# Financial Summary FY2022

(April 1, 2022 – March 31, 2023)

**April 28, 2023** 



## **Contents**

FY2022 Financial Results		
Current business environment surrounding our company	••••	1
Summary of Financial Results	• • • •	2
Changing Factors in Consolidated Ordinary Income from the Corresponding Period Last Year	• • • •	3
Electricity Sales, Major Factors and Sensitivity to Major Factors	• • • •	4
Electricity Supply	• • • •	5
Segment Information (Consolidated)	••••	6
Results of Major Consolidated Subsidiaries	••••	7
Financial position (Consolidated)	••••	8
Statements of Income (Consolidated)	• • • •	10
Statements of Cash Flows (Consolidated)	• • • •	12
Fuel Consumption Results	• • • •	13
Dividend for FY2022 / Financial and Dividend Forecast for FY2023	••••	14
Our Major Efforts for FY2022		
Our Major Efforts for FY2022	••••	16
Our Major Efforts after FY2023		
Business management in FY2023 Medium-term Plan period	• • • •	19
Resumption of operations of nuclear power stations	• • • •	20
Thoroughgoing improvements in efficiency of general management	• • • •	21
Financial targets and growth investments	••••	22
References		
Trends of Operating Revenue and Each Income (Consolidated)	• • • •	24
Retail Electricity Sales Volume by Month	• • • •	26
Making Steady Efforts to Restart Nuclear Power Reactors	• • • •	27
List of Major Renewable Energy Development/Participation Points of Our Group	• • • •	28
Smart Society Building Business (Example of services for the household)	• • • •	29
Smart Society Building Business (Example of services for corporations)	• • • •	30
Taking on the challenge of carbon neutrality	• • • •	31

## Current business environment surrounding our company

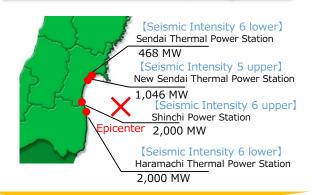
- We faced a significant increase in electricity procurement cost due to the suspension of our thermal power stations damaged by the Fukushima Offshore Earthquake in March 2022, in addition to soaring fuel prices and JEPX price along with Invasion of Ukraine by Russia in February 2022.
- Even with our thorough efforts to improve our financial statements such as electricity rate revision, commencement of the commercial operation of Joetsu Thermal Power Station, early restoration of damaged power plants, and reduction of the procurement cost, electricity supply cost has surpassed our revenue by far. As a result, consolidated ordinary loss was the largest ever recorded at 199.2 billion yen, and no dividend will be paid in FY2022.

Rapid increase in fuel prices and **JEPX** price due to Ukaraine **Crysis** 

Changes of Fuel prices of Coal/LNG



Increase in the electricity procurement cost due to **Fukushima Offshore Earthquake** 



Steady effort to improve the financial statements (Electricity rate rivision · Operating efficiency · Supply-demand optimization)

[Recovery of Balance sheet [Realization of Working]



Launch Joetsu Thermal Power Station (Dec. 2022)



Action Electricity rate revision (Nov. 2022)



Station Unit 1 (May. 2022)



Efforts to reduce the fuel cost Install the Coal Ship equipped with WindChallenger (Oct. 2022).

alongside Next ]

#### **Summary of Financial condition**

- Since FY2020, increase in sales and decrease in profit.
- 2 consecutive years of deficits and consolidated ordinary loss of 199.2 billion yen, the largest ever
- ◆ Consolidated capital adequacy ratio 10.5% is below the lowest level since the Great East Japan Earthquake
- Interest bearing liability is 3,375.6 billion yen.
- Non-dividend payout with both mid-term and the end of the term.

Movement of consolidated ordinary profit (billion yen)

67.5

-49.2

2021

2020

-199.2

2022

Efficiency improvement **Electricity Rate Revision** 

and Financial base

**Smart Society Building Business** Renewable Energy Business

Restart Onagawa 2

## **Summary of Financial Results**

**≻Operating revenue** 

¥3,007.2 billion (a year on year increase of ¥902.7 billion)

 Operating revenue increased mainly due to an increase in fuel cost adjustment charges resulting from rise in fuel prices.

**≻Ordinary income** 

-¥199.2 billion (a year on year decrease of ¥150.0 billion)

 Ordinary income decreased mainly due to an increase in electricity procurement costs resulting from rising fuel prices, weakening yen and soaring JEPX prices.

Net Income Attributable to Owners of Parent

-¥127.5 billion

(a year on year decrease of ¥19.1 billion)

#### **(Summary of Consolidated Financial Statements)**

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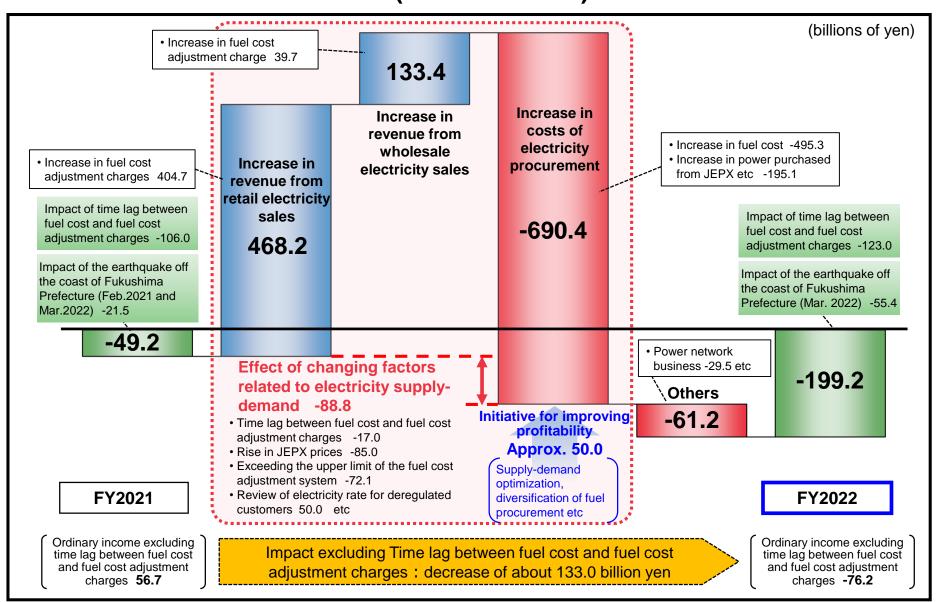
				(billions of yen)
	FY2021 (A)	FY2022 (B)	Change (B) - (A)	Change (B) / (A)
Operating Revenue	2,104.4	3,007.2	902.7	142.9 %
Ordinary Income*1	(49.2)	(199.2)	(150.0)	-
Ordinary Income*1	[ 56.7 ]	[ (76.2) ]	[ (133.0) ]	[ - ]
Net Income Attributable to Owners of Parent	(108.3)	(127.5)	(19.1)	-
Consolidated Cash Income*2	257.3	136.6	(120.6)	53.1 %

<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.)

