

# Presentation Materials for Investors

## 3<sup>rd</sup> Quarter FY 2013

### January, 2014



Note: The Company's fiscal year (FY) is from April 1 to March 31 of the following year.

FY2013 represents the fiscal year begun in April 1, 2013, and ending in March 31, 2014.

3rd Quarter (3Q) represents nine months period ended December 31, 2013.

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# **I Outline of Financial Results for Nine Months Period Ended December 31, 2013**

# Summary of Financial Results <1>

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- Operating revenues increased for four consecutive years.
- Ordinary loss and net loss are recorded for three consecutive years.

## [Consolidated]

(Billion yen,%)

	2013/3Q (A)	2012/3Q (B)	Change	
			(A-B)	(A-B)/B
Operating revenues	2,053.7	1,960.1	93.6	4.8
Operating income (loss)	(24.5)	21.7	(46.2)	—
Ordinary loss	(46.7)	(3.9)	(42.8)	—
Net loss	(31.5)	(2.2)	(29.2)	—

## [Non-Consolidated]

(Billion yen,%)

	2013/3Q (A)	2012/3Q (B)	Change	
			(A-B)	(A-B)/B
Operating revenues	1,918.2	1,853.3	64.8	3.5
Operating income (loss)	(36.6)	12.4	(49.1)	—
Ordinary loss	(56.3)	(8.7)	(47.6)	—
Net loss	(35.2)	(3.7)	(31.4)	—

## [Principal Figures]

Item		2013/3Q (A)	2012/3Q (B)	Change (A-B)
Electricity sales volume	(TWh)	93.1	93.3	(0.2)
CIF price: crude oil	(\$/b)	109.4*	114.0	(4.6)
FX rate (interbank)	(yen/\$)	99	80	19

\* CIF crude oil price for 3Q FY2013 is tentative.

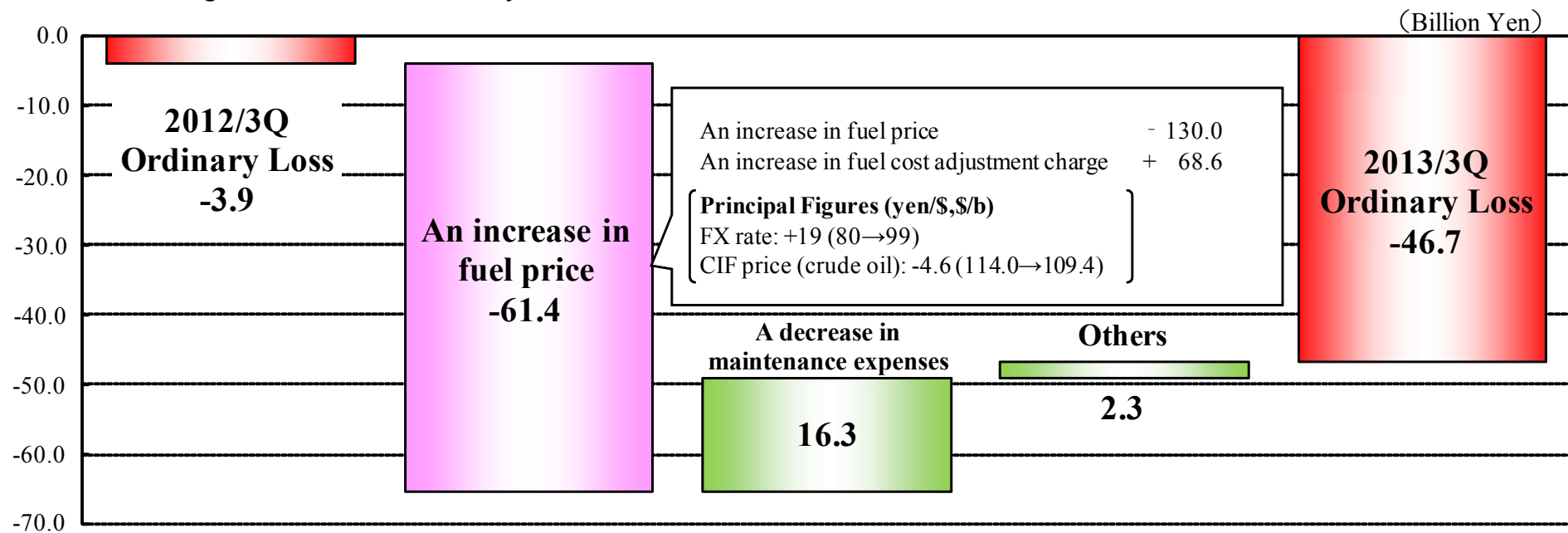
# Summary of Financial Results <2>

2

## < Main factors for year-on-year change in consolidated ordinary loss >

- Positive factors	- A decrease in maintenance expenses	+16.3 billion yen
- Negative factors	- An increase in fuel price	- 61.4 billion yen

### 【Factors for change in Consolidated ordinary loss】



# Electricity Sales Volume, Generated and Received Power

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## - Electricity Sales Volume

(TWh, %)

