# Financial Summary 2<sup>nd</sup> Quarter of FY2023

(April 1, 2023 – September 30, 2023)

October 31, 2023

Tohoku Electric Power Co., Inc.

## Contents

2nd Quarter of FY2023 Financial Results					
Key points of financial results and forecasts	• • • •	1			
Summary of Financial Results	••••	2			
Changing Factors in Consolidated Ordinary Income from the Corresponding Period Last Year	••••	3			
Impact of Time Lag between Fuel Cost and Fuel Cost Adjustment Charges in the Second Quarter of FY2023	••••	4			
Electricity Sales, Major Factors, Sensitivity to Major Factors	••••	5			
Electricity Supply	••••	6			
Segment Information (Consolidated)	• • • •	7			
Segment Information (Power generation and Sales)	• • • •	8			
Segment Information (Network)	••••	9			
Results of Major Consolidated Subsidiaries	• • • •	10			
Balance Sheets (Consolidated)	• • • •	11			
Statements of Income (Consolidated)	••••	12			
Statements of Cash Flows (Consolidated)	••••	14			
Financial Forecasts for FY2023	••••	15			
Dividend for FY2023	••••	16			
Financial Data					
Forecast for achieving financial targets	••••	18			
Trends of Financial Position (Consolidated)	••••	19			
For the Recovery of Financial Base	• • • •	20			
Trends of Operating Revenue and Each Income (Consolidated)	• • • •	21			
Trends of Quarterly Income (Consolidated)	••••	23			
Trends of Financial Indicators (Consolidated)	••••	24			
Retail Electricity Sales Volume by Month	••••	27			
Fuel Consumption Results	••••	28			
Main Initiatives in the 2nd Quarter of FY2023					
Revision of safety measure work completion date for Onagawa Power Station Unit 2	••••	30			
Status of safety measure work for Onagawa Power Station Unit 2	••••	31			
Making Steady Efforts to Restart Nuclear Power Reactors	••••	32			
List of Major Renewable Energy Development/Participation Points of Our Group	••••	33			
Efforts toward Carbon Neutral	••••	34			
Application for Approval of Changes to "Projected Revenues related to Wheeling Supply, etc."	••••	35			
Main Initiatives in the 2nd Quarter of 2023	••••	36			
Major Press Releases	••••	39			

# 2nd Quarter of FY2023 Financial Results

## Key points of financial results and forecasts

Financial Results for the first quarter of FY2023

#### Increase in revenue and increase in income

(First time in 4 years since FY2019)

- Operating revenue : mainly due to decrease in sales to wholesale power exchanges and revisions to electricity rates.
- Ordinary income: mainly due to increase in income from retail electricity sales thanks to revisions of electricity rates and the time lag between fuel cost and fuel cost adjustment charge.

Financial and Dividend Forecasts for FY2023

No Change from the release in July 2023

## **Summary of Financial Results**

#### Operating revenue

#### ¥1,387.8 billion (a year on year increase of ¥48.1 billion)

• Operating revenue increased mainly due to decrease in sales to wholesale power exchanges and revisions to electricity rates.

Ordinary income/loss

#### ¥219.1 billion (a year on year increase of ¥351.0 billion)

- Ordinary income increased mainly due to a significant increase thanks to the time lag
  effect of the fuel cost adjustment system due to lower fuel prices, and an increase thanks
  to a review of electricity rates.
- Net Income Attributable to Owners of Parent

¥155.3 billion (a year on year increase of ¥291.7 billion)

#### (Summary of Consolidated Financial Statements)

	FY2022/2Q (A)	FY2023/2Q (B)	Change (B) - (A)	Change (B) / (A)
Operating Revenue	1,339.7	1,387.8	48.1	103.6 %
Ordinary Income*1	(131.9)	219.1	351.0	-
	[ 9.0 ]	[ 124.1 ]	[ 115.0 ]	[ - %]
Net Income Attributable to Owners of Parent	(136.3)	155.3	291.7	- %
Consolidated Cash Income*2	110.3	228.8	118.4	207.3 %

	Mar. 31, 2023	Sep. 30, 2023	Change
	(A)	(B)	(B) - (A)
Equity ratio	10.5%	13.5%	3.0%
	[13.2%]* <sup>3</sup>	[16.1%]* <sup>3</sup>	[2.9%]
Interest-Bearing Liabilities	3,375.6	3,379.4	3.8

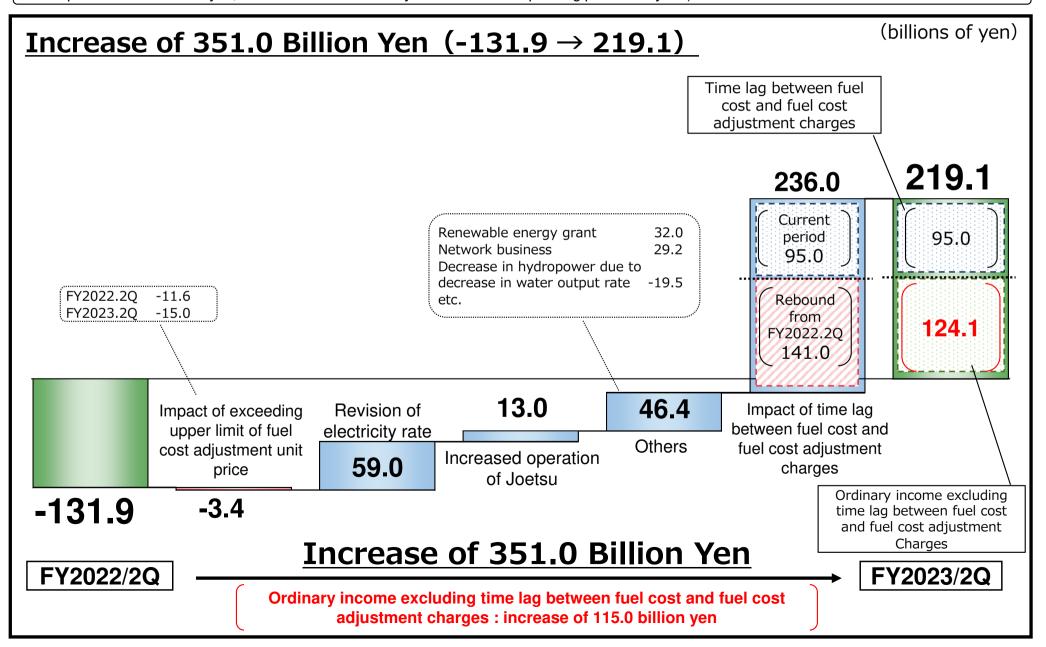
<sup>\*1</sup> Lower figures exclude time lag between fuel cost and fuel cost adjustment charges.

<sup>\*2</sup> Consolidate 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.)

<sup>\*3</sup> Equity ratio assuming 50% of the issued amount (140 billion yen) of the issued hybrid bonds as equity capital

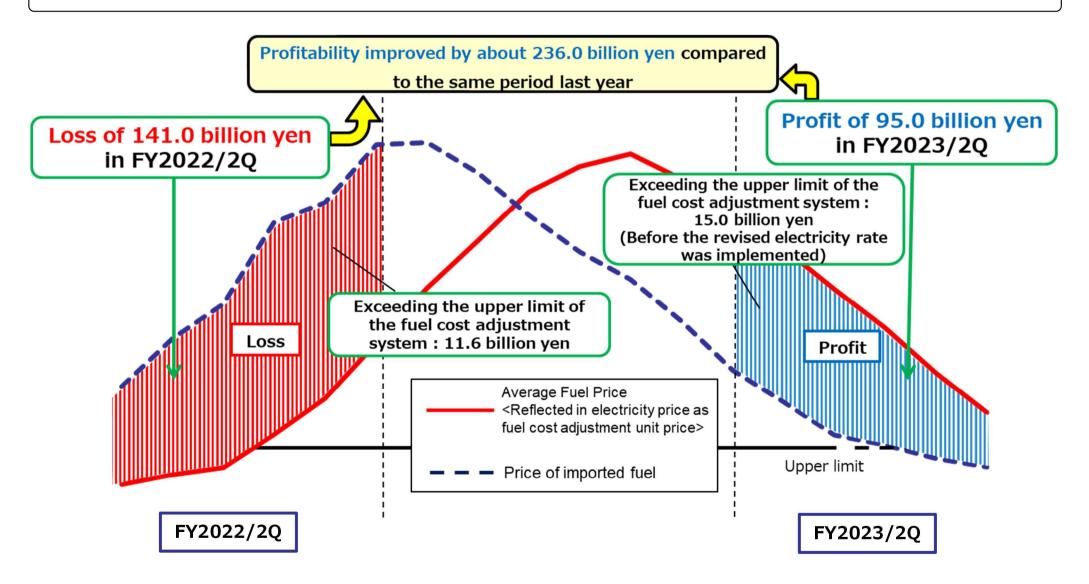
# Changing Factors in Consolidated Ordinary Income from the Corresponding Period Last Year

- ✓ Income and expenditures have improved significantly due to an electricity rates review, increased operations in Joetsu Thermal Power Station, and time lag impact of fuel cost adjustment system due to lower fuel rates.
- Consolidated ordinary income was 219.1 billion yen, an increase of 351 billion yen from the corresponding period last year. (Income excluding time lag impact was 124.1 billion yen, an increase of 115 billion yen from the corresponding period last year.)



## Impact of Time Lag between Fuel Cost and Fuel Cost Adjustment Charges in the Second Quarter of FY2023

- ✓ The impact of the time lag in the same period of the previous year was a loss of 141.0 billion yen, but this fiscal year there was a profit of 95.0 billion yen, resulting in an improvement in profitability of 236.0 billion yen.
- ✓ The fuel cost adjustment unit price of the low-voltage regulation rate menu exceeded the upper limit, and the uncollectible income for this term was 15.0 billion yen. This was a decrease of 3.4 billion yen compared to the same period previous year.



