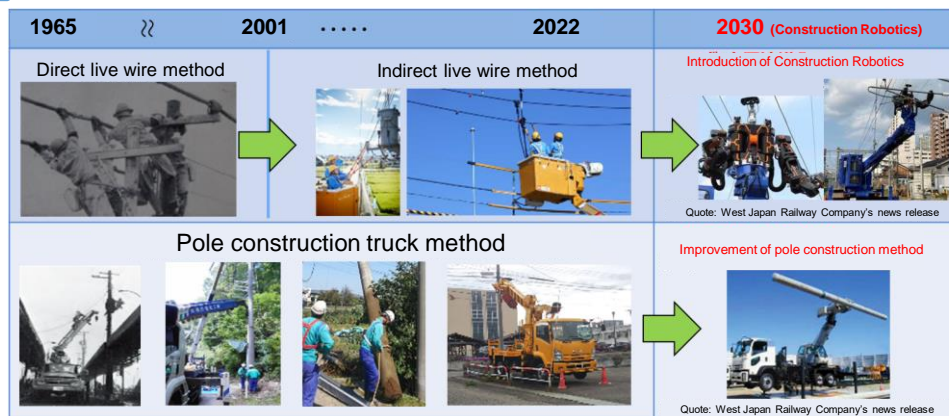
(billions of yen)



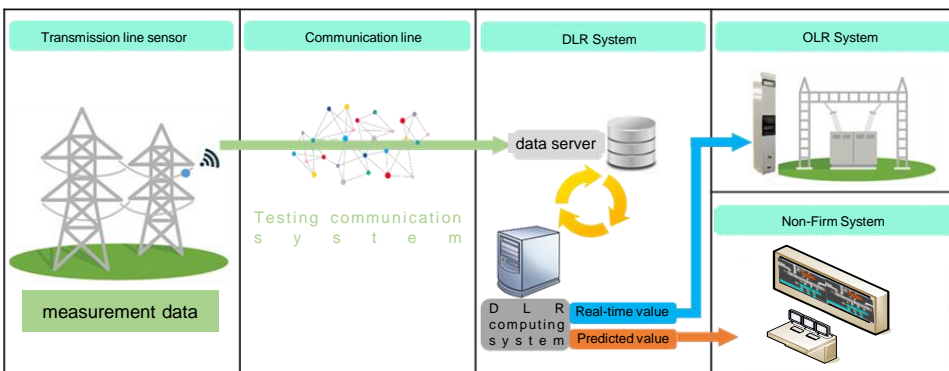
Items		Total of 2023FY-2027FY
Personnel		10.5
Procurement Reform		2.5
Construction	Amount of Purchase	3.7
	Purchasing Methods	0.2
	Utilization of Advanced technology	0.7
Others		5.5
Total		23.0