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

## Decrease of -150.0 Billion Yen (-49.2 $\rightarrow$ -199.2)



### **Electricity Sales, Major Factors and Sensitivity to Major Factors**

> Retail electricity sales 65.9 TWh (a year on year decrease 1.4 TWh)

Retail electricity sales volume decreased due to spreading of power saving initiatives and a decrease in heating demand in winter.

➤ Wholesale electricity sales

15.9 TWh (a year on year decrease 0.8 TWh)

Wholesale electricity sales volume decreased mainly due to a decease in volume of wholesale electricity sales outside our franchise area.

(GWh)

Electricity Sales*1	FY2021 (A)	FY2022 (B)	Change (B) - (A)	Change (B) / (A)
Lighting (Residential)	20,990	19,959	(1,031)	95.1 %
Power	46,356	45,982	(374)	99.2 %
Retail Electricity Sales*2	67,346	65,940	(1,406)	97.9 %
Wholesale Electricity Sales*3	16,718	15,885	(833)	95.0 %
Total of Electricity Sales	84,064	81,825	(2,239)	97.3 %

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

Major Factors	FY2021 (A)	FY2022 (B)	Change (B) - (A)
Crude Oil CIF Price (\$/bbl.)	77.2	102.7	25.5
Exchange Rate (¥/\$)	112	136	24
Hydro Power Flow Rate (%)	96.2	97.0	0.8
Nuclear Power Utilization Rate (%)	-	-	-

Sensitivity to Major Factors	FY2021 (A)	FY2022 (B)	Change (B) - (A)
Crude Oil CIF Price (per \$1/bbl.)	2.3	2.9	0.6
Exchange Rate (per ¥1/\$)	3.8	6.7	2.9
Hydro Power Flow Rate (per 1%)	1.0	2.4	1.4

<sup>\*2</sup> Retail Electricity Sales includes electric power for business use.

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

## **Electricity Supply**

(GWh)

EI	ectricity Suppl	y*1	FY2021 (A)	FY2022 (B)	Change (B) - (A)	Change (B) / (A)
Own Generated Power*2			60,532	57,934	(2,598)	95.7 %
	Hydro		8,028	7,990	(38)	99.5 %
	Thermal		51,891	49,347	(2,544)	95.1 %
	Nuclear	Nuclear		-	-	-
	Renewables	Renewables		597	(15)	97.6 %
Powe	er Interchanges*3	Received	32,780	33,515	735	102.2 %
1 000	er merchanges	Transmitted	(5,109)	(5,976)	(867)	117.0 %
Used at Pumped Storage and others			(314)	(362)	(48)	115.3 %
Total of Electricity Supply*3			87,889	85,111	(2,778)	96.8 %

<sup>\*1</sup> 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 "Total of Electricity Supply" partly include projected volume.

## **Segment Information (Consolidated)**

(billions of yen)

Power Generation and Sales 1,498.1 (83.0) 2,100.2 (218.4) 602.1 (135.4) in Tuel cost adjustment charges. Ordinary income decreased due to a significate in electricity procurement costs refrom rising fuel prices and JEPX price, and weakening yen.  1,124.8 (29.5) Operating revenue increased mainly due to increase in the volume and unit price of wholesale supply of renewable energy. Operating income decreased due to an increase in costs of supply-demand adjustment.  299.9 303.5 3.6 Even with an increase in general construction orders related to electrical facilities, operating income increased due to a decrease in construction orders of thermal power production orders of the male power production orders. Operating income increased thanks to a decrease in raw outsourcing costs.  207.3 246.2 38.9 33.8 33.8 33.8 Operating revenue and operating income increased due to an increase in transaction volume and unit price in the gas division.	(billions of yer											
Power Generation and Sales 1,498.1 (83.0) (218.4) (218.4) (218.4) (135		FY20	21(A)	FY20	22(B)	Change	(B) - (A)					
Power Generation and Sales 1,498.1 (83.0) 2,100.2 (218.4) 602.1 (135.4) in fuel cost adjustment charges. Ordinary income decreased due to a significate in electricity procurement costs refrom rising fuel prices and JEPX price, and weakening yen.  Power Generation and Sales 1,498.1 (218.4) 2,100.2 (218.4) 602.1 (135.4) (135.4	•	Operating Revenue*		Operating Revenue*		Operating Revenue*		Major factors for change				
and Sales  1,498.1  2,100.2  602.1  from rising fuel prices and JEPX price, and weakening yen.  1,124.8  331.7  Network  348.9  617.6  11.3  268.7  Construction  157.4  155.4  Construction  299.9  207.3  Others  99.9  10.0  133.8  2,100.2  602.1  602.1  (29.5)  11.3  331.7  (29.5)  (29.5)  Operating revenue increased mainly due to increase in the volume and unit price of wholesale supply of renewable energy.  Operating income decreased due to an increase in general construction orders related to electrical facilities, operating evenue decreased in evenue decreased in evenue decreased in evenue decreased in construction orders of thermal power production orders of thermal power production orders in raw outsourcing costs.  Others  99.9  13.8  33.8  33.8  33.8  33.8  4. Operating income increased thanks to a decrease in raw outsourcing costs.  Operating revenue and operating income increased due to a decrease in raw outsourcing costs.		1,602.8	(83.0)	2,314.2	(218.4)	711.4	(135.4)	Ordinary income decreased due to a significant				
Network  348.9  40.9  617.6  11.3  268.7  (29.5)    Increase in the volume and unit price of wholesale supply of renewable energy. Operating income decreased due to an incincosts of supply-demand adjustment.  299.9  Construction  11.7  157.4  155.4    Others   207.3   Others   99.9  10.0   13.8   13.8   13.8    33.8    Operating revenue and unit price of wholesale supply of renewable energy. Operating income decreased due to an incincosts of supply-demand adjustment.    Even with an increase in general construct or orders related to electrical facilities, operating evenue decreased due to a decrease in construction orders of thermal power production in construction orders of thermal power production orders in raw outsourcing costs.    Operating revenue and operating income increased due to an increase in transaction volume and unit price in the gas division.		1,498.1	(00.0)	2,100.2	(210.4)	602.1	(100.4)	from rising fuel prices and JEPX price, and				
Construction  11.7  157.4  Others  617.6  268.7  Operating income decreased due to an incidence in costs of supply-demand adjustment.  13.1  13.1  13.1  13.1  14.4  Others  Others  Others  617.6  299.9  303.5  13.8  13.8  Others  Operating income decreased due to an incidence in construction or supply-demand adjustment.  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 outsourcing costs.  Operating revenue and operating income increased due to an increase in transaction volume and unit price in the gas division.	Network	793.1	40.9	1,124.8	11.3	331.7	(29.5)	Operating revenue increased mainly due to an increase in the volume and unit price of wholesale supply of renewable energy.				
Construction  11.7  157.4  11.7  155.4  (1.9)  1.4  revenue decreased due to a decrease in construction orders of thermal power production orders of the power production orders or power production or power production or power production orders or power production orders or power production or	Homon	348.9	10.0	617.6	11.0	268.7	(20.0)	, ,				
157.4  155.4  (1.9)  facilities. Operating income increased thanks to a decrease in raw outsourcing costs.  207.3  Others  99.9  133.8  155.4  (1.9)  facilities. Operating income increased thanks to a decrease in raw outsourcing costs.  38.9  13.8  3.7  Operating revenue and operating income increased due to an increase in transaction volume and unit price in the gas division.		299.9		303.5	13.1	3.6	1.4	Even with an increase in general construction orders related to electrical facilities, operating revenue decreased due to a decrease in				
Others  10.0  99.9  133.8  13.8  3.7  Operating revenue and operating income increase in transaction volume and unit price in the gas division.	Construction	157.4	11.7	155.4				facilities.  Operating income increased thanks to a				
99.9 133.8 volume and unit price in the gas division.	Others	207.3	10.0	246.2	246.2		246.2	246.2	13.8	38.9	3.7	Operating revenue and operating income increased due to an increase in transaction
	Others	99.9	10.0	133.8	10.0		volume and unit price in the gas division.					
Subtotal 2,903.2 (20.3) 3,988.9 (180.1) 1,085.7 (159.7)	Subtotal	2,903.2	(20.3)	3,988.9	(180.1)	1,085.7	(159.7)					
Adjustment (798.8) (28.8) (981.7) (19.1) (182.9) 9.7	Adjustment	(798.8)	(28.8)	(981.7)	(19.1)	(182.9)	9.7					
Total         2,104.4         (49.2)         3,007.2         (199.2)         902.7         (150.0)		,	, ,	·	` '	902.7	(150.0)					

