

# FY2022 2<sup>nd</sup> Quarter Financial Results (April 1 – September 30, 2022)

Tokyo Electric Power Company Holdings, Inc.

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tepcon

# Overview of FY2022 2<sup>nd</sup> Quarter Financial Results

(Released on November 1, 2022)

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## **Regarding Forward-Looking Statements**

*Certain statements in the following presentation regarding TEPCO Group's business operations may constitute "forward-looking statements." As such, these statements are not historical facts but rather predictions about the future, which inherently involve risks and uncertainties, and these risks and uncertainties could cause TEPCO Group's actual results to differ materially from the forward-looking statements herein.*

(Note)

*Please note that the following is an accurate and complete translation of the original Japanese version prepared for the convenience of our English-speaking investors. In case of any discrepancy between the translation and the Japanese original, the latter shall prevail.*

## <FY2022 2<sup>nd</sup> Quarter Financial Results>

- Operating revenue increased due to an increase in fuel cost adjustments resulting from a surge in fuel prices, etc.
- Ordinary income/loss decreased due mainly to a negative turn in the effects of the time-lag from the fuel cost adjustment system at JERA and an increase in the electricity procurement expenses resulting from a surge in fuel/wholesale electricity market prices and other factors, despite Group-wide efforts to improve profitability.
- Quarterly net income decreased for three consecutive years.

## < FY2022 Consolidated Performance Forecast >

- To be determined.

# 1. Consolidated Financial Results

(Unit: Billion Yen)

	FY2022 Apr-Sep (A)	FY2021 Apr-Sep (B)	Comparison	
			(A)-(B)	(A)/(B) (%)
Operating Revenue	3,505.3	2,210.7	1,294.5	158.6
Operating Income/Loss	-156.0	97.0	-253.1	-
Ordinary Income/Loss	-238.8	101.3	-340.2	-
Extraordinary Income/Loss	90.5	0.0	90.5	-
Net Income Attributable to Owners of the Parent	-143.3	88.6	-232.0	-

(Unit: Billion kWh)

	FY2022 Apr-Sep (A)	FY2021 Apr-Sep (B)	Comparison	
			(A)-(B)	(A)/(B) (%)
Total Electricity Sales Volume	119.1	113.3	5.8	105.1
Retail Electricity Sales Volume ※1	91.7	91.1	0.5	100.6
Wholesale Electricity Sales Volume ※2	27.4	22.2	5.3	123.8

※1 Total of EP consolidated (EP/TCS/PinT) and PG (islands, etc.)

※2 Total (excluding indirect auctions) of EP consolidated (EP/TCS/PinT), PG (including inter-regional), and RP consolidated (RP/Tokyo Electric Generation)

## Area demand

(Unit: Billion kWh)

	FY2022 Apr- Sep(A)	FY2021 Apr- Sep(B)	Comparison	
			(A)-(B)	(A)/(B) (%)
Area demand	133.6	130.0	3.6	102.8

## Foreign Exchange Rate/CIF

	FY2022 Apr-Sep(A)	FY2021 Apr-Sep(B)	(A)-(B)
Foreign Exchange rate (Interbank, yen/dollar)	134.0	109.8	24.2
Crude oil price (All Japan CIF, dollar/barrel)	111.9 ※	70.3	41.6

※Crude oil price for FY2022 Apr-Sep is tentative figure released on October 20, 2022

## 2. Overview of Each Company

(Unit: Billion Yen)

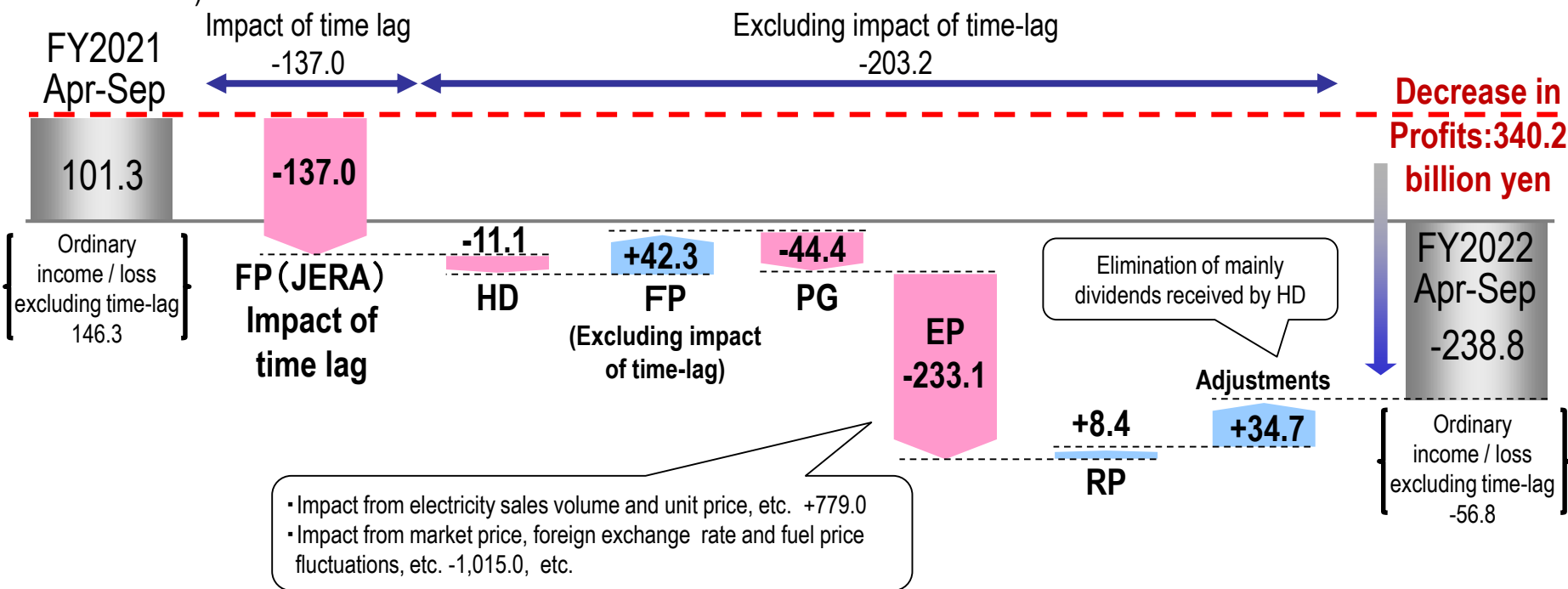
		FY2022 Apr-Sep (A)	FY2021 Apr-Sep (B)	Comparison	
				(A)-(B)	(A)/(B) (%)
Operating Revenue		3,505.3	2,210.7	1,294.5	158.6
TEPCO Holdings	(HD)	261.4	239.7	21.6	109.1
TEPCO Fuel & Power	(FP)	1.9	2.6	-0.6	75.5
TEPCO Power Grid	(PG)	1,241.3	866.2	375.1	143.3
TEPCO Energy Partner	(EP)	2,828.2	1,837.8	990.4	153.9
TEPCO Renewable Power	(RP)	91.9	82.8	9.0	110.9
Adjustments		-919.7	-818.5	-101.1	-
Ordinary Income/Loss		-238.8	101.3	-340.2	-
TEPCO Holdings	(HD)	86.8	98.0	-11.1	88.6
TEPCO Fuel & Power	(FP)	-87.3	7.3	-94.6	-
TEPCO Power Grid	(PG)	62.1	106.6	-44.4	58.3
TEPCO Energy Partner	(EP)	-227.3	5.8	-233.1	-
TEPCO Renewable Power	(RP)	43.4	35.0	8.4	124.0
Adjustments		-116.7	-151.5	34.7	-

# 3. Points of Each Companies

- HD :Ordinary income decreased due mainly to a decrease in received dividends from core operating companies.
- FP :Ordinary income decreased due mainly to a negative turn in the effects of the time-lag from the fuel cost adjustment system at JERA.
- PG :Ordinary income decreased due mainly to an increase in the electricity procurement expenses resulting from a surge in fuel prices.
- EP :Ordinary income decreased due mainly to an increase in the electricity procurement expenses resulting from a surge in fuel prices.
- RP : Ordinary income increased due mainly to an increase in wholesale electricity sales.

## Ordinary income/loss

(Units: Billion Yen)



※ The impact of the time-lag is occurred mainly at JERA  
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## 4. Consolidated Extraordinary Income/Loss

(Unit: Billion Yen)

	FY2022 Apr-Sep (A)	FY2021 Apr-Sep (B)	Comparison (A)-(B)
<b>Extraordinary Income</b>	123.3	29.8	93.4
Gain on sale of shares of subsidiaries and associates	※1 123.3	-	123.3
Grants-in-Aid from the Nuclear Damage Compensation and Decommissioning Facilities Corporation	-	29.8	-29.8
<b>Extraordinary Loss</b>	32.7	29.8	2.9
Expenses for Nuclear Damage Compensation	※2 32.7	29.8	2.9
<b>Extraordinary Income/Loss</b>	90.5	0.0	90.5

※1 Gain from the transfer of shares of Eurus Energy Holdings Corporation, which was completed on August 1, 2022.

※2 Increases due mainly to damage from shipping restrictions and extension of the period for calculating reputational damage estimates.

# 5. Consolidated Financial Position

- Total assets balance increased by 196.4 billion yen due mainly to an increase in accounts receivable.
- Total liabilities balance increased by 168.1 billion yen due mainly to increases in corporate bonds.
- Total net assets balance increased by 28.2 billion yen due mainly to an increase in accumulated other comprehensive income.
- Equity ratio worsened by 0.2 points.

Balance Sheet as of March 31, 2022

<b>Total Assets</b> <b>12,853.5</b> <b>billion yen</b>	<b>Liabilities</b> <b>9,631.3</b> <b>billion yen</b>
	<b>Net Assets</b> <b>3,222.1</b> <b>billion yen</b>

**Equity Ratio: 24.9%**

Balance Sheet as of September 30, 2022

<b>Total Assets</b> <b>13,049.9</b> <b>billion yen</b>	<b>Liabilities</b> <b>9,799.4</b> <b>billion yen</b>
<b>Increase in assets</b> <b>+196.4 billion yen</b>	
<ul style="list-style-type: none"> <li>- Accounts receivable +173.1 billion yen</li> </ul>	
	<b>Net assets</b> <b>3,250.4</b> <b>billion yen</b>

**Equity Ratio: 24.7%**

**Increase in liabilities**  
**+ 168.1 billion yen**

- increase in corporate bonds +210.0 billion yen

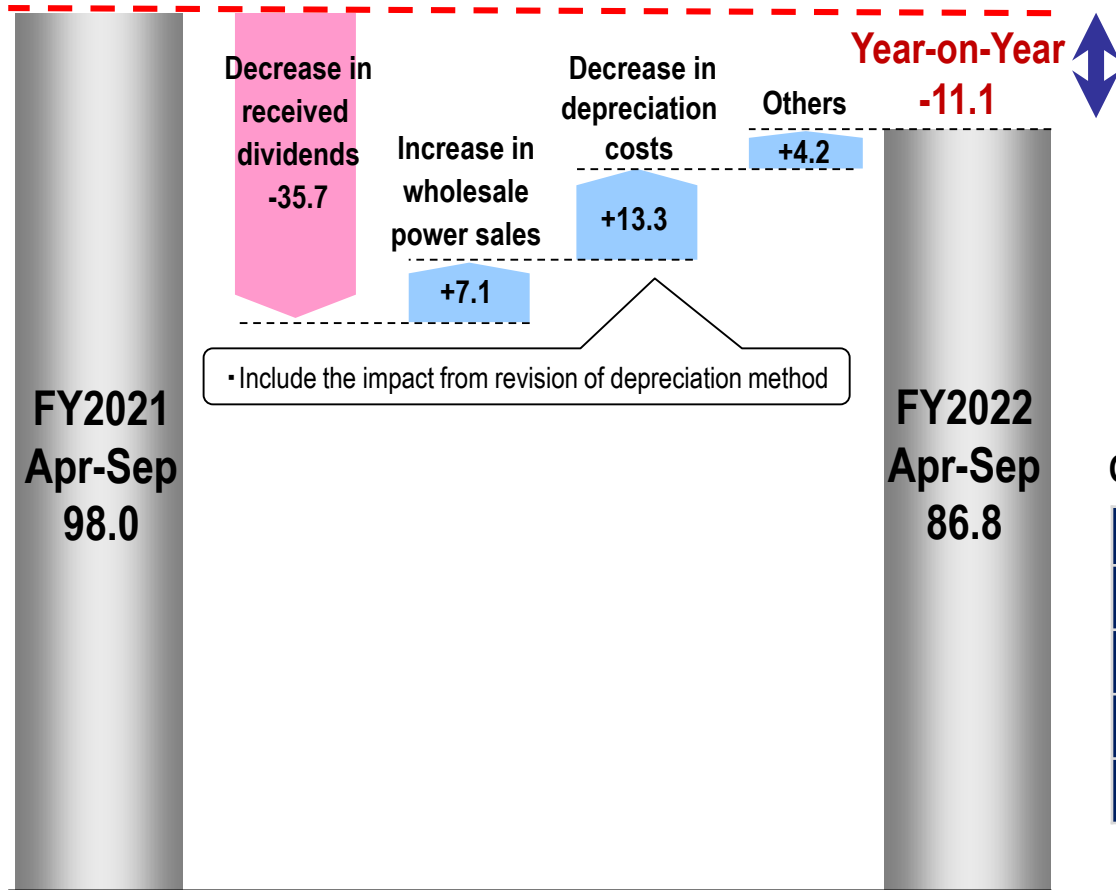
**Increase in net assets**  
**+ 28.2 billion yen**

- Increase in accumulated other comprehensive income +171.4 billion yen
- Net income attributable to owners of the parent -143.3 billion yen

**Worsened by**  
**0.2 points**

## Ordinary income/loss

(Units: Billion Yen)



## Profit Structure

Profit is dividend income, decommissioning charges profit, management consultation fees, wholesale power sales of nuclear power, etc.