Initiative for sophistication of power network

Construction Robotics



Dynamic Rating

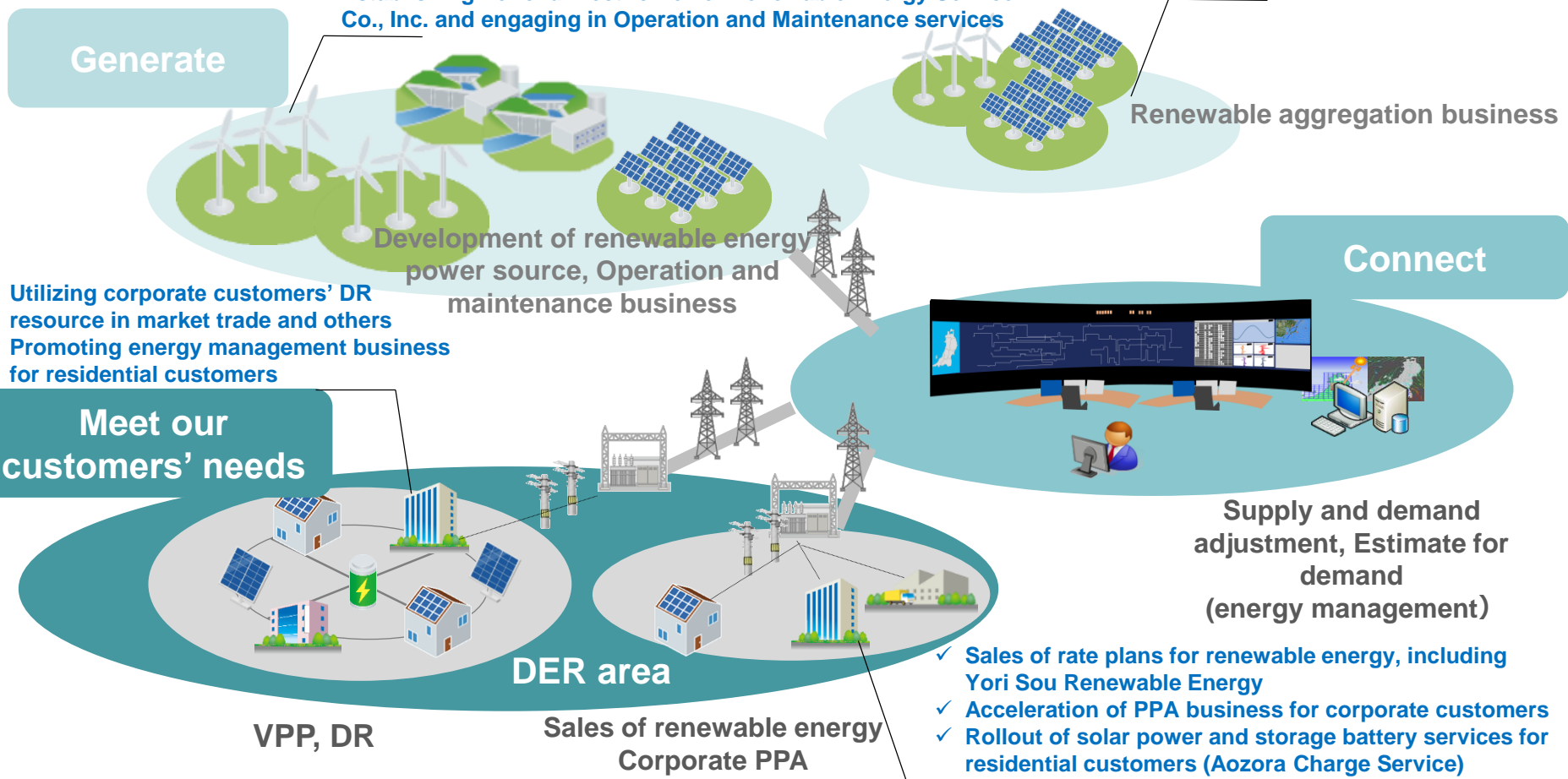


※ Technologies for optimal line control based on the real-time data such as facility conditions data and weather data

- In response to increasing customers' needs towards renewable energy, our group provides various services to our customers in areas ranging from power development, supply and demand adjustment to power sales.

Tohoku Electric Power Group's renewable energy business

- ✓ Promoting the development of wind power and hydropower towards renewable energy development target of 2,000 MW. Contributing to achieving carbon neutrality through maintaining existing hydropower and thermal power facilities
- ✓ Establishing Tohoku Electric Power Renewable Energy Service Co., Inc. and engaging in Operation and Maintenance services
- ✓ Aggregation of several renewable energy generation facilities and provide agency services such as making power generation plan and calculating imbalance and others



- ✓ Utilizing corporate customers' DR resource in market trade and others
- ✓ Promoting energy management business for residential customers

- ✓ Sales of rate plans for renewable energy, including Yori Sou Renewable Energy
- ✓ Acceleration of PPA business for corporate customers
- ✓ Rollout of solar power and storage battery services for residential customers (Aozora Charge Service)

Under construction

(As of September 30)