> Retail electricity sales 31.1 TWh (a year on year decrease 0.3 TWh)

Decreased industrial operations and energy-saving initiatives, etc.

> Wholesale electricity sales 6.3 TWh (a year on year decrease 1.6 TWh)

Decrease in wholesale to out of area, etc.

(GWh)

Electricity Sales*1	FY2022/2Q (A)	FY2023/2Q (B)	Change (B) - (A)	Change (B) / (A)
Lighting (Residential)	8,716	8,725	9	100.1 %
Power	22,716	22,386	(330)	98.5 %
Retail Electricity Sales*2	31,432	31,111	(321)	99.0 %
Wholesale Electricity Sales*3	7,841	6,274	(1,567)	80.0 %
Total of Electricity Sales	39,274	37,385	(1,889)	95.2 %

<sup>\*1</sup> Individual figures of Tohoku Electric Power Co., Inc., excluding network business.

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

Major Factors	FY2022/2Q (A)	FY2023/2Q (B)	Change (B) - (A)
Crude Oil CIF Price (\$/bbl.)	111.9	83.5	(28.4)
Exchange Rate (¥/\$)	134	141	7
Hydro Power Flow Rate (%)	101.8	80.4	(21.4)
Nuclear Power Utilization Rate (%)	-	-	-

Sensitivity to Major Factors	FY2022/2Q (A)	FY2023/2Q (B)	Change (B) - (A)
Crude Oil CIF Price (\$/bbl.)	1.2	1.5	0.3
Exchange Rate (¥/\$)	2.9	2.0	(0.9)
Hydro Power Flow Rate (%)	1.2	1.0	(0.2)

<sup>\*3</sup> Wholesale Electricity Sales includes the volume of specified power interchange.

## **Electricity Supply**

- ✓ Electricity generated by own hydropower decreased due to the impact of water shortage.
- ✓ Increase in the amount of power generated by our thermal power plants due to the reaction to the suspension of operations caused by the Fukushima Prefecture Offshore Earthquake last year.
- ✓ Decrease in the amount of power received from other companies due to a decrease in market procurement due to the resolution of supply shortages.

(GWh)

	Electricity Supply*1	FY2022/2Q (A)	FY2023/2Q (B)	Change (B) - (A)	Change (B) / (A)
Own	Generated Power*2	26,539	26,518	(21)	99.9 %
	Hydro	4,695	3,775	(920)	80.4 %
	Thermal	21,534	22,444	910	104.2 %
	Nuclear	_	_	_	_
	Renewables	311	300	(11)	96.4 %
Pow	er Interchanges and	17,260	15,305	(1,955)	88.7 %
Purc	chased Power*3,4	(3,266)	(2,826)	440	86.5 %
Used at Pumped Storage and others  Total of Electricity Supply*3		(182)	(211)	(29)	116.0 %
		40,351	38,786	(1,565)	96.1 %

	FY2022/2Q	FY2023/2Q	Change	Change
	(A)	(B)	(B) - (A)	(B) / (A)
Total of Renewables <sup>*4</sup> [Percentage of Electricity Supply]	10,168 (25.2%)	8,981 (23.2%)	(1,187)	88.3 %

<sup>\*1</sup> Individual figures of Tohoku Electric Power Co., Inc., excluding network business.

<sup>\*2 &</sup>quot;Own Generated Power" shows sending end (electric power generated by the generator minus the electric power used in the power station).

<sup>\*3 &</sup>quot;Power Interchanges" and "Total of Electricity Supply" partly include projected volume.

<sup>\*4</sup> The total value of solar power, wind power, biomass, waste, geothermal power, and hydro power generated by our company and power received by other companies.

## **Segment Information (Consolidated)**

(billions of yen)

	FY2022	/2Q(A)	FY2023	/2Q(B)	Change	(B) - (A)	
	Operating Revenue*	Ordinary Income	Operating Revenue*	Ordinary Income	Operating Revenue*	Ordinary Income	Major factors for change
Power Generation	1,010.4	(131.4)	1,139.6	186.0	129.2	317.4	<ul> <li>Increased income due to the revision of electricity rates, etc.</li> <li>Increased income due to the operations of</li> </ul>
and Sales	910.4	(131.4)	1,084.9	100.0	174.5	317.4	high-efficiency Joetsu Thermal Power Station, etc.
Network	541.3	7.5	412.4	36.7	(128.9)	29.2	<ul> <li>Decreased income due to a decreased renewable energy electricity wholesale supply, etc.</li> </ul>
Network	304.8	7.5	181.9	30.7	(122.9)	29.2	<ul> <li>Increased income due to a decreased procurement costs in demand and supply adjustment market transactions.</li> </ul>
Construetion	123.8	0.4	127.2	0.0	3.3	0.4	<ul> <li>Increased income and profit mainly due to an increase in air-conditioning duct work for</li> </ul>
Construction	65.8	0.4	66.3	0.9	0.4	0.4	general customers and power distribution and transmission work.
Others	108.7	7.2	113.0	8.6	4.3	1.3	<ul> <li>Increased income and profit due to an increase in optical fiber loan income for general customers in the information technology &amp;</li> </ul>
Others	58.5	7.2	54.6	0.0	(3.9)	1.5	telecommunications business and a decrease in depreciation and amortization expenses, etc
Subtotal	1,784.3	(116.1)	1,792.4	232.3	8.0	348.5	
Adjustment	(444.6)	(15.7)	(404.5)	(13.1)	40.0	2.5	
Total	1,339.7	(131.9)	1,387.8	219.1	48.1	351.0	

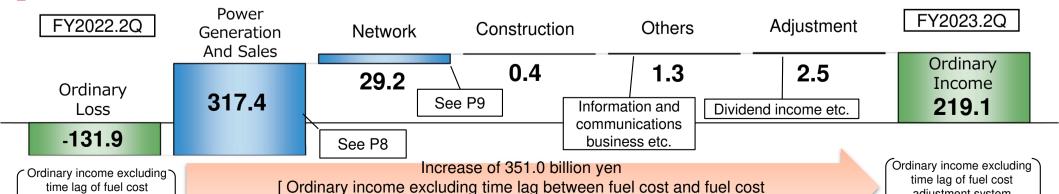
#### Changing Factors in Consolidated Ordinary Income

adjustment system

9.0

adjustment system

124.1



adjustment charges: increase of 115.0 billion yen]

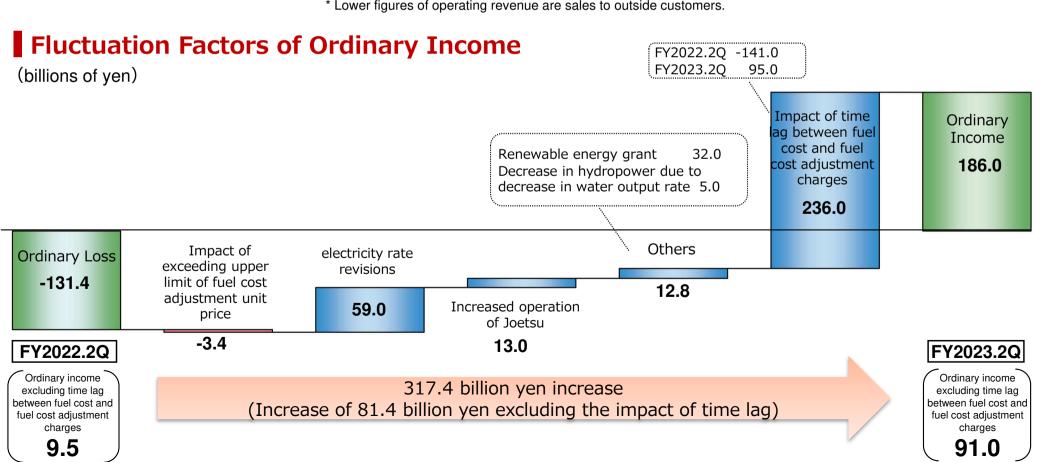
<sup>\*</sup> Lower figures of operating revenue are sales to outside customers.

(hillions of ven)

As a result of revision of electricity rates and increased operations in high-efficiency Joetsu Thermal Power Station as well as time lag impacts of fuel costs adjustment due to lower fuel cost, ordinary income increased by 317.4 billion ven from the corresponding period last year. (Income excluding time lag impact increased by 81.4 billion yen)

	(billions of yell						
I	FY2022/2Q(A)		FY2022/2Q(A) FY2023/2Q(B)		Change (B) - (A)		
l		Operating Revenue*	Ordinary Income	Operating Revenue*	Ordinary Income	Operating Revenue*	Ordinary Income
I	Power	1,010.4	(121 4)	1,139.6	106.0	129.2	317.4
	Generation and Sales	910.4	(131.4)	1,084.9	186.0	174.5	317.4

<sup>\*</sup> Lower figures of operating revenue are sales to outside customers.



## **Segment Information (Network)**

- > Area demand decreased by 500 million kWh due to the impact of energy-saving initiatives and industrial trend, etc. (98.6% from the corresponding period last year)
- > Sales decreased by 128.9 billion yen from the corresponding period last year due to a decreased wholesale supply of renewable energy electricity, etc.
- > Meanwhile, ordinary income increased by 29.2 billion yen from the corresponding period last year due to a decrease of procurement costs in demand and supply market transaction, etc.

(billions of yen)

	FY2022/2Q(A)		FY2023/2Q(B)		Change (B) - (A)	
	Operating Revenue*	Ordinary Income	Operating Revenue*	Ordinary Income	Operating Revenue*	Ordinary Income
Notwork	541.3	7.5	412.4	36.7	(128.9)	29.2
Network	304.8	7.5	181.9		(122.9)	

<sup>\*</sup> Lower figures of operating revenue are sales to outside customers.

