FY2018 1st Quarter Financial Results (April 1 – June 30, 2018)

Tokyo Electric Power Company Holdings, Inc.

TEPCO

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.

Overview of FY2018 1st Quarter Financial Results

(Released on July 30, 2018)

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Key Points of FY2018 1st Quarter Financial Results

< FY2018 1st Quarter Financial Results >

- Although electricity sales volume from TEPCO group companies decreased, operating revenue and ordinary income increased due to an increase in transmission revenue from non-TEPCO group companies and continued group-wide cost reduction efforts and other measures.
- Ordinary income and net income showed a profit - the former for five, the latter for four consecutive years.

< FY2018 Full-year Financial Forecasts >

- There are no revisions to the projections released on April 26, 2018.

1. Consolidated Financial Results

(Unit: Billion kWh)

	FY2018 Apr-Jun (A)	FY2017 Apr-Jun (B)	Comparison (A)-(B)	Comparison (A)/(B) (%)
Electricity Sales Volume	52.6	55.5	-2.9	94.8

(Unit: Billion kWh)

	FY2018 Apr-Jun (A)	FY2017 Apr-Jun (B)	Comparison (A)-(B)	Comparison (A)/(B) (%)
Operating Revenue	1,354.0	1,313.3	40.6	103.1
Operating Income/ Loss	68.8	67.6	1.2	101.9
Ordinary Income/ Loss	67.3	55.6	11.7	121.1
Extraordinary Income	—	128.6	-128.6	—
Extraordinary Loss	46.6	36.0	10.6	—
Net Income attributable to owners of parent	16.4	148.0	-131.6	11.1

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2. Key Points of Each Company

< TEPCO Holdings >

- Ordinary income increased due to an increase in dividend income and other areas.

< TEPCO Fuel & Power >

- Ordinary income increased due to a decrease in fixed costs from cost reduction efforts, increase in profit from subsidiaries, and other efforts.

< TEPCO Power Grid >

- Although transmission revenue decreased, ordinary income increased due to a decrease in outsourcing and maintenance expenses, etc.

< TEPCO Energy Partner >

- Ordinary income decreased due to a decline in electricity sales volume caused by intensifying competition.

3. Overview of Each Company

(Unit: Billion kWh, yen/dollar)

	FY2018 Apr-Jun	FY2017 Apr-Jun	Comparison
Area Demand	61.8	63.1	- 1.2
Foreign Exchange Rate (TTM)	109.1	111.1	- 2.0

(Unit: Billion Yen)

	FY2018 Apr-Jun (A)	FY2017 Apr-Jun (B)	Comparison (A)-(B)	(A)/(B) (%)
Operating Revenue	1,354.0	1,313.3	40.6	103.1%
TEPCO Holdings	194.1	202.1	-7.9	96.1%
TEPCO Fuel & Power	414.6	382.3	32.2	108.4%
TEPCO Power Grid	393.0	396.8	-3.7	99.1%
TEPCO Energy Partner	1,270.0	1,258.0	12.0	101.0%
Adjustments	-917.8	-925.9	8.0	–
Ordinary Income /Loss	67.3	55.6	11.7	121.1%
TEPCO Holdings	153.8	146.5	7.3	105.0%
TEPCO Fuel & Power	22.4	1.6	20.8	–
TEPCO Power Grid	38.7	22.1	16.6	174.9%
TEPCO Energy Partner	-8.3	10.4	-18.8	–
Adjustments	-139.4	-125.2	-14.2	–

- Decrease in transmission revenue -7.6
- Decrease in fixed costs +11.8
- Increase in profit from subsidiaries +7.1
- Decrease in outsourcing and maintenance expenses +19.5
- Decrease in electricity sales volume -2.9 billion kWh

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4. Consolidated Extraordinary Income/ Loss

(Unit: Billion Yen)

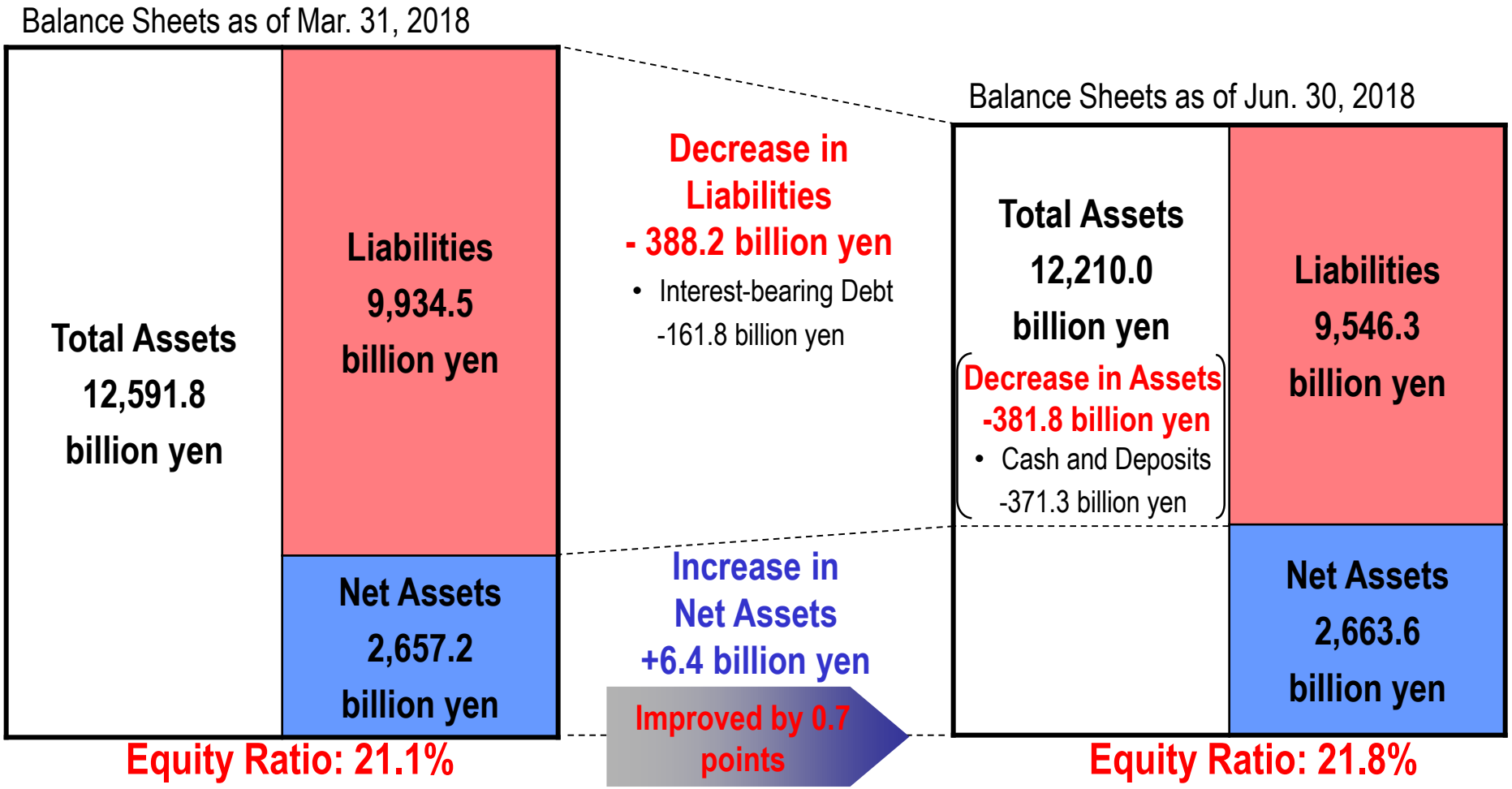
	FY2018 Apr-Jun	FY2017 Apr-Jun	Comparison
Extraordinary Income/ Loss	**-46.6**	**92.5**	**-139.2**
Extraordinary Income	**—**	**128.6**	**-128.6**
Grants-in-aid from NDF*	—	128.6	-128.6
Extraordinary Loss	**46.6**	**36.0**	**10.6**
Expenses for Nuclear Damage Compensation	46.6	36.0	10.6

* Nuclear Damage Compensation and Decommissioning Facilitation Corporation

<Extraordinary Loss>
Expenses for Nuclear Damage Compensation
- Increase in the estimated amount of compensation for damages due to the restriction on shipment and damages due groundless rumor etc., and other factors

5. Consolidated Financial Position

- **Total assets decreased 381.8 billion yen primarily due to decreases in cash and deposits.**
- **Total liabilities increased 388.2 billion yen primarily due to decreases in the amount of interest-bearing debt.**
- **Equity ratio improved by 0.7 points.**



6. FY2018 Full-Year Financial Forecasts

(Unit: Billion Yen)

	FY2018 Projections (released on Jul. 30, 2018)	FY2018 Projections (released on Apr. 26, 2018)	FY2017 Results
Operating Revenue	6,099	6,099	5,850.9
Ordinary Income/ Loss	285	285	254.8
Extraordinary Income/ Loss	—	—	73.8
Net Income attributable to owners of parent	252	252	318.0

* FY2018 Projections released on July 30, 2018 have no change from those released on April 26, 2018.

* Projections for Ordinary Income and Net Income attributable to owners of parent reflect a provisional special contribution of 50 billion yen to the NDF for compensation.