Lower figures of operating revenue are sales to outside customers.

## **Results of Major Consolidated Subsidiaries**

(billions of y								
			FY2021(A)	FY2022(B)	Change (B)-(A)	Note		
Pow	Sakata Kyodo Power Co., Ltd.	Operating Revenue	46.5	72.0	25.5	Increase in sales unit price due to rise in fuel price(Operating Revenue)		
er ge	Sakata Nyodo Power Co., Ltd.	Ordinary Income	0.3	(0.1)	(0.5)	Increase in cost of sales price due to rise in fuel price(Ordinary Income)		
Power generation and Sales	Tohoku Sustainable &	Operating Revenue	9.1	9.3	0.1	Increase in sales volume of FIT(wind and solar)		
ation	Renewable Energy Co., Inc.	Ordinary Income	1.9	1.8	(0.0)	Increase in depreciation expenses		
)	VUDTEC CODD	Operating Revenue	206.9	209.4	2.4	Increase in general electrical work and power distribution work for Tohoku Electric Power		
Sons	YURTEC CORP.	Ordinary Income	9.5	10.4	0.9	NW		
Construction	Tohoku Electric Power Engineering & Construction Co., Inc.	Operating Revenue	68.2	66.2	(2.0)	Decrease in thermal power related construction (Operating Revenue)		
Ď		Ordinary Income	2.4	3.2	0.7	Decrease in outsourcing costs (Ordinary Income)		
	NIHONKAI LNG CO., LTD.	Operating Revenue	14.3	20.0	5.7	Increase in sales unit prices due to rise in LNG		
		Ordinary Income	0.4	0.8	0.4	price		
	TOHKnet Co., Inc.	Operating Revenue	24.2	24.7	0.4	Increase in general construction work		
Others		Ordinary Income	3.5	3.5	0.0	morease in general construction work		
ers	Toiny Co. Ltd	Operating Revenue	19.2	21.2	2.0	Increase in system development for Tohoku		
	Toinx Co., Ltd.	Ordinary Income	0.9	0.9	0.0	Electric Power		
	Kitanihon Electric Cable Co.,	Operating Revenue	30.0	32.3	2.3	Increase in sales of wires		
	Ltd.	Ordinary Income	0.6	1.3	0.6	moreage in saids of wiles		

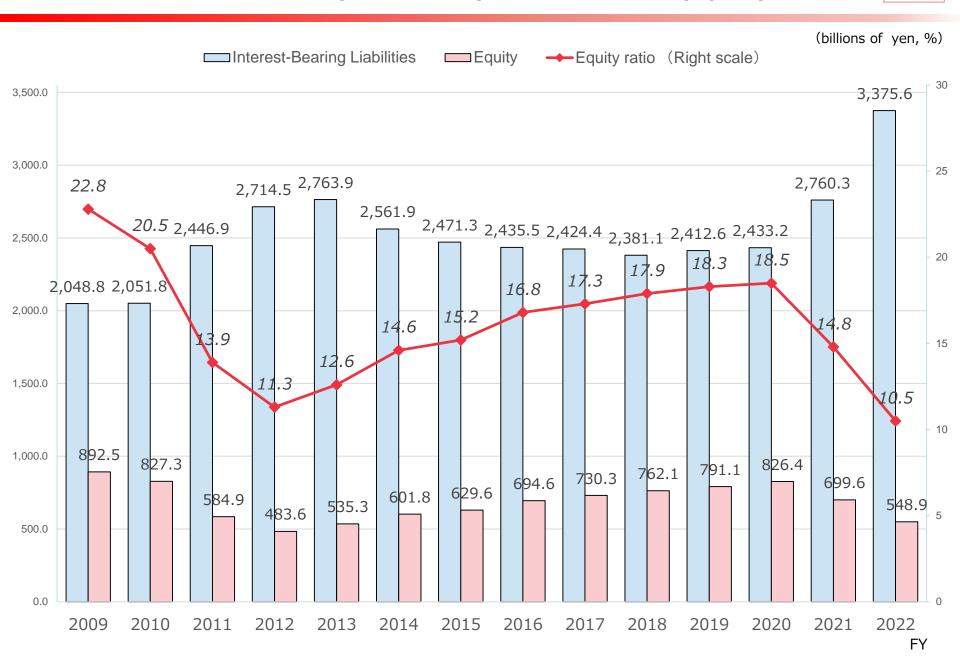
<sup>\*</sup> The amounts before elimination of inter-company transaction

## Financial position (Consolidated) (1/2)

		Mar. 31, 2022 (A)	Mar. 31, 2023 (B)	Change (B) - (A)	Major factors for change
Total Assets		4,725.6	5,211.9	486.2	
	Non-current Assets	3,809.1	4,005.1	196.0	Deferred tax asset : 89.9
	Current Assets	916.5	1,206.7	290.2	Cash and deposits : 231.9
T	otal Liabilities	3,946.6	4,580.8	634.1	
	Non-current Liabilities	2,754.0	3,467.3	713.3	Bonds : 395.7 Long-term loans : 304.4
	Current Liabilities	1,192.5	1,113.4	(79.1)	
١	let Assets	778.9	631.0	(147.8)	Net loss attributable to owners of parent: (127.5)
Interest-Bearing Liabilities		2,760.3	3,375.6	615.3	Bonds: 460.7 Long-term loans: 259.8
Equity Ratio		14.8%	10.5% [ 13.2%]*	(4.3%)	

Equity ratio assuming 50% of the issued amount (140 billion yen) of the issued hybrid bonds as equity capital