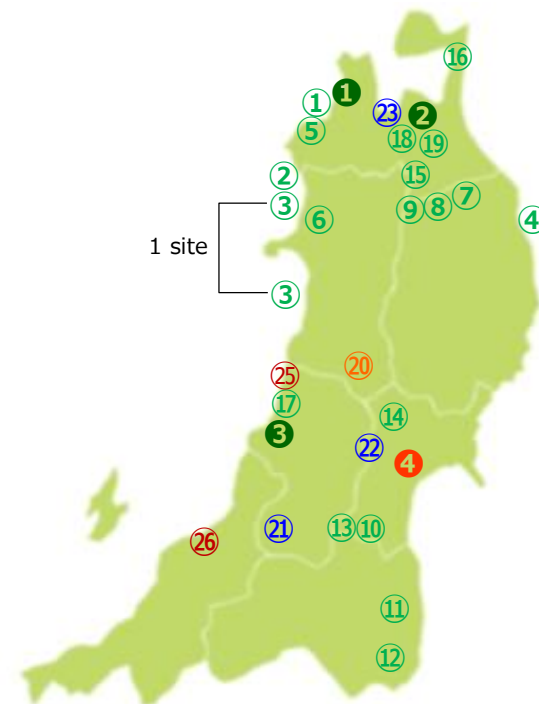
	Project Name	Output	Scheduled Commercial Operation Date
Offshore Wind	① Tsugaru Offshore Wind	Approx.480MW	After FY2028
	② Happo-Noshiro Offshore Wind	Approx.356MW	After FY2028
	③ Akita and Noshiro Port Offshore Wind	Approx.140MW	2022
	④ Kuji City Floating Offshore Wind	TBD	TBD
Onshore Wind	⑤ Fukaura Wind	Approx.70MW	Feb. 2024
	⑥ Noshiro-Yamamoto Regional Wind	Approx.100MW	After FY2023
	⑦ Oritsumedake South 1 Wind	Approx.44MW	Jan. 2023
	⑧ Inaniwa Takko Wind	Approx.100MW	After FY2025
	⑨ Inaniwa Wind	Approx.100MW	After FY2025
	⑩ Shiroishi Kosugo Wind	Approx.38MW	After FY2026
	⑪ Southern Abukuma Wind	Approx.90MW	After FY2025
	⑫ Tabito Central Windfarm	Approx.54.6MW	After FY2027
	⑬ Inego-Toge Windfarm	Approx.58.8MW(Max)	May 2028
	⑭ Miyagi Kami Windfarm	Approx.42MW	FY2024
	⑮ Takko Wind (tentative name)	Approx.75.6MW(Max)	After FY2027
	⑯ Shimokita	Approx.96MW	After FY2027
	⑰ JRE Sakata Replace	Approx.27.5MW(Max)	FY2026
	⑱ Oonakadai-bokujyo Wind	Approx.4MW	Nov. 2024
	⑲ Fukamochi Wind	Approx.94.6MW(Max)	After FY2030
	⑳ Fukui Kunimidake Wind	Approx.37.8MW(Max)	May 2027
Geothermal	㉑ Kijiyama (tentative name)	14.9MW	2029
Hydroelectric	㉒ Tamagawa No.2 Hydroelectric	14.6MW(Max)	Nov. 2022
	㉓ Naruse River	2.3MW(Max)	FY2034
	㉔ Shin-Kamimatsuzawa	9.4MW(Max)	Nov. 2031
Solar	㉕ Tshuze	35MW	Mar. 2023
Biomass	㉖ Chokai-Minami	52.9MW	Oct. 2024
	㉗ Niigata East Port	50MW	Oct. 2024

* These projects include surveys of potential development

Development/participation results
(as of the end of September, 2022)

Total output share **650** MW

*Value in case of all commercialization



Operation started

	Project Name	Output	Operation Date
Onshore Wind	① Windfarm Tsugaru	121.6MW	April 2020
	② Shichinohe-Towada Wind	30.5MW	Dec. 2021
	③ Tsuruoka Hachimoriyama Wind	13.6MW	Nov. 2021
Solar	④ Miyagi Osato Solar Park	37.5MW	Oct. 2021

(Fukui, Fukui)