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<Reference> Key Factors Affecting Performance（Results）

Area Demand

(Unit: Billion kWh)

	FY2018 Apr-Jun (A)	FY2017 Apr-Jun (B)	Comparison	
			(A)-(B)	(A)/(B) (%)
Area Demand	61.8	63.1	-1.2	98.0

Foreign Exchange Rate / CIF

	FY2018 Apr-Jun (A)	FY2017 Apr-Jun (B)	(A)-(B)
Foreign Exchange Rate (Interbank, yen/dollar)	109.1	111.1	-2.0
Crude Oil Prices (All Japan CIF, dollar/barrel)	70.6	53.3	17.3
LNG Prices (All Japan CIF, dollar/barrel)	55.8	48.2	7.6

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<Reference> Key Factors Affecting Performance (Financial Forecasts)

Key Factors Affecting Performance

	FY2018 Projections (released on Jul. 30, 2018)	FY2018 Projections (released on Apr. 26, 2018)
Electricity Sales Volume (Billion kWh)	232.4	233.4
Crude Oil Prices (All Japan CIF; dollars per barrel)	Approx. 74	Approx. 65
Foreign Exchange Rate (Interbank; yen per dollar)	Approx. 113	Approx. 115
Nuclear Power Plant Capacity Utilization Ratio (%)	—	—

Financial Impact (Sensitivity)

(Unit: Billion Yen)

	FY2018 Projections (released on Jul. 30, 2018)	FY2018 Projections (released on Apr. 26, 2018)
<Fuel Expenses>		
Crude Oil Prices (All Japan CIF; 1 dollar per barrel)	Approx. 18	Approx. 18
Foreign Exchange Rate (Interbank; 1 yen per dollar)	Approx. 12	Approx. 12
Nuclear Power Plant Capacity Utilization Ratio (1%)	—	—
<Interest Paid>		
Interest Rate 1% (Long-term / Short-term)	Approx. 28	Approx. 28

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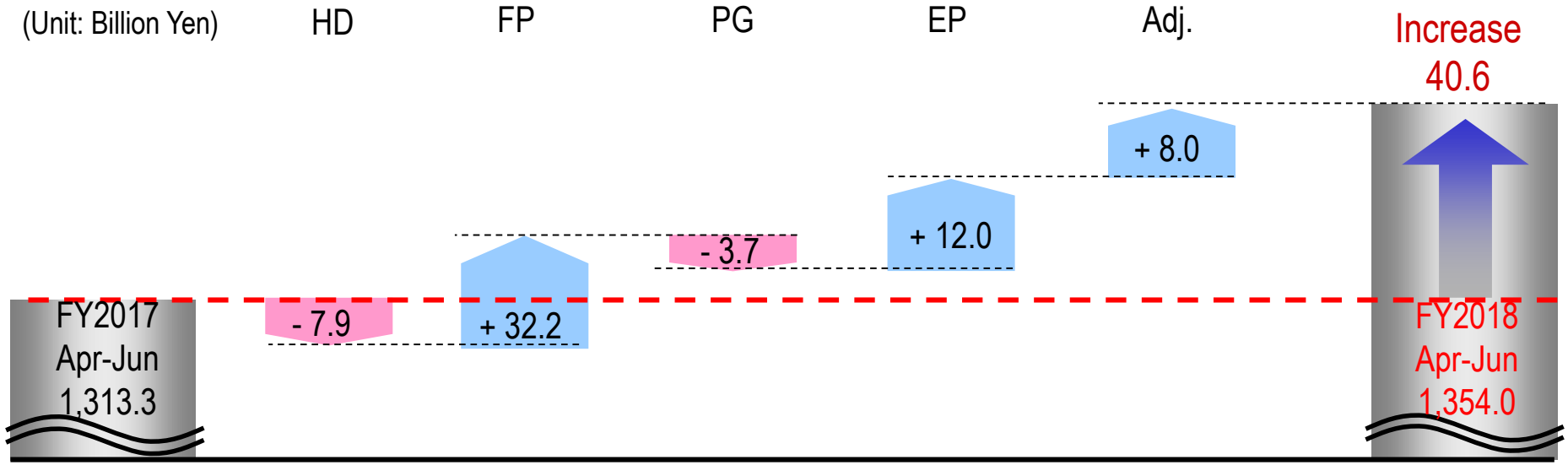
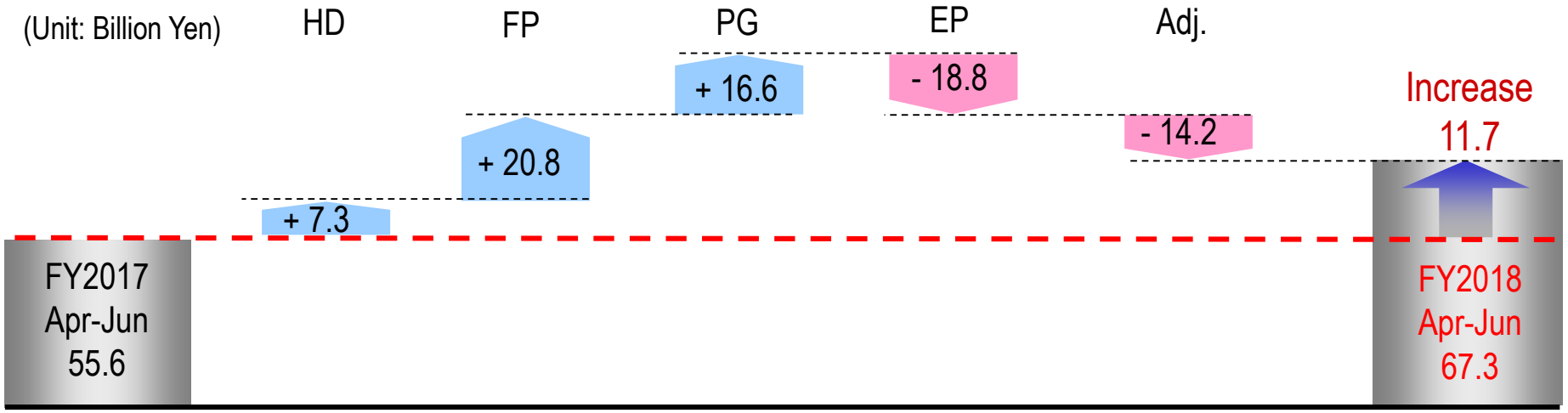
<Reference> Consolidated Ordinary Income/ Loss
- Year on Year Comparison of Each Company

Ordinary Revenue



Ordinary Income / Loss



<Reference> Consolidated Ordinary Revenue

(Unit: Billion Yen)

	FY2018 Apr-Jun (A)	FY2017 Apr-Jun (B)	Comparison (A)-(B)	Comparison (A)/(B) (%)
(Operating Revenue)	**1,354.0**	**1,313.3**	**40.6**	**103.1**
Electricity Sales Revenue	1,040.3	1,055.4	-15.1	98.6
Power Sold to Other Utilities and Suppliers	64.4	47.9	16.4	134.3
Other Revenue	229.3	200.0	29.3	114.7
(Reprinted) Grant under Act on Procurement of Renewable Electric Energy	114.8	104.6	10.2	109.8
(Reprinted) Transmission Revenue	62.5	44.6	17.8	140.1
Subsidiaries/ Affiliated Companies	38.3	22.3	16.0	171.8
Ordinary Revenue	1,372.5	1,325.8	46.6	103.5

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<Reference> Consolidated Ordinary Expenses

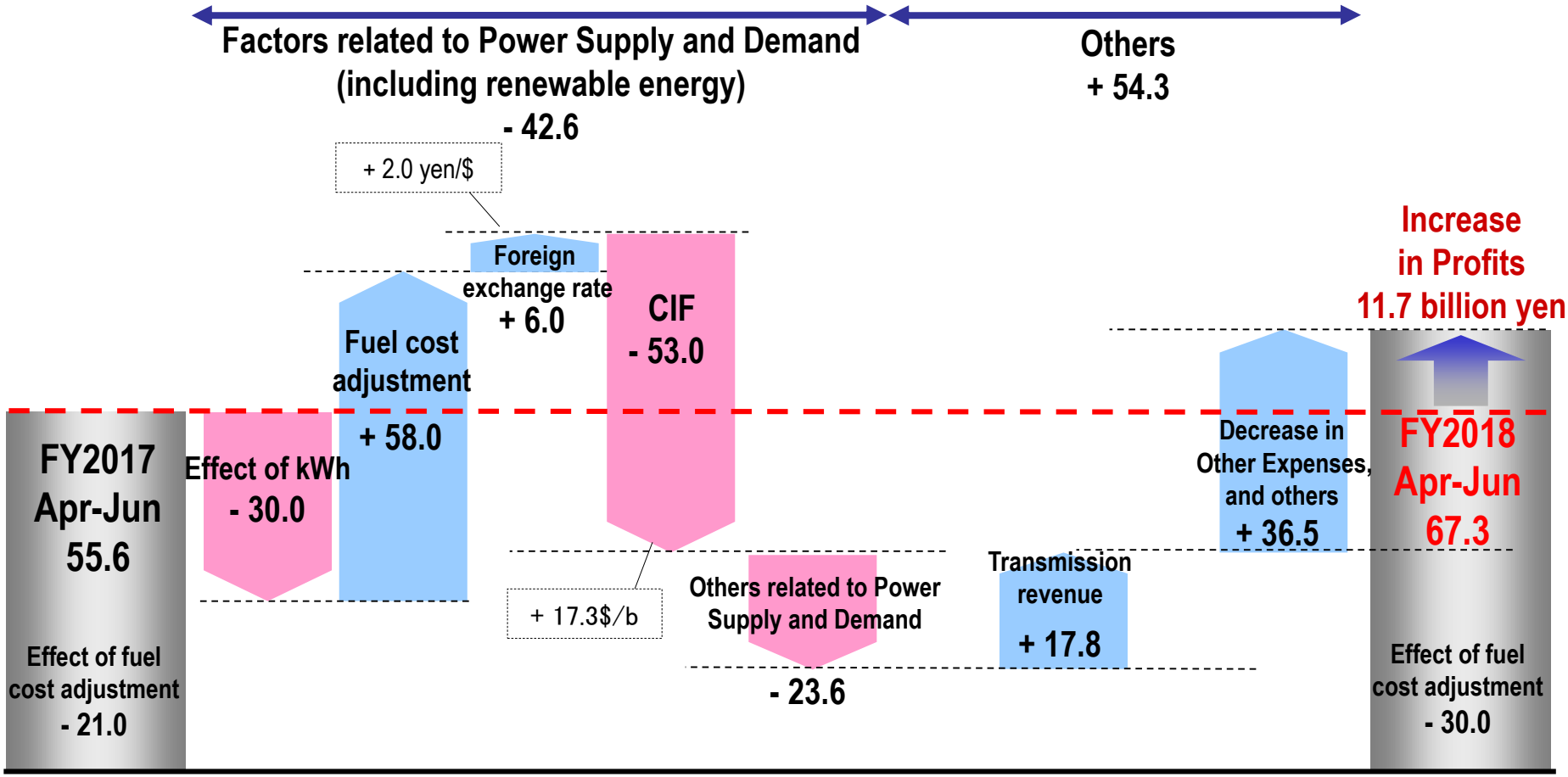
(Unit: Billion Yen)