#### Fluctuation Factors of Ordinary Income

FY2022.2Q

(billions of ven) Others Depreciation Wheeling 2.6 Ordinary charge Supply and 3.1 Income demand 36.7 adjustment 11.5 Decrease in procurement costs market due to Last Resort Service. transactions 12.0 Ordinary Income 7.5

#### Tohoku Area Electric Power Demand

(TWh)

FY2022 2Q	FY2023 2Q	Changes
37.0	36.5	(0.5) [98.6%]

29.2 billion yen increase

FY2023.2Q

## **Results of Major Consolidated Subsidiaries**

			FY2022/2Q (A)	FY2023/2Q (B)	Change (B)-(A)	Note
Pow	Calcata Kuada Dawar Ca I tal	Operating Revenue	32.9	30.2	(2.7)	Decreased electricity sales (sales) Increased repair costs associated with
er ge and	Sakata Kyodo Power Co., Ltd.	Ordinary Income	1.4	(2.1)	(3.5)	periodic inspections (ordinary income)
Power generation and Sales	Tohoku Sustainable &	Operating Revenue	5.1	4.4	(0.6)	Decreased sales of FIT power (hydraulic)
ation	Renewable Energy Co., Inc.	Ordinary Income	2.0	1.4	(0.6)	due to water shortage
	VUDTEC CORD	Operating Revenue	92.7	97.6	4.9	Increased works of power distribution and
Sons	YURTEC CORP.	Ordinary Income	2.1	2.9	0.7	transmission for Tohoku Electric Power NW
Construction	Tohoku Electric Power Engineering & Construction	Operating Revenue	27.0	28.0	1.0	Increased nuclear-related works (sales) Increased outsourcing expenses (ordinary
ח	Co., Inc.	Ordinary Income	0.5	0.5	(0.0)	income)
	NULIONIZALI NO COLLED	Operating Revenue	6.4	7.3	0.8	Increased LNG vaporization contract for
	NIHONKAI LNG CO., LTD.	Ordinary Income	0.7	0.6	(0.0)	Tohoku Electric Power
	TOUR not Co. Inc.	Operating Revenue	12.0	12.5	0.5	Increased income from fiber optic loans for
욛	TOHKnet Co., Inc.	Ordinary Income	1.8	2.4	0.6	general customers
Others	Toinx Co., Ltd.	Operating Revenue	9.4	15.0	5.6	Increased development of IT infrastructure
		Ordinary Income	0.4	1.0	0.6	service & system for Tohoku Electric Power
	Kitanihon Electric Cable Co.,	Operating Revenue	16.2	16.7	0.5	Increased sales of aluminum wire for Tohoku Electric Power NW (sales)
	Ltd.	Ordinary Income	1.0	0.8	(0.2)	Increased cost of sales associated with the above

## **Balance Sheets (Consolidated)**

		Mar. 31, 2023 (A)	Sep. 30, 2023 (B)		Change (B) - (A)
Total Assets		5,211.9	5,316.2	104.3	
	Non-current Assets	4,005.1	4,076.5	71.3	Construction in progress : 84.5
	Current Assets	1,206.7	1,239.6	32.9	
Te	otal Liabilities	4,580.8	4,520.9	(59.8)	
	Non-current Liabilities	3,467.3	3,454.0	(13.3)	
	Current Liabilities	1,113.4	1,066.9	(46.5)	
N	et Assets	631.0	795.2	164.1	Net income attributable to owners of parent: 155.3
	nterest-Bearing iabilities	3,375.6	3,379.4	3.8	Bonds : (35.0) Commercial papers : 45.0
E	quity Ratio	10.5% [13.2%]*	13.5% [16.1%]*	3.0% [2.9%]	

<sup>\*</sup>Equity ratio assuming 50% of the issued amount (140 billion yen) of the issued hybrid bonds as equity capital

## Statements of Income (Consolidated) (1/2)

	FY2022/2Q (A)	FY2023/2Q (B)	Change (B) - (A)	Change (B) / (A)
Operating Revenue	1,339.7	1,387.8	48.1	103.6 %
Electric utility	1,214.8	1,264.7	49.9	104.1 %
Other business	124.8	123.0	(1.8)	98.5 %
Operating Expenses	1,465.9	1,160.2	(305.6)	79.1 %
Electric utility	1,343.0	1,043.7	(299.2)	77.7 %
Other business	122.9	116.5	(6.4)	94.8 %
Operating Income	(126.2)	227.5	353.8	
Non-operating income	5.2	5.4	0.2	104.2 %
Non-operating expenses	10.8	13.8	2.9	127.1 %
Ordinary Income	(131.9)	219.1	351.0	
Provision of reserve for fluctuation in water levels	0.0	-	(0.0)	1
Income taxes	3.1	62.6	59.5	I
Net income attributable to non-controlling interests	1.2	1.0	(0.1)	86.1 %
Net income attributable to owners of parent	(136.3)	155.3	291.7	

## Statements of Income (Consolidated) (2/2)

			FY2022/2Q (A)	FY2023/2Q (B)	Change (B) – (A)	Change (B) / (A)	Major factors for change
	0.77	Revenue from Electricity Sales	703.7	807.6	103.8	114.8%	Electricity rate revisions
	=lec	Lighting (Residential)	238.4	221.0	(17.4)	92.7%	,
	tric	Power	465.3	586.5	121.2	126.1%	
	utili:	Sales of power to other utilities and other companies	446.7	287.8	(158.9)	64.4%	Decrease in market transaction
Revenue	Electric utility operating revenue	Other revenue	64.3	169.3	104.9	263.1%	Increase in subsidies for mitigation of drastic changes
l me	Эe	Sub total	1,214.8	1,264.7	49.9	104.1%	
T (D	Other	operating revenue	124.8	123.0	(1.8)	98.5%	
	[Oper	rating Revenue]	[ 1,339.7]	[ 1,387.8]	[ 48.1]	[ 103.6% ]	
	Non c	perating revenue	5.2	5.4	0.2	104.2%	
	Total	revenue	1,344.9	1,393.2	48.3	103.6%	
		Personnel	69.4	72.7	3.3	104.8%	
	×Ξ	Fuel	405.5	360.7	(44.8)	88.9%	
	Electric utility expenses	Maintenance	71.3	72.7	1.3	102.0%	
		Depreciation	85.5	83.3	(2.1)	97.4%	
т	ility	Power purchased from other utilities and other companies	585.1	314.6	(270.5)	53.8%	Decrease in market transaction
Expenses	ope	Taxes, etc.	42.7	45.9	3.1	107.3%	
nse	operating	Nuclear power back-end cost	3.6	3.7	0.0	102.3%	
Š	ng	Other expenses	79.5	89.8	10.3	113.0%	
		Sub total	1,343.0	1,043.7	(299.2)	77.7%	
	Other	operating expenses	122.9	116.5	(6.4)	94.8%	
	Non c	perating expenses	10.8	13.8	2.9	127.1%	
	Total	expenses	1,476.8	1,174.1	(302.7)	79.5%	
[Operating Income]		[ (126.2)]	[ 227.5]	[ 353.8]	[ - ]		
	Ordinary Income		(131.9)	219.1	351.0	-	
Provi	Provision of reserve for fluctuation in water levels		0.0	_	(0.0)	1	
		Income taxes	3.1	62.6	59.5	1	
N	Net income attributable to non-controlling interests		1.2	1.0	(0.1)	86.1%	
Net	income	attributable to owners of parent	(136.3)	155.3	291.7		

(billions of yen)

	FY2022/2Q (A)	FY2023/2Q (B)	Change (B) - (A)	Major factors for change
Cash Flows from Operating Activities	(191.5)	174.0	365.5	
Cash Flows from Investing Activities	(138.1)	(166.9)	(28.7)	
Cash Flows from Financing Activities	365.5	(1.3)	(366.8)	Bonds (411.5) Loan 31.3 CP 8.0
Net Cash Flows	36.3	6.4	(29.9)	
Cash and cash equivalents at end of the period	314.7	514.3	199.5	
Free Cash Flows*	(322.9)	18.6	341.5	

<sup>\*</sup>Our definition;

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

### **Financial Forecasts for FY2023**

> The Financial Forecasts announced on July 31, 2023 has not been changed.

#### ■ Consolidated Financial Forecasts for FY2023

(billions of yen)

	FY2022 (A)	FY2023 forecast (B)	Change (B) – (A)
Operating Revenue	3,007.2	3,020.0	12.8
Operating Income	(180.0)	220.0	400.0
Ordinary Income	(199.2) [(76.2)]	200.0 [132.0]	399.2 [208.2]
Net Income Attributable to Owners of Parent	(127.5)	140.0	267.5
Consolidated Cash Income	136.6	340.0	203.4

<sup>[]:</sup> Ordinary income excluding time lag between fuel cost and fuel cost adjustment charges.

#### Major Factors

		FY2022	FY2023 forecast
E *	Retail	65.9	Approx. 64.8
Electric power sales <sup>*</sup> (TWh)	Wholesale	15.9	Approx. 14.7
(1 ***11)	Total	81.8	Approx. 79.5
Crude Oil CIF Price (\$/bbl.)		102.7	Approx. 87
Exchange Rate (¥/\$)		136	Approx. 142
Nuclear Power Utilization	on Rate (%)	_	Approx. 1

<sup>\*</sup> Individual figures of Tohoku Electric Power Co., Inc., excluding network business.