		2013/3Q (A)	2012/3Q (B)	Change (A-B) (A-B)/B	
Demand from customers under regulation	Electric lighting	24.2	24.5	(0.3)	(1.5)
	Electric power	4.3	4.5	(0.2)	(3.1)
	Subtotal	28.5	29.0	(0.5)	(1.7)
Demand from customers under liberalization	Commercial power	16.7	16.6	0.1	0.1
	Industrial power, etc	47.9	47.7	0.2	0.4
	Subtotal	64.6	64.3	0.3	0.4
Total		93.1	93.3	(0.2)	(0.3)

## - Generated and Received Power

(TWh, %)

		2013/3Q (A)	2012/3Q (B)	Change (A-B) (A-B)/B	
Internally generated	<b>Hydro</b>	6.5	6.3	0.2	2.8
	<flow rate>	<94.8>	<91.9>	<2.9>	
	<b>Thermal</b>	88.0	91.9	(3.9)	(4.2)
	<b>Nuclear</b>	—	—	—	—
	<utilization rate>	<—>	<—>	<—>	
<b>Renewable energy</b>		0.0	0.0	(0.0)	(1.8)
<b>Interchanged, Purchased power</b>		8.2	4.7	3.5	75.6
<b>Power used for pumped storage</b>		(0.8)	(1.0)	0.2	(15.7)
<b>Total</b>		101.9	101.9	(0.0)	(0.0)

# Summary of Forecast for FY 2013

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## - Consolidated

	FY 2013 forecast (Current) (A)	FY 2013 forecast (Oct.29) (B)	(billion yen) Change (A)-(B)
Operating revenues	2,790.0	2,750.0	40.0
Operating loss	(75.0)	(65.0)	(10.0)
Ordinary loss	(110.0)	(100.0)	(10.0)
Net loss	(75.0)	(65.0)	(10.0)

## [Principal factors affecting ordinary loss]

Depreciation of the yen	- 22.0
A decrease of CIF price	+ 5.0
An increase of hydroelectric power output, etc	+ 7.0
Effect on ordinary loss	- 10.0

## -Non-consolidated

	FY 2013 forecast (Current) (A)	FY 2013 forecast (Oct.29) (B)	(billion yen) Change (A)-(B)
Operating revenues	2,610.0	2,570.0	40.0
Operating loss	(90.0)	(80.0)	(10.0)
Ordinary loss	(120.0)	(110.0)	(10.0)
Net loss	(80.0)	(70.0)	(10.0)

## -Principal figures

Items		FY 2013 forecast (Current)	FY 2013 forecast (Oct.29)	(billion yen) Income sensitivity	
Electricity sales volume	(TWh)	approx. 125.6	approx. 125.6	1%	3.0
CIF price: crude oil	(\$/b)	approx. 110	approx. 111	1\$/b	9.0 <sup>*1,2</sup>
FX rate (interbank)	(yen/\$)	approx. 101	approx. 98	1yen/\$	12.0 <sup>*1</sup>

<sup>\*1</sup> These figures represent income sensitivity for fuel expenses. Fluctuation of CIF price (crude oil) and FX rate will be reflected in sales revenue, in cases where average fuel price fluctuates and fuel cost adjustment system will be applied.

<sup>\*2</sup> The impact value of crude oil price includes the impact of LNG price because LNG price is subject to crude oil price.

# Non-consolidated Forecast for FY 2013 (compared to FY 2012)

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	(Billion yen)		
	FY 2013 Forecast (A)	FY 2012 Result (B)	Change (A)-(B)
Operating revenues	2,610.0	2,485.6	approx. 124.0
Operating expenses	2,700.0	2,514.5	approx. 185.0
Operating loss	(90.0)	(28.9)	approx. (61.0)
Ordinary loss	(120.0)	(52.1)	approx. (68.0)
Net loss	(80.0)	(35.3)	approx. (45.0)

## [Principal factors affecting ordinary loss]

A decrease in electricity sales volume (with subtraction of fuel cost)	- 6.0
An increase in fuel price (After taking fuel cost adjustment charge into account)	- 52.0
Others	- 10.0
Effect on ordinary loss	- 68.0

## - Principal Figures

Items		FY2013 Forecast	FY 2012 Result
Electricity sales volume (TWh)		approx.125.6	126.6
CIF price : crude oil (\$/b)		approx.110	113.9
FX rate (interbank) (yen/\$)		approx.101	83
Nuclear power utilization rate (%)		—	—



# The Policy on Shareholder Return

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After comprehensively considering the difficult business situation, the Company had decided to pay no interim dividend for the fiscal year ending March 2014.

The management sincerely appreciates your understanding in this matter. The Company also plans to pay no year-end dividend for the fiscal year ending March 2014.

	Dividends per Share (yen)		
	Interim	Year-end	Total
FY 2013	<b>0</b> (Result)	<b>0</b> (Forecast)	<b>0</b> (Forecast)
FY 2012	<b>25</b>	<b>25</b>	<b>50</b>

## Ⅱ Management Situation

# Safety Measures at Hamaoka Nuclear Power Station: Roadmap for Safety Improvement Works

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- The Company implements additional safety measures for Unit 3 and Unit 4 including earthquake countermeasures, tornado countermeasures, fire countermeasures and strengthening the water injection function as severe accident countermeasures in addition to voluntarily implementing countermeasures, such as tsunami countermeasures and severe accident countermeasures in order to promptly comply with the new regulatory standards.
- The Company aims to complete the improvement works for Unit 4 by the end of September 2015 and for Unit 3 by the end of September 2016.
- Implementing these additional measures, The Company will complete necessary safety measures for the Unit 3 and Unit 4 in accordance with the new regulatory standards. The Company continues examining safety improvement works for Unit 5.