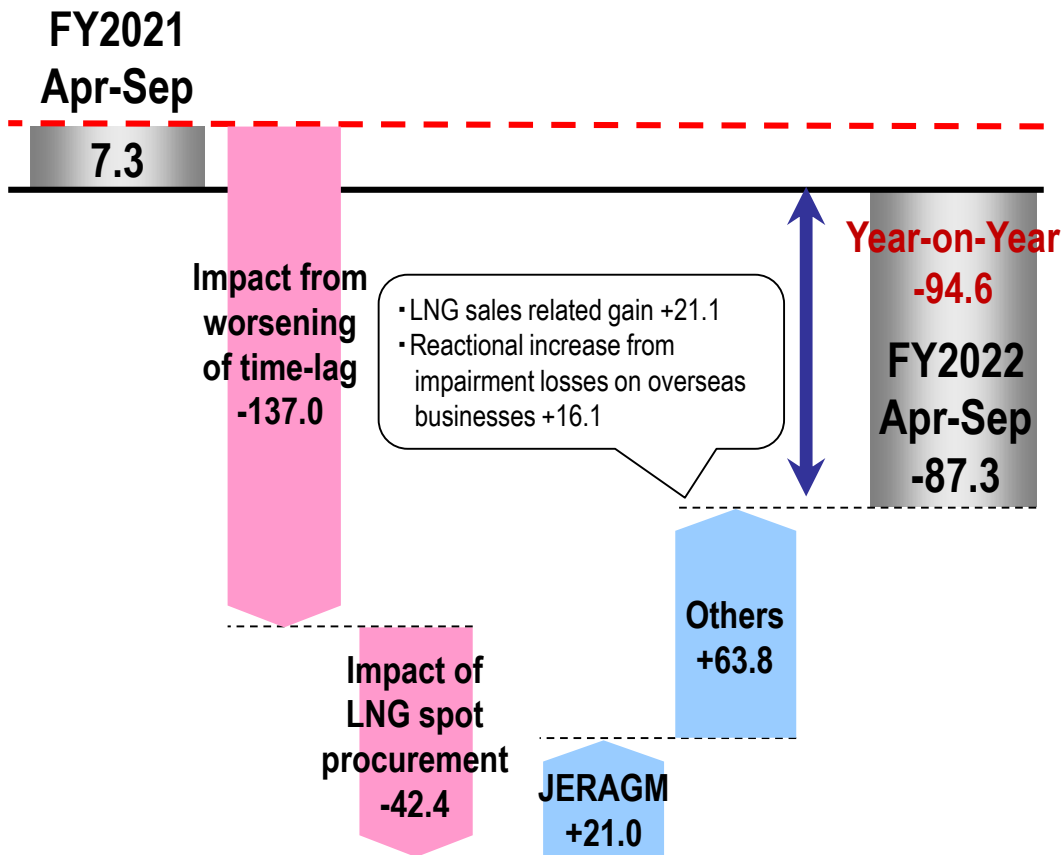
## Ordinary income / loss

(Units: Billion Yen)

	FY2021	FY2022	Comparison
Apr-Jun	126.7	109.9	-16.7
Apr-Sep	98.0	86.8	-11.1
Apr-Dec	72.0		
Apr-Mar	73.0		

## Ordinary income/loss

(Units: Billion Yen)



## Profit Structure

Main profit is profit of entities accounted for using equity method, such as generation business at JERA.

## Timing Impact (JERA equity impact) (Units: Billion Yen)

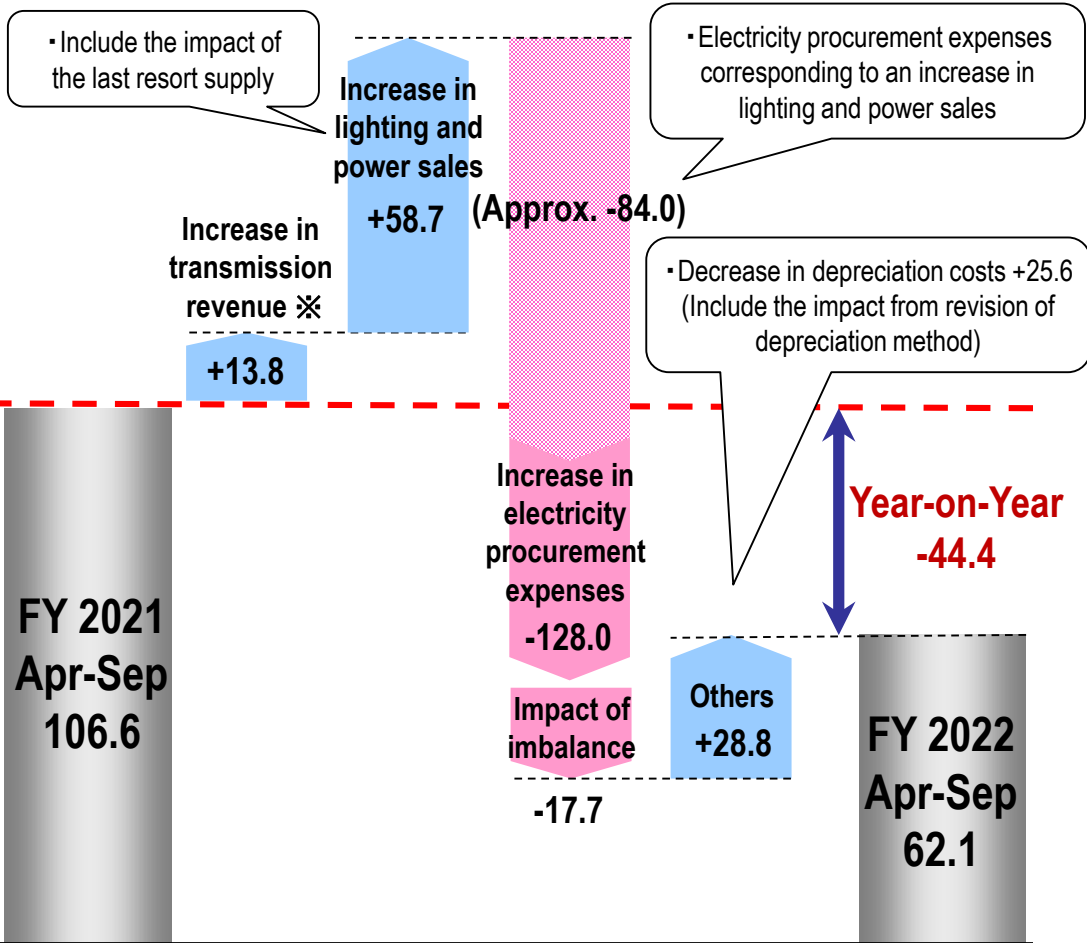
	FY2021	FY2022	Comparison
Apr-Sep	-45.0	-182.0	-137.0

## Ordinary income / loss (Units: Billion Yen)

	FY2021	FY2022	Comparison
Apr-Jun	30.1	-9.6	-39.8
Apr-Sep	7.3	-87.3	-94.6
Apr-Dec	-9.3		
Apr-Mar	9.6		

## Ordinary income/loss

(Units: Billion Yen)



※ Transmission revenue excludes impact from imbalanced revenue and expenditure

## Profit Structure

Operating revenue is mainly transmission revenue, and this is fluctuated by area demand. Expenses is mainly for repairs and depreciation costs of transmission and distribution facilities.

## Area demand

(Units: Billion kWh)

	FY2021	FY2022	comparison
Apr-Sep	130.0	133.6	+3.6

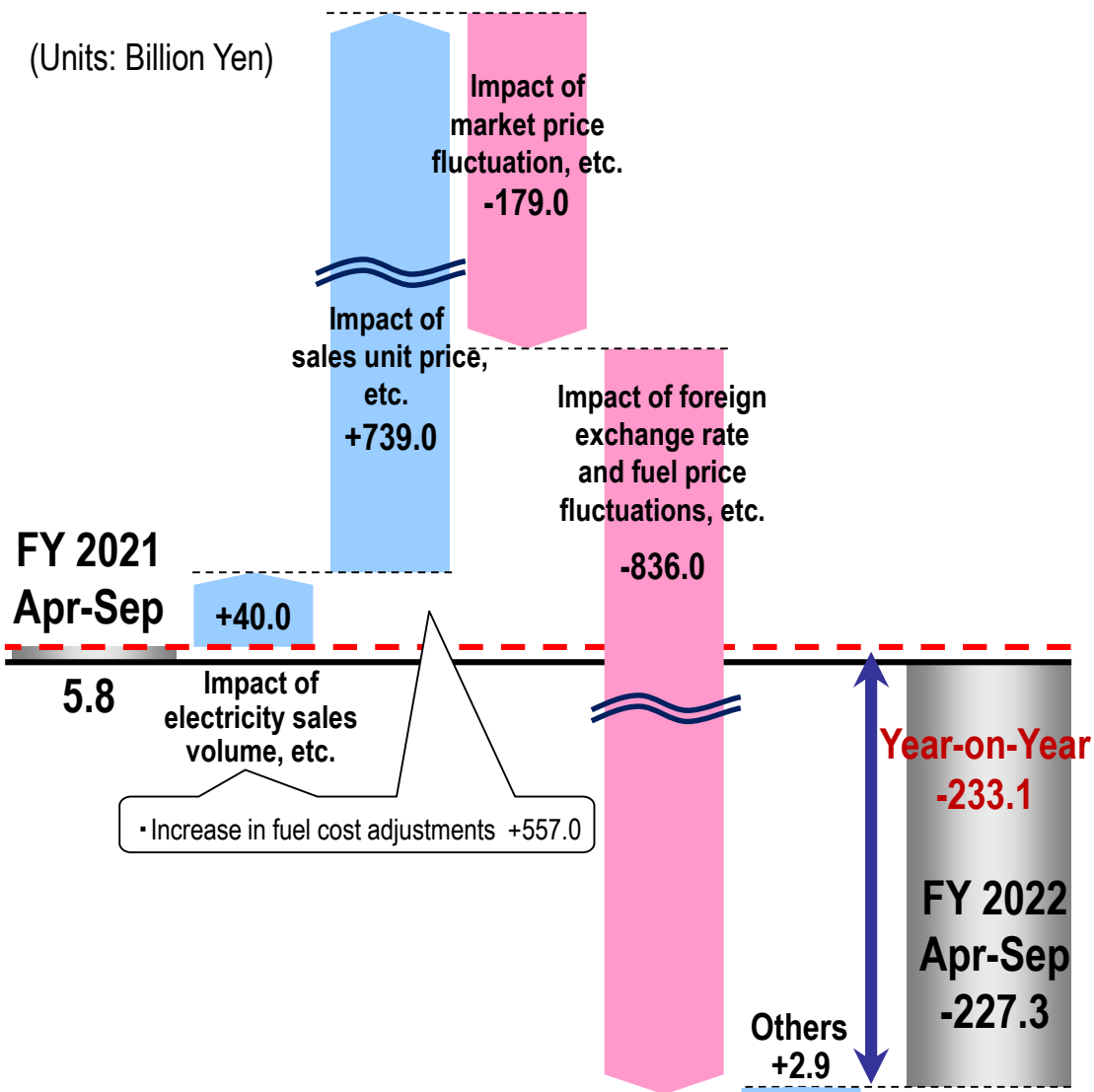
## Ordinary income / loss

(Units: Billion Yen)

	FY2021	FY2022	comparison
Apr-Jun	34.6	36.1	+1.4
Apr-Sep	106.6	62.1	-44.4
Apr-Dec	163.5		
Apr-Mar	118.3		

## Ordinary income/loss

(Units: Billion Yen)



## Profit Structure

Operating revenue is mainly electricity sales revenue, and this is fluctuated by electricity sales volume. Expenses are mainly power purchasing costs and transmission fees of connected supply.

## Retail Electricity sales volume (EP consolidated)

(Units: Billion kWh)

	FY2021	FY2022	comparison
Apr-Sep	91.0	89.6	-1.5

Competition -2.8, Temperature +2.1, Others -0.8

## Gas contracts (EP non-consolidated)

As of March 31, 2022	As of September 30, 2022
Approx. 1.32 million	Approx. 1.36 million

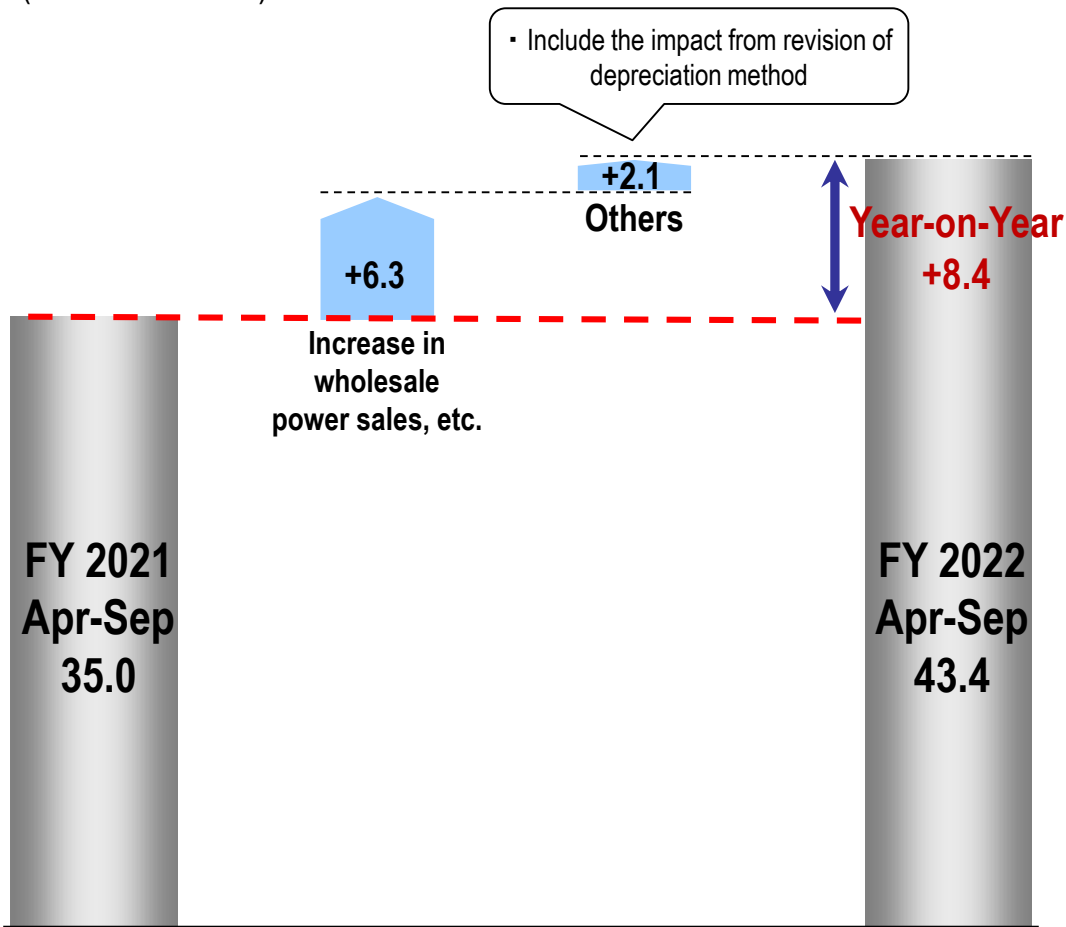
## Ordinary income / loss

(Units: Billion yen)

	FY2021	FY2022	comparison
Apr-Jun	-37.4	-90.8	-53.3
Apr-Sep	5.8	-227.3	-233.1
Apr-Dec	-42.3		
Apr-Mar	-66.4		

## Ordinary income/loss

(Units: Billion Yen)



## Profit Structure

Profit is mainly wholesale power sales of hydroelectric and new energies.  
 Expenses is mainly for depreciation and repairs.