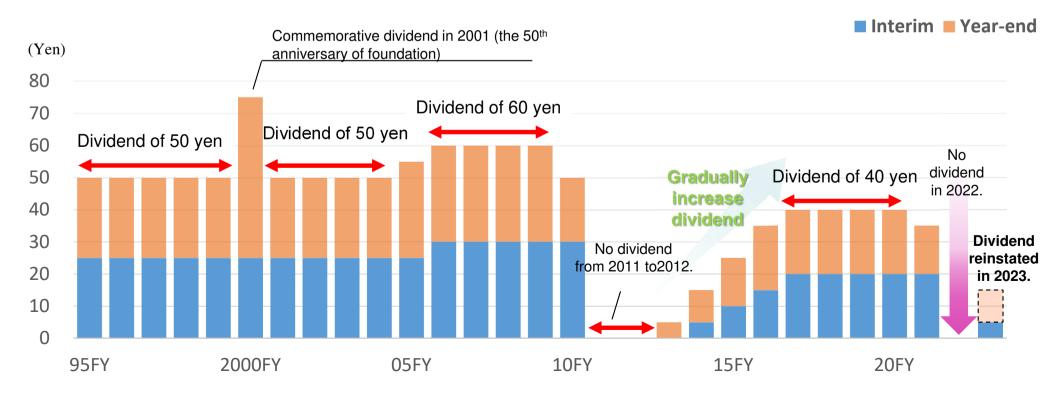
#### Sensitivity to Major Factors

Crude Oil CIF Price (per \$1/bbl.)	Approx. 2.7
Exchange Rate (per ¥1/\$)	Approx. 4.4

> The Dividend Forecasts announced on July 31, 2023 has not been changed.

	Interim	Year-end (Forecast)	Annual (Forecast)
Dividend Per Share	5	10	15

#### Trends of dividend per share

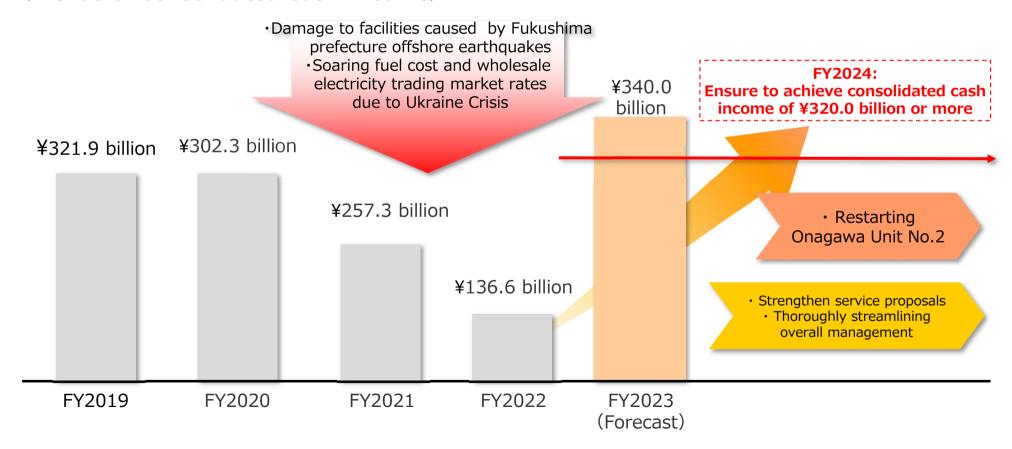


## 2. Financial Data

## Forecast for achieving financial targets

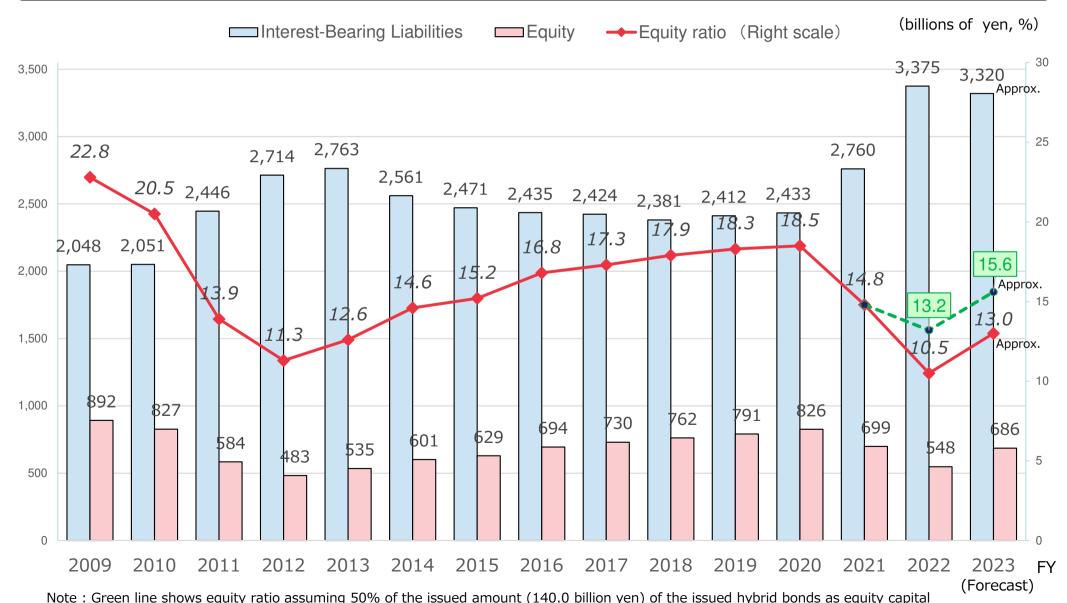
- ✓ In order to improve the ability to generate the cash profits necessary to transform the business model, we will be positioning an early recovery of financial base as a top-priority issue, we set a financial target of "FY2024: consolidated cash income of ¥320 billion or more".
- ✓ Due to the impact of Fukushima prefecture offshore earthquake and the invasion of Ukraine, consolidated cash income has remained low in recent years, but <u>in FY2023, it is expected to be around ¥340 billion</u> by reviewing electricity rates and thoroughly streamlining overall management, etc.
- ✓ In the future, we will build a long-term sustainable revenue base by steadily restarting Onagawa Unit 2. etc., as well as continuing to improve efficiency, etc. to ensure the achievement of financial targets for FY2024.

#### <Trends of Consolidated Cash Income>



## **Trends of Financial Position (Consolidated)**

- ✓ Equity-ratio is expected to improve slightly because income and expenditures will improve significantly in FY2023 compared to last fiscal year.
- ✓ Meanwhile, interest-bearing debt balance rose to a level above that in the period immediately after the Great East Japan Earthquake, and given unexpected occurrence of natural disaster and fluctuation risk of soaring fuel cost in recent years, it is recognized that financial condition is still in a difficult situation.



## For the Recovery of Financial Base

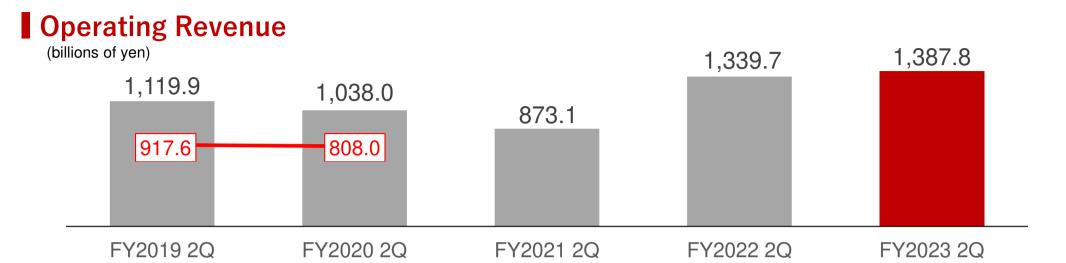
- ✓ Our company damaged equity capital in the short term, including about 400 billion yen at the time of the Great East

  Japan Earthquake and about 300 billion yen at the time of Ukraine crisis. Equity capital at the end of FY2022 was about

  40% lower than at its most recent peak.
- ✓ According to the assumption based on this fiscal year's earnings forecast, it is expected to recover to "Equity capital ratio:
   13.0%" and "Equity capital: 686.0 billion yen" at the end of this fiscal year.
- ✓ <u>To maintain a stable supply of electricity</u>, in terms of responding to an increasingly changing business environment that may be affected by various events including natural disasters and global economic crises in recent years, <u>we believe that we need to build up equity capital</u>, <u>aiming for early recovery to the pre-crisis level in Ukraine (capital adequacy ratio of about 18.5%).</u>
- ✓ To achieve such objectives, we need to continuously secure profit levels at this fiscal year levels through group-wide efforts including "strengthening of service proposals", "restart of nuclear power stations", and "thorough streamlining of overall management" while optimizing electricity supply and demand.

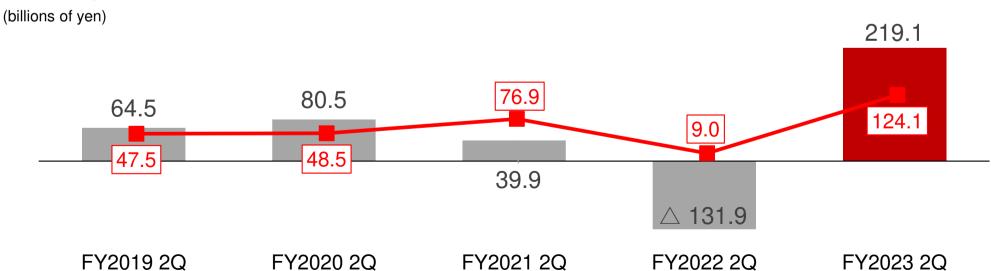
#### Aim for early recovery to the pre-Direction for financial base recovery (Building up equity capital) crisis level in Ukraine (capital adequacy ratio of about 18.5%) <Great East Japan Earthquake> <Ukraine crisis> About 400 billion yen 826.4 damaged billion ven About 300 billion ven (18.5%)damaged 892.5 billion yen 686.0 billion yen (13.0%)699.6 billion yen **Continuously secure profit** 548.9 483.6 level of this fiscal year billion yen billion yen FY2023 FY2020 FY2021 FY2022 FY2009 FY2012 [Forecast]

<sup>\*</sup>All figures are on a consolidated basis. Figures in parentheses represent capital adequacy ratios.