	FY2021	FY2022	Change
	(A)	(B)	(B) - (A)
Capital Expenditure	311.4	325.0	13.5



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

	FY2021	FY2022	Comparison		
	(A)	(B)	(B) - (A)	(B) / (A)	
Operating Revenue	2,104.4	3,007.2	902.7	142.9 %	
Electric utility	1,840.3	2,716.9	876.6	147.6 %	
Other business	264.1	290.2	26.1	109.9 %	
Operating Expenses	2,133.1	3,187.2	1,054.0	149.4 %	
Electric utility	1,888.5	2,906.9	1,018.4	153.9 %	
Other business	244.6	280.3	35.6	114.6 %	
Operating Income	(28.7)	(180.0)	(151.3)	-	
Non-operating income	5.5	7.6	2.0	137.4 %	
Non-operating expenses	26.0	26.8	0.8	103.2 %	
Ordinary (Loss) Income	(49.2)	(199.2)	(150.0)	-	
Provision or reversal of reserve for fluctuation in water levels	0.0	(0.0)	(0.1)	-	
Extraordinary Income	7.5	-	(7.5)	-	
Extraordinary loss	26.4	-	(26.4)	-	
Income taxes	35.7	(76.0)	(111.8)	-	
Net (loss) income attributable to non-controlling interests	4.3	4.4	0.0	101.3 %	
Net (loss) income attributable to owners of parent	(108.3)	(127.5)	(19.1)	-	

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

	(billions of ye						
			FY2021 (A)	FY2022 (B)	Change (B) - (A)	Change (B) / (A)	Major factors for change
	유민	Revenue from Electricity Sales	1,182.3	1,638.3	456.0	138.6%	Increase in fuel cost adjustment charge
	Electric ut operating	Lighting (Residential)	494.3	551.3	57.0	111.5%	
	tinc ic c	Power	688.0	1,087.0	398.9	158.0%	
Z Z	itilit I re	Sales of power to other utilities and other companies	534.0	895.0	360.9	167.6%	Increase in market transaction
Revenue	ıtility g revenue	Other revenue	123.8	183.5	59.6	148.1%	
June L	ne	Sub total	1,840.3	2,716.9	876.6	147.6%	
ē	Oth	ner operating revenue	264.1	290.2	26.1	109.9%	
	[Or	perating Revenue]	[ 2,104.4 ]	[ 3,007.2]	[ 902.7 ]	[ 142.9% ]	
		Non operating revenue	5.5	7.6	2.0	137.4%	
		Total revenue	2,110.0	3,014.8	904.8	142.9%	
		Personnel	136.3	130.2	(6.0)	95.5%	
	exp	Fuel	484.2	1,005.8	521.5	207.7%	Rise in CIF prices
	ens	Maintenance	152.6	168.9	16.2	110.7%	
	Electric utility operating expenses	Depreciation	161.4	172.0	10.5	106.6%	
Ψ		Power purchased from other utilities and other companies	674.4	1,144.2	469.7	169.7%	Increase in market transaction
fe		Taxes, etc.	84.9	88.3	3.3	104.0%	
Expenses		Nuclear power back-end cost	7.8	8.0	0.2	103.0%	
SS		Other expenses	186.5	189.2	2.6	101.4%	
		Sub total	1,888.5	2,906.9	1,018.4	153.9%	
	Other operating expenses		244.6	280.3	35.6	114.6%	
	Non operating expenses		26.0	26.8	0.8	103.2%	
	Tot	al expenses	2,159.2	3,214.1	1,054.9	148.9%	
[Operating Income]		[ (28.7)]	[ (180.0)]	[ (151.3) ]	[ - ]		
Ordinary Income		(49.2)	(199.2)	(150.0)	-		
Provision or reversal of reserve for fluctuation in water levels		0.0	(0.0)	(0.1)	-		
Extraordinary Income		7.5	-	(7.5)	1	Gains on sales of securities	
E	trao	rdinary loss	26.4	-	(26.4)	-	Loss on return of imbalance income and expenditure
In	come	etaxes	35.7	(76.0)	(111.8)	-	Recording of deferred tax assets
Inc	ome	attributable to non-controlling interests	4.3	4.4	0.0	101.3%	
Profit attributable to owners of parent		(108.3)	(127.5)	(19.1)	-		

## **Statements of Cash Flows (Consolidated)**

(billions of yen)

	FY2021 (A)	FY2022 (B)	Change (B) - (A)	Major factors for change
Cash Flows from Operating Activities	97.1	(93.7)	(190.9)	
Cash Flows from Investing Activities	(322.1)	(275.7)	46.3	
Cash Flows from Financing Activities	293.2	598.4	305.2	Bonds: 279.1 Loan: 187.9 CP: (173.0)
Net Cash Flows	68.8	229.4	160.6	
Cash and cash equivalents at end of the period	278.4	507.8	229.4	
Free Cash Flows*	(211.5)	(352.5)	(140.9)	

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

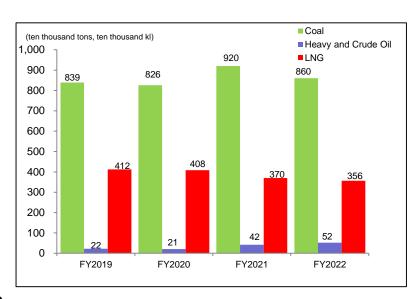
Free Cash Flows = (Cash Flows from Operating Activities) + (Cash Flows from Investing Activities) – (Interest and dividend income) – (Interest expenses)

## **Fuel Consumption Results**

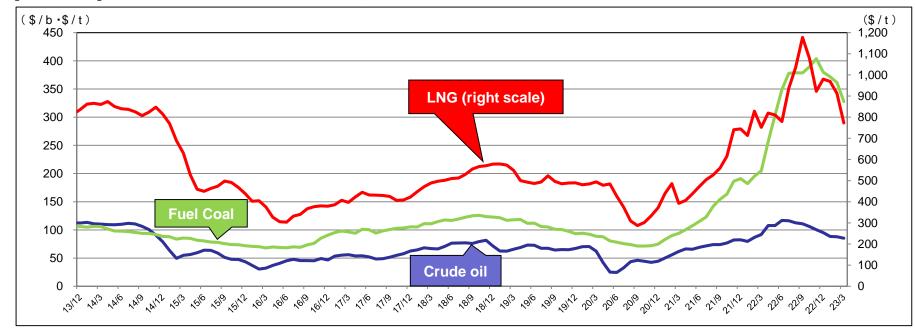
Fuel Consumption

	FY2021 (A)	FY2022 (B)	Change (B) - (A)	
Coal (ten thousand tons)	920	860	(60)	
Heavy and Crude Oil (ten thousand kl)	42	52	10	
LNG (ten thousand tons)	370	356	(14)	

<sup>\*</sup>Above figures are fuel consumption of Tohoku EPCO and remote island



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



## Dividend for FY2022 / Financial and Dividend Forecast for FY2023

#### Dividend for FY2022

Our dividend policy is based on the payment of stable dividends, which are determined by comprehensively taking into account the financial results and the medium- to long-term outlook for income and expenditure for the fiscal year under review.