	FY2018 Apr-Jun (A)	FY2017 Apr-Jun (B)	Comparison (A)-(B)	Comparison (A)/(B) (%)
Personnel Expenses	79.3	85.4	-6.1	92.8
Fuel Expenses	302.5	277.0	25.5	109.2
Maintenance Expenses	55.4	65.4	-9.9	84.8
Depreciation	130.7	135.5	-4.7	96.5
Power Purchasing Costs	318.0	297.6	20.4	106.9
Interest Paid	13.8	17.1	-3.3	80.7
Taxes, etc.	70.5	72.3	-1.8	97.5
Nuclear Back-end Costs	16.6	12.2	4.3	135.7
Other Expenses	291.3	290.1	1.1	100.4
(Reprinted) Payment under Act on Procurement of Renewable Electric Energy	131.5	123.3	8.1	106.6
Subsidiaries/ Affiliated Companies	26.5	17.3	9.2	153.1
Ordinary Expenses	1,305.1	1,270.2	34.8	102.7
(Operating Income)	**(68.8)**	**(67.6)**	**(1.2)**	**101.9**
Ordinary Income / Loss	**67.3**	**55.6**	**(11.7)**	**121.1**

<Reference> Consolidated Ordinary Income/ Loss –Year on Year Comparison

Ordinary Income / Loss

(Unit: Billion Yen)



Supplemental Material

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FY2018 1st Quarter Financial Results

Detailed Information

Consolidated Statements of Income

(Unit: Billion Yen)

	FY2018 Apr-Jun (A)	FY2017 Apr-Jun (B)	Comparison (A)-(B)	Comparison (A)/(B) (%)
Operating Revenue	1,354.0	1,313.3	40.6	103.1
Operating Expenses	1,285.1	1,245.7	39.4	103.2
Operating Income / Loss	**68.8**	**67.6**	**1.2**	**101.9**
Non-operating Revenue	18.4	12.5	5.9	147.4
Investment Gain under the Equity Method	15.6	8.4	7.1	185.1
Non-operating Expenses	19.9	24.5	-4.5	81.4
Ordinary Income / Loss	**67.3**	**55.6**	**11.7**	**121.1**
Reserve for Fluctuation in Water Levels	0.0	—	0.0	—
Reserve for preparation of depreciation of nuclear power construction	0.0	0.0	-0.0	99.7
Extraordinary Income	—	128.6	-128.6	—
Extraordinary Loss	46.6	36.0	10.6	—
Income Tax, etc.	4.1	-0.0	4.2	—
Net Income attributable to non-controlling interests	0.0	0.1	-0.0	10.5
Net Income attributable to owners of parent	**16.4**	**148.0**	**-131.6**	**11.1**

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Consolidated Balance Sheets

(Unit: Billion Yen)

	Jun. 30 2018 (A)	Mar. 31 2018 (B)	Comparison (A)-(B)	Comparison (A)/(B) (%)
Total Assets	**12,210.0**	**12,591.8**	**-381.8**	**97.0**
Fixed Assets	10,343.2	10,369.6	-26.4	99.7
Current Assets	1,866.7	2,222.1	-355.4	84.0
Liabilities	**9,546.3**	**9,934.5**	**-388.2**	**96.1**
Long-term Liability	5,298.5	5,274.3	24.2	100.5
Current Liability	4,240.2	4,652.7	-412.5	91.1
Reserve for Fluctuation in Water Levels	0.5	0.5	0.0	101.5
Reserve for Preparation of the Depreciation of Nuclear Plants Construction	6.9	6.8	0.0	100.7
Net Assets	**2,663.6**	**2,657.2**	**6.4**	**100.2**
Shareholders' Equity	2,660.6	2,644.2	16.4	100.6
Accumulated Other Comprehensive Income	-3.7	7.1	-10.8	—
Share Acquisition Rights	0.0	0.0	—	—
Non-controlling Interests	6.7	5.8	0.8	114.2

<Interest-bearing debt outstanding> (Unit: Billion Yen)

	Jun. 30 2018 (A)	Mar. 31 2018 (B)	(A)-(B)
Bonds	2,069.1	2,230.8	-161.7
Long-term Debt	2,119.0	2,210.8	-91.8
Short-term Debt	1,672.9	1,581.2	91.7
Total	5,861.1	6,022.9	-161.8

<Reference>

	FY2018 Apr-Jun (A)	FY2017 Apr-Jun (B)	(A)-(B)
ROA(%)	0.6	0.6	–
ROE(%)	0.6	6.2	−5.6
EPS(Yen)	10.28	92.42	−82.14

ROA: Operating Income / Average Total Assets

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

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Financial Impact of the Great East Japan Earthquake

(Unit: Billion Yen)

Item	FY2010 to FY2017	FY2018 Apr-Jun	Cumulative Amount
◇Grants–in-aid from Nuclear Damage Compensation and Decommissioning Facilitation Corporation			
○Grants-in-aid based on Nuclear Damage Compensation and Decommissioning Facilitation Corporation Act	* 7,033.3	—	* 7,033.3
◆Loss on Disaster			
●Expenses and/ or losses for Fukushima Daiichi Nuclear Power Station Units 1 through 4	1,047.2	0.7	1,047.9
●Other expenses and/ or losses	386.9	-0.0	386.8
◆Loss on Disaster Sub Total: (A)	1,434.1	0.6	1,434.8
◇Gain on reversal of provision for loss on disaster (Extraordinary Income): (B) ・Difference of the restoration cost caused by re-estimation due to decommissioning of Fukushima Daiichi Nuclear Power Station Units 5 and 6	32.0	—	32.0
Total: (A)-(B)	1,402.1	**0.6**	1,402.8
◆Loss on Decommissioning of Fukushima Daiichi Nuclear Power Station Units 5 and 6			
●Expenses and/ or losses for decommissioning of Fukushima Daiichi Nuclear Power Station Units 5 and 6	39.8	—	39.8
◆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.	2,059.8	3.1	2,063.0
●Compensation for business damages ・Opportunity losses on businesses, Damages due to the restriction on shipment, Damages due to groundless rumor, Package compensation and Indirect business damages etc.	2,968.3	21.3	2,989.7
●Other expenses ・Damages due to decline in value of properties, Housing assurance damages, Decontamination costs and Contribution to the Fukushima Pref. Nuclear Accident Affected People and Child Health Fund etc.	5,363.9	22.1	5,386.1
● Amount of indemnity for nuclear accidents from the Government	-188.9	—	-188.9
●Grants-in-aid corresponding to decontamination expenses	-3,167.2	—	-3,167.2
Total	7,036.0	**46.6**	7,082.6

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 expenses of 3,167.2 billion yen respectively.

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Key Factors Affecting Performance and Financial Impact

Key Factors Affecting Performance

	FY2018 Apr-Jun Results	FY2018 Full-year Projections (As of Jul. 30)	FY2018 Full-year Projections (As of Apr. 26)	【Reference】FY2017 Actual Performance Apr-Jun	【Reference】FY2017 Actual Performance Full-year
Electricity Sales Volume (billion kWh)	52.6	232.4	233.4	55.5	240.3
Crude Oil Prices (All Japan CIF; dollars per barrel)	70.6	Approx. 74	Approx. 65	53.3	57.0
Foreign Exchange Rate (Interbank; yen per dollar)	109.1	Approx. 113	Approx. 115	111.1	110.9
Nuclear Power Plant Capacity Utilization Ratio (%)	-	-	-	-	-

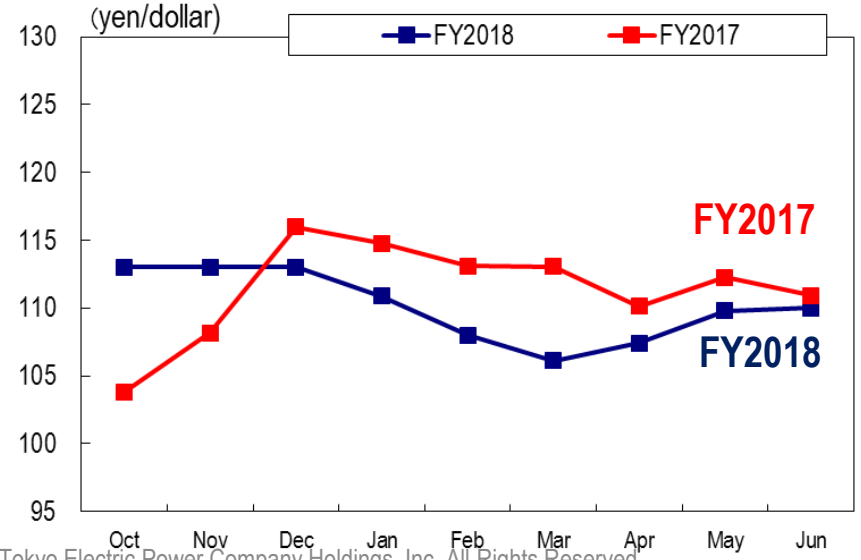
Financial Impact (Sensitivity)

(Unit: Billion Yen)