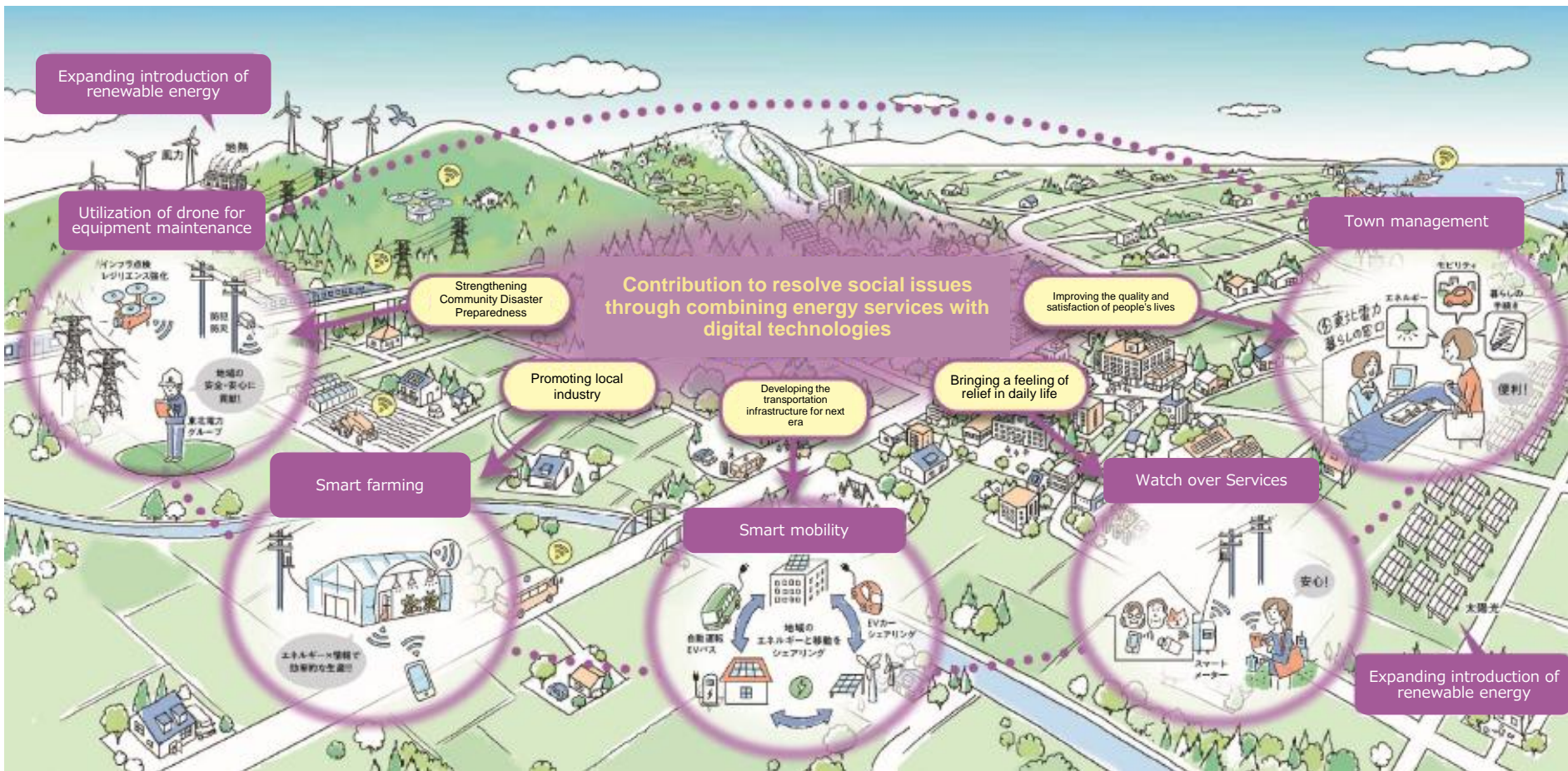
⑳ Fukui Kunimidake

(Tsu, Mie)

㉕ Tshuze

●:Wind ●:Hydroelectric ●:Solar ●:Geothermal ●:Biomass

- In the Tohoku Electric Power Group's Medium- to Long term Vision "Working alongside next," we have announced a challenge to the "smart society building business."
- The "smart society building business" aims to solve social issues in the Tohoku and Niigata areas through the use of next-generation digital technologies and innovations, etc.
- Towards the realization of a smart society, we will provide new services such as VPP services that make effective use of regionally dispersed energy resources, and services that contribute to improving the quality and satisfaction of people's lives and businesses from the perspective of electricity.



- Through leveraging mobility, a feature of “Tohoku Electric Power Frontier” established in April 2021, we launched a series of services that could solve social issues in a short term.
- We released a new campaign ”Smart Energy Saving Challenge” in this August. Though these efforts, we are striving to maximize profits of our electricity business and service as a group.