		FY 2013	FY 2014	FY 2015	FY 2016
Unit 4	Tsunami countermeasures	Reflecting designs for additional safety measures			
	Severe accident countermeasures	Reflecting designs for additional safety measures			
	Additional safety measures based on the new regulatory standards	Earthquake countermeasures, tornado countermeasures, fire countermeasures and strengthening the water injection function as severe accident countermeasures			
Unit 3	Tsunami countermeasures	Reflecting designs for additional safety measures			
	Severe accident countermeasures	Reflecting designs for additional safety measures			
	Additional safety measures basing on the new regulatory standards	Earthquake countermeasures, tornado countermeasures, fire countermeasures and strengthening the water injection function as severe accident countermeasures			

# Outlook of Electricity Supply and Demand for Winter FY 2013 8

## ■ Peak load (three-day average)

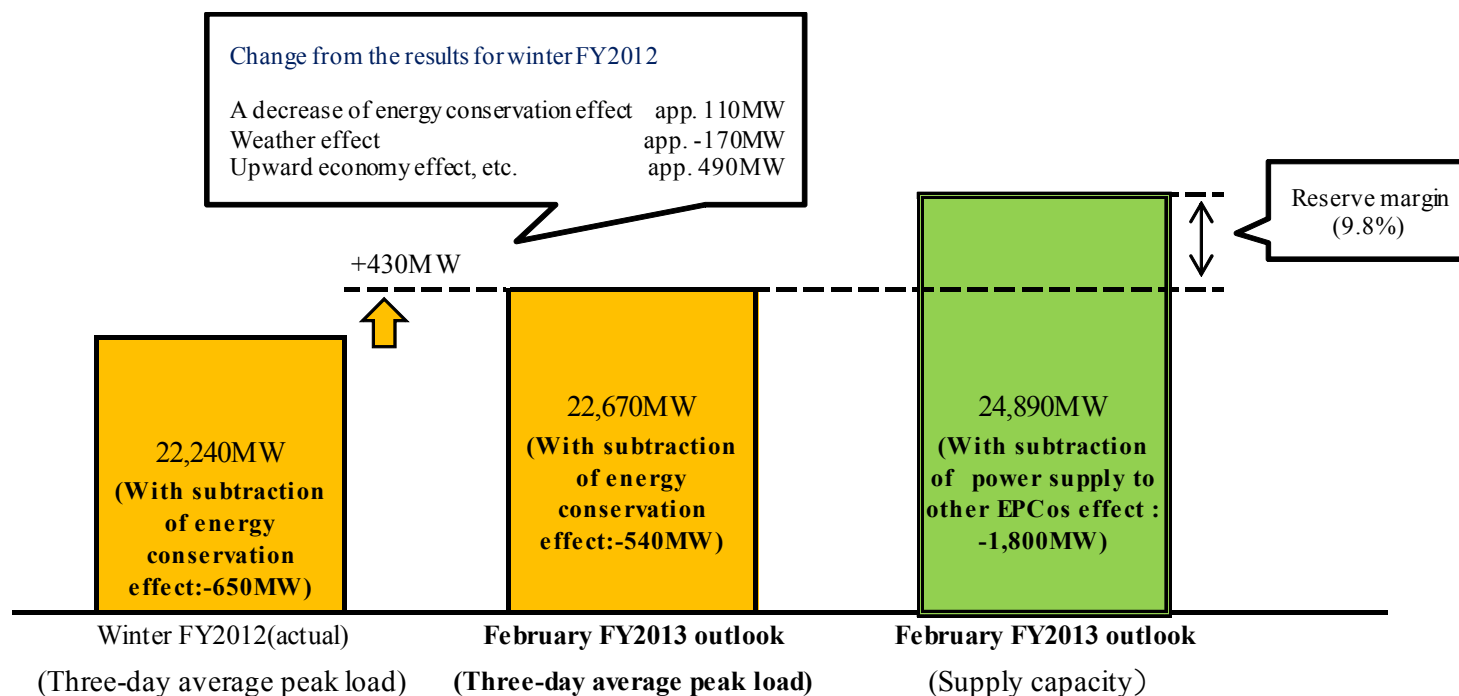
We estimate the peak load at 22,670MW, considering several factors including the actual peak load in winter 2012, effects of customers' energy conservation, weather and economic condition.

(We estimate the effect of customers energy conservation at approximately 540MW, based on several factors including the actual energy conservation by customers in summer 2013 and the results of a questionnaire survey we conducted. )

## ■ Supply capacity

While securing enough supply capacity for stable power supply in the Chubu region, we expect outward power interchange of approximately 1,800MW during day time hours on weekdays to other EPCos whose power supply capacities are very tight; we estimate our supply capacity at 24,890MW.

⇒ We expect to secure enough reserve margins for stable supply during the period.