In FY2022, a huge net loss was posted due to a significant increase in electricity procurement costs caused by a rise in JEPX prices, soaring fuel prices and the depreciation of the yen. As a result, our consolidated equity ratio in the end of FY2022 was even less than the lowest level after the Great East Japan Earthquake.

Regarding the year-end dividend for FY 2022, we plan not to pay a dividend because we need to give priority to the overall recovery of our financial base, as with the interim dividend, in light of the financial results.

#### Consolidated Financial Forecast for FY2023

On November 24, 2022, we submitted an application to the Minister of Economy, Trade and Industry to increase in regulated retail electricity rates, but the examination is still ongoing.

Regarding the forecast for FY2023, it is necessary to ascertain the status of the examination of the electricity rates increase, etc., and at this time it is difficult to make a rational calculation, so it is undecided.

We will disclose it promptly when it becomes possible to make a reasonable calculation.

#### Dividend Forecast for FY2023

Both the interim and year-end dividends are undecided at this time, due to the need to quickly restore the damaged financial base and the difficulty of rationally calculating the earnings forecast.

## **Our Major Efforts for FY2022**

## Our Major Efforts for FY2022 (1/2)

#### Electricity supply business ∼ power generatiion / retail∼

#### Starting operation at Joetsu Thermal Power Station Unit No.1

We achieved the thermal efficiency 63.62%, recognized by third part organization, as most efficient combined cycle power plant.



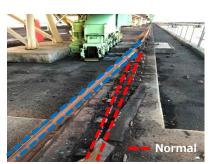
Joetsu Thermal Power Station

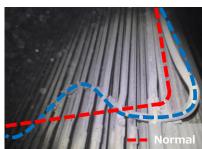


Equipment Inspection with Drone Technology

#### Early restoration of damaged thermal power stations

Completed restoration of all Thermal Power Stations with Shinchi No. 2 (Soma Kyodo Power) in Jan 2023.





Damage situation of Haramachi thermal power station

#### Review of electricity charge

Revising the unit cost of electricity charge for the deregulated electricity charge policy from Nov 2022 / Abolishing the upper limit of fuel cost adjustment system. We filed to the Ministry of Economy, Trade, and Industry for plans to raise regulated retail electricity rates in November 2022. Under examination now.

Cost	Section		Upper limit of fuel cost adjustment system		Contents of Revise	
Sect	1011	Date	Before Revise	After Revise	Contents of Nevise	
	High And	Nov. 2022		\\/;+b o+	•The new unit price will be applied sequentially from November onwards for new contracts and contract renewals. •For new contracts after September 20, 2022, we applied "Market Linked Menu"	
Deregulated electricity			Without	:   Without	<ul> <li>While maintaining the above fee levels, the revision of the wheeling fee is reflected</li> <li>Introduced market price linkage system.</li> </ul>	
charge			With Without	•Fuel cost adjustment amount reflected in electricity bill without setting upper limit.		
				Without	•Electricity rate unit price will be raised with the aim of matching it with the regulated rate. •Review the difference in unit price between daytime and nighttime for rate plans that set a nighttime unit price.	
Regulated electricity charge	Low voltage	Under Examination	With	With (*)	•In November 2022, we applied for an average price increase of 32.94%. •During the review process, we were asked to reflect the most recent exchange rates and fuel prices, so we recalculated fuel costs.  Corrected the average price increase rate to about 25.2%. The examination is still ongoing.  (*) Raise the standard fuel price because the system does not allow the abolishment of the upper limit of the regulated rate.	

## Our Major Efforts for FY2022 (2/2)

#### Electricity supply business ~Renewable energy~

#### Commencement of commercial operation of new power plants at 4 locations



[Akita and Noshiro Port Offshore Wind] Output 138,600kW (Operation Date:Jan.31 2023) Japan's first commercial large-scale 4th onshore wind power project to offshore wind power project

Photo provided by Akita Offshore Wind Corporation

[Oritsumedake South 1 Wind] Output 44,180kW (Operation Date: Jan. 14 2023) start commercial operation



[Tamagawa No.2 Hydroelectric] Output 14,600kW (Operation Date: Nov. 7 2022) Construction using funds procured through green finance



[Power Plant Tsuhaze] Output 35,000kW (Operation Date: Feb.1 2023) First participation in a renewable energy project outside of Tohoku and Niigata prefectures

#### **Smart Society Building Business**

#### Building a corporate PPA business system

In December 2022, in order to lead the corporate PPA business of the entire group, the "Corporate PPA Business Office" was established within the company to develop proposal activities and service development for customers.





[Corporate PPA Project Example] Sendai International Airport Carport Solar Power Plant

#### Sales expansion of home services

Sales expansion in various fields such as solar power generation for individuals and services useful for daily life.



(Flat-rate solar power service for existing homes]

A service that allows you to install solar power generation equipment in your home without initial costs and use eco-friendly electricity.



(Household budget consultation service]

A service that allows you to consult with a financial planner for free about your household budget and future financial worries

## Our Major Efforts after FY2023

- We will <u>secure an operating profit in FY2023 and strive to quickly accumulate profits at an early stage</u> by electricity rate revision, strengthening service proposals, resuming operation of nuclear power stations and through other measures underlined by thoroughgoing pursuit of efficiency improvement in overall management. We will thus <u>quickly restore our revenues and expenditures and financial base</u>, thereby solidifying the foundation for conducting stable business operations and working on growth initiatives.
- We will <u>lay the foundation for medium-to long-term growth and accelerate actions to realize the "Working alongside next" vision</u> by working on structural reforms in the power supply business and striving to achieve profitability in the Smart Society Building Business at the same time.

FY2023 Medium-term Plan period

FY2024 FY2025 FY2023 Laying foundations for medium- to long-term growth through Realizing Accelerate structural reform of power supply business and "Working realization of achievement of profitability in Smart Society Building "Working alongside next" **Business** alongside Early next" accumula-Electricity rate Resumption of Rapid recovery revision tion of operation of nuclear in revenues and Strengthening power stations profits service proposals expenditures Thoroughgoing Securing and the financial efficiency operating improvement in base overall management profit

FY2022
results
Ordinary income
-199.2 billion yen

Steady implementation of initiatives to realize "Working alongside next" based on a restoration of revenues and expenditures and financial base

## Resumption of operations of nuclear power stations

- Construction on safety measures for Onagawa Unit 2 is underway targeting <u>completion in November 2023, resumption of operations in February 2024 and resumption of commercial operation in April of the same year</u>. We will continue with the preparations with the highest priority on safety and with the understanding of the local community.
- We will take all possible measures to ensure stable operations after resuming operation. This will involve developing a disaster prevention system, strengthening the operating structure, and implementing training and education. Moreover, to <u>further improve</u> economic efficiency after resuming operation, we will strive to reduce costs by expanding our use of competitive orders and other measures while giving top priority to safety.