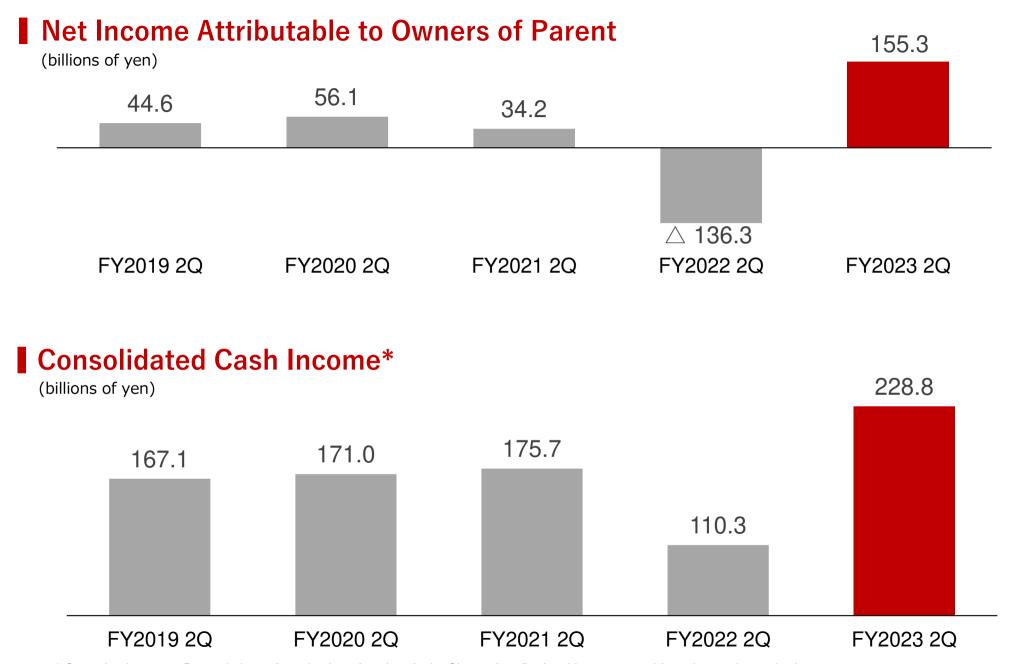


Note: Red line shows operating revenue (consolidated) excluding grant under act on purchase of renewable energy sourced electricity, the surcharge for promoting renewable energy sourced electricity, and the self-contracted portion due to indirect auction, etc. FY2021 is after the application of the "Accounting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

#### Ordinary Income

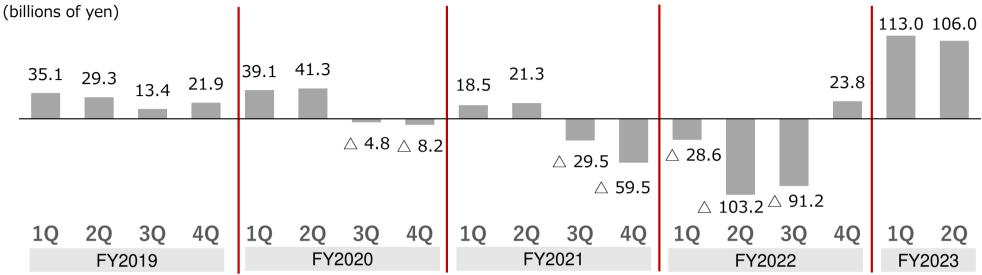


Note: Red line shows ordinary income (consolidated) excluding Impact of time lag between fuel cost and fuel cost adjustment charges.

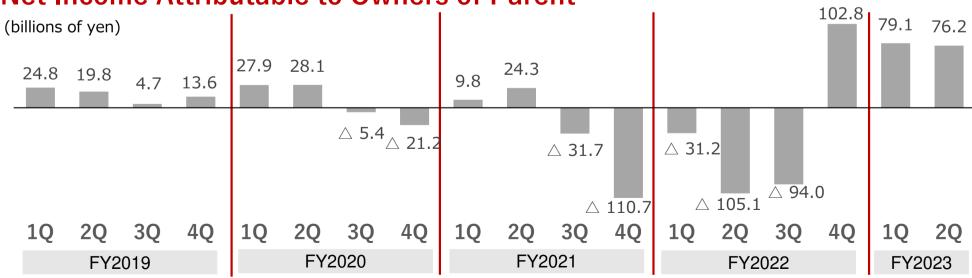


<sup>\*</sup> Operating income + Depreciation + Amortization of nuclear fuel + Share of profit of entities accounted for using equity method (Operating income doesn't include time lag between fuel cost and fuel cost adjustment charges.)