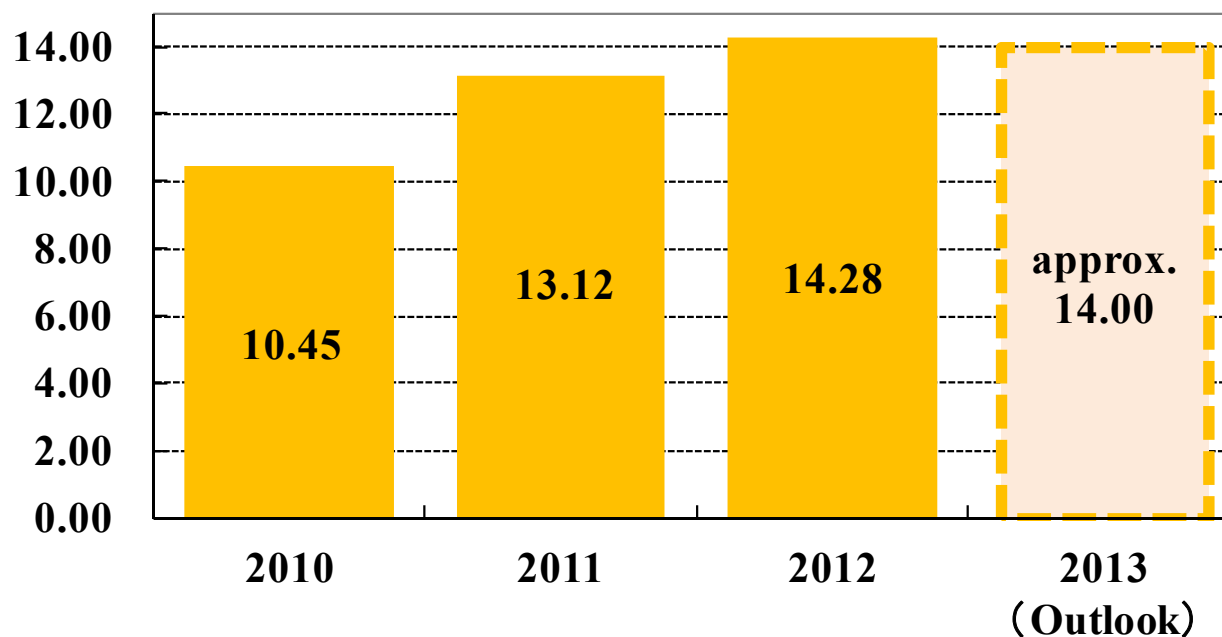


## - Outlook for fuel procurement (LNG)

- After the suspension of all the units of Hamaoka Nuclear Power Station, the Company has increased the utilization of thermal power plants, mostly LNG, to compensate for the loss of power output by nuclear plants.
- For FY2013, assuming we need the amount of the same level as in FY2012, we have already secured almost all the necessary volume.