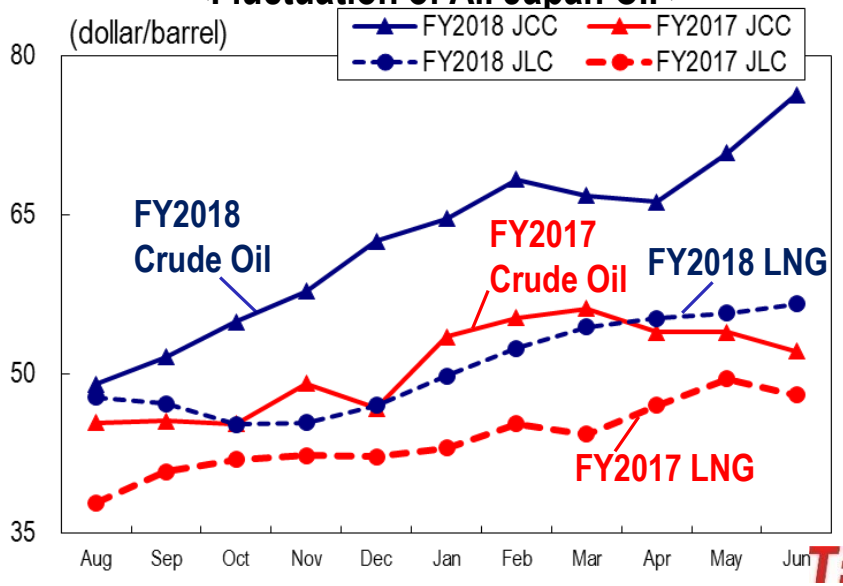
	FY2018 Full-year Projections (As of Jul. 30)	FY2018 Full-year Projections (As of Apr.26)	【Reference】FY2017 Full-year Actual Performance
Crude Oil Prices (All Japan CIF; 1 dollar per barrel)	Approx. 18	Approx. 18	Approx. 15
Foreign Exchange Rate (Interbank; 1 yen per dollar)	Approx. 12	Approx. 12	Approx. 11
Nuclear Power Plant Capacity Utilization Ratio (1%)	-	-	-
Interest Rate (1%)	Approx. 28	Approx. 28	Approx. 28

Note: Crude Oil Prices, Foreign Exchange Rate and Nuclear Power Plant Capacity Utilization Ratio of Financial Impact reflect the impact on annual fuel expenses. Interest Rate reflects the incremental amount of interest.

<Fluctuation of Foreign Exchange Rate>



<Fluctuation of All Japan CIF>



Seasonal Breakdown of Electricity Sales Volume and Total Power Generated

Electricity Sales Volume

Unit: Billion kWh

	FY2018			
	Apr	May	Jun	Apr-Jun
Lighting	5.57	5.24	4.78	15.60
Power	12.10	11.98	12.93	37.01
Total	17.67	17.23	17.71	52.60

	FY2017				[Ref.]Year-on-year
	Apr	May	Jun	Apr-Jun	Comparison (Apr-Jun)
Lighting	7.17	5.75	4.91	17.83	87.4%
Power	12.49	12.20	12.98	37.67	98.3%
Total	19.66	17.95	17.89	55.50	94.8%

Total Power Generated

Unit: Billion kWh

	FY2018			
	Apr	May	Jun	Apr-Jun
Hydroelectric	1.15	1.28	0.94	3.37
Thermal	12.53	12.56	14.01	39.11
Nuclear	-	-	-	-
Renewable etc.	0.01	0.01	0.01	0.02
Total	13.69	13.84	14.96	42.50

	FY2017				[Ref.]Year-on-year
	Apr	May	Jun	Apr-Jun	Comparison (Apr-Jun)
Hydroelectric	1.02	1.20	1.03	3.25	103.6%
Thermal	13.64	12.69	13.15	39.47	99.1%
Nuclear	-	-	-	-	-
Renewable etc.	0.01	0.00	0.00	0.02	149.1%
Total	14.67	13.89	14.18	42.73	99.4%

Fuel Consumption Data

Fuel Consumption

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Apr-Jun	【Reference】FY2017 Apr-Jun
LNG(million t)	21.55	21.06	20.80	4.53	4.20
Oil (million kl)	2.48	2.05	0.91	0.05	0.13
Coal (million t)	8.34	8.14	8.31	2.18	2.14

Note: The oil data is total of crude oil and heavy oil, not including gas oil.

Fuel Procurement

Oil

Crude Oil (Unitthousand kl)

	FY2015	FY2016	FY2017
Indonesia	464	49	-
Brunei	-	-	-
Vietnam	-	-	-
Australia	-	-	-
Sudan	41	-	-
Gabon	-	-	-
Chad	111	-	-
Other	0	0	156
Total imports	616	49	156

Heavy Oil (Unitthousand kl)

	FY2015	FY2016	FY2017
Total imports	1,540	1,578	700

LNG

(Unitthousand t)

	FY2015	FY2016	FY2017
Brunei	1,940	2,095	2,097
Das	4,986	4,683	4,613
Malaysia	3,220	3,086	2,960
Papua New Guinea	1,604	1,558	1,416
Australia	305	300	302
Qatar	1,156	1,275	1,184
Darwin	2,304	2,356	2,058
Qalhat	428	500	563
Sakhalin	2,010	1,491	1,546
Indonesia	-	57	-
Wheatstone	-	-	1,075
Other	-	-	527
Spot and short term contract	4,934	4,965	4,477
Total imports	22,887	22,366	22,818

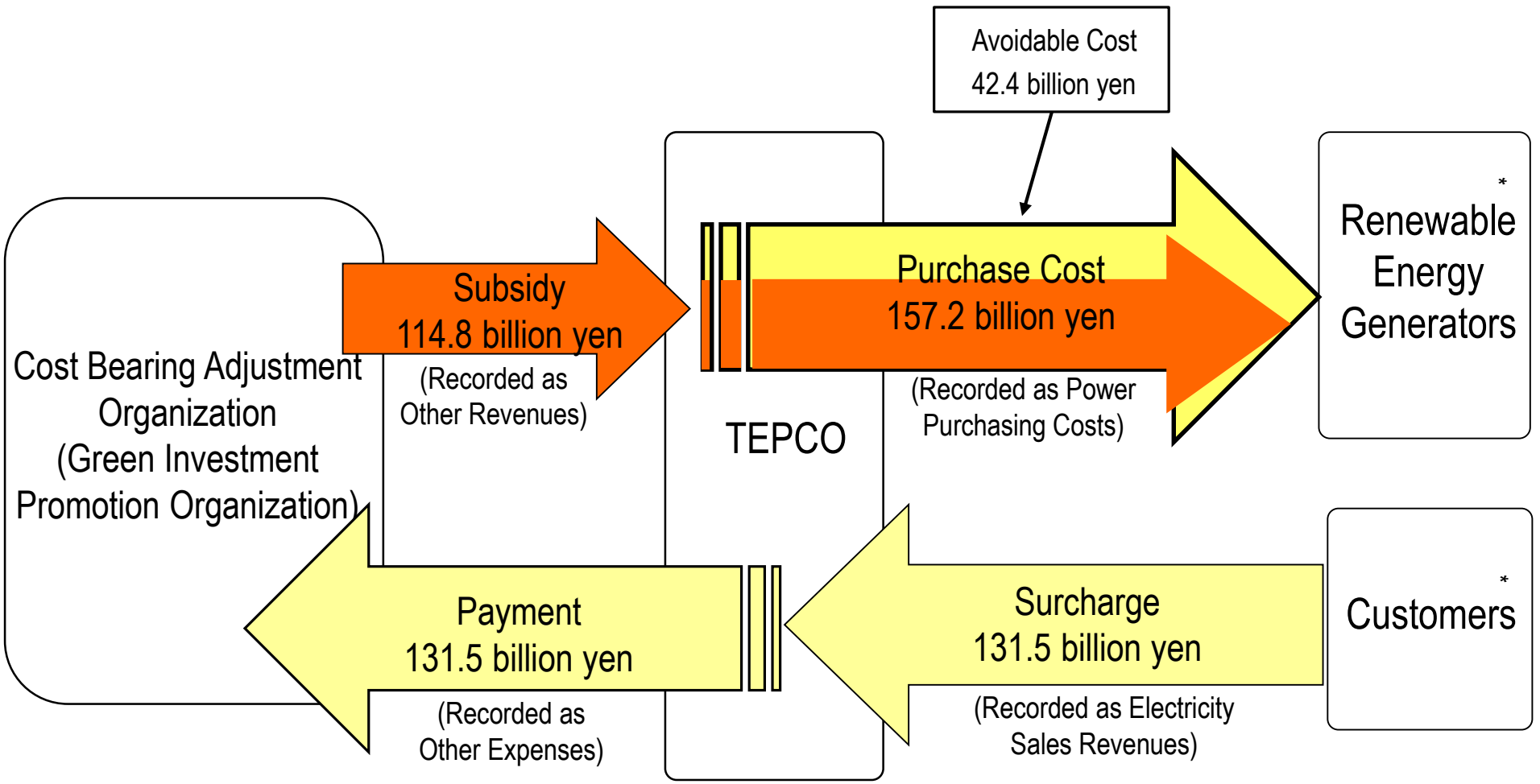
Coal

(Unitthousand t)

	FY2015	FY2016	FY2017
Australia	6,745	5,667	4,931
Indonesia	1,402	1,920	2,372
Colombia	-	178	554
USA	191	136	444
Russia	210	-	74
Kazakhstan	-	-	83
Canada	-	-	-
Total imports	8,548	7,901	8,457