## Flow rate

(Unit: %)

	FY2021	FY2022	comparison
Apr-Sep	104.1	100.5	-3.6

## Ordinary income / loss

(Units: Billion yen)

	FY2021	FY2022	comparison
Apr-Jun	16.1	21.6	+5.5
Apr-Sep	35.0	43.4	+8.4
Apr-Dec	40.5		
Apr-Mar	45.9		

# Supplemental Material

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# FY2022 2<sup>nd</sup> Quarter Financial Results

## Detailed Information

# Consolidated Statements of Income

	(Unit: Billion Yen)			
	FY2022	FY2021	Comparison	
	Apr-Sep(A)	Apr-Sep(B)	(A)-(B)	(A)/(B) (%)
Operating Revenue	3,505.3	2,210.7	1,294.5	158.6
Operating Expenses	3,661.4	2,113.7	1,547.6	173.2
<b>Operating Income / Loss</b>	<b>-156.0</b>	<b>97.0</b>	<b>-253.1</b>	—
Non-operating Revenue	3.8	31.9	-28.0	12.2
Investment Gain under the Equity Method	—	27.3	-27.3	—
Non-operating Expenses	86.6	27.6	59.0	313.8
Investment Loss under the Equity Method	58.7	—	58.7	—
<b>Ordinary Income / Loss</b>	<b>-238.8</b>	<b>101.3</b>	<b>-340.2</b>	—
Reserve for Fluctuation in Water Levels	0.0	0.0	-0.0	96.0
Provision or Reversal of Reserve for Preparation of Depreciation of Nuclear Power Construction	-9.4	0.1	-9.6	—
Extraordinary Income	123.3	29.8	93.4	—
Extraordinary Loss	32.7	29.8	2.9	—
Income Tax, etc.	4.2	12.2	-7.9	35.0
Net Income Attributable to Non-controlling Interests	0.2	0.2	-0.0	82.0
<b>Net Income Attributable to Owners of Parent</b>	<b>-143.3</b>	<b>88.6</b>	<b>-232.0</b>	—

# The status of Grants-in-aid from Nuclear Damage Compensation and Decommissioning Facilitation Corporation and Expenses for Nuclear Damage Compensation

(Unit: Billion Yen)

Item	FY2010 to FY2021	FY2022 Apr-Sep	Cumulative Amount
<b>◆ Grants-in-aid from Nuclear Damage Compensation and Decommissioning Facilitation Corporation</b>			
○ Grants-in-aid based on Nuclear Damage Compensation and Decommissioning Facilitation Corporation Act	* 7,553.6	—	* 7,553.6

Note: Journal Entry: Grants-in-aid receivable from Nuclear Damage Compensation and Decommissioning Facilitation Corporation is debited on the balance sheet.

\* Numbers above are those after deduction of a governmental indemnity of 188.9 billion yen, and Grants-in-aid corresponding to decontamination and other expenses of 4,843.9 billion yen respectively.

## ◆ Expenses for Nuclear Damage Compensation

● Compensation for individual damages ▪ Expenses for radiation inspection, Mental distress, Damages caused by voluntary evacuations, and Opportunity losses on salary of workers etc.	2,083.4	2.6	2,086.0
● Compensation for business damages ▪ Opportunity losses on businesses, Damages due to the restriction on shipment, Damages due to groundless rumor and Package compensation etc.	3,305.7	21.8	3,327.5
● Other expenses ▪ Damages due to decline in value of properties, Housing assurance damages, Decontamination and other expenses etc.	7,197.3	8.3	7,205.6
● Amount of indemnity for nuclear accidents from the Government	-188.9	—	-188.9
● Grants-in-aid corresponding to decontamination and other expenses	-4,843.9	—	-4,843.9
<b>Total</b>	<b>7,553.5</b>	<b>32.7</b>	<b>7,586.3</b>

# Consolidated Balance Sheets

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(Unit: Billion Yen)

	Sep. 30 2022 (A)	Mar. 31 2022 (B)	Comparison	
			(A)-(B)	(A)/(B) (%)
<b>Total Assets</b>	<b>13,049.9</b>	<b>12,853.5</b>	<b>196.4</b>	<b>101.5</b>
Fixed Assets	10,847.2	10,822.6	24.6	100.2
Current Assets	2,202.6	2,030.8	171.7	108.5
<b>Liabilities</b>	<b>9,799.4</b>	<b>9,631.3</b>	<b>168.1</b>	<b>101.7</b>
Long-term Liability	5,735.8	5,617.1	118.6	102.1
Current Liability	4,063.6	4,004.7	58.9	101.5
Reserve for Fluctuation in Water Levels	0.0	—	0.0	—
Reserve for Preparation of the Depreciation of Nuclear Plants Construction	—	9.4	-9.4	—
<b>Net Assets</b>	<b>3,250.4</b>	<b>3,222.1</b>	<b>28.2</b>	<b>100.9</b>
Shareholders' Equity	2,986.0	3,129.3	-143.3	95.4
Accumulated Other Comprehensive Income	238.9	67.5	171.4	354.0
Share Acquisition Rights	—	0.0	-0.0	—
Non-controlling Interests	25.4	25.3	0.1	100.5

<Interest-bearing debt outstanding>

(Unit: Billion Yen)

	Sep. 30 2022 (A)	Mar. 31 2022 (B)	(A)-(B)
Bonds	3,310.4	3,100.4	210.0
Long-term Debt	159.9	169.4	-9.4
Short-term Debt	2,179.3	2,170.3	8.9
Total	5,649.7	5,440.2	209.5

<Reference>

	FY2022 Apr-Sep (A)	FY2021 Apr-Sep (B)	(A)-(B)
ROA(%)	-1.2	0.8	-2.0
ROE(%)	-4.5	2.8	-7.3
EPS(Yen)	-89.49	55.33	-144.82

ROA: Operating Income / Average Total Assets

ROE: Net Income attributable to owners of parent / Average Equity Capital

# Consolidated Statements of Cash Flows

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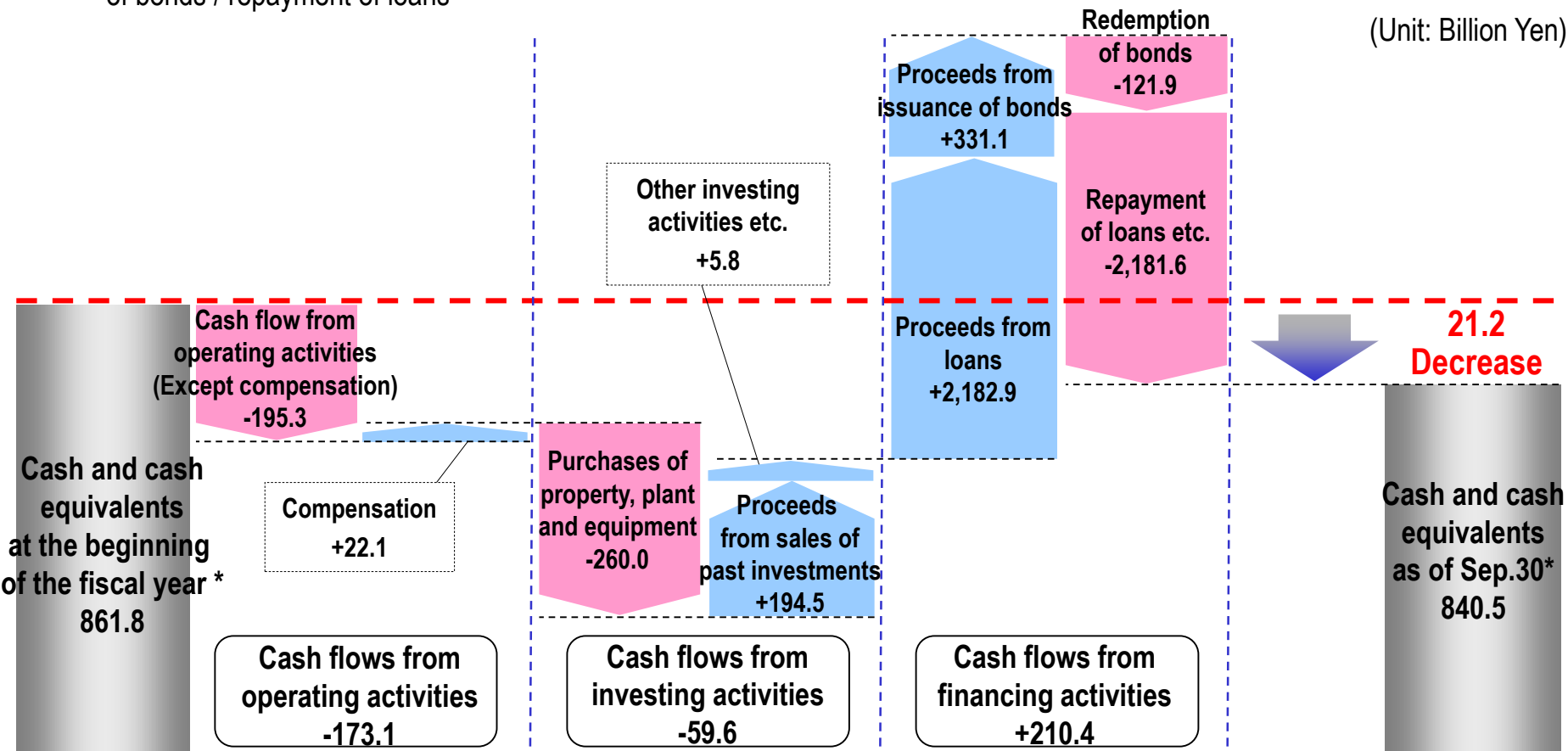
(Unit: Billion Yen)

	FY2022 Apr-Sep (A)	FY2021 Apr-Sep (B)	Comparison (A)-(B)
<b>Cash flow from operating activities</b>	<b>-173.1</b>	<b>96.2</b>	<b>-269.4</b>
Income / loss before income taxes	-138.8	101.2	-240.0
Depreciation and amortization	168.7	207.3	-38.6
Increase (decrease) in decommissioning reserve fund*	-21.0	-13.7	-7.3
Interest expenses	23.8	21.9	1.9
Grants-in-aid from Nuclear Damage Compensation and Decommissioning Facilitation Corporation	-	-29.8	29.8
Expenses for nuclear damage compensation	32.7	29.8	2.9
Decrease (increase) in notes and accounts receivable trade*	-189.3	57.4	-246.8
Increase (decrease) in notes and accounts payable trade**	84.0	-39.1	123.1
Interest expenses paid	-23.0	-21.0	-1.9
Payments for extraordinary loss on disaster due to the Great East Japan Earthquake	-13.5	-10.3	-3.1
Grants-in-aid from Nuclear Damage Compensation and Decommissioning Facilitation Corporation received	92.1	144.7	-52.6
Payments for nuclear damage compensation	-69.9	-116.9	47.0
Others	-119.0	-235.2	116.1
<b>Cash flows from investing activities</b>	<b>-59.6</b>	<b>-249.2</b>	<b>189.5</b>
Purchases of property, plant and equipment	-260.0	-248.0	-12.0
Proceeds from sales of past investments	194.5	0.6	193.9
Others	5.8	-1.8	7.6
<b>Cash flows from financing activities</b>	<b>210.4</b>	<b>679.5</b>	<b>-469.1</b>
Proceeds from issuance of bonds	331.1	479.9	-148.7
Redemption of bonds	-121.9	-31.2	-90.7
Proceeds from long-term loans	4.7	-	4.7
Repayment of long-term loans	-14.1	-20.9	6.8
Proceeds from short-term loans	2,178.2	2,196.9	-18.7
Repayment of short-term loans	-2,169.5	-1,950.9	-218.5
Others	1.9	5.8	-3.9
Effect of exchange rate changes on cash and cash equivalents	1.1	0.2	0.9
Net increase (decrease) in cash and cash equivalents**	-21.2	526.9	-548.1
Cash and cash equivalents at the beginning of the fiscal year	861.8	454.3	407.5
Cash and cash equivalents at the end of the quarter	840.5	981.2	-140.6

\* Minus denotes an increase. \*\* Minus denotes a decrease.