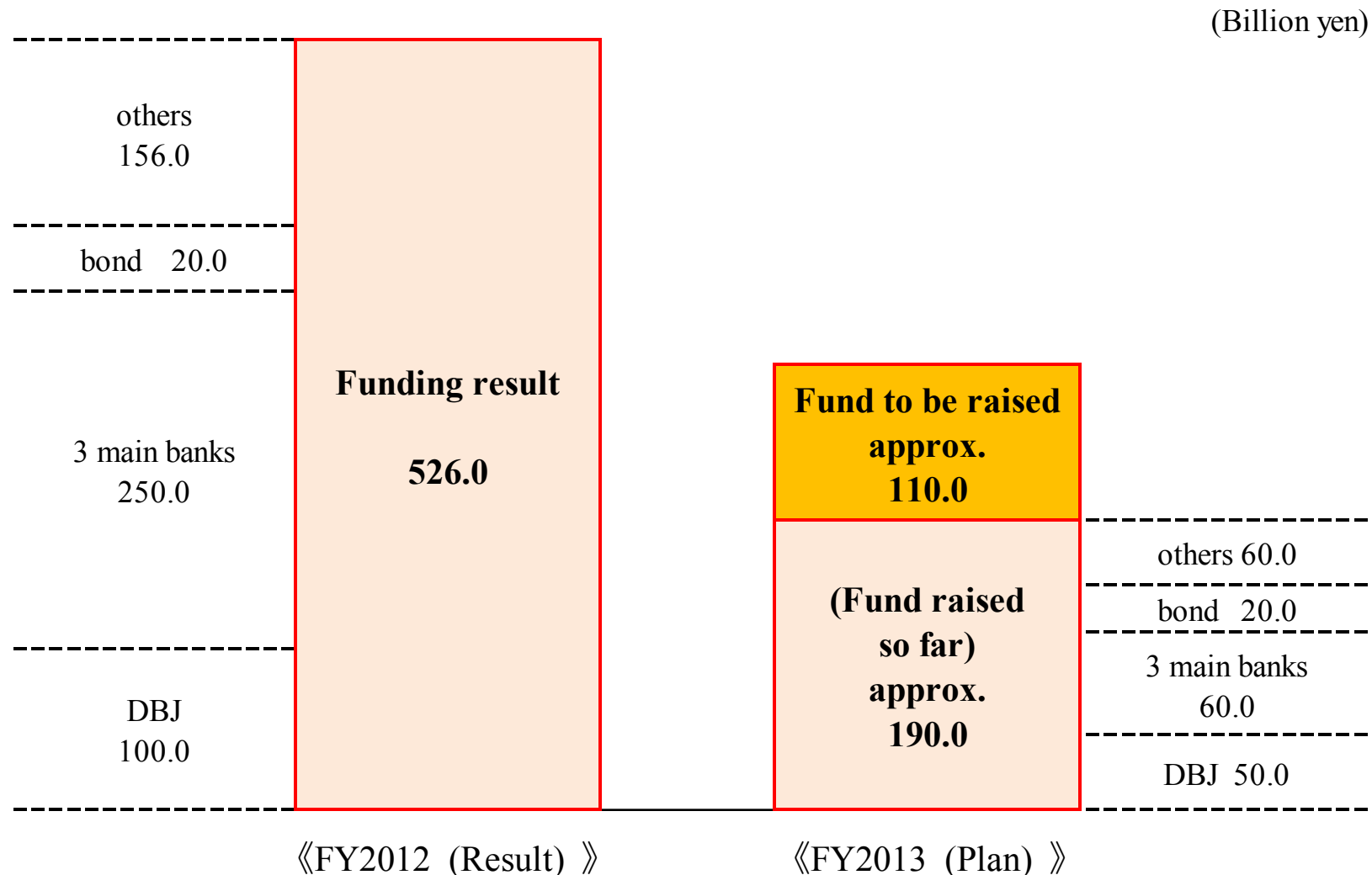
## (reference) LNG procurement results

(million ton)



## - Progress of fund raising in FY 2013

- We plan to raise approximately 300 billion yen in long-term funding in FY 2013.
- We have raised approximately 190 billion yen by the end of the third quarter (end of December 2013).



# Efforts toward Promotion of Management Efficiency in FY2013 11

## - Efforts toward Promotion of Management Efficiency in FY2013

(billion yen)

Item		FY2013	Contents	FY2012 (Reference)
Investments reduction		approx.70.0	[Capital investment] -To review the timing, scope and method of construction works -To reduce cost of material procurement and services [Foreign investment] -To select the new investment carefully	approx.60.0
Expenses reduction	Maintenance	20.0	-To review the timing, scope and method of construction works -To reduce cost of material procurement and services -Group-wide efforts to enhance efficiency	10.0
	Overhead expenses	17.0	-To review the R&D costs, system development cost and PR costs such as sales promotion activities and advertisement	15.0
	Fuel	17.0	-To procure more economical fuels -To reduce thermal fuel cost through more efficient plant operation	15.0
	Salaries and employee benefits	4.0	-To cut back bonus -To cut back overtime work	2.0
	Subtotal	approx.60.0		approx.40.0
Total		approx.130.0		approx.100.0

# Outline of Application for Electricity Rate Increases

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- On October 29, 2013, the Company applied for a 4.95% increase in electricity rates under regulation from April 1, 2014 with the Minister of Economy, Trade and Industry (**a 8.44% increase in electricity rates under liberalization**).
- The Company will steadily implement measures to “raise business efficiency” that are factored into the applied electricity rates and restructure its revenue base immediately.

## [Principal figures for the cost calculation]

	This time (average of FY 2014 to FY 2016) (A)	Previous time (FY 2008) (B)	Change (A-B)
Electricity sales volume (TWh)	126.2	135.7	( 9.5)
Crude oil prices (\$/b)	105.5	82.9	22.6
Foreign exchange rates (yen/\$)	99.0	113.0	(14.0)
Nuclear power utilization (%) <Units 3, 4, and 5>	12.4 <12.4>	59.6 <83.0>	(47.2) <(70.6)>
Rate of return (%)	2.9	3.2	(0.3)
Headcount (persons)	17,975	16,057	1,918

- Crude oil prices and foreign exchange rates are set based on the MOF's trade statistics for the recent three months (average of June to August 2013) at the time of the application.
- The nuclear power utilization is calculated on the assumption that Unit 4 will generate electricity from January 2016 and Unit 3 will generate electricity from January 2017. Electricity generated by Unit 5 during the cost calculation period (FY 2014 to FY 2016) is not reflected in the nuclear power utilization. Figures in the < > in the lower column of the nuclear power utilization indicate the nuclear power utilization excluding electricity generated by Hamaoka Units 1 and 2 that terminated the operation in January 2009.



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# The New Regulatory Standards<1>: Outline of "the New Regulatory Standards"

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Compared to the former safety standards, the new regulatory standards have been strengthened the standards to prevent a severe accident, and newly added the standards to cope with a severe accident or a terrorist attack.