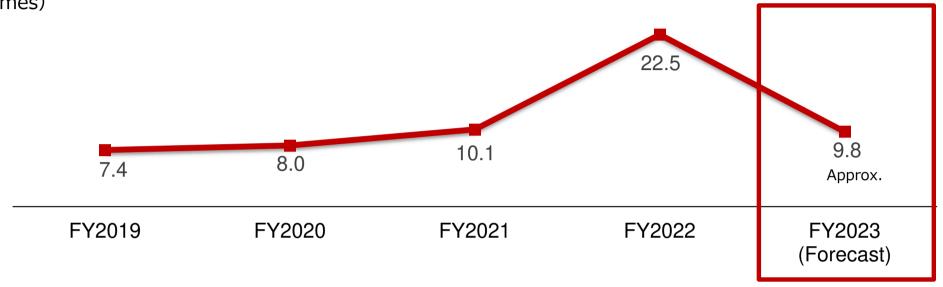




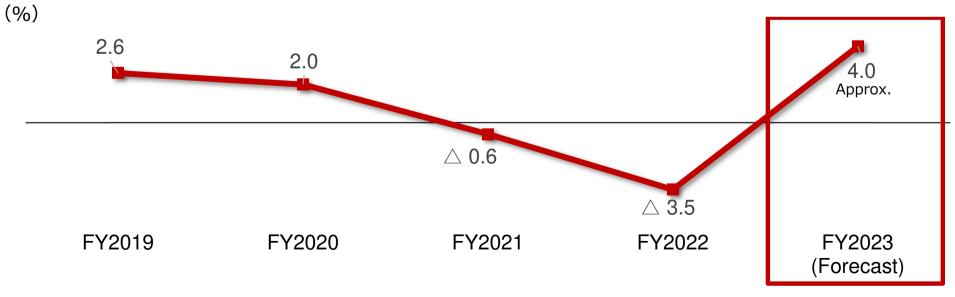


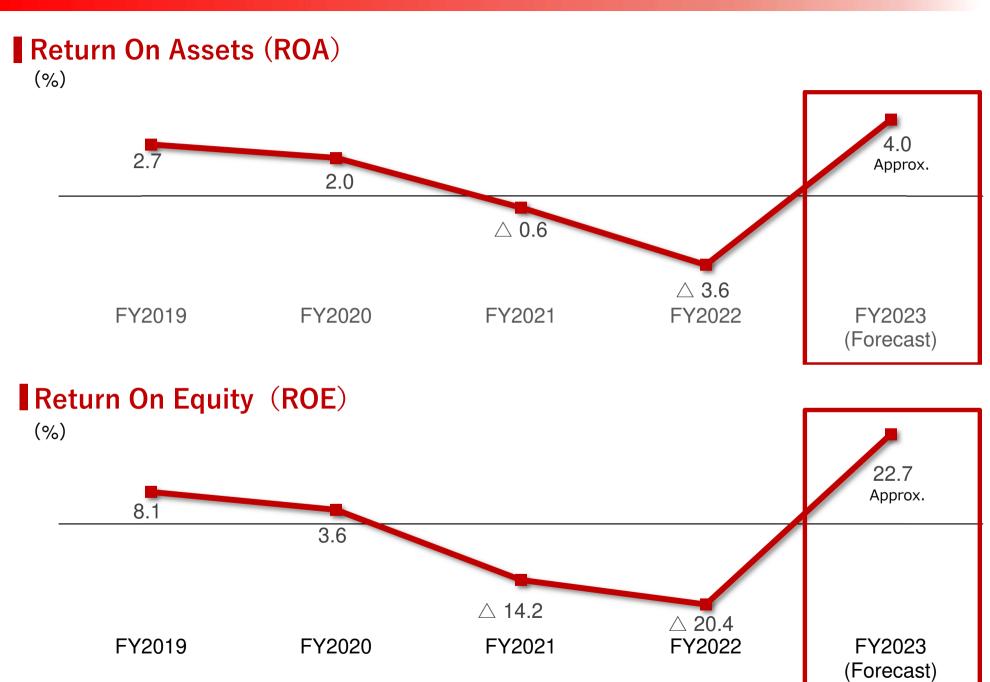




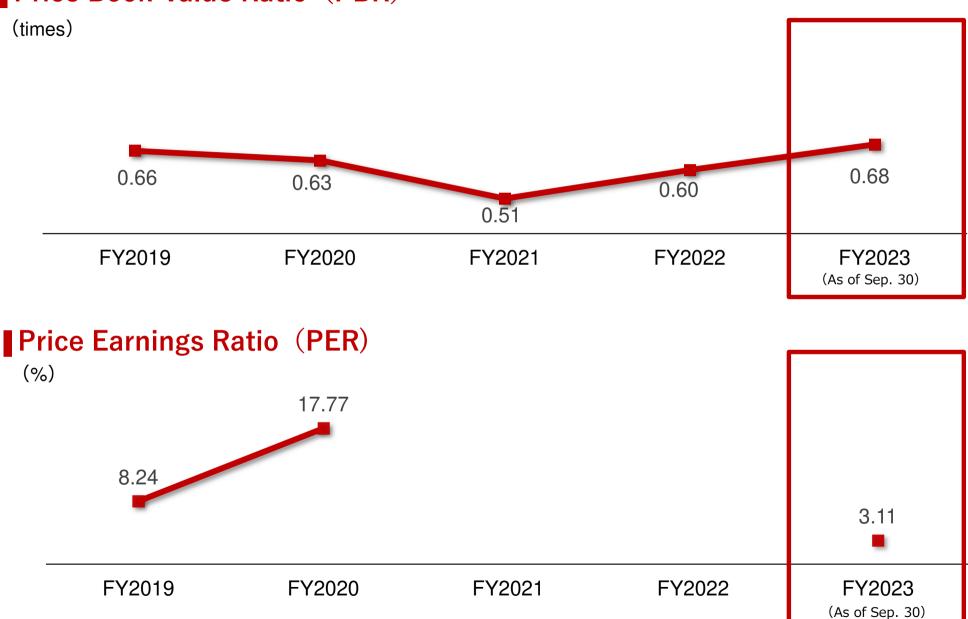


## Return On Invested Capital (ROIC)





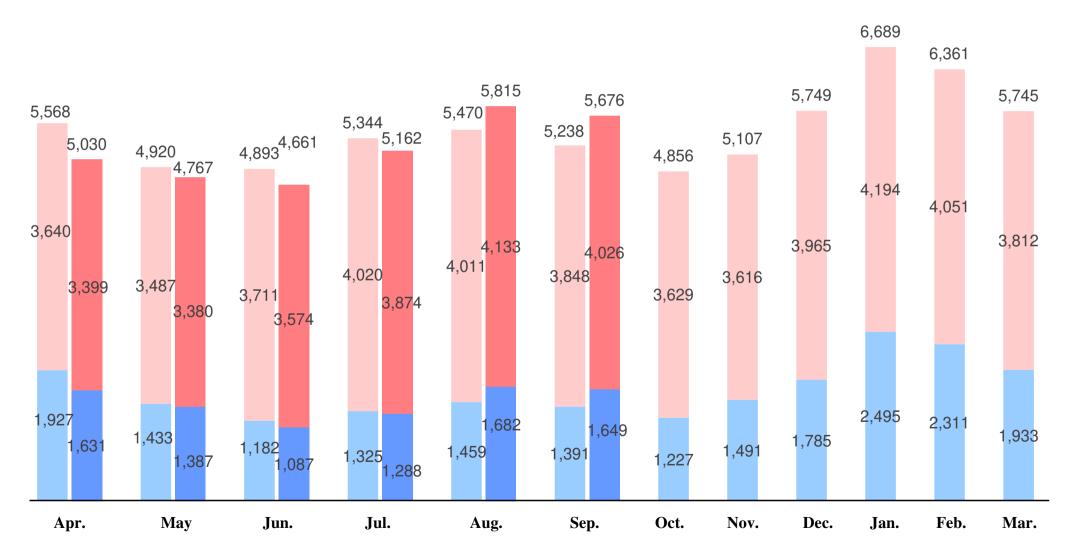




Note: Price Earnings Ratio cannot be calculated for FY2021 and FY2022 due to net loss.





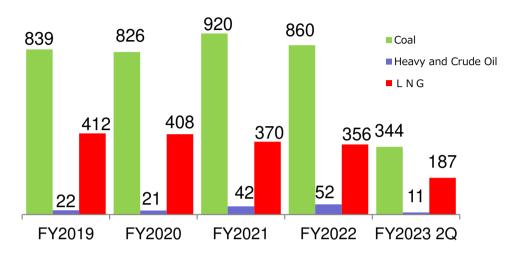


## **Fuel Consumption Results**

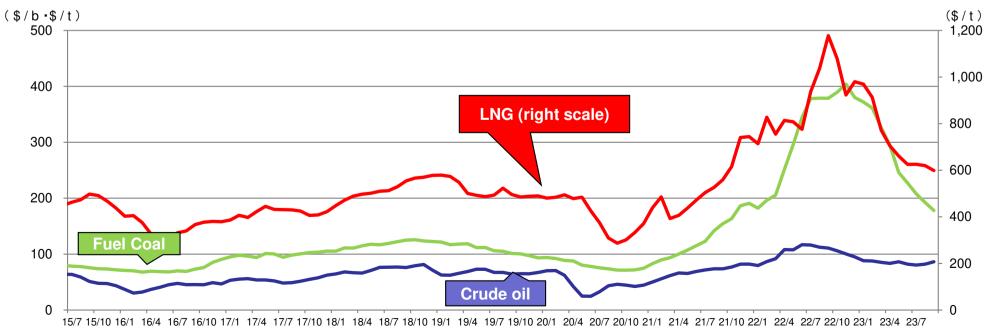
#### **Fuel Consumption**

(ten thousand tons, ten thousand kl)

	FY2022/ 2Q	FY2023/ 2Q	Change	(Referrence) FY2022
Coal (ten thousand tons)	369	344	(25)	860
Heavy and Crude Oil (ten thousand kl)	27	11	(16)	52
LNG (ten thousand ton)	159	187	28	356



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



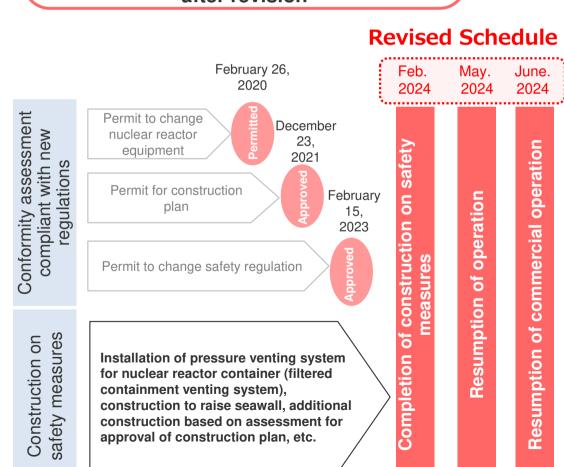
# 3. Main Initiatives in the 2nd Quarter of FY2023

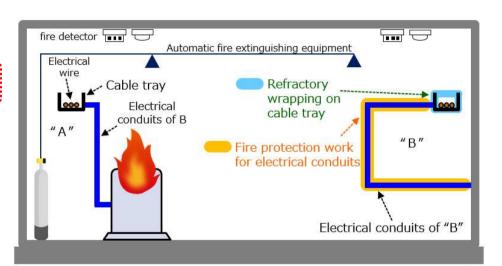
# Revision of safety measure work completion date for Onagawa Power Station Unit 2

- The safety measure work for Onagawa Power Station Unit 2 was initially planned to be completed in November 2023, but as a result of further investigation for securing safety in the work regarding the process of "<u>fire protection work for electrical conduits</u>", an estimated completion of the work was changed to February 2024.
- Based on the examples of other companies and our past results, <u>"restart" timing when power generation is started with generators in parallel is expected to be around May 2024, and "resumption of commercial operation" is expected to be around June 2024.</u>

Schedule of safety measure work after revision

Overview of "Fire protection work for electrical conduits"







#### **Status of safety measure work for Onagawa Power Station Unit 2**

- At this moment, major safety measure work (the pictures below show the examples) is progressing as planned, and **the progress rate is around 90%.**
- Not only do we take the measures for equipment (on the hardware side), but we also conduct the training for various situations repeatedly on a regular basis for improving employees' skill so that they can handle multiplexed and diversified equipment appropriately (on the software side).



Feb. 2023



Work for raising the level of the tide embankment



Gas turbine generator (Electrical appliances building)



Seismic reinforcement work (Upper part of reactor building)



Drill assuming loss of all AC power (Operation simulator training facilities)



Containment venting system with filter



Drill to ensure cooling function using large-capacity pump truck



#### **Making Steady Efforts to Restart Nuclear Power Reactors**

#### Onagawa Nuclear Power Station

Conformity assessment	<ol> <li>Permission for application for approval of license amendment (February 26, 2020)</li> <li>Approval for construction plan (December 23, 2021)</li> <li>Approval of safety regulations (February 15, 2023)</li> </ol>
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 February 2024.
Pre-Service Operator Inspections	Since May 2022, Pre-Service Operator inspections have been conducted.  The main inspection process is as follows.  1.Inspections during the fuel bundles insertion by February 2024  2.Inspections at the beginning stage of criticality reaction operations by May 2024  3.Inspections at the time of construction completion by June 2024.  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, and the resumption of commercial operation is assumed to be in May 2024.



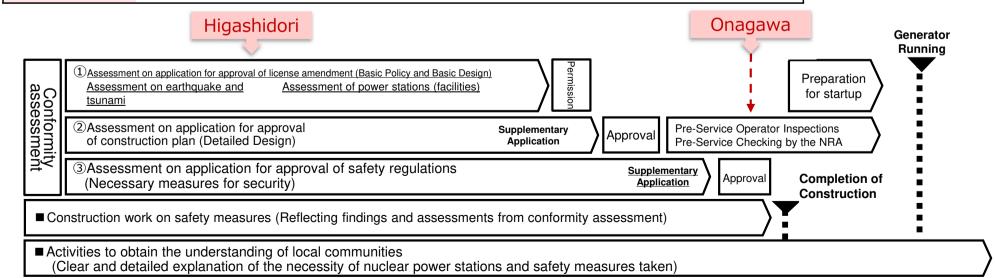
Onagawa Nuclear Power Station



Higashidori Nuclear Power Station

#### Higashidori Nuclear Power Station

Conformity assessment	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.