- Cash and cash equivalents as of September 30, 2022 decreased 21.2 billion yen to 840.5 billion yen.
  - Cash flow from operating activities decreased 173.1 billion yen mainly due to loss before income taxes
  - Cash flow from investing activities decreased 59.6 billion yen mainly due to purchases of property, plant and equipment
  - Cash flow from financing activities increased 210.4 billion yen mainly due to proceeds from bonds/ loans exceeded redemption of bonds / repayment of loans

(Unit: Billion Yen)



\* Including expenses for compensation 6.1 billion yen

\* Including expenses for compensation 28.3 billion yen

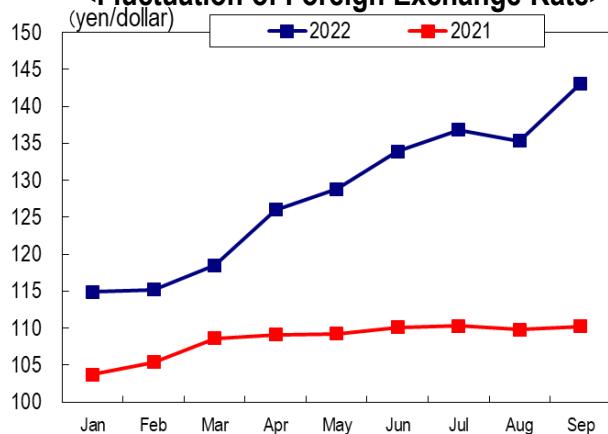
# Key Factors Affecting Performance

## Key Factors Affecting Performance (Results)

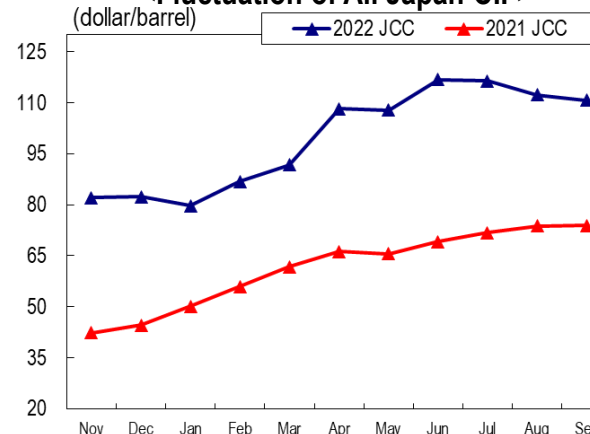
- ※1 Total of EP consolidated (EP/TCS/PinT) and PG (islands, etc.)
- ※2 Total (excluding indirect auctions) of EP consolidated (EP/TCS/PinT), PG (including inter-regional), and RP consolidated (RP/Tokyo Electric Generation)
- ※3 Crude oil price for FY2022 Apr-Sep is tentative figure released on October 20, 2022

	FY2022 Apr-Sep	FY2021 Apr-Sep	[Reference] FY2021
Total Electricity Sales Volume ( Billion kWh )	119.1	113.3	233.8
Retail Electricity Sales Volume ( Billion kWh )※1	91.7	91.1	186.5
Wholesale Electricity Sales Volume ( Billion kWh )※2	27.4	22.2	47.3
Gas Sales Volume (Million ton)	1.23	1.05	2.71
Foreign Exchange Rate (Interbank; yen per dollar)	134.0	109.8	112.4
Crude Oil Price (All Japan CIF; dollars per barrel)※3	111.9	70.3	77.2
Nuclear Power Plant Capacity Utilization Ratio (%)	-	-	-

<Fluctuation of Foreign Exchange Rate>



<Fluctuation of All Japan CIF>





## Retail Electricity Sales Volume (EP consolidated)

Unit: Billion kWh

	FY2022						[Ref.] Year-on-year Comparison	
	Apr-Jun	Jul	Aug	Sep	Jul-Sep	Apr-Sep	Jul-Sep	Apr-Sep
Lighting	12.62	4.63	5.37	4.83	14.83	27.45	99.6%	98.8%
Power	28.77	11.21	11.42	10.72	33.35	62.12	99.1%	98.2%
Total	41.39	15.84	16.79	15.55	48.18	89.57	99.2%	98.4%

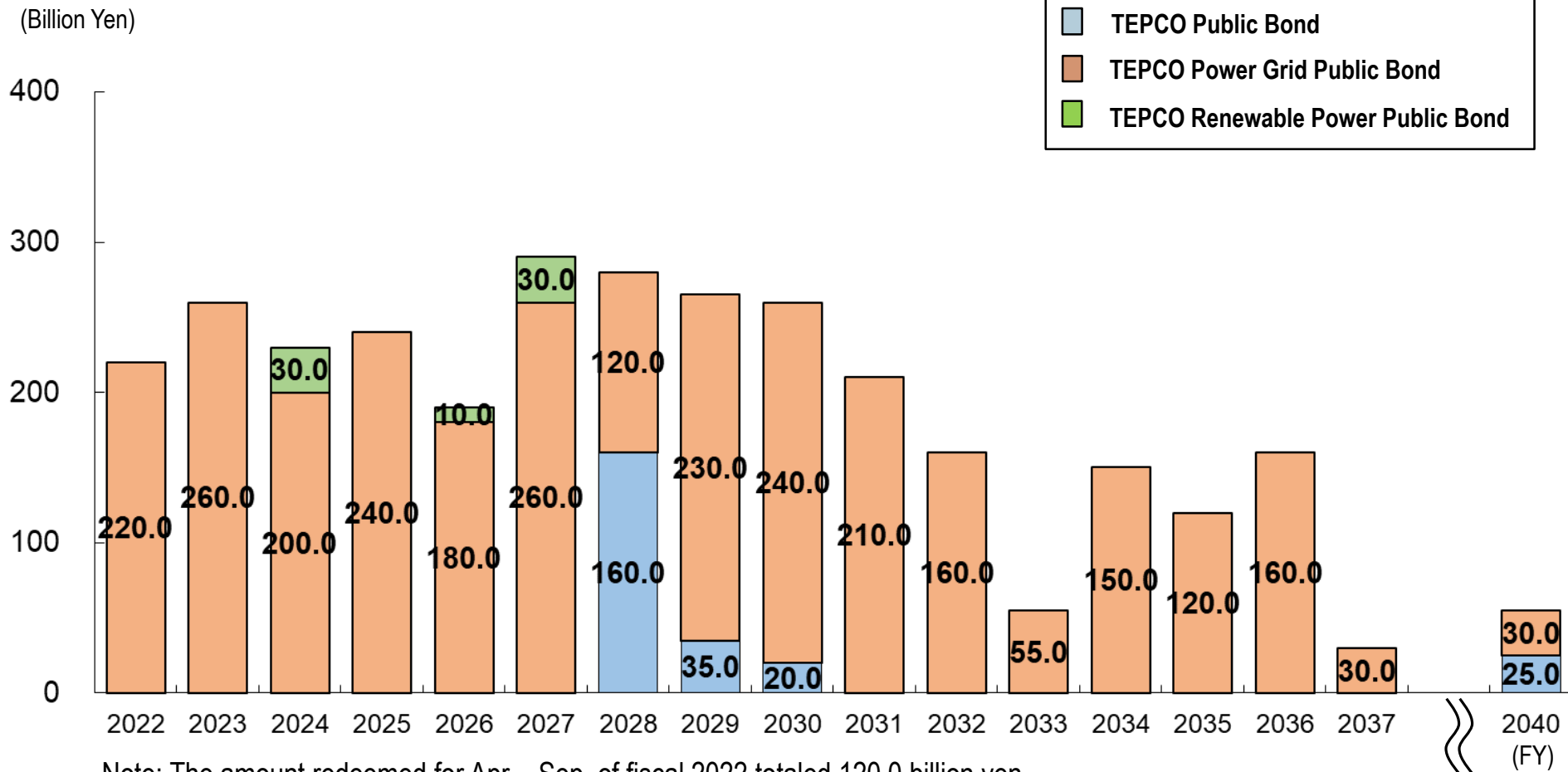
## Total Power Generated

Unit: Billion kWh

	FY2022						[Ref.] Year-on-year Comparison	
	Apr-Jun	Jul	Aug	Sep	Jul-Sep	Apr-Sep	Jul-Sep	Apr-Sep
Hydroelectric	3.99	1.24	1.30	1.15	3.69	7.68	89.9%	98.5%
Thermal	0.03	0.02	0.02	0.01	0.05	0.08	103.7%	103.0%
Nuclear	-	-	-	-	-	-	-	-
Renewable etc.	0.02	0.00	0.01	0.01	0.02	0.03	90.5%	88.9%
Total	4.04	1.26	1.32	1.17	3.75	7.79	90.0%	98.5%

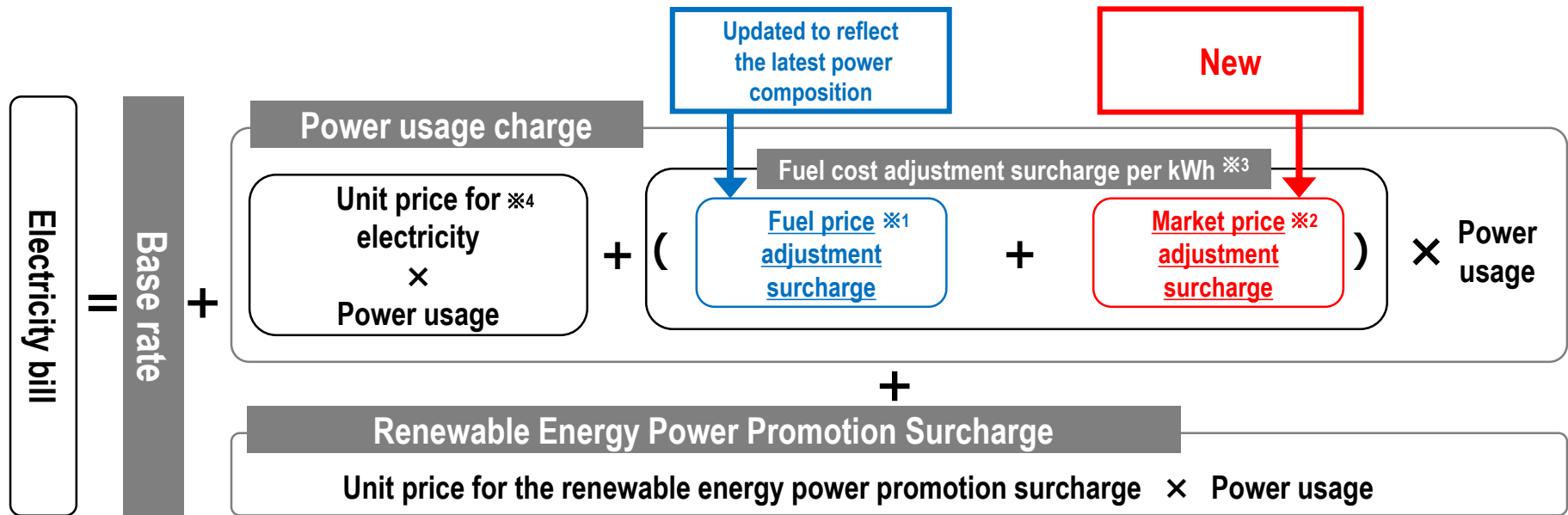
# Schedules for Public Bond Redemption

Amount at Maturity (As of Sep. 30, 2022)



# The revision of extra-high voltage and high voltage electricity rate plans (standard plans)

- ✓ On September 20, 2022, TEPCO announced the revision of the extra-high voltage and high voltage electricity rate plans (Tokyo area) in response to the global surge in resource prices that will go into effect in April 2023 onwards.
- ✓ The power source composition and the fuel prices will be updated from the values set in the 2012 rate price revision, and a new mechanism introduced to reflect the fluctuations in market price in the rates.
- ✓ While the restart date of Kashiwazaki-Kariwa Nuclear Power Station is still unknown, to reduce the burden on our customers brought on by the soaring fuel prices, 75% per year of the operation of Kashiwazaki-Kariwa Nuclear Power Station Unit 7 has been taken into account in calculating rates for the rate calculation period of FY2023.



- ※1 The fuel cost adjustment surcharge is equivalent to the existing fuel cost adjustment unit price
- ※2 The JEPX spot price used here will be the price published by the JEPX for the supply area that the customer is drawing power to. However, if the price cannot be used for any reason, TEPCO EP will decide on a price based on the standard market price, etc.
- ※3 The fuel cost adjustment unit price will be rounded off to the nearest 0.1 yen. The fuel cost adjustment surcharge and market price adjustment surcharge will not be rounded up or down
- ※4 Changes in the Wheeling Service Provisions of TEPCO PG as a result of the introduction of the Wheeling Revenue Cap system are to be reflected onto this at a later date

## ➤ Market price adjustment surcharge

The **market price adjustment surcharge** will be calculated by multiplying the **standard market unit price** with the difference between the **monthly average market price** and the **standard market price**.

① Standard market price	Baseline value to measure price fluctuations for the market price adjustment surcharge, determined based on the spot price from July 2021 to June 2022
② Average market price	Weighted average of the all-day and mid-day spot price* during the period *The all-day spot price is the simple average of the spot price from 12 am of that day to 12 am the next day. The mid-day spot price is the simple average of the spot price from 8 am to 4 pm.
③ Standard market unit price	Amount that the price of electricity fluctuates per kWh for when the average market price fluctuates by ¥1 per kWh
④ Conversion coefficient δ1, δ2	The power usage ratio for all day and mid-day respectively in power procured from JEPX and power procured from other market transactions (including purchased FIT electricity)

$$\text{Market price adjustment surcharge} = \left( \text{Average market price}^{②} - \text{Standard market price}^{①} \right) \times \text{Standard market unit price}^{③}$$

[Fluctuates every month]
[¥ 17.44]
[High voltage ¥ 0.337  
Extra high voltage ¥ 0.328]

$$\text{Average market price}^{②} = \text{XX.XX [yen per kWh]} \times 0.6566 + \text{XX.XX [yen per kWh]} \times 0.3434$$

All day unit price
 $\delta 1^{④}$   
Conversion coefficient (All-day)
Mid-day unit price
 $\delta 2^{④}$   
Conversion coefficient (Mid-day)

## ➤ Data by which the fuel cost adjustment surcharge and market price adjustment surcharge is created

### Fuel price adjustment surcharge

※1 Calculated based on the trade statistics price from April to June 2022  
 ※2 Equivalent to the existing 'standard unit price'

### Market price adjustment surcharge

Item		Before revision	After revision
Baseline fuel price		¥44,200/kl	¥64,900/kl※1
Standard fuel price per kWh※2	High voltage	¥0.224/kWh	¥0.150/kWh
	Extra high voltage	¥0.221/kWh	¥0.145/kWh
Conversion coefficient	α(Crude oil)	0.1970	0.0033
	β(LNG)	0.4435	0.4001
	γ(Coal)	0.2512	0.6241

Item		Before revision	After revision
Baseline market price		-	¥17.44/kWh
Standard market price per kWh	High voltage	-	¥0.337/kWh
	Extra high voltage	-	¥0.328/kWh
Conversion coefficient	δ1 (All-day)	-	0.6566
	δ2 (Mid-day)	-	0.3434

- ✓ As part of the energy conservation measures, in addition to the existing demand-response (hereinafter DR) contracts, new DR contracts were signed (approx. 10,000 contracts saving almost 17,000 MWh) for the corporate sector and a energy conservation challenge was hosted for the household sector (430,000 people participated saving 2,860MWh) .
- ✓ To reduce the burden on customers due to this price revision, additional energy conservation measures will be implemented for corporate and household customers in the form of new energy conservation plans and air conditioning unit cleaning assistance among others this winter.