## <Former safety standards>

Consideration for a natural phenomenon
Consideration for a fire
Reliability of power supply
Performance of other facilities
Capacity of earthquake resistance and tsunami countermeasures

## <New regulatory standards>

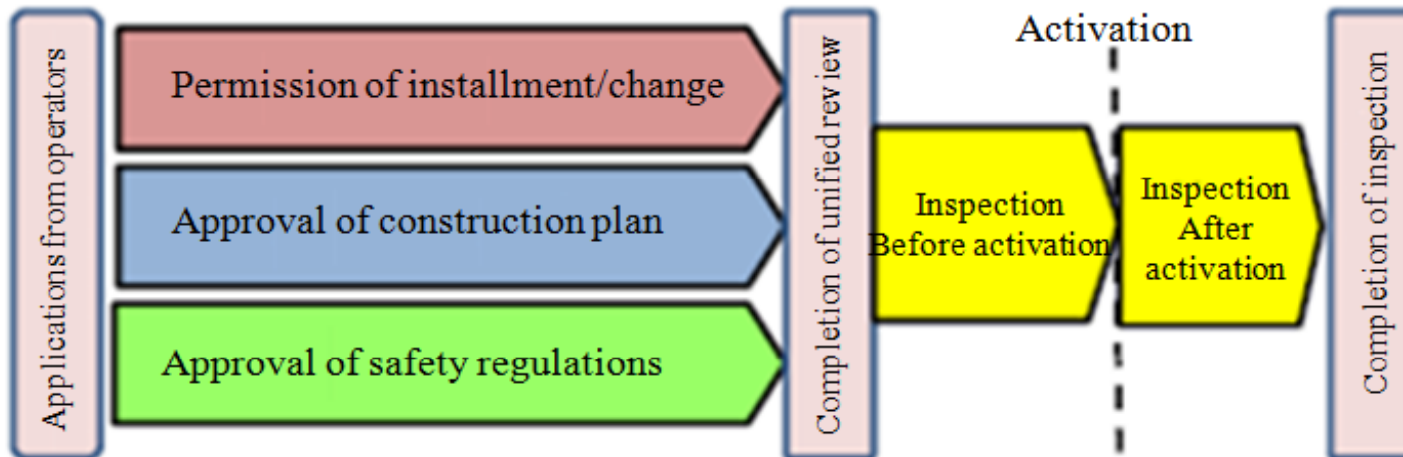
Response to a intentional aircraft collision	New (Terrorist attack Countermeasures)
Measures to prevent a large-scale discharge of radioactive materials	
Measures to prevent damage to a reactor containment vessel	New (Severe Accident Countermeasures)
Measures to prevent damage to a reactor core (Under assumption of multiple failure of equipments)	
Consideration for a internal overflow water (New)	Reinforcement or New
Consideration for a natural phenomenon (New: volcano, tornado, forest fire)	
Consideration for a fire	
Reliability of power supply	
Performance of other facilities	Reinforcement
Capacity of earthquake resistance and tsunami countermeasures	

## The New Regulatory Standards <2>: Method for Conducting Review and Inspection After Enforcement of the New Regulatory Standards (Image)

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- Application for compatibility check to New Regulatory Requirements, the effectiveness of the both hardware and software, such as the design of facilities and the operation management systems, etc., will be reviewed in a unified manner. Applications from operators for the permission of installment/change, the approval of construction plans and the approval of safety regulations will be accepted at the same time and be reviewed in parallel.

### 【 Application for compatibility check to New Regulatory Requirements 】



## The New Regulatory Standards<3>: Influence of 40-years regulation

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**< Article 43, Paragraph 3, Item 31 of the Law for the Regulations of Nuclear Source Material, Nuclear Fuel Material and Reactors>**

- The operation period of a power reactor shall be 40 years from the start of operation. When approval is obtained by the date of expiration, the operation period may be extended only once.**
- The extended period shall be a period not exceeding 20 years as specified by a Cabinet Order.**