# List of Major Renewable Energy Development/Participation Points of Our Group

Development/participation results (as of the end of September, 2023)

Total output share 650 MW\*

New developments target

In early 2030s **2,000** MW

#### List of power plants

#### (As of September 30)

List of power plants		(As of September 30)	
	Project Name	Output	Scheduled Commercial Operation Date
	Aomori Offshore Wind	TBD	TBD
Offshore	Akita Offshore Wind	TBD	TBD
Wind	lwate Floating Offshore Wind	TBD	TBD
Willia	Akita and Noshiro Port Offshore Wind	138.6MW	Noshiro : Dec. 2022 Akita : Jan. 2023
	Fukaura Wind	73.6MW	Feb. 2024
	Noshiro-Yamamoto Regional Wind	96.6MW	Mar. 2025
	Inaniwa Takko Wind	Approx.100MW	After FY2025
	Inaniwa Wind	Approx.100MW	After FY2025
	Shiroishi Kosugo Wind	Approx.38MW	After FY2026
	Southern Abukuma Wind	Approx.90MW	After FY2025
	Tabito Central Windfarm	Approx.54.6MW	After FY2027
	Inego-Toge Windfarm	Approx.58.8MW	May 2028
0	Miyagi Kami Windfarm	Approx.42MW	April 2024
Onshore Wind	Takko Wind (tentative name)	Approx.75.6MW(	After FY2027
vviiid	Shimokita	Approx.96MW	After 2027
	JRE Sakata Replace	Approx.27.5MW	2026
	Oonakadai-bokujyo Wind	Approx.4MW	Nov. 2024
	Fukamochi Wind	Approx.94.6MW	After FY2030
	Fukui Kunimidake Wind	Approx.37.8MW	May 2027
	Windfarm Tsugaru	121.6MW	April 2020
	Shichinohe-Towada Wind	30.5MW	Dec. 2021
	Tsuruoka Hachimoriyama Wind	13.6MW	Nov. 2021
	Oritsumedake South 1 Wind	44.2MW	Jan. 2023
Geothermal	Kijiyama	14.9MW	2029
	Naruse River	2.3MW	FY2034
Hydroelectric	Shin-Kamimatsuzawa	9.4MW	FY2031
-	Tamagawa No.2 Hydroelectric	14.6MW	Nov. 2022
Solar	Power Plant Tsuhaze	35MW	Feb. 2023
Sulai	Miyagi Osato Solar Park	37.5MW	Oct. 2021
Riomana	Chokai-Minami	52.9MW	Oct. 2024
Biomass	Niigata East Port	50MW	Oct. 2024

#### Major power plants already in operation



[Akita and Noshiro Port Offshore Wind]
Output 138,600kW
(Operation Started : Jan.2023)
Photo provided by Akita Offshore Wind Corporation



[Windfarm Tsugaru]
Output 121,600kW
(Operation Started : Apr.2020)
Photo provided by Green Power Investment
Corporation



[Tamagawa No.2 Hydroelectric] Output 14,600kW (Operation Started : Nov.2022)



(Power Plant Tsuhaze) Output 35,000kW (Operation Started : Feb. 2023)

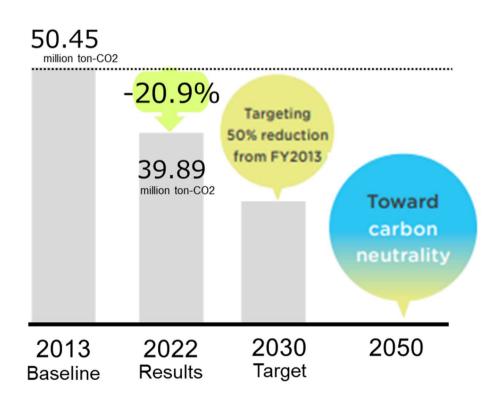
\*October 13, 2023 (tentative name) Announcement of participation in Nakatombetsu onshore wind power generation project, resulting in total equity output of approximately 700,000 kW

#### **Efforts toward Carbon Neutral**

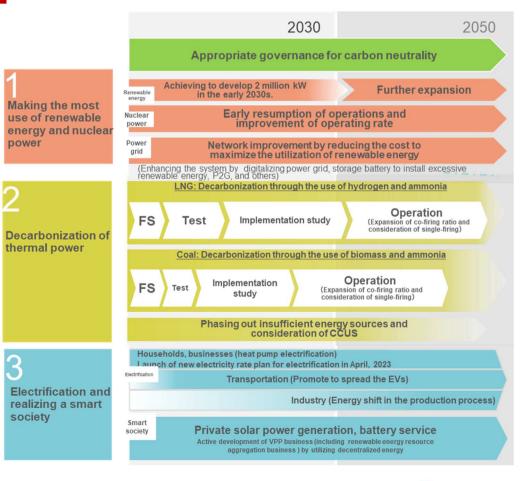
- Based on "Tohoku Electric Power Group's Carbon Neutral Challenge 2050", the corporate group is working to reduce CO2 by focusing on <u>"maximum utilization of renewable energy and nuclear power</u> <u>generation", "decarbonization of thermal power supply", and "realization of electrification and smart society"</u> as three pillars.
- Toward carbon neutral in 2050, we aim to first <a href="https://halve.co2.emissions.by">halve CO2 emissions by FY2030 compared to FY2013</a>, and <a href="the-actual achievement">the actual achievement in FY2022 showed about 21% reduction</a>.

#### CO2 reduction target and progress

#### Roadmap toward 2030 and 2050



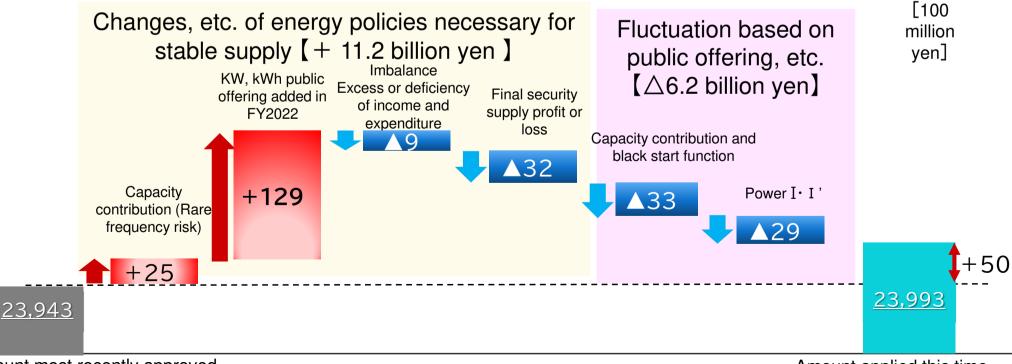
<sup>\*</sup>Previously, CO2 emissions were indicated on retail business basis, but on the occasion of entering the 1st phase of GX League focusing on power generation based CO2 emissions, those were revised to power generation business basis.





# Application for Approval of Changes to "Projected Revenues related to Wheeling Supply, etc."

- Tohoku Electric Power Network received approval from the Minister of Economy, Trade and Industry on December 23, 2022 for a total of 2,394.3 billion yen (478.9 billion yen/year) for the projected revenues related to wheeling supply, etc. for FY2023 through FY2027 (first regulatory period) under the new wheeling supply rate system introduced in April 2023.
- This time, in line with the revision of wheeling supply rate with the introduction of generation-side billing system in FY2024, we applied the Approval of Changes to Projected Revenues (Application for Adjustment in the Period) from the viewpoint of ensuring that all users of power transmission and distribution facilities bear their fair share of costs incurred as a result of some policy changes made after the approval of Projected Revenues, for example, the revision of the capacity contribution (rare frequency risk) organized by the National Council, the cost incurred due to changes, etc. in energy policies such as additional kW, kWh public offering in FY2022 which are needed for stable supply, and the cost determined by public offering, etc.
- By this amendment, our projected revenues reached 5 billion yen increase to a total of 2,399.3 billion yen (479.9 billion yen/year), which will be determined by the approval of the minister of the above after the review of government in the future.
- After that, we will make an application for approval of changes to wheeling supply, etc. provisions related to the revision of wheeling supply unit rate based on the provision of Electricity Business Act. The provision will take effect on April 1, 2024.
- Tohoku Electric Power Network will continue to make efforts to achieve both stable power supply and cost reduction to support safe, secure, and affluent lifestyles of customers living in 6 prefectures in Tohoku and Niigata Prefecture.



Amount most recently approved (Dec. 23, 2022)

Amount applied this time (Sep. 29, 2023)

## Main Initiatives in the 2nd Quarter of 2023 (1/3)

#### Financial and management information

date	Theme
4/17	Receipt of the administrative guidance from Ministry of Economy, Trade and Industry (Agency for Natural Resources and Energy) on the case of unauthorized browsing of renewable energy business management system
4/17	Receipt of the Order for Business Improvement from Electricity and Gas Market Surveillance Commission on improper handling of customer information of Power Producer and Supplier, etc.
5/10	Partial transfer of shares of Tohoku Electric Manufacturing Co., Ltd.
5/12	Submission of the report to the Order for Business Improvement from Electricity and Gas Market Surveillance Commission
5/12	Submission of the report to the administrative guidance from Ministry of Economy, Trade and Industry (Agency for Natural Resources and Energy)
5/16	Amendment request for the price increase in retail regulated fees, etc.
5/19	Authorization to increase electricity rates for the customers in regulated department(P.31)
5/19	Revision of "Liberalized Electricity Rates for Low Voltage Sector" with an approval for increase in retail regulated fees
5/19	Notification of change in supply agreement on low voltage power with remote islands, etc. (Press release by Tohoku Electric Power Network Inc.)
6/1	Implementation of "Summer energy-saving action" by Tohoku Electric Power and Tohoku EPCO Frontier
6/2	Issue of 559th bond for individual investors
6/19	Start offering a set plan of Sendai CATV's "Cable TV", "Internet" and Tohoku Electric Power's "Electricity"
6/28	Result of 99th Regular Stockholders Meeting
7/19	Special measures for the electricity rates for the customers affected by the heavy rain from July 7, 2023
7/24	Start of set sales of gas and electricity by Noshiro Energy Service and Tohoku Electric Power - Start providing a set plan of "City gas", "LP gas", and "Electricity"
8/29	Start offering a business matching service "Tohoku Electric Power Biz Sync" that supports customers' problem solution
8/31	Establishment of "Transmission and Distribution IT & OT Systems LLC" (Tohoku Electric Power Network's press release)
9/1	Start offering "e-point mall", a new service for web members of Tohoku Electric Power and Tohoku Electric Power Frontier - Start "Total 100,000 points to be divided among everyone Campaign" -
9/8	Bidding for wholesale electricity sales for FY2024
9/12	Application for approval of special measures for electricity rates due to the continuance of "Electricity and Gas Price Dramatic Change Mitigation Measures Project"
9/13	Special measures for electricity rates for the customers affected by Typhoon No. 13 in 2023
9/15	Creation of Compliance Promotion Office
9/22	Development of Tohoku Electric Power Group DX Promotion Policy - Accelerate the effort to realize "Yori Sou next" through DX promotion -
9/25	Application for approval of changes to the provisions of wheeling service, etc. (Tohoku Electric Power Network's press release)
9/29	Submission of the report to the Personal Information Protection Commission's guidance on the handling of personal information, etc.
9/29	Application for approval of changes to the "Projected Revenues derived from wheeling Service, etc."  (Tohoku Electric Power Network Co., Ltd.'s press release) (See P.39)
9/29	Publication of "Tohoku Electric Group Integrated Report 2023" (See P.39)