Smart Energy Saving Challenge = Energy-saving electricity rate plan + Services for Energy Saving

Concept of service development in Tohoku Electric Power Frontier and a series of services

<Concept of service development>

Add excitement to electricity service

We will provide excitement
that you never felt before

for your family members and yourselves.

Through our services that will add color to your lives,
Tohoku Electric Power Frontier will deliver you
something new to your lives one after another.

Enjoy
your time



Enjoy your
time with
your family

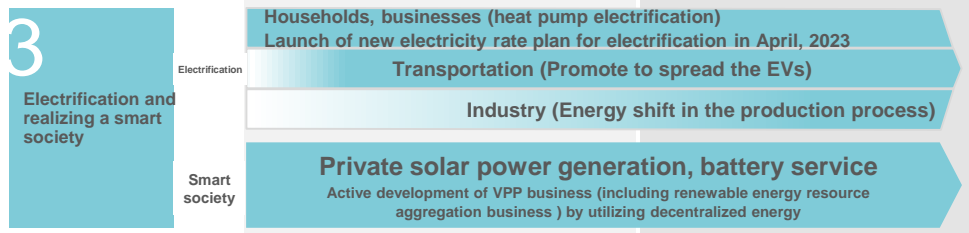
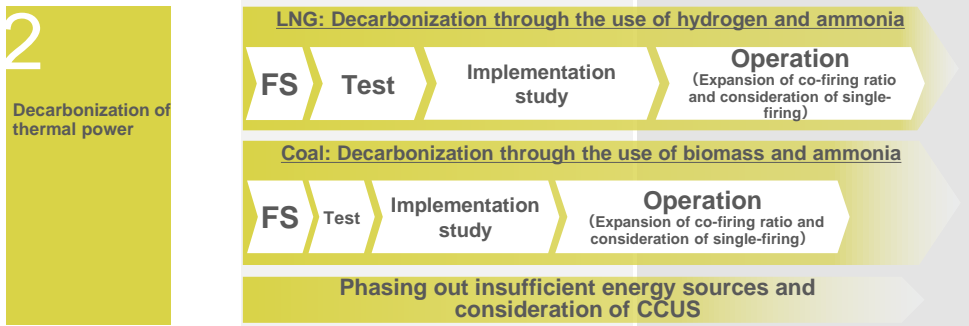
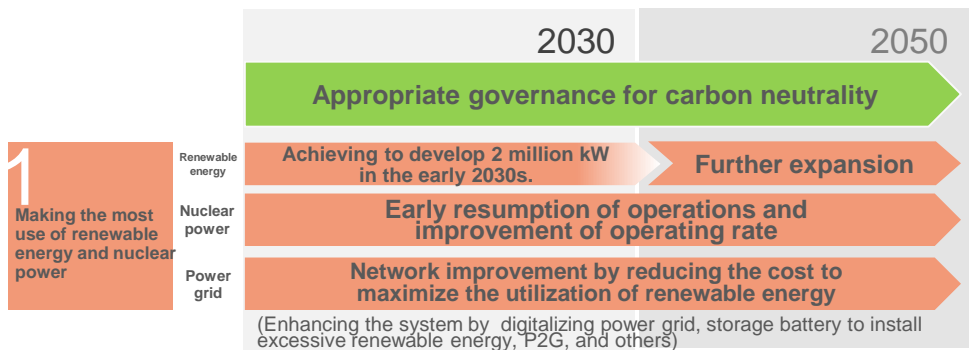
Make your own time as well as
keeping time with your family