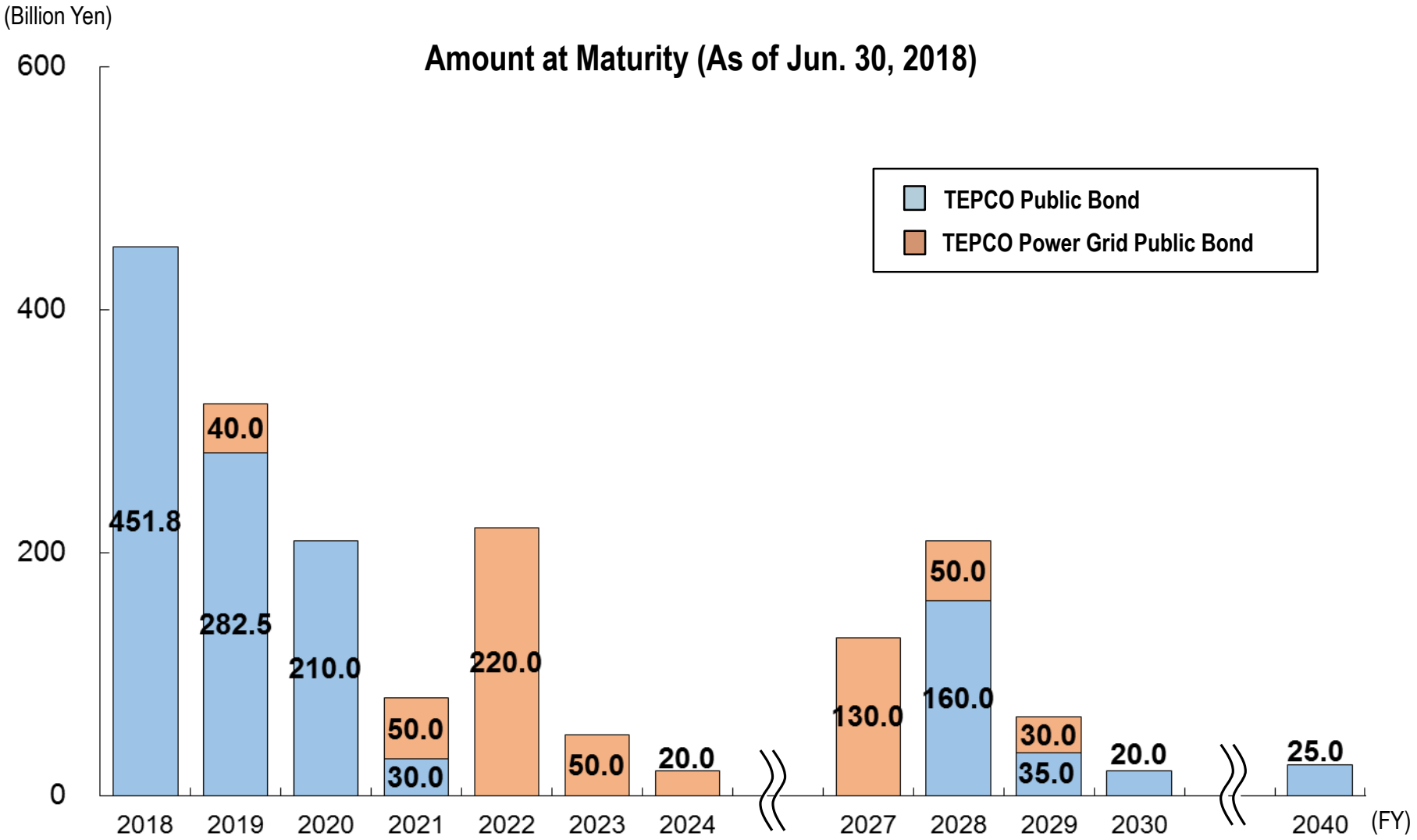
Feed-in Tariff Scheme for Renewable Energy (Purchase Cost Collection Flow)

(FY2018 Apr.- Jun.)



* Including TEPCO Group Companies

Schedules for Public Bond Redemption



Note: The amount redeemed for Apr.- Jun. of FY2018 totaled 207.3 billion yen.

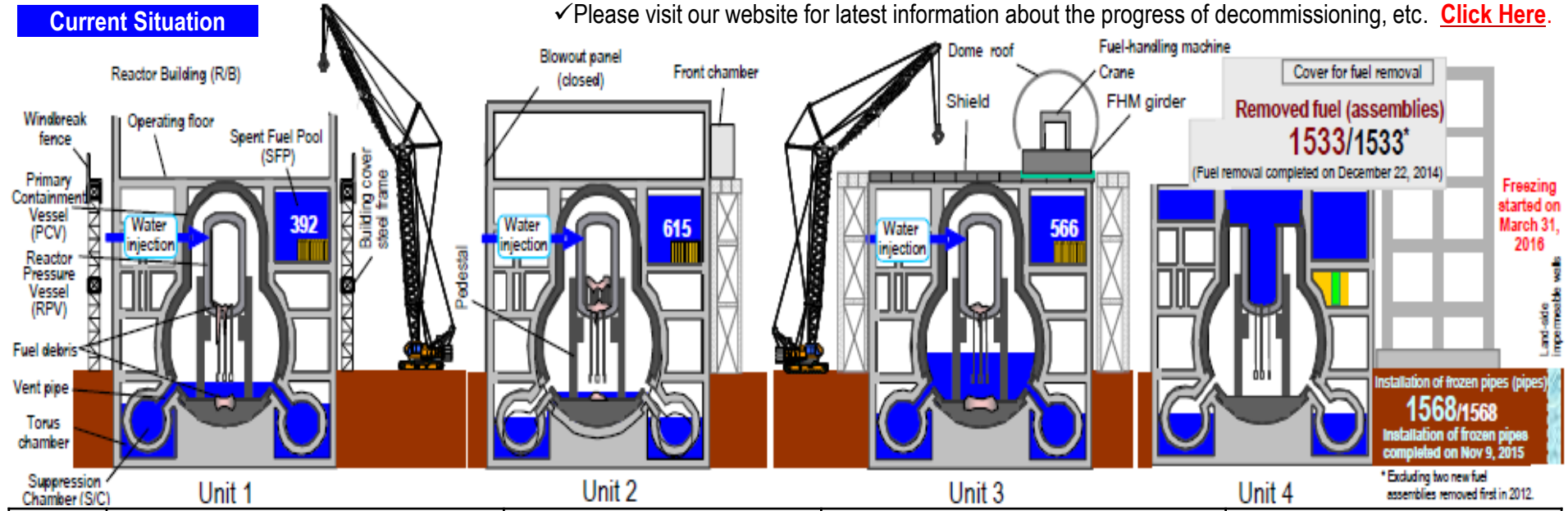
The Current Status of Fukushima Daiichi Nuclear Power Station and Future Initiatives

Current Situation and Status of Units 1 through 4

- At Units 1, 2 and 3, it was evaluated that the comprehensive cold shutdown condition had been maintained, judging from the temperatures of the reactors and spent fuel pools as well as the density of radioactive materials. To facilitate the removal of spent fuel, preparation works are underway.
- To formulate the removal of fuel debris, investigation of the inside of Primary Containment Vessel was planned and is underway.

Current Situation

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



Works towards removal of spent fuel and fuel debris	[Spent fuel removal] - In December 2017, installation of wind break fence was completed which is useful in reducing the risk of scattering of dust at the time of removal of debris on the refueling floor. - The work of removal of debris using a suction device at the north side of the refueling floor was started from January 2018. [Fuel debris removal] - The status of fuel debris inside the PCV was inspected by a self-propelled investigation device injected into the Unit 1 PCV in March 2017. The status of the inside of PCV has been examined based on the collected image and dose data.	[Spent fuel removal] - The work to establish an opening to allow access to the refueling floor was completed in June 2018. A survey of the refueling floor began, using remote-controlled robots. [Fuel debris removal] - Since the internal survey of the reactor containment vessel in January 2018 confirmed that part of the fuel assembly has fallen, the deposits found in its surroundings are assumed to be fuel debris. Hereafter, the plan is to analyze the images that are acquired.	[Spent fuel removal] - The dome roof was installed to remove the fuel in February 2018. - The extraction of the fuel is prepared to start in the November 2018, giving top priority to safety. [Fuel debris removal] - Analyzing the image data obtained from the pedestal internal survey of July 2017, damage of multiple structures and the structures assumed as core internals, is confirmed. The review of fuel extraction will be continued based on the obtained information.	[Spent fuel removal] - Fuel removal from the SFP was completed in December, 2014.

Key Points from the 4th Revision of the Mid-and-Long-Term Roadmap (Sep. 2017)

●The revised version of the Mid-and-Long-Term Roadmap is available here (TEPCO website).

1. Basic Approach toward Revision

(1) Maintain approach that prioritizes safety and emphasizes risk reduction

(2) Optimize overall decommissioning so new revelations about field conditions which come to light as the decommissioning work progresses are taken into account

(3) Emphasize and further enhance communication with the community and society

2. Key Revision Points

(1) Fuel debris removal

NDF compared and reviewed several removal methods, as well as drafted and announced technical recommendations which was submitted to the government at the end of August

→ Based on the recommendations, a fuel debris removal policy was decided on
- ― Shift to atmospheric and cross-dyke methods, and move ahead on lower PCV work
- ― Proceed step-by-step (starting small, advancing in phases)

(2) Fuel removal from pools

Based on work progress, newly required work was clarified from the standpoint of ensuring safety

→ Proceed with work prudently by addressing field conditions as they are identified as well as implementing measures to thoroughly ensure safety while adding additional measures as necessary. Optimize overall decommissioning work and make improvements that keep pace with the environment around buildings.

(3) Contaminated water countermeasures

Preventive and multilayered countermeasures have been advanced, including sub-drains, sea-side impermeable walls, frozen-soil walls, etc. and the quantity of water flowing into buildings has been significantly reduced

→ Appropriately maintain and manage preventive and multilayered countermeasures, and reliably implement such measures. Thoroughly integrate operation of the frozen-soil wall and sub-drains, and reduce quantity of contaminated water generated. Steadfastly maintain the current policy for handling liquid waste.