## <Energy conservation initiatives for this winter>

### For corporations

- This winter, we will launch new energy conservation rate plans and encourage cleaning air conditioning equipment to reduce our customers' electricity bills
- We will aim to save 2.8 billion kWh\*1 of energy (total of energy saved from July 2022 to March 2023) by working jointly with government subsidy programs\*2

### <Overview of FY2022 Winter Energy Conservation Support Measures>

Support measures	Details
Energy Diet Plan	An energy conservation plan that gives discounts based on the amount of energy conserved by the customer
Subsidies for cleaning air conditioning equipment	TEPCO EP subsidizes part of the cleaning fees for commercial air conditioning units to assist customers in continuing to conserve energy efficiently
Energy management	Supporting companies introduce equipment that visualizes power usage to ensure power is used efficiently

\*1 Amount of energy saved this fiscal year from all energy saving measures including the household measures on the right  
 \*2 METI "Energy Efficiency Promotion Measures"

### For households

- We will expand the 2022 TEPCO Energy Conservation Program. We will start a new initiative where points will be awarded based on the amount of energy conserved, calculated by comparing power usage with the same month of the previous year
- A campaign to encourage cleaning of air conditioning units in households will also be launched to increase power conservation efficiency

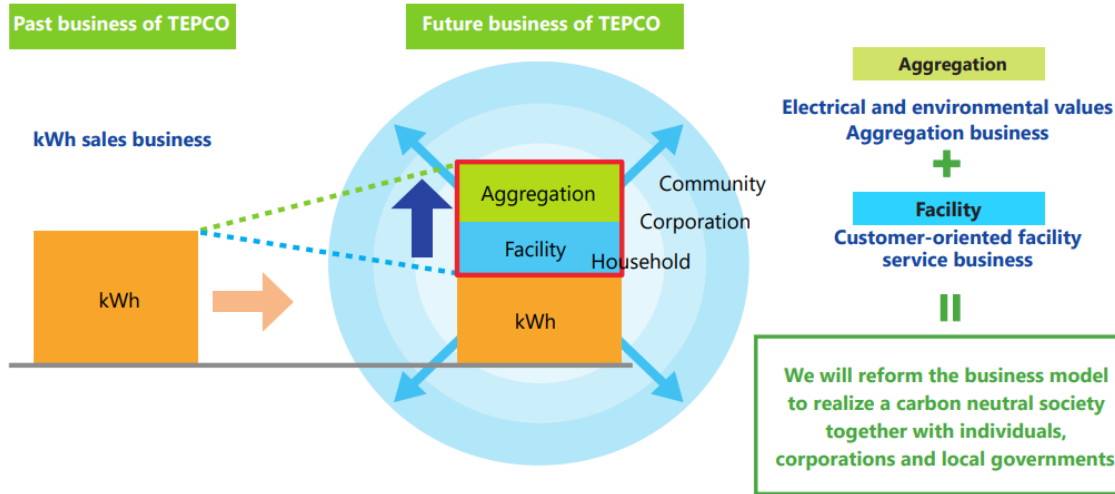
### < Overview of the FY2022 Winter Energy Conservation Program measures >

Support measures	Details
Energy Conservation Challenge	Award points to customers who conserve energy during times specified by TEPCO EP according to the amount of energy conserved ① <ul style="list-style-type: none"> <li>• Award at least 5 points per kWh saved</li> <li>• Award 100 points for the first 0.01kWh saved</li> </ul> 【Campaign period: July 1, 2022 to March 31, 2023】
	<b>NEW</b> Award at least 40 points each month to customers who have conserved energy by 3% or more when comparing energy use to the same month of the previous year ② 【Campaign period: Bill calculation period from December 2022 to March 2023】
<b>NEW</b> Air conditioning unit cleaning campaign	A campaign to encourage energy conservation in households Give a 30% discount for specific air conditioning unit cleaning plans when the customer signs up from a dedicated website *No limits on the number of air conditioning units 【Campaign period: October 3, 2022 to January 31, 2023】

※Details of each support measure to be announced on the TEPCO EP website  
 ※ "My Energy Conservation Declaration" campaign that has been launched in July 2022 will end as of November 30, 2022

- ✓ Starting in FY2023, we will start measures to the introduction of equipment that helps realize a carbon neutral society with our customers to reduce our customers' electricity bill. (We are considering introducing this program as early as within this fiscal year.)
- ✓ TEPCO EP will suggest energy conservation solutions to our customers, aiming to conserve a total of 6 billion kWh, equivalent to 3% of electricity sold, by FY2024.

## <TEPCO's Business Reform and Aim of the Promotion System>



## <Benefits for our customers>

- ✓ Reduced energy costs through energy conservation
- ✓ Receive support from TEPCO via environmental value and DR resources, to help the customers' equipment create additional value

## <Proposal scenarios>

		We select equipment that will contribute to a carbon neutral society, introduce them to companies and provide support for installation (Examples)	
Households		<ul style="list-style-type: none"> <li>• Solar generation</li> <li>• High efficiency boiler</li> <li>• Storage battery system, etc.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Subsidize part of the service costs when new customers sign a EneKari Plus contract</li> <li>✓ Provide additional support by adding a storage battery system</li> </ul>
Corporations	Commercial electricity small to mid sized supermarkets, offices, etc.	<ul style="list-style-type: none"> <li>• Solar generation, storage batteries</li> <li>• Air conditioning/boiler</li> <li>• Freezer/refrigerator display case</li> <li>• High efficiency motor</li> <li>• Rotating equipment (pump, fan, etc.)</li> <li>• Energy management, etc.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Subsidize part of the updating costs for equipment deemed highly efficient out of the equipment to the left</li> <li>✓ Inform customers of national government and municipal subsidized projects, etc</li> <li>✓ Explain the additional benefits customers gain from signing a DR contract</li> </ul>
	Extra high voltage electricity B (By season and time of day) factories, etc.		

# Status of response to address the series of incidents including a nuclear material protection incident

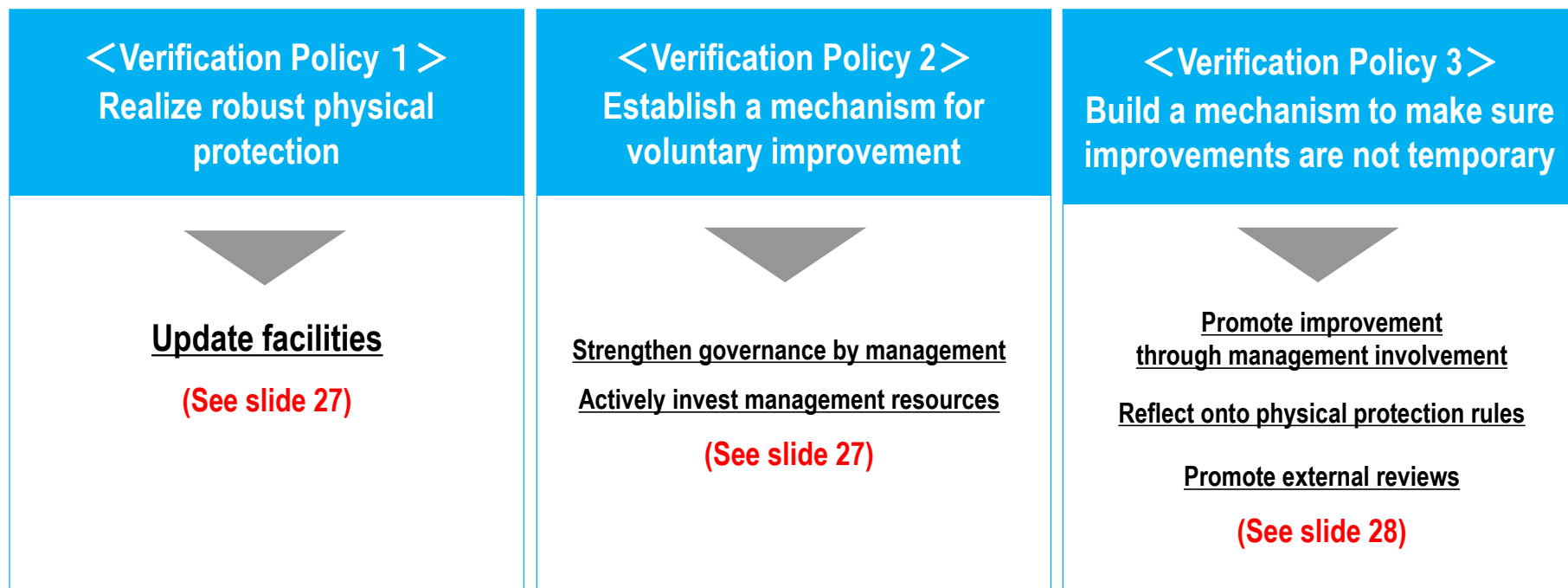


# Status of response to address the series of incidents including a nuclear material protection incident

## Nuclear reform measures

- ✓ Based on the Improvement Report for the Inappropriate Use of ID Cards and the Partial Loss of Function of the Physical Protection Facilities at the Kashiwazaki Kariwa Nuclear Power Station, the following recurrence prevention measures are being implemented sequentially. The 36 items in the Improvement Plan (\*see next slide) are all being implemented and a majority of the items are already being assessed for effectiveness.
- ✓ Based on the recommendations received in the additional inspections from the NRA and the 3 Verification Policies approved by the NRA on September 14, 2022, the improvements are being refined as they are being implemented

### 3 Verification Policies Approved by the NRA and TEPCO's Response Policy



# Status of response to address the series of incidents including a nuclear material protection incident

## 36 countermeasures included in the improvement measure plan

Improvement measure	Improvement measure
① Reconstruction of physical protection governance	⑲ Create equipment maintenance system
② Monitoring process improvements	⑳ Revise change management processes, create educational programs
③ Strengthening of physical protection education (upper management, etc.)	㉑ Create maintenance plans (inspection plans, replacement plans)
④ Strengthening of physical protection education (Protection Division)	㉒ Clarify rules pertaining to substitute measures
⑤ Strengthening of physical protection education	㉓ Clarify time periods for function repairs
⑥ Revision of nuclear security culture cultivation plan	㉔ Create basic manuals, etc.
⑦ Messages from upper management and activities to help those messages permeate throughout the company	㉕ Increase the number of Physical Protection Department personnel
⑧ Sitting circle meetings/upper management dialogue sessions	㉖ Revise security functions/responsibilities, etc.
⑨ Improve the ability to ascertain work conditions by having managers inspect the field and field conditions	㉗ Create policy for disclosing information on inappropriate incidents
⑩ Listen to opinions about nuclear security	㉘ Continue peer reviews with other electric companies
⑪ Initiatives to ascertain understanding/improvement of nuclear security	㉙ Improve communication between the Protection Division and the rest of the power station
⑫ Confirm the competency of operators/watchmen	㉚ Revise restricted area demarcations
⑬ Confirm ID when reregistering biometric data in the field	㉛ Implement countermeasures for false alarms from intruder detectors
⑭ Introduce additional biometric authentication equipment	㉜ Improve manuals so that they reflect actual field conditions
⑮ Random training for watchmen	㉝ Create a "purpose" for Kashiwazaki-Kariwa
⑯ Alleviate congestion at each gate	㉞ Develop/strengthen risk management
⑰ Strengthen system for providing support to the Protection Division	㉟ Conduct study sessions on the Fukushima Daiichi Nuclear Power Station Accident
⑱ Ensure that ID cards are kept locked	㊱ Self-assessment/third-party assessments

: Countermeasures that are being implemented

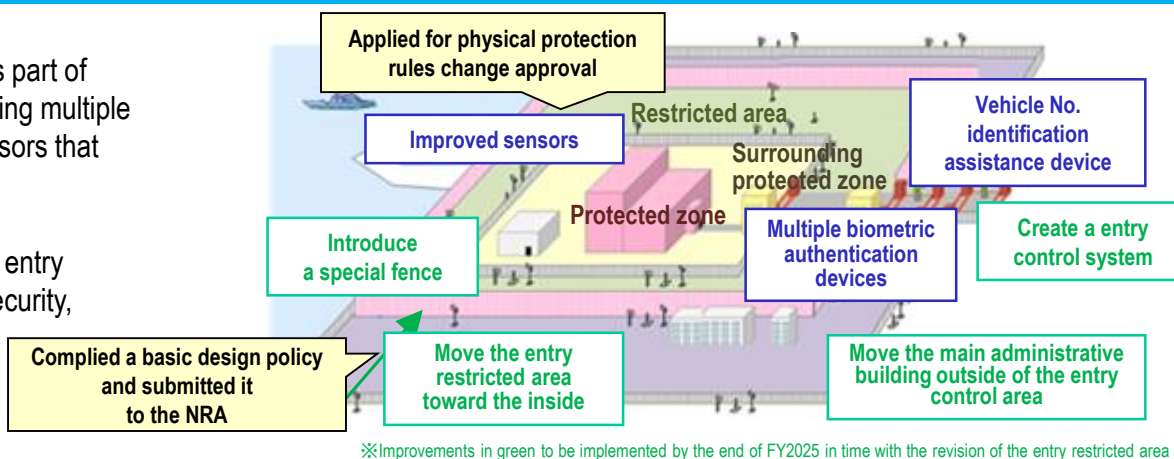
※ Measures in red letter are those that newly moved into the implementation phase since the announcement on March 30, 2022.