Status of construction on safety measures for Onagawa Unit 2



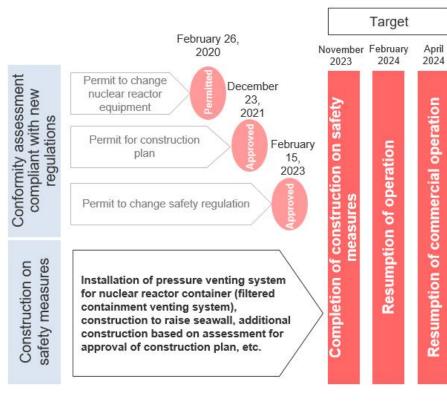
Actions with post-operational resumption in mind

Stable operation

Development and enhancement of the disaster prevention system and operation structure, strengthening training and education, etc.

Improvements in economic efficiency

Increased use of competitive ordering and other cost reduction measures



The response status of other nuclear power plants such as Higashidori Nuclear Power Station Unit 1 is described on page 27.

## Thoroughgoing improvements in efficiency of general management

- We will <u>pursue thoroughgoing efficiency improvement and cost reduction in overall management</u> to achieve profitability in FY2023 and restore the financial base at an early stage, as shown in the efficiency gain of 31.1 billion yen per year on average factored into the application to raise regulated retail rates (cost calculation period: FY2023–FY2025).
- < Efficiency improvements factored into application to raise regulated retail rates and initiatives> (billions of yen)

Item	Efficiency gains	Major initiatives	
Fuel expense, power purchased expense	-23.9	Heat efficiency improvement; changing timing of Akita Unit 4's decommissioning; greater procurement of low- grade carbon; diversification of LNG contract methods	
Personnel expense	-2.0	Improved operating efficiency; reduction of retirement benefits	
Facilities investment- related expenses	-0.8	Greater use of competitive orders; streamlining management of information systems	
Maintenance expenses	-3.0	Lengthening regular inspection cycle of thermal power plants	
Other expenses	-1.4	Greater use of competitive orders	
Total	-31.1		

- Improved thermal efficiency (Commencement of operation of Joetsu Thermal Power Station) -13.0 billion ven
- A next-generation gas turbine with a forced air-cooled combustor system, which reflects cutting-edge technology, has been introduced, achieving the world's highest thermal efficiency of 63.62% for a gas combined cycle power generation facility.







Next-generation gas turbine with forced air-cooled combustor system

- Expand procurement of low-grade coal and diversify LNG contract methods -7.8 billion yen
- Incorporating the track record of expanding procurement of relatively inexpensive Indonesian sub-bituminous coal and American coal
- To reduce procurement costs, some of the LNG will be procured under economically efficient short-term contracts.
- Capture structural changes in the market and further promote optimization of the entire procurement portfolio

- Extension of periodical inspection cycle of thermal power plants -2.2 billion yen

(Total of fuel costs and equipment-related costs)

 All thermal power plants owned by our company have received "S rating" certification in the safety management inspection system, and the periodical operator inspection interval has been extended to 6 years.

## Financial targets and growth investments

- We will <u>position early recovery of the financial base as a top priority</u> and <u>achieve the FY2024 financial target of consolidated cash income of 320 billion yen or more</u> by achieving a V-shaped recovery in revenues and expenditures. We will do so by securing operating income in FY2023, resuming operation of Unit 2 at the Onagawa Nuclear Power Station, and through other efforts.
- In addition, we will position the renewable energy business (including grid reinforcement/expansion in the power transmission and distribution network) and the Smart Society Building Business as growth areas and invest approximately 400 billion yen by around 2030 to expand these businesses and achieve profitability.
- We will monitor financial soundness and capital efficiency and ensure financial discipline in our investment decisions.

#### Financial targets

## Consolidated cash income for FY2024\* 320 billion yen or more

\*Operating income + depreciation + amortization of nuclear fuel + share of profit of entities accounted for using equity method

## V-shaped recovery

Position early recovery of financial base as top priority and realize further profit growth and improvement of cash generating capacity necessary for business model transformation

#### Securing operating profit in FY2023

Monitoring financial soundness and capital efficiency

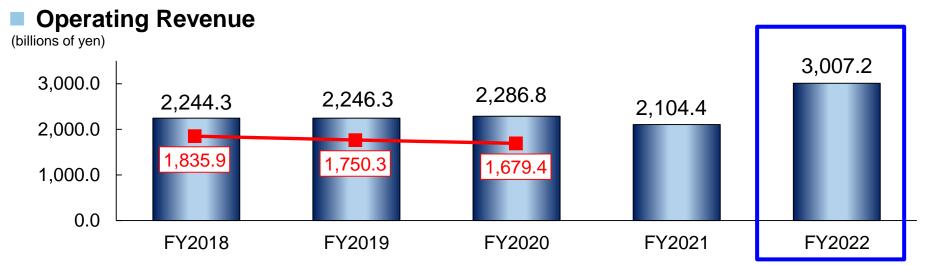
- Debt repayment capacity and financial soundness
  - ⇒ Consolidated interest-bearing debt/cash income multiple
  - ⇒ Consolidated shareholders equity ratio
- Return on invested capital
  - $\Rightarrow$  ROIC

#### **Growth investments**

	Investment size (to around 2030)	Impact, return (target)
Developing renewable energy power sources	Over 100 billion yen	(FY2030) ■ Consolidated cash income Approximately 20 billion yen
Investment in renewable energy network	Approximately 200 billion yen	<ul><li>□ Decarbonization</li><li>□ Continuous stable supply</li><li>□ Grid optimization</li></ul>
Smart Society Building Business	Approximately 100 billion yen	(FY2030)  ■ Net sales    Approximately    100 billion yen*  ■ Consolidated cash income    Approximately    20 billion yen*
		* Excluding electricity sales

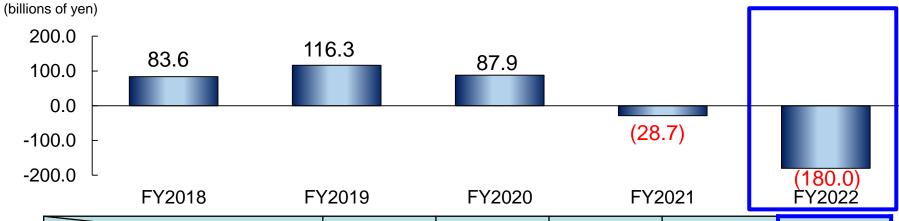
## References

## Trends of Operating Revenue and Each Income (Consolidated) (1/2)

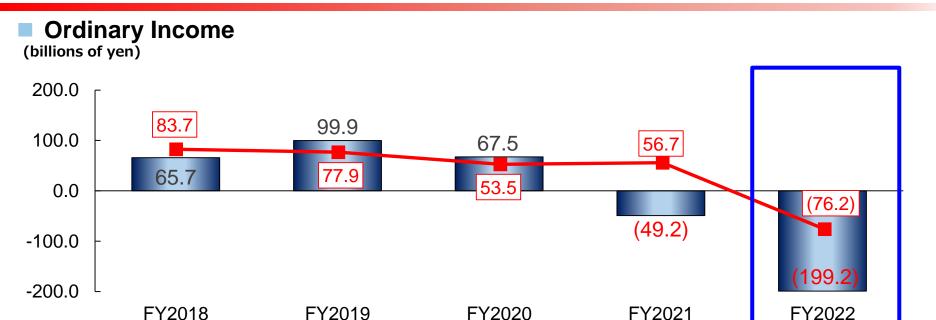


Note: Red line shows operating revenue (consolidated) excluding grant under act on purchase of renewable energy sourced electricity, the surcharge for promoting renewable energy sourced electricity, and the self-contracted portion due to indirect auction, etc. FY2021 is after the application of the "Accounting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