(4) Waste countermeasures

At the end of August, the NDF drafted and announced technical recommendations which was submitted to the government regarding the "basic approach"

→ Based on recommendations, consolidate the "basic approach."
- ― Thoroughly ensure safety (containment and isolation)
- ― Along with ascertaining properties and conditions, select methods for advanced processing

(5) Communication

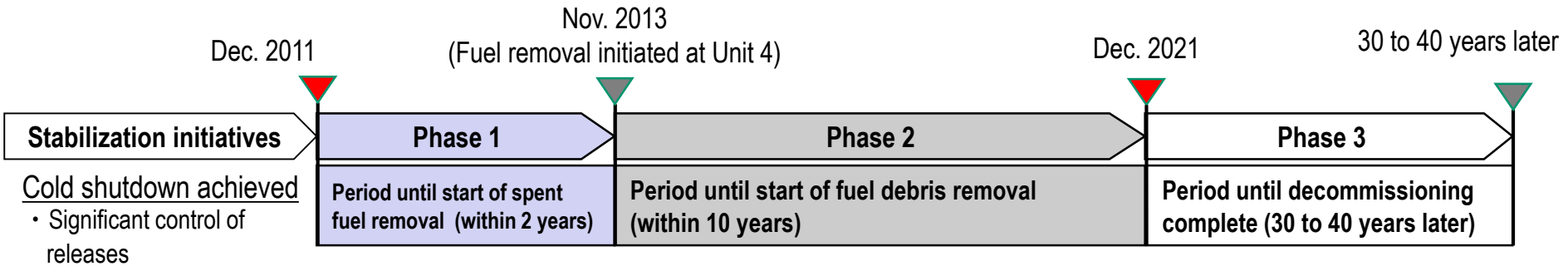
As people return home and areas are rehabilitated, more conscientious information transmission and communication is necessary

→ Further strengthen communication. In addition to meticulous transmission of information, enhance interactive communication.

[Source] Cabinet and other meetings concerning decommissioning and contaminated water countermeasures (September 26, 2017)

Revised Mid-and-Long-Term Roadmap Milestones

Maintain Overall Framework of Decommissioning Schedule



Milestones indicate progress on countermeasures in an easy-to-understand manner

Contaminated water countermeasures	Hold quantity of contaminated water generated to 150 m³/day	End of 2020
	Store all water cleaned through treatment systems, etc. in welded tanks	FY 2018
Stagnant water treatment	①Cut off all throughholes between Units 1 and 2 as well as Units 3 and 4	End of 2018
	②Reduce quantity of radioactive materials in stagnant water inside of buildings to 1/10 the level it was at the end of FY2014	FY 2018
	③Complete treatment of stagnant water inside buildings	End of 2020
Fuel removal	①Start retrieving fuel at Unit 1	Goal of FY 2023
	②Start retrieving fuel at Unit 2	Goal of FY 2023
	③Start retrieving fuel at Unit 3	Around mid-FY2018
Fuel debris removal	①Finalize method for retrieving fuel debris for first unit	FY 2019
	②Start retrieving fuel debris at first unit	End of 2021
Waste countermeasures	Treatment and disposal policy, and technical prospects pertaining to such safety	Around FY 2021

[Source] Cabinet and other meetings concerning decommissioning and contaminated water countermeasures（September 26, 2017）

Contaminated Water Management

- In December 2013, the government's Nuclear Disaster Response Headquarters arranged a set of preventative and multi-tiered measures based on the three basic policies for addressing contaminated water issues.

<Main countermeasures>

Eliminate contamination sources

- Multi-nuclide removal equipment, etc.
- Remove contaminated water from the trench

Isolate water from contamination

- Pump up groundwater by groundwater bypass
- Pump up groundwater near buildings
- Land-side frozen impermeable walls
- Waterproof pavement

Prevent leakage of contaminated water

- Enhance soil by adding sodium silicate
- Sea-side impermeable walls
- Increase the number of (welded-joint) tanks

Treatment of stagnant water in buildings

- The work to circulate and purify stagnant water inside the buildings started on the Units 3/4 side in February 2018 and on the Units 1/2 side in April 2018.

< Major Progress>

✓Please visit our website for the latest information. **Click Here**.

Subdrain operation

➢Groundwater pumped up through wells near reactor building (Subdrain system) are discharged after purification by dedicated facilities and quality test. (A cumulative total of 569,381 tons of groundwater has been discharged as of 15:00 on July 25, 2018).

Land-side frozen impermeable walls

➢In March 2018, the land-side impermeable walls were considered completed as the underground temperature had declined below 0℃ in almost all areas.

➢The Committee on Countermeasures for Contaminated Water Treatment clearly recognized the effect of the land-side impermeable walls to shield groundwater and confirmed that a water-level management system, including the functions of subdrains, etc., to stably control groundwater and isolate the buildings from groundwater had been established.

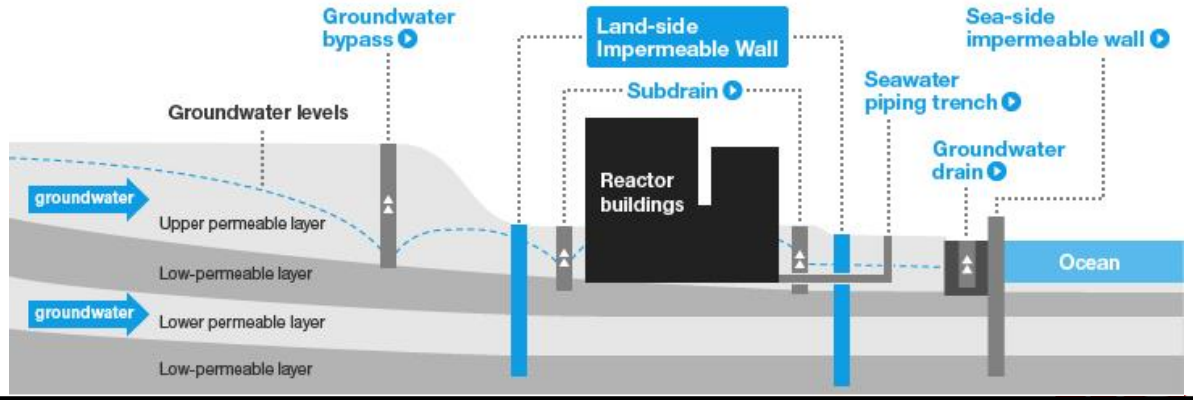
➢Investigations and countermeasures will be conducted to further reduce the generated contaminated water.

Sea-side impermeable walls

➢On October 26, 2015, the seaside impermeable walls were completed to be closed.

Removal of contaminated water in trenches

➢The work to remove approx. 10,000 tons of contaminated water from seawater pipe trenches and fill the trenches at Units 2-4 has been completed (December 2015).



The Current Status of Kashiwazaki-Kariwa Nuclear Power Station and Future Initiatives

Main Measures to Secure Safety – 1 [Outline]

◆ We promote the following measures to secure further safety after the Great East Japan Earthquake.

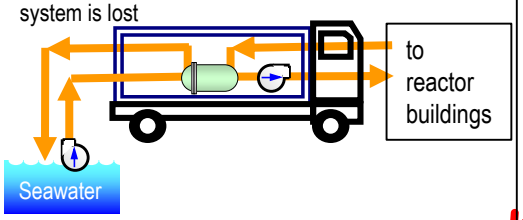
I. Installation of flooding embankment [banks]

- Install flooding embankment (banks) to prevent Tsunami from invading the site and to protect light oil tanks, buildings and other facilities in the power station

III. Further enhancement of heat removal and cooling function

(5) Installation of alternative submerged pumps and seawater heat exchanging system

- Install alternative submerged pumps and other equipments to continue to operate residual heat removal system even if cooling function of sea water system is lost



III. Further enhancement of heat removal and cooling function

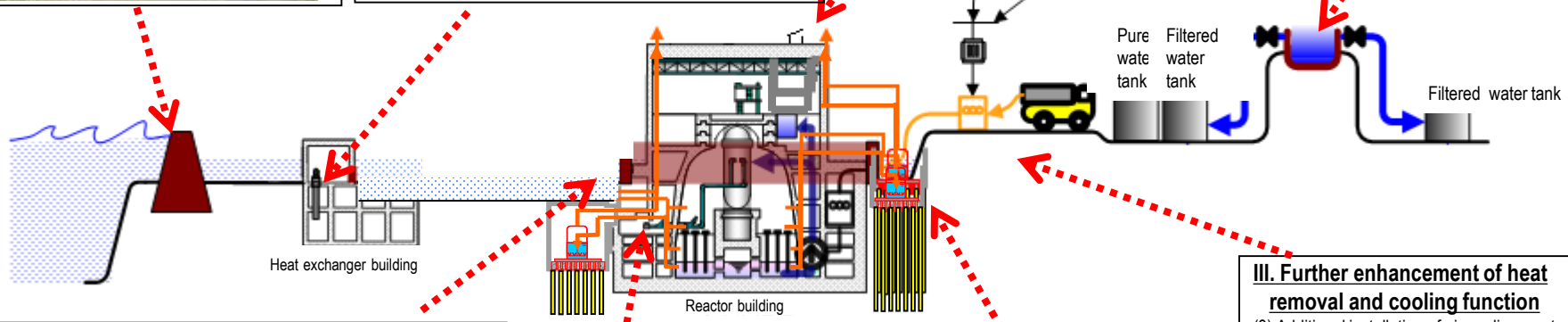
(8) Installation of top venting on reactor buildings

- Install top venting system to prevent hydrogen from piling up in a reactor buildings

III. Further enhancement of heat removal and cooling function

(1) Installation of water source

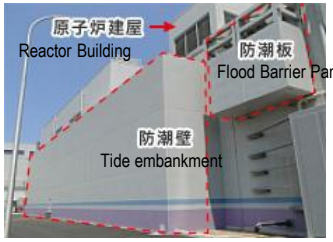
- Install a freshwater reservoir in the power station to secure stable supply of coolant water for reactors and spent fuel pools