<Major Services>

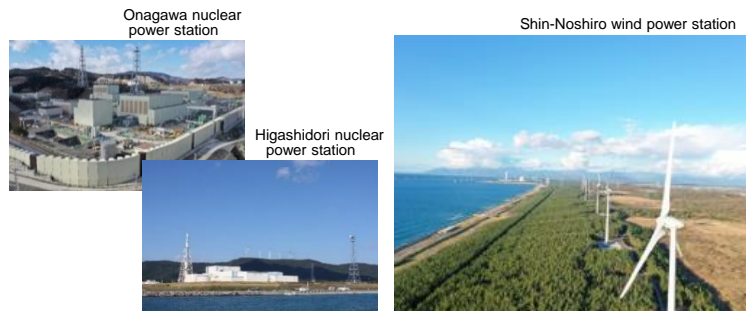
Job matching service (one-day or few-hours jobs)	東北電力フロンティアの スマートDAYWORK!
House-keeping consulting service	トキメクくらしの家計ご相談サービス
Lease service of private cars	東北電力 フロンティアで乗る
Service to sell craft beer	おうちクラフト
Camp experience and rental -service of camping gear	CAMP FRONTIER
Rental and delivery service of camping gear	hinata レンタル
Subscription service of picture books	WORLDBRARY Personal
Service to shop second-hand children's clothes	キャリ-オン
Regular delivery service of customized coffee	PostCoffee®
Rental service that makes your lives 'comfortable	valiceSTYLE
Insurance service for simple life	東北電力フロンティア くらしのシンプル保険
Delivery service of drinking water	Aqua Clara
Box storage and delivery service	サマリ-ポケット

- We work to realize a carbon-neutral society, focusing on three measures “Maximum use of renewable energy and nuclear power,” “De-carbonization of thermal power,” “Electrification and realization of a smart society.”

Roadmap to 2030 and 2050



Main Efforts



Swift operation resumption of nuclear power station

maximizing the use of renewable energy

Niigata thermal power station (LNG)



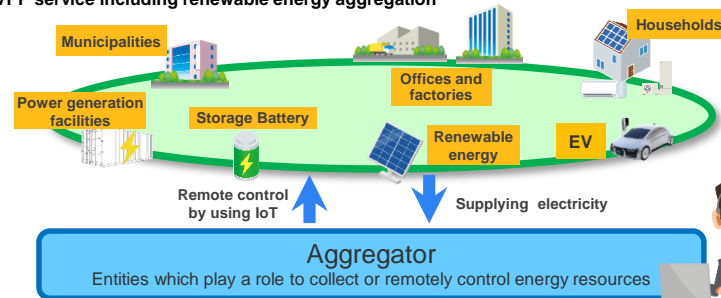
Verification study of mixed burning of hydrogen and ammonia

Noshiro thermal power station (coal)



Verification study of mixed burning with black pellets

VPP service including renewable energy aggregation



- Tohoku Electric Power Group newly set out Tohoku Electric Power Group Sustainability policy and deployed sustainability promotion structure in October 2021.
- In this July, we identified sustainability materiality that should be addressed as our top priority in the medium to- long-term perspectives.
- We aim to create both social value and corporate value with the next-generation stakeholders through achieving “Working alongside Next” and “Carbon Neutral Challenge 2050.”

Prospering with Local Communities

Our Management Philosophy of Prospering with Local Communities

Group Slogan Yori, Sou, Chikara
(The Strength to Work Alongside)



Development of power sources in Tadami River Contribution to local community Stable Supply

Materiality

Co-creating values with our stakeholders

Environmental change

Changes in business environment

Depopulation De-carbonization

Digitalization De-centralization

Intensifying competition

Change in power supply-demand structure

Soaring fuel prices

Social issues

Climate change

Natural disaster

Low birthrate and longevity

Human rights

Identification of materiality

Mid-to long term improvement in our corporate value

Contribution to sustainable development

Tohoku Electric Power Group Sustainability Policy

Material Issues

Tackling the challenge of carbon neutrality

Creation of recycling-based society

Preservation of biodiversity

Realization of local community that is safe, secured and comfortable lives

Building up resilient social infrastructure

Creating workplace where diverse human resources can work lively

Respect of human rights of various stakeholders

Sound and transparent corporate management

Tohoku Electric Power Group's Mid-term Plan
Working alongside next
To build a smart society originating in Tohoku

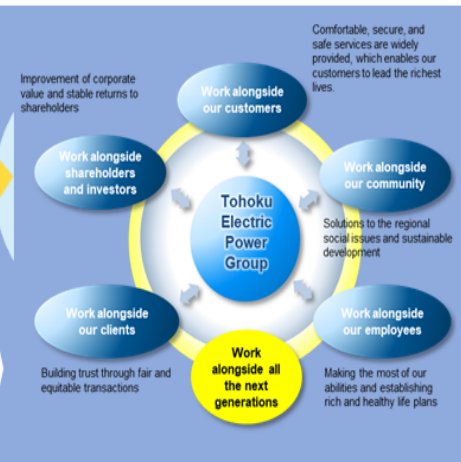
Ideal in 2030s

A business group that helps Tohoku lead the new era in building a smart society and grows with the continued development of society