### ■ Current Situation of our nuclear power reactor

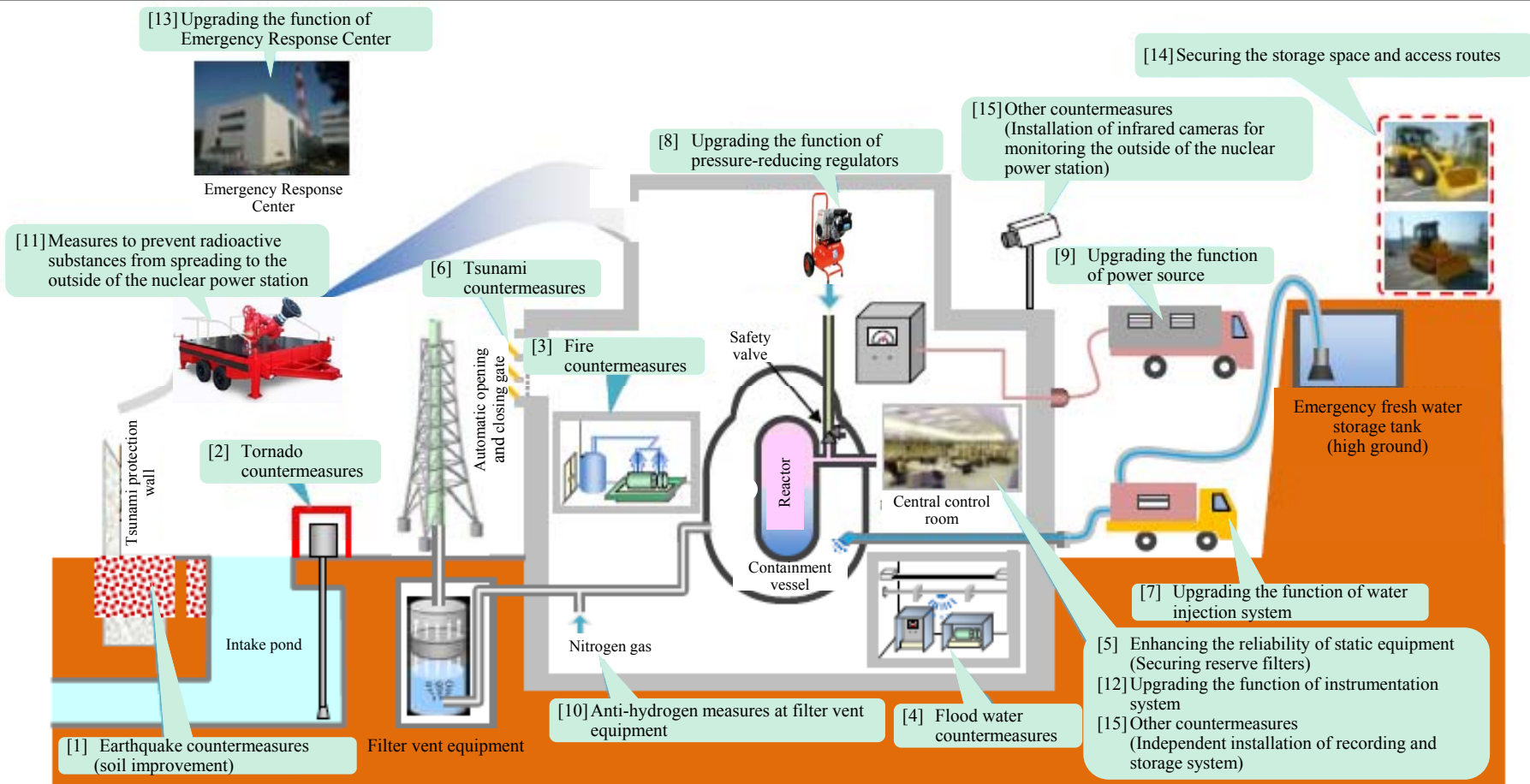
The our Company's nuclear reactors have been built relatively recently. Even Hamaoka Reactor Unit 3, the oldest reactor in the Hamaoka Nuclear Power Station, will not be 40 years old until 2027. We will examine the possibility to apply for the extension of the operation period of Unit 3 after 2027 to secure our supply capacity.

	Output (MW)	Commencement of commercial operation	Age of reactors at the end of December 2013
Unit No.3	1,100	August 28 1987	26 years
Unit No.4	1,137	September 3 1993	20 years
Unit No.5	1,380	January 18 2005	8 years

# Hamaoka Nuclear Power Station<1>: 16

## Implementation of Additional Safety Measures for Units 3 and 4 in accordance with New Regulatory Standards

–(Announced on September 25, 2013) The Company implements additional safety measures including earthquake countermeasures, tornado countermeasures, fire countermeasures and strengthening the water injection function as severe accident countermeasures in addition to voluntarily implementing countermeasures, such as tsunami countermeasures and severe accident countermeasures in order to promptly comply with the new regulatory standards.