II. Countermeasures against Inundation into buildings

(1) Installation of tide embankments (flood barrier panel included)

- Install tide embankments around reactor buildings containing critical equipments in order to prevent Tsunami from damaging power facilities and emergency diesel generators and to secure safety of the power plant



II. Countermeasures against Inundation into buildings

(2) Installation of water tight doors

- Install water tight doors at reactor buildings and turbine buildings to protect equipments from water

III. Further enhancement of heat removal and cooling function

(12) Installation of warehouses for emergency on high ground

- Install a warehouse for equipments and materials for emergency in case of Tsunami

III. Further enhancement of heat removal and cooling function

(7) Installation of filtered vent

- Control of radioactive pollution emitted upon containment vessel venting
- Installation of underground filtered vent for backfitting

III. Further enhancement of heat removal and cooling function

(11) Additional environment monitoring equipments and monitoring cars

- Prepare additional monitoring cars to continuously measure radiation dose at the site

III. Further enhancement of heat removal and cooling function

(3) Additional installation of air-cooling gas turbine power generation cars

- Install large capacity gas turbine power generation cars to supply electricity to residual heat removal system in case of outage of all AC power

(4) Installation of high voltage power distribution board for emergency and permanent cables for reactor buildings

- Install high voltage power distribution board for emergency and permanent cables for reactor buildings to secure power supply in case of station black out (losing all AC power), and to secure stable supply of power to residual heat removal system

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Main Measures to Secure Safety - 2 [Implementation Status]

As of July 11, 2018

Item	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7
Ⅰ. Installation of flooding embankment [banks]	Completed *2				Completed		
Ⅱ. Countermeasures against inundation into buildings							
(1) Installation of tide embankments (flood barrier panel included)	Completed	Completed	Completed	Completed	All closed under 15 meters above sea level		
(2) Installation of water tight doors on reactor buildings, etc.	Completed	Under consideration	Under construction	Under consideration	Completed	Completed	Completed
(3) Countermeasures against inundation into heat exchanger buildings	Completed	Completed	Completed	Completed	Completed	–	
(4) Installation of tide barriers for switching stations*1	Completed						
(5) Reliability improvement of inundation countermeasures (countermeasures against flooding inside buildings)	Under construction	Under consideration	Under construction	Under consideration	Under construction	Under construction	Under construction
Ⅲ. Further enhancement of heat removal and cooling function							
(1) Installation of water source	Completed						
(2) Installation of storage water barrier	Completed	Under consideration	Under consideration	Under consideration	Completed	Completed	Completed
(3) Additional installation of air-cooling gas turbine power generation cars	Completed					Under construction	
(4)-1 Installation of high voltage power distribution board for emergency	Completed						
(4)-2 Installation of permanent cables for reactor buildings	Completed	Completed	Completed	Completed	Completed	Completed	Completed
(5) Installation of alternative submerged pumps and seawater heat exchanging system	Completed	Completed	Completed	Completed	Completed	Completed	Completed
(6) Installation of alternative high pressure water injection system	Under construction	Under consideration	Under consideration	Under consideration	Under construction	Under construction	Under construction
(7) Installation of aboveground filter vent	Under construction	Under consideration	Under consideration	Under consideration	Under construction	Under construction	Under construction
(8) Installation of top venting on reactor buildings*1	Completed	Completed	Completed	Completed	Completed	Completed	Completed
(9) Installation of hydrogen treatment system in reactor buildings	Completed	Under consideration	Under consideration	Under consideration	Completed	Completed	Completed
(10) Installation of facilities to fill water up to the top of containment vessels	Completed	Under consideration	Under consideration	Under consideration	Completed	Completed	Completed
(11) Additional environment monitoring equipment and monitoring cars	Completed						
(12) Installation of warehouses for emergency on high ground*1	Completed						
(13) Improvement of earthquake resistance of pure water tanks on the Ominato side*1	–				Completed		
(14) Installation of large-capacity water cannons, etc.	Completed						
(15) Multiplexing and reinforcing access roads	Completed				Under construction		
(16) Environmental improvement of the seismic isolated building	Under construction						
(17) Reinforcement of the bases of transmission towers*1 and earthquake resistance of the switchboards*1	Completed						
(18) Installation of tsunami monitoring cameras	Under construction				Completed		
(19) Installation of Coriumu Shield	Under consideration	Under consideration	Under consideration	Under consideration	Under consideration	Completed	Completed

*1 TEPCO's voluntary safety measures *2 Additional measures are under consideration

Compliance Review under the New Regulatory Requirements

Latest Review Status

- On September 27, 2013, the applications for permission changes in reactor installation were presented to receive the regulatory standard compliance examination for Units 6 and 7.
- After the application for permission changes in reactor installation was presented, amended applications for revision of the reactor installation license, which reflect changes sought as discussed review meetings held, were submitted to the Nuclear Regulation Authority (NRA) on June 16, August 15, September 1 and December 18, in 2017.
- On December 27, 2017, the NRA approved TEPCO's application for revision of its reactor installation license.

Upcoming Reviews

- TEPCO will submit amended applications for authorization of a construction plan and safety regulation revisions based upon the results of the examination which approved revision of the reactor installation license. (Currently, the timing of these filings is pending.)

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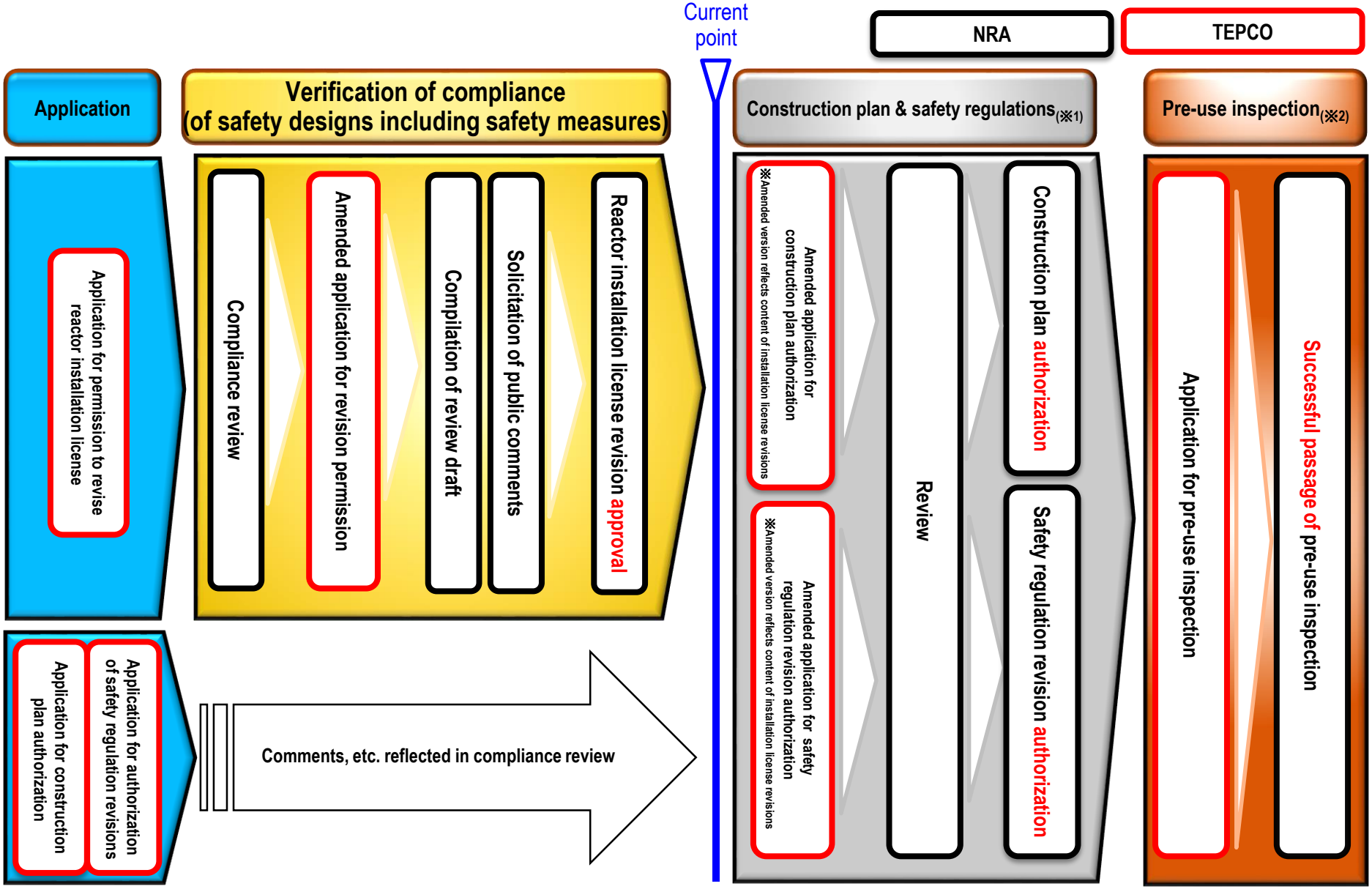
Key License/Permit Steps in Enforcement of New Regulatory Requirements



※1: Basic matters for safety of a nuclear power plant are stated, which an operator must observe.

※2: Inspection conducted by the central government to verify that construction has been carried out in the manner determined by the construction plan.

Other Initiatives

Implementation of the Streamlining Policy

<Cost reduction>
- In addition to the cost reductions that has been made under the New Comprehensive Special Business Plan (TEPCO *1 : 4.8 trillion yen/10 years), TEPCO has been executing, under the Revised New Comprehensive Special Business Plan, unprecedented and recurrent streamlining of operations that includes “kaizen-centered doubling of productivity” and “use of digitalized technologies for bold technological and operational innovation” to be sure to achieve 1 trillion yen in even deeper cost reductions of over 10 years.
- Our entire group is working on together toward the achieving the FY2018 cost reduction targets of 809.1 billion yen at TEPCO*1 and 69.6 billion yen at our subsidiaries and affiliates so as to achieve the set goal.