## Main Initiatives in the 2nd Quarter of 2023 (2/3)

Ε	S	G

date	Theme
4/24	Started reinforcement work of Imabetsu Trunk Line in earnest (Press release by Tohoku Electric Power Network Inc.)
4/27	Execution of consolidation agreement on the promotion of carbon neutral between Tohoku Electric Power Co., Inc. and The 77 Bank, Ltd. toward the realization of decarbonization in local community and local companies
4/27	Implementation of fundraising by Green Loan
4/28	Participation in "GX League"
5/19	Started expansion works of Higashihanamaki Substation in earnest (Press release by Tohoku Electric Power Network Inc.)
5/25	Started preparation of environment assessment related to the replacement of Higashi-Niigata Thermal Power Station(P.31)
5/31	Selected the group for which Tohoku Electric Power supports under the community development support system "Machizukuri Genkijyuku" in FY2023 and started the support the activities of general incorporated association "Child-raising platform MaRU" working to eliminate solitary child care.
6/29	Implementation of fundraising by Green Loan
7/14	The result of regular review of Tohoku Electric Power Green Finance
8/8	Contract of research service of JOGMEC FY2023 "Survey on the Implementation of Advanced CCS Business" in East Niigata area
8/31	Start of full-scale construction of new Akita Kawabe Branch Line (Tohoku Electric Power Network's press release)
9/15	Start of demonstration experiment of "Substation Operation Support System" for improving quality and efficiency of operation and maintenance in substation (Tohoku Electric Power Network's press release)
9/22	Determination of the organization eligible for funding Tohoku Electric Power's Community Development Support System "Support Program for Revitalization of Tohoku and Niigata" 2023
9/26	Start of demonstration of hydrogen mixing combustion at Niigata Thermal Power Station Unit 5 Series (See P.39)

#### Renewable energy

date	Theme
4/7	Started supplying "Yamagata hydraulic power premium" to Kahoku Town Hall and issued a certificate.
4/27	Promoting sophistication of system control using FH2R toward implementation of "Power-to-Gas" . Extended the NEDO technical development project toward the practical application of energy storage and utilization using hydrogen
4/28	Started supplying "Akita E ne! Option hydraulic power 100%" to "Prestige International Inc." and issued a certificate.
5/8	Started installation work of "Storage battery system" in Ryotsu Thermal Power Station (Press release by Tohoku Electric Power Network Inc.)
5/12	Conclusion of agreement on off-site corporate PPA service in which renewable energy power will be introduced in "77 Solar Park Tomiya" .
5/19	Additional recruitment of "Yamagata Creation of Hope Power" utilizing the power from Yamagata Prefectural hydraulic power station
6/2	Started supplying "Yamagata hydraulic power premium" to Ashino Kogyo Inc. and issued a certificate.
6/9	Started supplying "Akita E ne! Option hydraulic power 100%" to "Prestige International Inc" and issued a certificate.
7/7	Start of supply and issuance of certificate of "Akita E-ne! Option hydraulic 100%" to "Asamai Brewery Co., Ltd."
7/13	Start of supply and issuance of certificate of "Akita E-ne! Option hydraulic 100%" to "Akita Hinaiya Co., Ltd."
7/28	Notification and sending, and inspection and briefing session on "Environmental Impact Assessment Methodology for (Temporary name) Wind Power Generation Project Off the Coast of Oga City, Katagami City, and Akita City"
8/29	New demonstration project for appropriate reuse and recycle of solar panel - Our applied projects were adopted to the "Ministry of the Environment "Demonstration Project for Overall Optimization of Renewable Energy Related Products and Base Materials for Establishment of Domestic Resource Recycling System" (See P.39)
9/1	Start of supply and issuance of certificate of "Akita E-ne! Option hydraulic 100%" to "Prestige International Inc."

## Main Initiatives in the 2nd Quarter of 2023 (3/3)

#### Nuclear power

date	Theme
4/28	Report on Tohoku Electric Power's response as of end of March 2023 to the confirmation and request from Aomori Prefecture that received the report from Aomori Prefecture Nuclear Safety Verification Commission
5/12	Injuries in the premises of Onagawa Nuclear Power Station
5/31	Amendment of application for permission to change the installation of a nuclear reactor for installation of the facility to address specific major accidents in Onagawa Nuclear Power Station Unit No.2
6/14	Fire occurred in the premises of Onagawa Nuclear Power Station
6/23	Causes and countermeasures for the fire occurred in the premises of Onagawa Nuclear Power Station
7/3	Request for prior consultation regarding the installation, etc. of DC power supply equipment (3rd system) permanently installed in the Onagawa Nuclear Power Station Unit 2
7/4	Application for permission to change the installation of a nuclear reactor regarding the installation, etc. of DC power supply equipment (3rd system) permanently installed in the Onagawa Nuclear Power Station Unit 2
7/12	Amendment of Application for permission to change the installation of a nuclear reactor regarding the installation, etc. of criticality accident response facility in the Onagawa Nuclear Power Station Unit 2
7/24	Fire at the Higashidori Nuclear Power Station site
9/28	Revision of safety measure work completion date for Onagawa Power Station Unit 2 (See P.30~P.32)

#### Smart society realization project

date	Theme
4/25	Implementation of demand response service demonstration for home at Izumi Park Town Asahi
4/28	Implementation of open innovation program "TOHOKU EPCO OPEN INNOVATION PROGRAM 2023" for realizing smart society
6/22	Started Tohoku Electric Power's living service "Mowing and pruning service". If you are having troubles with weeds, please feel free to contact us.
6/22	Started Tohoku Electric Power's living service "Extermination of harmful insects and vermin service". If you are having troubles with harmful insects and vermin, please feel free to contact us.
6/22	Expanded coverage area for Tohoku Electric Power's living service "Vacant house management service" to help the management of precious vacant house filled with many memories
7/3	Conclusion of business tie-up contract with PowerX, Inc Utilization of storage battery system in next generation energy service area - (See P.39)
8/9	Start sale of "NFT Dam Card" Vol. 2 utilizing digital technology - Sell 21 dams sets that have crest gate for a limited time only -
8/31	Provision of Tohoku Electric Power Frontier "Power of water - Akita e electricity - (the power to nurture Akita and to the next generation)

## **Major Press Releases**

#### Management info. & Financial info.-related

## Publication of "Tohoku Electric Power Group Integrated Report 2023" (notice dated Sep. 29)

- •"Tohoku Electric Power Group Integrated Report 2023" was posted on our web site on Sep. 29.
- •This fiscal year's report is more comprehensive in its description of sustainability including indicators and target related to "Important Subjects in Sustainability (Materiality)" and its disclosure of the result, and the introduction of newly developed "Human Rights Policy" and "DX Policy".



Niigata Thermal Power Station Unit 5 Series

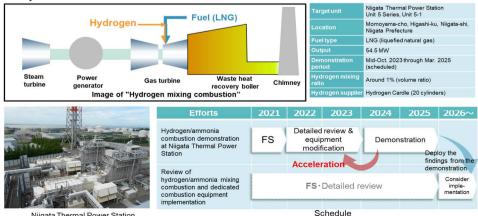


#### **ESG-related**

## Start of hydraulic mixing combustion demonstration in Niigata Thermal Power Station Unit 5 Series (press release dated Sep. 26)

- At Niigata Thermal Power Station Unit 5 Series, Japan's first hydrogen mixing combustion test at a commercial gas combined cycle thermal power station will be conducted.
- Ahead of original schedule (FY2024), demonstration test will be started in October this year.

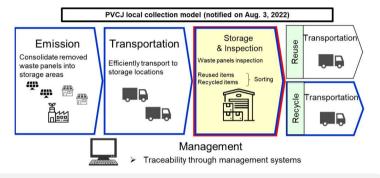
  Overview of Hydrogen Mixing Combustion Demonstration



#### Renewable energy-related

## New demonstration project for appropriate reuse and recycle of solar panel (press release dated Aug. 29)

- •A new demonstration project for appropriate reuse and recycle of solar panel will be started by the fall of this year.
- •In this project, evaluation of effects of reducing environmental impact including CO2 emissions as well as identification of materials of solar panel and creation of database, and evaluation of depreciation period will be conducted.



#### Smart society realization project -related

## Conclusion of business tie-up agreement with PowerX Inc (press release dated July 3)

- Concluded an agreement of business tie-up with PowerX Inc. which is developing a new business in the dissemination of natural energy and the progress of energy storage and power transmission technology.
- In the future, we will examine new business and service based on PowerX's technology and knowledge while utilizing its products including Energy Storage System.



PowerX Inc. Stationary storage battery "Mega Power"

(Okayama storage battery factory)

#### (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.