# Status of response to address the series of incidents including a nuclear material protection incident

## Concrete measures ( Verification Policy 1 and 2 )

### Verification Policy 1 Response to 【Realize robust physical protection】

- Various equipment-based measures were introduced as part of permanent measures that do not rely on humans including multiple biometric authentication devices, such as improved sensors that better accommodate the natural environment
- Going forward, at the same time with the revision of the entry restricted area, protection systems to further improve security, including an entry control system, will be built



### Verification Policy 2 Response to 【Establish a mechanism for voluntary improvement】

#### Strengthen governance by management

- Management is frequently visiting the field to check on the state of physical protection work and providing support directly
- A Nuclear Security Committee headed by the General Manager of the Nuclear Power and Siting Division was established to promote improvements in physical protection work



Field visits by President  
Tomoaki Kobayakawa



Cleaning the site to create environment  
better suited to detect intrusion  
(Nuclear Power & Plant Siting Division  
General, Fukuda)

#### Actively invest management resources

- A Security Management Department was set up inside the power plant to manage and run everything related to nuclear security
- The allocation of personnel involved in physical protection work was revised at the head office and the power plant
  - Added 30 people at the head office and power plant after the series of incidents
  - Hired two additional external experts in October 2022
- The equipment budget was expanded from 20 billion (as of March 2022) to 58 billion yen and enhanced all protection equipment related to the revision of the entry restricted area including the transfer of the main administrative building

# Status of response to address the series of incidents including a nuclear material protection incident

## Concrete measures ( Verification Policy 3 )

### Verification Policy 3 TEPCO response policy to 【Build a mechanism to make sure improvements are not temporary】

- Management will identify deteriorating trends and challenges at the early stages, swiftly and appropriately address the challenges, and be involved in establishing and promoting the improvements
- Initiatives where management is involved in improving nuclear security will be continued. The basic attitude that ensures improvements without losing substances will be reflected onto the Physical Protection Rules
- Improvements will be continued to be implemented with incorporating opinions from external parties such as Nuclear Security Expert Assessment Committee and the Nuclear Reform Monitoring Committee



Nuclear Security Expert Assessment Committee

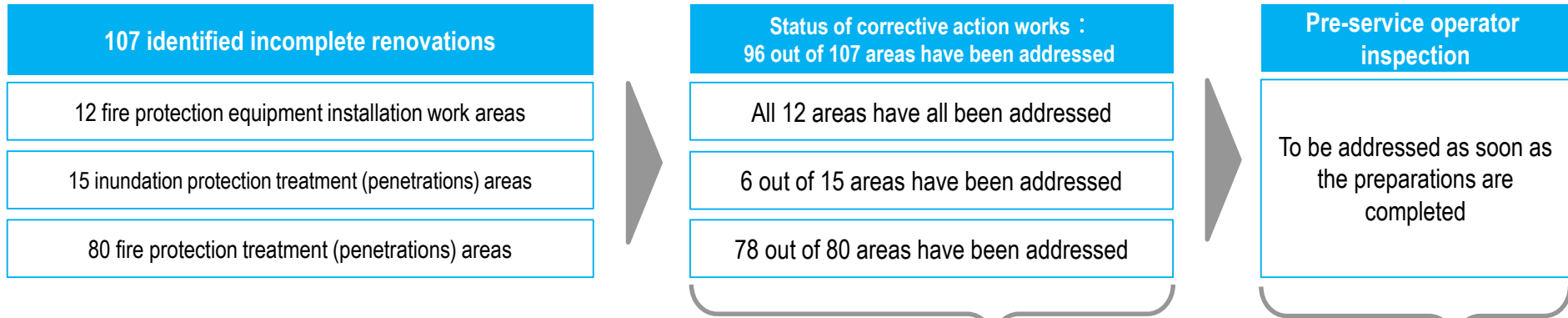
### 【Reference: Response to Nuclear Security Expert Assessment Committee Recommendations】

Nuclear Security Expert Assessment Committee recommendations	TEPCO response status
① Promote communication, mutual understanding and cooperation between the inspected and inspector	✓ <b>A mechanism will be developed where opinions are exchanged periodically</b> between company employees and the <b>physical protection managers</b> of major subcontractors
② Standardize identity documents	✓ <b>ID cards will be standardized when the system is next going to be updated</b> for requiring confirmation of the details of regulatory requirements and updating of hardware ✓ The timeline of equipment updating is being accelerated
③ Strengthen education of physical protection division and foster executives with nuclear security knowledge	✓ <b>The knowledge and skills that people in each role and position should obtain were organized and training</b> is being conducted accordingly ✓ <b>Communicating closely and training together with security agencies to improve response capabilities to various events</b>
④ Further promote measures against false alarms	✓ Analyzed and dealt with the cause of the false alarms with contractors ✓ <b>The latest technological trends were reviewed and the optimization of the location of sensors was discussed.</b> Currently <b>sensors are being updated and their locations being optimized</b>
⑤ Implement improvements together as a company (with ALL TEPCO)	✓ <b>Training was conducted on the lessons learned from the physical protection issues at KK on all employees.</b> These trainings will be continued

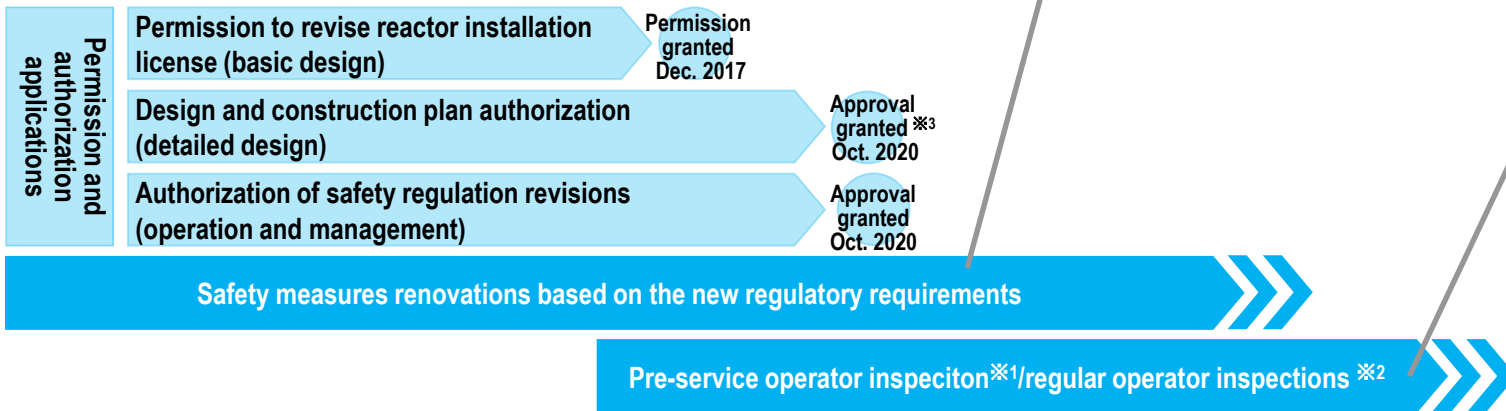


# General inspections implemented after discovering partially incomplete safety measure renovations

- ✓ Around of the comprehensive inspections of incomplete renovations that had been implemented under a project structure was completed in September 20, 2022. Including the areas announced in September 22, 2021, a total of 107 renovations areas were found to be incomplete.
- ✓ Going forward, in conducting the pre-service operator inspections,<sup>※1</sup> the quality of the construction work and all renovated areas will be checked, anything that requires additional response will be addressed.



## 【Reference: History of new regulatory requirements conformance review】



※1 Pre-service operator inspection: Inspections conducted by TEPCO to confirm that the safety measures work based on the new regulatory requirements are being implemented according to the approved design and construction plan

※2 Regular operator inspection: Inspections conducted by TEPCO regularly on whether the major equipment meet national government standards

※3 To reflect changes made to the design and construction plan and to correct some minor typographical errors, the revision authorization plan were applied to the NRA on December 2020 and approved on January 2021.(A notice of minor changes were also submitted on December 2020 and March 2021.)

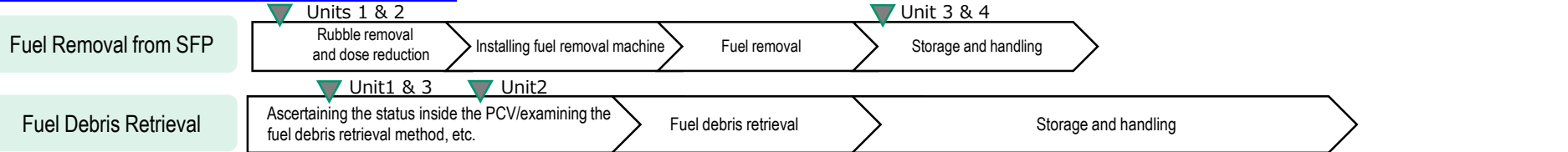
# The Current Status of Fukushima Daiichi Nuclear Power Station and Future Initiatives

# Current Situation and Status of Units 1 through 4

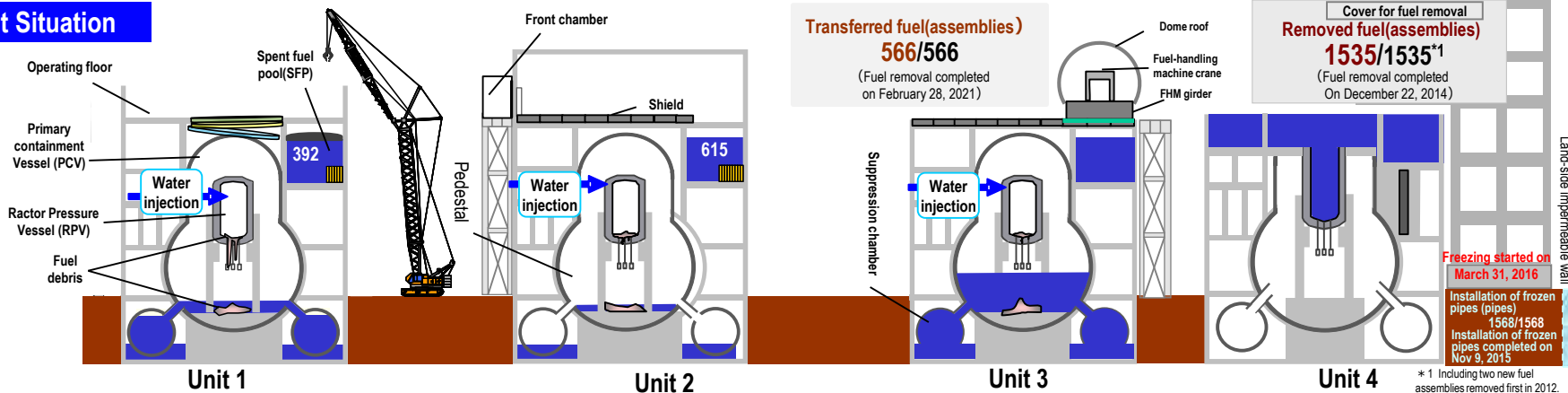
- ✓ Spent fuel removal from Units 3 & 4 is complete.
- ✓ Currently, preparation for Units 1 & 2 spent fuel removal and Units 1-3 fuel debris retrieval is being conducted.

## Main decommissioning work and steps

✓ Please visit our website for latest information about the progress of decommissioning, etc.



## Current Situation



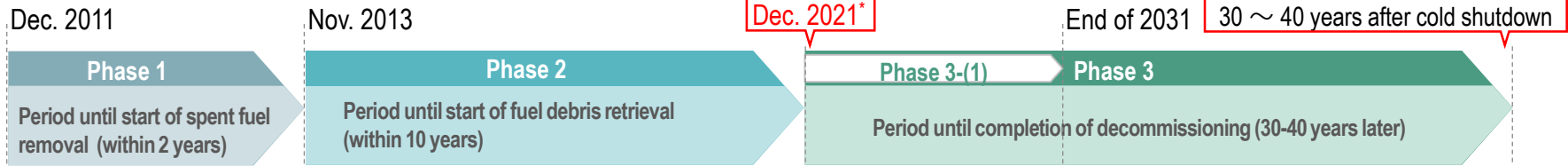
\* 1 Including two new fuel assemblies removed first in 2012.

<p>Works towards removal of spent fuel</p>	<ul style="list-style-type: none"> <li>- Outside of the premises, a temporary gantry is being assembled since late April 2021 as part of preparations to install a large cover. The basic assembly of the temporary gantry and the lower part of the frame is complete and the upper part of the frame is 50% complete as of September 2022.</li> <li>- On the premises, the anchor and base plate are being installed and the removal of the piping in the way was started in September 2022.</li> </ul>	<ul style="list-style-type: none"> <li>- Removal of the fuel exchanger operating room was started in August 2022 as it interferes with the installation of the new fuel handling equipment. This is expected to be completed in late November 2022.</li> <li>- Starting in August 2022, the steel bars for the fuel removal gantry have been carried onto the site. From late November 2022, the assembled blocks will be carried in too to assemble the steel bars on the premises.</li> </ul>	<ul style="list-style-type: none"> <li>- Spent fuel removal work was completed for Unit 3, the first among units in which the core had melted. (February 2021)</li> </ul>	<ul style="list-style-type: none"> <li>- Fuel removal from the SFP was completed in December, 2014.</li> <li>- The status of high dose equipment stored in the spent fuel pool was confirmed and a dose survey was conducted in May 2022 to verify that no new concerns have materialized. Detail has been discussed to start high-dose equipment retrieval in the second half of FY2024.</li> </ul>
<p>Works towards removal of fuel debris</p>	<ul style="list-style-type: none"> <li>- From June 7 to 11, 2022, the thickness of the deposits was measured using an underwater ROV-C for a remote-controlled robot.</li> <li>- Based on the information gathered by the remote controlled robots in the PCV internal investigation, training was started for the second half of the investigation. In the second half of the investigation, deposit debris detection and assessment, deposit sampling, and 3D mapping will be conducted.</li> </ul>	<ul style="list-style-type: none"> <li>- Improvements such as corrections to the control program are being made through the robot arm mockup test. An insulated room is being installed as field preparation.</li> <li>- To accommodate the effects of COVID-19 and to ensure the safety and reliability of the work, the trial removal was rescheduled to start in the second half of FY2023.</li> </ul>	<ul style="list-style-type: none"> <li>- As decommissioning progresses, samples are now able to be taken during the containment vessel internal investigation, similarly to the investigations in Units 1 and 2. Analysis of the samples taken from the containment vessel found information that may be helpful in accident progression analysis.</li> </ul>	

# Milestones and progress in the 5<sup>th</sup> revision of Mid-and-Long-Term Roadmap(December 2019)

## Maintain Overall Framework of Decommissioning Schedule

\*To accommodate the effects of COVID-19 and to ensure the safety and reliability of the work, the trial removal was rescheduled to start in the second half of FY2023.