Tohoku Electric Power Group
Carbon Neutral Challenge 2050

Tohoku Electric Power Group's Mid-term Plan



SUSTAINABLE DEVELOPMENT GOALS



Efforts towards enhancing information disclosure -Issued Integrated Report 2022-

- ✓ We issued Integrated Report 2022 [Japanese version] in September 2022*.
- ✓ It includes how far “Working alongside next” and “Carbon Neutral Challenge 2050” have been progressed, as well as the further details about our efforts based on “Sustainability Materiality”. Information disclosure was based on TCFD proposals and SASB standards, and skill matrix of Directors was also unveiled.
- ✓ We also issued “Tohoku Electric Power Group Sustainability Report 2022” which is a comprehensive wrap-up of our efforts related to sustainability.



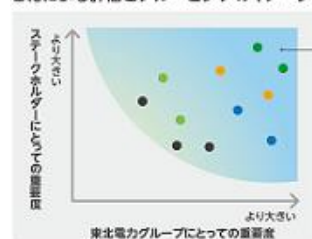
Integrated Report 2022



Sustainability Report 2022

* The English version will be published in November.

2軸による評価とグルーピングのイメージ



サステナビリティ重要課題の特定/SDGsとの関連性

区分	サステナビリティ重要課題(マテリアリティ)	SDGsとの関連性
E	カーボンニュートラルへの挑戦	13, 17
	循環型社会の形成	11, 12, 13, 14, 15
	生物多様性の保全	14, 15
S	快適・安全・安心な暮らしと地域社会の実現	1, 3, 11, 13, 16
	レジリエントな社会インフラの構築	9, 11, 13
	多様な人材がイキいきと働く職場作り	5, 8, 10, 12, 17
G	様々なステークホルダーの人権尊重	8, 10, 17
	健全で透明性のある企業経営	1, 2, 3, 8, 10, 12, 17

Description for Sustainability materiality, including a process to identify materiality

Promoting diversity, equity and inclusion

- ✓ In addition to boosting the numbers of women in managerial positions, we set **the numerical target in terms of a proportion of women in managerial positions as a further medium to- long-term goal.**
- ✓ We will continuously enhance initiatives that support balancing work and family and career formation and success so that we can help build a workplace where diverse human resources can thrive. At the same time, we will accelerate transforming employees' awareness towards diversity, equity, and inclusion.



A message on diversity was delivered by the Director.

[Targets related to women in managerial positions]

A new general employer action plan based on the Act on Promotion of Women's Participation and Advancement in the workplace

By the end of March 2025, the number of female managers shall be at least more than doubled compared to the start of FY 2019.

A proportion of women in managerial positions

By the end of FY 2035, the proportion of women in managerial positions shall be 5.0%.

Initiatives in respect for human rights

- ✓ A basic idea of respect for human rights is articulated in the “Tohoku Electric Power Group Code of Conduct”. In addition to that, we are making various efforts to prevent and alleviate potential human rights risk through business activities including procurement.
- ✓ In Sustainability Promotion Committee, we discuss how to respond to risk on human rights from the perspective of sustainability of our group as well as society. Currently, under the cooperation with external specialists, we are conducting an impact assessment and analysis on human rights' risk of the whole supply chain through self-assessment questionnaire and actual survey from the perspective of seriousness and possibility of occurrence, and link to corporations.

(Note)

This presentation solely constitutes reference material for the purpose of providing the readers with relevant information to evaluate our group.

The information contains forward-looking statements based on assumptions and projections about the future with regard to our group. As such, the readers are kindly asked to refrain from making judgment by depending solely on this information.

The forward-looking statements inherently involve a degree of risks and uncertainties. Consequently, these risks and uncertainties could cause the actual results and performance to differ from the assumed or projected status of our group.

We hereby disclaim any responsibility or liability in relation to consequences resulting from decisions made by investors.