### Operating Income

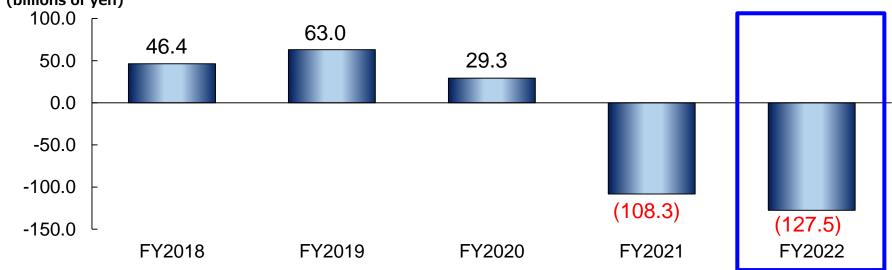


	FY2018	FY2019	FY2020	FY2021	FY2022
Operating Income on Operating Revenue Ratio (Consolidated basis)	3.7%	5.2%	3.8%	4 407	-6.0%
Operating Income on Operating Revenue Ratio using above red line (Consolidated basis)	4.6%	6.6%	5.2%	-1.4%	



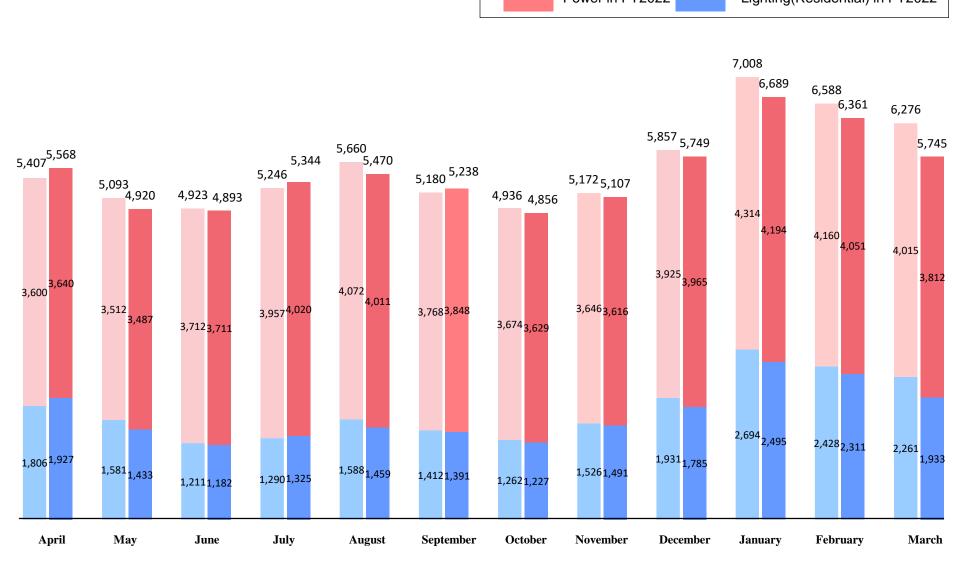
Note: Red line shows operating revenue (consolidated) excluding time lag between fuel cost and fuel cost adjustment charges.





## **Retail Electricity Sales Volume by Month**





#### 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 November 2023.
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 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.  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 April 2024.



Onagawa Nuclear Power Station



Higashidori Nuclear Power Station

#### Higashidori Nuclear Power Station

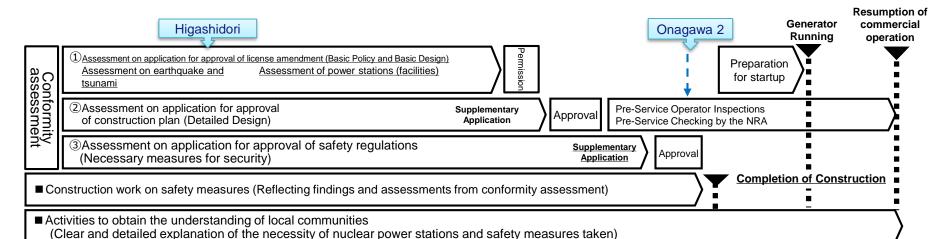
Conformity assessment

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.



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

#### **Under construction**

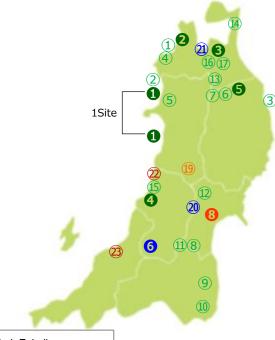
(As of March 31)

	Project Name	Output	Scheduled Commercial Operation Date
	Tsugaru Offshore Wind	TBD	TBD
Offshore Wind	Happo-Noshiro Offshore Wind	TBD	TBD
	3 Kuji City Floating Offshore Wind	TBD	TBD
	4 Fukaura Wind	73.6MW	Feb. 2024
	5 Noshiro-Yamamoto Regional Wind	96.6MW	Mar. 2025
	6 Inaniwa Takko Wind	Approx.100MW	After FY2025
	Inaniwa Wind	Approx.100MW	After FY2025
	8 Shiroishi Kosugo Wind	Approx.38MW	After FY2026
	Southern Abukuma Wind	Approx.90MW	After FY2025
	10 Tabito Central Windfarm	Approx.54.6MW	After FY2027
Onshore Wind	① Inego-Toge Windfarm	Approx.58.8MW(Max)	May 2028
	Miyagi Kami Windfarm	Approx.42MW	April 2024
	Takko Wind (tentative name)	Approx.75.6MW(Max)	After FY2027
	Shimokita	Approx.96MW	After 2027
	JRE Sakata Replace	Approx.27.5MW(Max)	2026
	① Oonakadai-bokujyo Wind	Approx.4MW	Nov. 2024
	① Fukamochi Wind	Approx.94.6MW(Max)	After FY2030
	18 Fukui Kunimidake Wind	Approx.37.8MW(Max)	May 2027
Geothermal	19 Kijiyama	14.9MW	2029
Hydroelectric	20 Naruse River	2.3MW(Max)	FY2034
rrydroelectric	Shin-Kamimatsuzawa	9.4MW(Max)	FY2031
Biomass	Chokai-Minami	52.9MW	Oct. 2024
DIUITIASS	23 Niigata East Port	50MW	Oct. 2024