## Major milestones

Field	Details		Period	Status
Contaminated Water management	Amount of contaminated water generated	Reduce to about 150m <sup>3</sup> /day	Within 2020	Completed
		Reduce to about 100m <sup>3</sup> / day or less	Within 2025	Have reduced the amount to approx. 130m <sup>3</sup> / day (FY2021)
	Stagnant water treatment	Complete stagnant water treatment in buildings <sup>※1</sup>	Within 2020 <sup>※1</sup>	Completed
		Reduce the amount of stagnant water in buildings to about a half of that in the end of 2020	FY2022-2024	Ongoing
Fuel removal	Complete of fuel removal from Unit 1 – 6		Within 2031	Completed removing fuel from Units 3 and 4
	Complete of installation of the large cover at Unit 1		Around FY 2023	Working on installing the large cover
	Start fuel removal from Unit 1		FY2027-2028	Same as above
	Start fuel removal from Unit 2		FY2024-2026	Completed ground improvement work
Fuel debris retrieval	Start fuel debris retrieval from the first Unit (Start from Unit 2, expanding the scale gradually)		Within 2021 *To accommodate the effects of COVID-19 and to ensure the safety and reliability of the work, the trial removal was rescheduled to start in the second half of FY2023.	Conducting performance verification tests for the trial retrieval device
Waste management	Technical prospects concerning the processing/ disposal policies and their safety		Around FY2021	Completed <sup>※3</sup>
	Eliminating temporary storage areas outside for rubble and other waste <sup>※2</sup>		Within FY2028 <sup>※2</sup>	Working on based on the storage maintenance plan

※3: Considered finalized as “Technical outlook on methods for treatment and disposal of solid waste, and their safety” was included in the “2021 Technical Strategy for Decommissioning of TEPCO Holdings’ Fukushima Daiichi Nuclear Power Station” published by the Nuclear Damage Compensation and Decommissioning Facilitation Corporation (published on October 29, 2021).



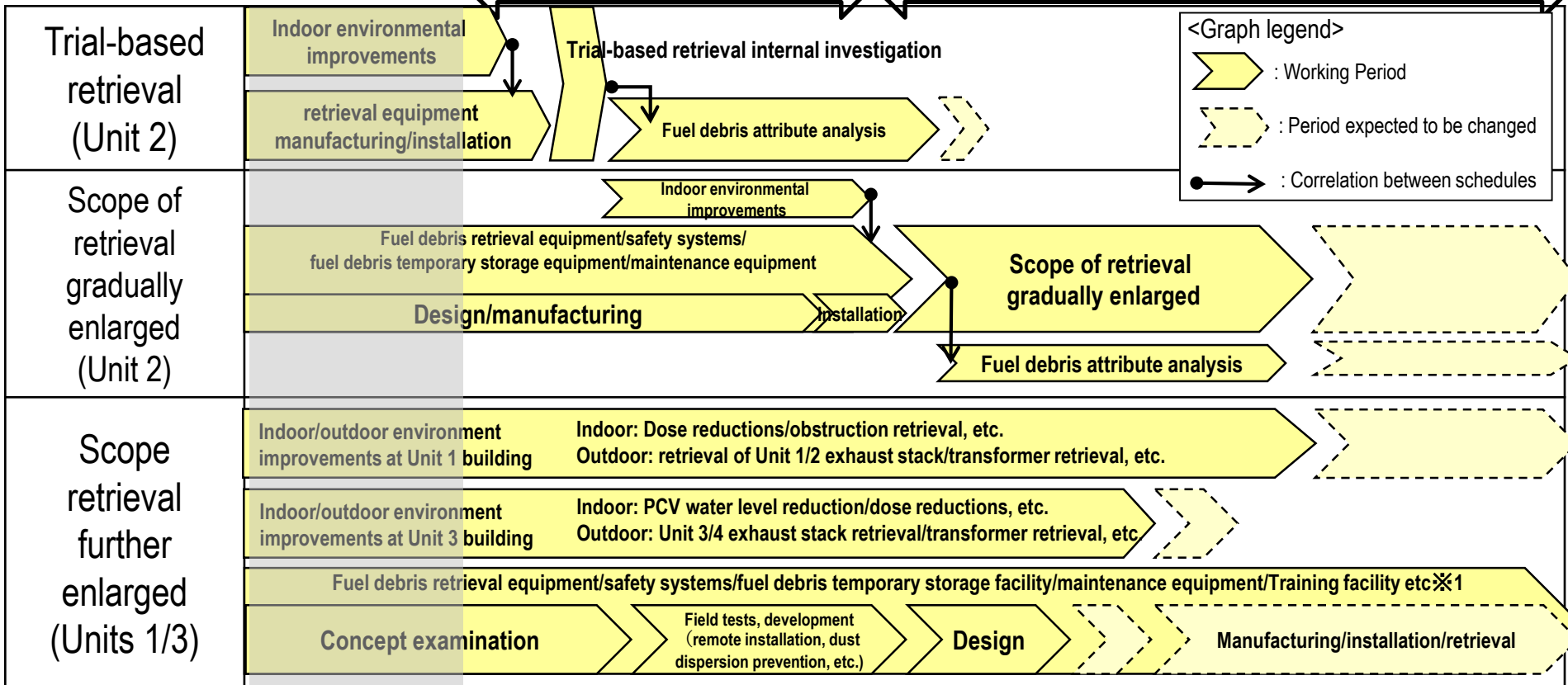
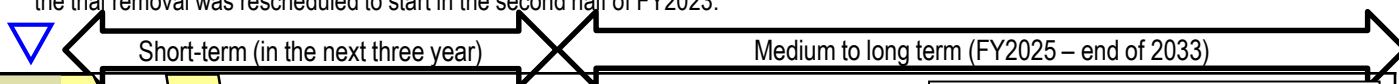
# Fuel Debris Retrieval Schedule and Process Based upon the Mid-to-Long Term Decommissioning Implementation Plan 2022

- ✓ The Decommissioning Long-term Implementation Plan 2022 was published on March 31, 2022 with the progress made in decommissioning work and new challenges identified in FY2021.
- ✓ Regarding Unit 2, to gradually expand the scale of retrieval from experimental retrieval, discussions for an RPV internal investigation in FY2024 will be conducted.

## Commencement of fuel debris retrieval from first reactor (during 2021)

\*To accommodate the effects of COVID-19 and to ensure the safety and reliability of the work, the trial removal was rescheduled to start in the second half of FY2023.

FY2021  
(actual)



<Graph legend>

- : Working Period
- : Period expected to be changed
- : Correlation between schedules

\* These tasks shall be carried out for Unit 3 first and then expanded for Unit 1

✓ Progress is being made on the three contaminated water initiatives detailed in the 5<sup>th</sup> revision of the Mid-and-long-term Roadmap (December 2019).

**(1) Initiative to promote contaminated water measures following the three basic policies**

**(1) Remove the contamination source, (2) don't let water near the contamination source, (3) don't let contaminated water leak out**

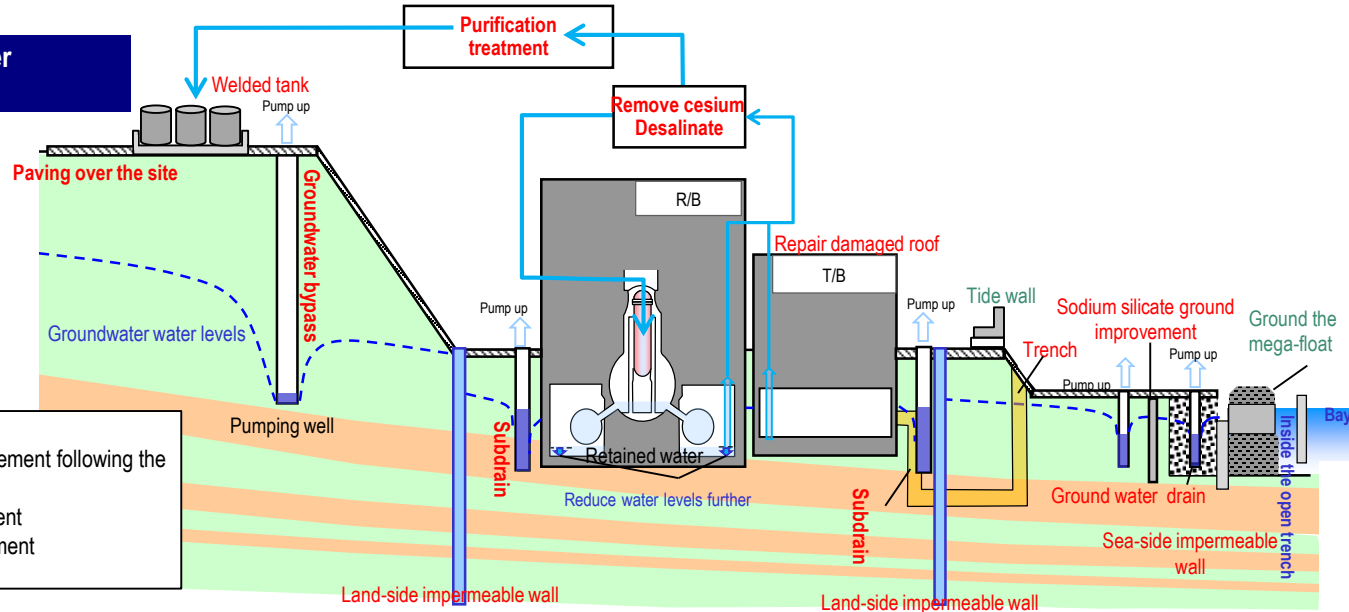
- The strontium treated water treated using equipment other than multi-nuclide removal equipment, is treated again using multi-nuclide removal equipment and stored in welded tanks.
- Groundwater levels around the building have been kept stable at low levels through the use of land-side impermeable walls, subdrains and other multi-layered contaminated water management measures. The amount of contaminated water generated in a rain storm has also been falling as a result of repairs of building roofs and the paving over of the site premises. The amount of contaminated water generated has fallen from approx. 540 m<sup>3</sup> /day (May 2014) from before the measures were implemented to 130m<sup>3</sup> /day in FY2021.
- More contaminated water reduction measures will be implemented to reduce levels to below 100 m<sup>3</sup> /day within 2025.

**(2) Initiatives for the completion of retained water treatment**

- Construction to build another retained water transfer equipment is underway to reduce building retained water levels according to plan.
- In 2020, treatment of retained water in buildings other than the reactor buildings for Units 1-3, main processing building, and high temperature incinerator building was completed.
- Going forward, water levels in the reactor building will be halved by FY2022 to FY2024 compared to end of 2020 levels.
- Measures to reduce dose levels in and stabilize the zeolite sandbags that were installed in the basement of the main processing building and high temperature incinerator building immediately after the Accident as part of contaminated water measures, are being discussed.

**(3) Initiative for the stable contaminated water management**

- As a tsunami countermeasure, the openings of buildings were closed and a tide wall is being built. As a countermeasure for torrential rain, sand bags will be installed to reduce the amount of water that will directly flow into the building and drainage channels will be fortified in a planned manner.



Red : ( 1 ) Promote contaminated water management following the three basic policies  
 Blue : ( 2 ) Completion of retained water treatment  
 Green : ( 3 ) Stable contaminated water management

## - 1 TEPCO Holdings' Approach to the Discharge of ALPS Treated Water

- ✓ The "Basic Policy on handling of ALPS treated water at the Tokyo Electric Power Company Holdings' Fukushima Daiichi Nuclear Power Station" (hereinafter government policy) was decided at the 5th Inter-Ministerial Council for Contaminated Water, Treated Water and Decommissioning Issues held on April 13, 2021.
- ✓ TEPCO will work to ensure that responses based on this government policy will be implemented.

### <TEPCO Holdings' Approach to the Discharge of ALPS Treated Water >

#### Basic position

- In discharging ALPS treated water\*<sup>1</sup> into the sea, we will ensure that the discharged water is safe by conforming to safety standards based on laws, and relevant international laws and practices, while conducting radiation impacts assessments on people and the environment\*<sup>2</sup>. Thus we will secure the safety of the public, the surrounding environment as well as agricultural, forestry and fishery products.

#### Strengthening and enhancing the scope of monitoring

- In discharging ALPS treated water into the sea, we will further expand and strengthen our sea area monitoring efforts to minimize the adverse impacts on reputation.
- Objectivity and transparency of monitoring will be secured by asking for the cooperation of experts and the people in the agricultural, forestry, and fishery industry.

#### Preventing leaks from tanks

- On-site tank that store ALPS treated water will be continuously monitored for leaks and will be maintained and managed appropriately in preparation for natural disasters.

#### Information dissemination and minimizing rumors

- To dispel concerns and foster understanding domestically and internationally, we will continuously provide accurate information in a highly transparent manner, regarding the impacts on the environment such as the results of measurements/analysis on the concentration of radioactive materials in the ALPS treated water before discharge; status of the discharge and the results of sea area monitoring; as well as the results of assessment of the radiation impact on the public and the environment.
- To minimize the adverse impacts on reputation, we will do our utmost in supporting industries that may be subject to potential adverse impacts on reputation at each stage from production, processing, distribution, and consumption (cultivating new markets).

#### Appropriate compensation

- If reputational damage is incurred as a result of the discharge of ALPS treated water despite these efforts, we will provide swift and appropriate compensation.

\*<sup>1</sup> Water that has been purified and treated in ALPS until levels of radioactive materials excluding tritium is lower than the regulatory standard value for safety.

\*<sup>2</sup> Includes any latent effects the ALPS treated water may have on the marine environment

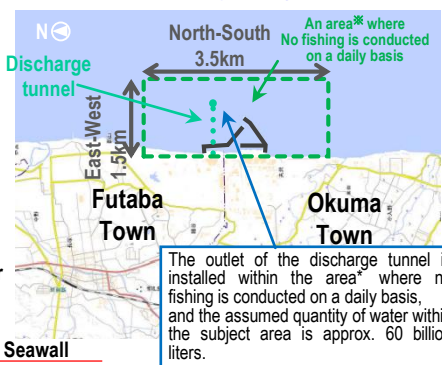
# TEPCO Holdings' Response Regarding the Handling of ALPS Treated Water

## - 2 Status of Review Regarding Design and Operation of Necessary Facilities and plan going forward

- ✓ In August 2021, the state of discussions on the handling of ALPS treated water was announced. In December 2021, the details of the discussions was compiled in the Application for Approval to Change the Implementation Plan for the Fukushima Daiichi Nuclear Power Station Specialized Nuclear Facilities and submitted to the NRA. This Plan was approved in July 22, 2022 and the work was started in August 4, 2022.
- ✓ To initiate discharge around spring of 2023 as set forth in the Basic Policy, we will proceed with the review by continuing to listen to opinions from people in the region and parties concerned carefully and reflecting them onto facility design and operations as appropriate.