<Asset disposal>
- Accumulated grand total of FY2011 to FY2013 regarding disposal of real estate, securities and subsidiaries & affiliated companies, which was the target set in the previous Comprehensive Special Business Plan, was achieved. Maximum efforts will continue to be made aiming most efficient business operation.

<Streamlining Policy (Cost Reduction)*2>

	FY2017 Actual	FY2018	
		Plan	Projections
TEPCO*1	843.6 billion yen	809.1 billion yen	—
Subsidiaries & Affiliated Companies	73.0 billion yen	69.6 billion yen	—

*1 TEPCO means Tokyo Electric Power Company Holdings, Inc., TEPCO Fuel & Power, Inc., TEPCO Power Grid, Inc. and TEPCO Energy Partner, Inc.
*2 Cost reductions given in the table were calculated using the pre-earthquake cost plan as the basis.

Efforts towards Nuclear Reform - 1
- Framework for Nuclear Reform

- Since April 2013, TEPCO has advanced the Nuclear Safety Reform Plan so that it may realize its determination that "the Fukushima nuclear accident will never be forgotten and we will be a nuclear operator which continues to create unparalleled safety and increase the level of that safety to be greater today than yesterday and still greater tomorrow than today."
- The Mid-and-Long-Term Roadmap for decommissioning Fukushima Daiichi NPS was revised in September 2017 and permission received to revise the reactor installation license for Kashiwazaki-Kariwa NPS Units 6 & 7. TEPCO will now reassess its plans to take into account items pointed out and suggested by the Nuclear Reform Monitoring Committee and faithfully implement these items.

<Framework for Nuclear Reform>

Board of Directors

Advice ↓ ↑ Suggestion

Nuclear Reform Monitoring Committee (Established in September, 2012)
Monitoring and supervising efforts of nuclear reform, then reporting and suggesting to the Board of Directors

Dale Klein, Chairman (former Chairman of the U.S. Nuclear Regulatory Commission)
Barbara Judge, Vice Chairman (former Chairman of the U.K. Atomic Energy Authority)
Masafumi Sakurai, committee member (former member of the National Diet of the Japan Fukushima Nuclear Accident Independent Investigation Commission)

Supervise/Monitor ↓ ↑ Report

Nuclear Safety Oversight Office(Established in May, 2013)

On April 1,2015, the Nuclear Safety Oversight Office, which reports to the Board of Directors, was reorganized so that it now reports directly to the President.

Dealing with nuclear safety through supervising and consulting activities, but from a much closer position to the front line of nuclear plants, and also involving more directly with the decision-making process on nuclear safety.

Nuclear Reform Special Task Force
(Established in September, 2012)

Implementing nuclear reform under the supervision of the Committee.

Public Communications Office (risk communicators)
Risk communicators coordinate with power plants' PR officers to provide advice and recommendations to senior management and the Nuclear Power Division from social perspectives. (The Social Communication Office, which served the abovementioned function, became amalgamated with the Public Communications Office in July 2018.)

Nuclear Power & Plant Siting Division

Fukushima Daiichi Decontamination & Decommissioning Engineering Company (Established in April, 2014)
An internal entity established for the purpose of clarifying the responsibilities allocation and focusing solely on handling of decommissioning and contaminated water.
Positioning "Chief Decommissioning Officer (CDO)" as Company President.
Assigning three experienced executives invited from nuclear power manufacturers to the Vice President. In addition, as of June 30, 2015, Yoshikazu Murabe, a managing director at the Japan Atomic Power Company, was brought in to serve as Senior Vice President (as of October 1, 2017, Naoto Moroo, a managing director at the same company, succeeded the post) and his responsibilities will focus on waste measures, maintaining safety at Units 5 & 6, radiation & chemical management among other duties.

Efforts towards Nuclear Reform – 2
- Report on Status of the Nuclear Safety Reform Plan

- The Nuclear Safety Reform Plan consists of 6 measures that compensate for the lack of “safety awareness”, “technological capability” and “dialogue-promoting capability” which are the underlying contributors for accidents and aim for improving them. In addition, we have been implementing initiatives to strengthen the governance for the organization as a whole.
- In order to better align the entire organization in regards to nuclear safety reform/ improvement activities, we are engaged in efforts to promote understanding of the management model, which is a common basis for these activities, as well as the ideal behaviors for each field of operation (“Fundamentals”).

Recent Principal Activities ([Resource] Nuclear Safety Reform Plan Progress Report released on May 16, 2018)		
Strengthening the Governance		・Corporate Functional Area Managers (CFAM; Head Office leaders for activities aimed at achieving the world's highest standards in each functional area) and Site Functional Area Managers (SFAM; CFAM counterparts at power stations) are spearheading action and have carried out “assessment on risk management” and “analysis of common factors in human errors.”
6 measures	Reform from Top Management	・At meetings of the Safety Steering Council, Nuclear Power Division leaders have reflected on the status of their respective organizations’ initiative for building nuclear safety culture, and shared information about one another’s good practice cases.
	Enhancement of Oversight and Support for Management	・The Nuclear Safety Oversight Office (NSOO) has overseen and evaluated the Headquarters and nuclear power stations with the emphasis on restructuring management, emergency trainings, design management, etc. Based on its findings, the NSOO has provided necessary suggestions and examined how the organizations have responded to past recommendations. ・The Nuclear Safety Advisory Board advises the General Manger of the Nuclear Power and Plant Siting Division to achieve the global top-level safety through the four times activities.
	Enhancement of Ability to Propose Defense-in-Depth	・ Training on “lessons learned from the Fukushima nuclear accident” have been carried out. The actual training was filmed and shown to all employees of the Nuclear Power Division, including general office staff. The video will continue to be used.
	Enhancement of Risk Communication Activities	・ Information sessions for local residents have been held to provide information about safety initiatives at Kashiwazaki Kariwa Units 6 / 7 and the results of review concerning the application for permission for design change in reactor installation license.
	Enhancement of the Emergency Response Capability of Power Stations and the Head Office	・ General drills have been conducted at Fukushima Daini and Kashiwazaki Kariwa, and confirmed smooth information sharing between the Headquarters and nuclear power stations, indicating improvement with previous communication issues. At the same time, the drills identified issues in areas such as response to emergency scenarios that are less-frequently practiced, and data sharing in a phase where plant conditions change significantly. Efforts will be made to ensure these areas are improved.
	Development of Personnel for Enhancing Nuclear Safety	・A pilot program for fostering engineers has been carried out, targeting Headquarters personnel involved in design work. Feedback from the pilot program has been gathered together to review the contents of teaching materials. It will be completed as a full-scale training program in FY2018 and offered to nuclear power station personnel.

Main Efforts to Increase Corporate Value -1

<TEPCO Holdings>

May 17, 2018: Started joint research with Pocket Queries, Inc. on the use of Mixed Reality to assist and advance frontline work operations at nuclear power stations and plants

June 6, 2018: Started working with NEC Corporation, Global Engineering, Sekisui Chemical Co., Ltd., Takaoka Toko Co., Ltd., Hitachi Systems Power Services, Ltd., etc. to build a virtual power plant and conduct empirical study with the aim of actualizing resource aggregation business

June 6, 2018: Started working with Hitachi Systems Power Services, Ltd., Mitsubishi Motors Corporation, Shizuoka Gas Co., Ltd., Hitachi Solutions, Ltd., etc. to use various electric vehicles' battery function for building a bi-direction V2G (Vehicle-to-Grid) demand-supply adjustment system between electric vehicles and the electricity grid, and conduct empirical study with the aim of establishing a business model based on the system

June 27, 2018: Established TEPCO Ventures, Inc. to create various innovative businesses with the use of TEPCO Group's management resources

July 2, 2018: Established and commenced the operation of TN Cross Corporation, a joint venture with Nippon Telegraph and Telephone Corporation for solving social issues and promoting new business creation / deployment in line with market and social changes

<TEPCO Fuel & Power>

May 22, 2018: Signed a master agreement with Tata Consultancy Services Japan, Ltd. to develop and introduce an AI-based model for optimizing the operation of thermal power stations

July 13, 2018: Started offering remote monitoring services to the Pagbilao Power Station, run by Philippines' TeaM Energy Corporation in partnership with Mitsubishi Hitachi Power Systems, Ltd.

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Main Efforts to Increase Corporate Value -2

<TEPCO Power Grid>

June 15, 2018: Signed a partnership agreement with the National Cheng Kung University to conduct concept study and empirical project for developing a Smart Community, planned by the Taiwanese government in Shalun, Tainan City

June 28, 2018: Participated in the framework of cross-regional supply-demand adjustments to further streamline the general power transmission business through mutual collaboration

June 29, 2018: Signed a basic agreement with Chubu Electric Power Company and ICMG Co, Ltd. to establish a joint venture in Singapore for investing in and operating the overseas power transmission business and next-generation infrastructure business, and fostering human resources who will be future “global leaders”

July 2, 2018: Started empirical study with SECOM Co., Ltd. with the aim of creating new services, e.g. making early detection of customers having issues based on their use of home appliances, and resolving such issues

July 19, 2018: Entered into discussions with Energy Gateway, Inc. and Panasonics Corporation to develop a network commodity business integrating residential IoT services with electric sensors and the HD-PLC communications platform

<TEPCO Energy Partner>

May 8, 2018: Established TEPCO Frontier Partners LLC, specializing in funding venture businesses for faster development and market introduction of new goods and services

May 21, 2018: Started offering AI-based cutting-edge pet-monitoring service, Pet Mirun

June 1, 2018: Signed a master agreement with SECOM Co., Ltd. toward business partnership aimed at “improving product values” and “expanding the customer base”

July 2, 2018: Started empirical study with Yurikamome Inc. on rental services for mobile phone batteries

July 17, 2018: Started the Mimiyori Set Campaign to provide more information about TEPCO’s electricity and gas services to as many customers as possible

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