#### **Operation started**

Project Name			Output	Operation Date
Offshore Wind	0	Akita and Noshiro Port Offshore Wind	138.6MW	Noshiro : Dec. 2022 Akita : Jan. 2023
	2	Windfarm Tsugaru	121.6MW	April 2020
Onshore	8	Shichinohe-Towada Wind	30.5MW	Dec. 2021
Wind 4	4	Tsuruoka Hachimoriyama Wind	13.6MW	Nov. 2021
	6	Oritsumedake South 1 Wind	44.2MW	Jan. 2023
Hydroelectric	6	Tamagawa No.2 Hydroelectric	14.6MW	Nov. 2022
Solar ···	7	Power Plant Tsuhaze	35MW	Feb. 2023
	8	Miyagi Osato Solar Park	37.5MW	Oct. 2021





(Fukui, Fukui)

18 Fukui Kunimidake

(Tsu, Mie)

Power Plant Tsuhaze

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

## **Smart Society Building Business** (Example of services for the household)





**Tohoku Electric Power** lifestyle services

Proposing a secure and reliable lifestyle

## Sumai Anshin



Support for problems with electrical or plumbing equipment

> roblems with keys window glass.

Lost keys, cracked windows, door defects and other

troubleshooting

Also offered Aquaclara (water delivery service)

### Management of



Inspection of vacant houses and reporting of inspection results



# Connitortable, safe, reliato

#### Household finances consultation service for



Free consultation with financial planner about concerns over household finances and future finances

Also offered home and beauty appliance subscription service, car leasing, regular coffee delivery, picture book subscriptions, purchase and sale of children's clothes, storage service with pickup and delivery, etc.

## Craft beer delivery



Handpicked craft beer delivered from breweries centered on Tohoku and Niigata

#### nsurance service for simple life bicycle plan



Bicycle accidents and other indemnification for the family for daily life

#### Child watching service



Watching points on way to school (dedicated base stations) receive child's location information which can be checked on quardian's smartphone app

### **FRONTIER**

nsurance service for simple life

Simple insurance plans in accordance with residence type



Camping experience and camping supplies rental service

#### **Proposing excitement** for daily life

でんきにもっと、トキメキを。



Adding excitement to electricity

## **Smart Society Building Business** (Example of services for corporations)



Tohoku Ryokka Kankyohozen Co., Ltd.

Comprehensive consultant contributing to the future of the environment



Proposes creation of environment where humans and nature such as plants and animals co-exist based on reliable technology.



安全と信頼 でんきのライフライン

Tohoku Power Transmission and Distribution Service Co., Inc.

Security camera for power poles Yori, Sou camera

One-stop security camera service, from installation to application filings and post-installation maintenance



(NK) HNK Co., Inc.

Real estate development

Proposes spaces using IoT and AI that are convenient, pleasant to work in, and environmentally-friendly.



Tohoku Energy Service Co., Inc

**PV-PPA service** 

Provides renewable electricity under third-party ownership (TPO) model with no initial investment by the customer.

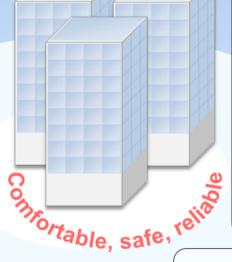




Tohoku Development Consultant CO., LTD

ZEB design, energy conservation consulting

Model creation and proposal for optimal equipment, etc. for planning Zero Energy Building (ZEB)





#### Renewable energy-related construction



Design, construction, maintenance, etc. of renewable energy power generation facilities, including wind and solar power

(Happo Wind Farm)

#### ZEB proposals and implementation construction

Proposal and construction of ZEB facilities to realize a decarbonized society

#### Construction for BCP equipment

Proposal to introduce emergency power generation equipment and air conditioners using independent power source to prepare for power failures

#### Equipment renewal work

Support for optimal equipment renewal from both cost and quality perspectives

Provides integrated support from diagnosis to construction management.



Renewal to high-efficiency heat source equipment



Renewal to high efficiency aircooled heat pump air conditioner

#### **Juken**

Tsuken Electric Ind Co., Ltd.

Security risk analysis service for control systems

Visualizing potential risks and security measures proposal and implementation support for control systems

Tsukenセキュリティ リスク分析

### **TOHK**net

Tohoku Intelligent
Telecommunication Co., Inc.

Digital platform for corporations

Matches "problems" at companies, government offices, education and research institutions, etc. with "ideas" and "solutions" in the digital space





internet in form

of news tickers

Toinx Co., Ltd.

Simultaneous mass notification service for emergency and other information

Urgent disaster information and government service information sent to personal computers connected to

アロック 連

#### Tohoku Electric Power Network

#### **Automatic metering service**

Delivering power and gas meter data and other data safely and reliably using electricity smart meter communication network

#### Stability

Reliable communication quality

#### Safety

Advanced security Efficient use of

infrastructure assets



Lightning and weather risk information service



Lightning strike conditions and forecasts can be confirmed through images; conditions at customer-chosen locations notified by e-mail

Electric

## Taking on the challenge of carbon neutrality

- Under Tohoku Electric Power Group's Carbon Neutrality Challenge 2050, we will continue with the initiatives in the FY2023 Medium-term Plan period from three perspectives: maximum use of renewable energy and nuclear power; thermal power decarbonization; electrification and realization of a smart society.
- We will <u>actively pursue joint efforts with various partners</u>, including joint efforts in the verification of thermal power decarbonization.

Maximum use of renewable energy and nuclear power Renewable energy

Nuclear

power

Transmission

and

distribution

New developments that coexist with local communities to achieve 2 million kW target

Improving the performance of existing power generation facilities

Resuming operation of Onagawa Unit 2 and ensuring stable operations thereafter

Actions to resume the operation of Higashidori Unit 1 and Onagawa Unit 3

Grid development and upgrading of operations to accommodate expanded adoption of renewable energy

Decarbonization of thermal power Hydrogen, ammonia · Actions to verify mixed burning of hydrogen at Niigata Thermal Power Station

Studying joint efforts to introduce hydrogen and ammonia

Black pellets

 Study and verification for mixed burning of black pellets at Noshiro Thermal Power Station

Test involving cultivation of biomass raw materials; study of conversion into black pellets

Electrification and realization of smart society

- Expansion of VPP businesses, including renewable energy aggregation
- Expansion of on-site and off-site PPAs for corporations and solar power and storage battery services for households
- Strengthening proposals for smart life electrification, energy-saving menus, energy solutions, etc.
- Proposal of renewable electricity and services that address the need for decarbonization

Fundraising efforts tapping green/transition finance, among other sources

2050 carbon neutrality

2030 halving CO2



Actions to verify mixed burning of hydrogen at Niigata Thermal Power Station



Study and verification of mixed burning of black pellets at Noshiro Thermal Power Station

#### (Note)

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

The information contains forward-looking statements based on assumptions and projections about the future with regard to our company. 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 the company.

Tohoku Electric Power Co., Inc. hereby disclaim any responsibility or liability in relation to consequences resulting from decisions made by investors.