### Overview of facilities for securing safety

Source: Developed by Tokyo Electric Power Company Holdings, Inc. based on the map developed by the Geospatial Information Authority of Japan (electronic territory web) <https://maps.gsi.go.jp/#13/37.422730/141.044970/&base=std&ls=std&disp=1&vs=c1f0h0k0l0u0t0z0r0s0m0ff>



**Measurement/confirmation facility (K4 tank group)**  
Comprised of three sets of tank groups each with the role of receiving, measurement/confirmation and discharge. In the measurement/confirmation stage, water that has been made uniform through circulation and stirring is sampled and analyzed (approx. 10,000m<sup>3</sup> × 3 groups)

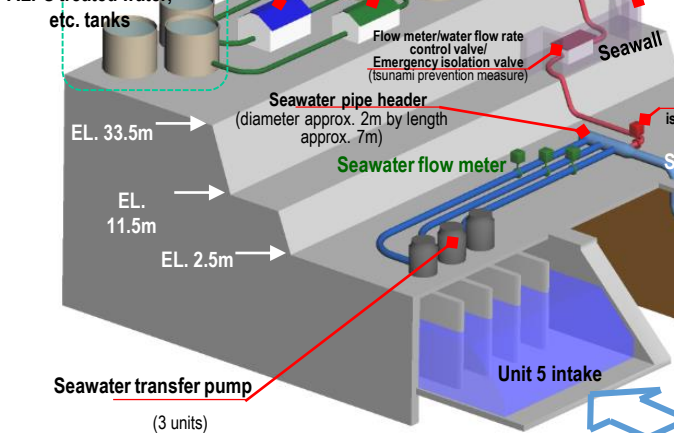
**Secondary treatment facility (newly installed reverse osmosis membrane facility)**

Secondary treatment of Treated water to be re-purified (sum of ratios of legally required concentrations, excluding tritium, is between 1 and 10)

**Secondary treatment facility (ALPS)**

Secondary treatment of Treated water to be re-purified (sum of ratios of legally required concentrations, excluding tritium, is 1 or higher)

ALPS treated water, etc. tanks



**Seawall**  
Installed around emergency isolation valves and transfer pipes

**Discharge vertical shaft (downstream water tank)**

For the time being, water will be discharged after it is confirmed via the shaft that ALPS treated water has been mixed and diluted with seawater.

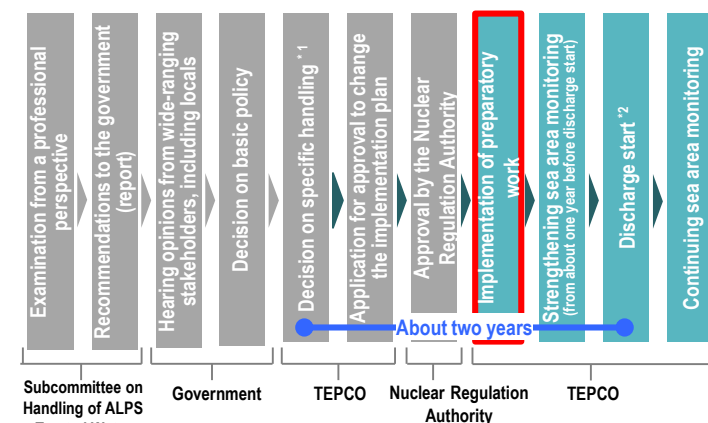
**Discharge vertical shaft (upstream water tank)**

\*Area where common fishery rights are not set

### Operation Method

- ✓ Ensure that radioactive materials other than tritium are purified before diluted discharge so that their concentration level sufficiently satisfies the regulatory standards. And ALPS treated water is diluted by more than 100 times with a large amount of seawater so that the concentration of tritium falls below the regulatory standards, and discharged through a discharge tunnel stretching 1 kilometer out to the sea.
- ✓ In the event of an abnormality, discharge will be stopped immediately by closing the emergency isolation valve and shutting down the pump.
- ✓ An assessment of the impact of radiation on people and the environment from ALPS treated water discharged into the sea based on the TEPCO's facility design and operation has found that impact would be minimal.

### Plan going forward



Subcommittee on Handling of ALPS Treated Water | Government | TEPCO | Nuclear Regulation Authority | TEPCO

\*1 Including radiation impact assessment on human beings and the environment  
\*2 Discharges into the sea will be conducted gradually during the initial phase



# Transition Plan to Achieve Carbon Neutrality

# Transition Plan to Achieve Carbon Neutrality

See p.40 of the TEPCO Integrated Report 2022 for details

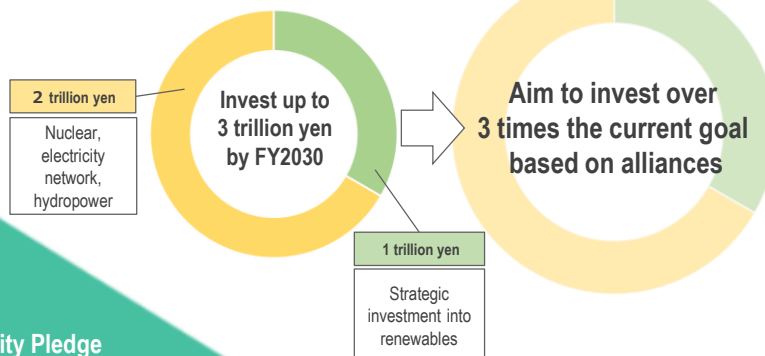
- The TEPCO Group is transitioning to the business model centered on carbon neutrality. In the TEPCO Integrated Report 2022 issued in October 6, 2022, it announced Transition Plan that reflects the revised TCFD guidance.
- Toward the 2030 interim goal, we aim to invest around 9 trillion yen in carbon neutrality, which is based on alliances, and grow the business leveraging the strength of “electricity” in the societal, network and supply sectors to create profits on the scale of 450 billion yen as announced in the Fourth Comprehensive Special Business Plan.

## Transition plan

## <Plans for carbon neutrality investment up to FY2030 >

### Baseline

CO2 emissions  
139,200,000 t



## The TEPCO's Carbon Neutrality Pledge

### FY2030 target

Reduce CO2 emissions of electricity delivered to customers by 50% in FY2030 compared to FY2013<sup>※1</sup>

### FY2050 challenge

Reduce CO2 emissions from the supply of energy to net zero by 2050

※1 From retail electricity in Scope1, 2, and 3.  
Emissions from Scope 1 and 2 are compared to FY2019.

### Progress

Reduction of 43% (preliminary values)

80,000,000 t

FY2021 Greenhouse gas emissions (10,000t)

Scope1	Scope2	Scope3
20	613	10,214

The portion of Scope 1, 2, and 3 emissions derived from electricity retail will be subject to the FY2030 CO2 reduction targets.

### Societal

- **Promote electrification :**  
Develop 9.7 billion kWh of electricity demand (households)
- **CO2 zero plan :**  
Contract 10 billion kWh by FY2030 (corporations)
- **Expand the deployment of EV rapid chargers :**  
Install 15,000 chargers by FY2025
- **Electrification of all TEPCO vehicles :**  
Ensure 100% of the fleet are electric vehicles by FY2030 (EV100)

### Network

- **Decentralize, optimize network use, and expand cross-regionalization**

### Supply

- **Turn renewables into a main power source :**  
Reduce CO2 by 600,000 ~ 800,000t<sup>※2</sup>  
Increase capacity to 6 ~ 7 GW by FY2030  
(Net income on the scale of 100 billion yen per year)
- **Use nuclear power :**  
Reduce CO2 by 2,500,000 t<sup>※2</sup>  
Improve profitability by 110 billion yen per year
- **Use high-efficiency thermal power including JERA :**  
Reduce CO2 by 2,000,000 t<sup>※3</sup>

※2 Per year, per 1000 MW (estimated by the FEPC)  
※3 Amount of annual CO2 emissions reduced for every 1% increase in thermal efficiency

### Goal

Reduction of 50%

69,600,000 t

Carbon  
Neutral

2013

2021

2030

2050

# Other Initiatives

## <TEPCO Holdings>

- July 19, 2022 Together with Michinori Holdings, Kanto Transportation Inc., Fukushima Transportation Inc., Ibaraki Transportation Inc., TEPCO Holdings started a demonstration project for the development and technology verification and demonstration verification of the energy management system for electric buses, selected for NEDO's Green Innovation Fund Project/Building a Smart Mobility Society Project to start FY2022
- July 21, 2022 Signed a basic agreement with Tokyu Land Corporation, TEPCO EP, and Family Net Japan, Inc. to jointly promote condominiums that use renewable energy, solar power generation, and storage batteries, and started introducing facilities and services based on this agreement sequentially starting from BRANZ Ushigome Yanagicho, the condominium that will go on market in October 2022
- September 5, 2022 Yamanashi Prefecture and Suntory Holdings Ltd. agreed to jointly work toward an environmentally-conscious and sustainable society and decided on the Suntory Natural Water South Alps Hakushu Plant and Suntory Hakushu Distillery as the demonstration sites of the large-scale P2G system being developed. This initiative is being advanced by the consortium Yamanashi Hydrogen Energy Society—comprised of TEPCO Holdings, Yamanashi Prefecture, Toray Industries, TEPCO EP, Hitachi Zosen Corporation, Siemens Energy, Kaji Technology Corporation, Miura Co., Ltd., and Nichicon Corporation—formed as the 1st Green Innovation Fund project selected by NEDO.
- October 7, 2022 Signed an agreement on exchanging information on nuclear energy with Fortum Power & Heat Oy, a Finnish energy company with a good track record in nuclear power plant operation, with the aim of further promoting the sharing of experience and practices that contribute to improving nuclear safety

## <TEPCO Power Grid>

- August 3, 2022 Started sharing information with Yahoo Japan Corporation for the dissemination of "Electricity Forecast" information on electricity supply and demand in the TEPCO service area, and "Power Outage Information" on power outages and the outlook for restoration of power outages
- August 10, 2022 The "Uchisaiwaicho 1-chome Urban Area South District Category I Residential Area Redevelopment Project" that TEPCO Power Grid is participating in with Dai-ichi Life Insurance Company, Ltd., Chuo-Nittochi Co., Ltd., Tokyo Century Corporation, and SPC TF Uchisaiwaicho was approved for construction by the Governor of Tokyo
- August 25, 2022 Obtained the ISO 9001 certification, the international standard for quality management systems, for the business processes of the Grid Planning Division which is in charge of planning electric power grids
- August 26, 2022 To participate in the Anglo-German Interconnector Neukonnnect project, the first international interconnection transmission line project connecting the United Kingdom and Germany, signed a share transfer agreement with FI1 Limited which owns shares in the project developer, through its subsidiary TEPCO Power Grid UK Limited (concluded on August 24, 2022)
- September 21, 2022 Established Agile Energy with the aim of further promoting the introduction of renewable energy by operating a cutting edge "distributed computing" system, which uses the electricity generated from renewable energy sources, to generate and provide digital value and environmental value (commenced operations on October 1, 2022)



## <TEPCO Energy Partner>

- July 14, 2022 The PPA Service "Enekari Plus" was adopted by Gunma Prefecture for "Gunma Zero Upfront Cost Residential Photovoltaic Power Generation Equipment Project" where solar panels and storage batteries can be installed with no upfront cost and used for a fixed monthly fee
- July 20, 2022 Together with TEPCO HomeTech, Inc., launched the "Solar Debut Support Campaign" to support customers introducing solar power generation systems, storage batteries, Ohisama Eco-Cute and other equipment that contribute to energy conservation and disaster prevention in households (from July 20, 2022 to September 30, 2022)
- July 25, 2022 SBI Sumishin Net Bank began offering special preferential interest rates on mortgage loans for the construction and purchase of homes equipped with solar power generation equipment through "Enekari Plus" or TEPCO HomeTech's "Enekari"
- August 10, 2022 Among the actions under the 2022 TEPCO Energy Conservation Program which aims to support energy conservation efforts in the home, expanded the scope and extended the implementation period of the 2022 Energy Conservation Challenge, such as awarding benefits to customers who participated and met certain criteria in subsidy programs for energy conservation hosted by the Ministry of Economy, Trade and Industry and the Tokyo Metropolitan Government. (The 2022 Energy Conservation Challenge is from July 1, 2022 to March 31, 2023)
- August 18, 2022 Started offering renovation plans that include the installation of "Enekari Plus" and "T-Roof," a roofing material provided by LIXIL Corporation, to customers with owned homes (sales to begin on August 22, 2022).
- August 19, 2022 Aiming to further contribute to Japanese companies based in Thailand and neighboring countries in achieving carbon neutrality and expanding their business, TEPCO Energy Partner International (Thailand) Co., Ltd. raised 13 million Thai baht (approximately 50 million yen) through shareholder allocation of new shares
- August 22, 2022 Procured non-FIT non-fossil certificates derived from the Saku Power Plant (hydroelectric power source) owned by TEPCO RP and supplies power with the certificates to some municipal facilities in Shibukawa-shi (contract period is from September 1, 2022 to August 31, 2023)
- September 9, 2022 Together with Invoice, Inc., launched the TEPCO Billing Collection Service that consolidates multiple utility bills into one and processes payments on behalf of companies with multiple store locations (service to begin in early October 2022)
- September 20, 2022 As part of further expansion and revision of the 2022 TEPCO Energy Saving Program 2022, TEPCO Energy Partner announced initiatives to support energy conservation to reduce the burden on corporate and residential customers
- September 28, 2022 Together with Nomura Real Estate Solutions Co., Ltd., signed a business alliance for Nomura to broker "Enekari Plus" (brokering to begin on October 1, 2022)

## <TEPCO Renewable Power>

- September 8, 2022 Issued 30 billion yen worth of TEPCO Renewable Power Corporation No.3 Green Bonds (5-year bonds) (issued on September 14, 2022)
- September 29, 2022 The Environmental Impact Statement for Offshore Wind Power Generation Project, Off the Coast of Oga-shi, Katagami-shi, and Akita-shi, of Akita Prefecture (tentative name), which outlines environmental concerns in developing promising sites for offshore wind power generation off the coast of Oga-shi, Katagami-shi, and Akita-shi, Akita Prefecture, was sent to the Minister of Economy, Trade and Industry and the Governor of Akita Prefecture and was available for public inspection at the relevant administrative agencies (inspection period was from September 30 to October 31, 2022)