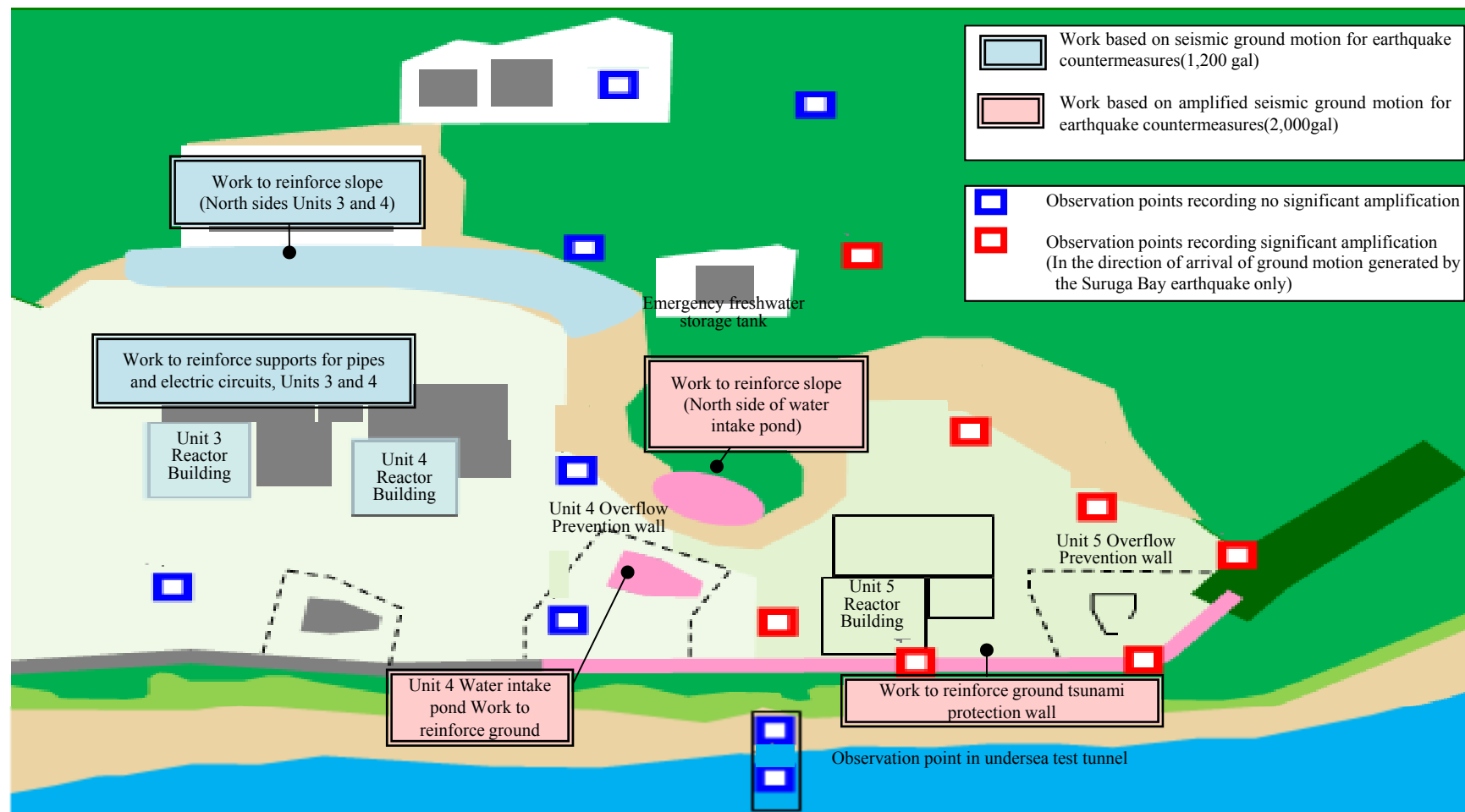


# Hamaoka Nuclear Power Station<2>: 17

## Overview of Work related to Earthquake Countermeasures for Units 3 and 4

- (Announced on September 25, 2013) The Company has set the seismic ground motion and amplified seismic ground motion for renovation works mentioned below with an eye on important facilities from the standpoint of seismic resistance; implements improvement works of support reinforcement for pipelines and cables.

Units 3 and 4: 1,200 gals; Tsunami protection walls around Unit 5 and the intake pond for Unit 4: 2,000 gals





# Hamaoka Nuclear Power Station <3>:

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## Seawater inflow via damaged tubes in the main condenser for Hamaoka Reactor No.5

### Fact

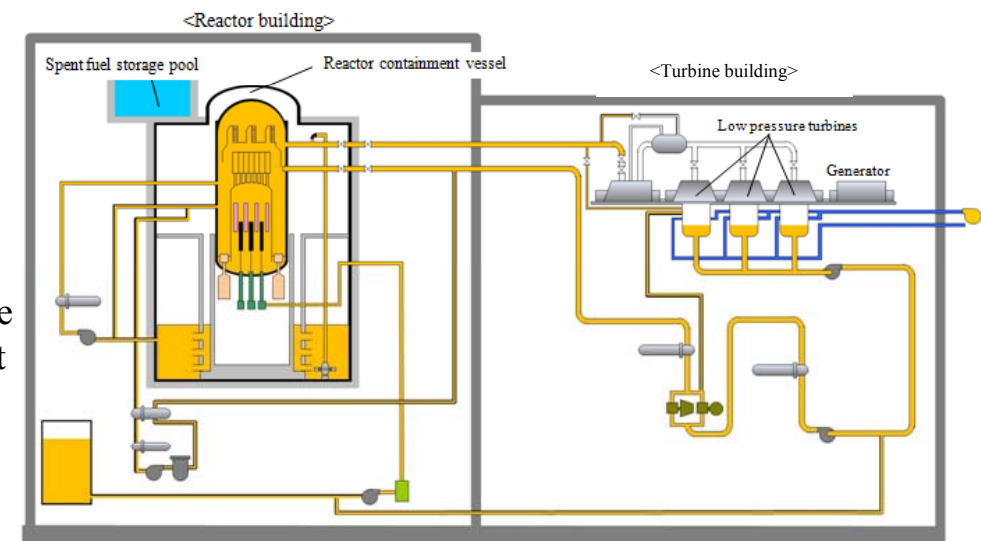
- On May 14, 2011, when preparing for cold shutdown after reactor No. 5 was suspended, a portion of the tubes in the main condenser, through which seawater flowed to cool steam, was damaged. 400 tons of seawater flowed into the main condenser and 5 tons of sea water into the reactor.

### The situation of the investigation

- We are conducting an environmental simulation test that reproduces seawater inflow and an inspection to see if seawater inflow caused equipment to corrode by disassembling and opening the reactor.
- So far, we have confirmed the following things concerning reactor equipment:
  - We inspected the nuclear pressure vessels for corrosion of lined portions or other abnormality. The result did not show any abnormality that would affect the integrity of the nuclear reactors and turbine systems.
  - We did not find defects among any fuel materials at the visual inspection of fuels that had been loaded at the time of seawater inflow.

### Future plan

- We plan to complete the inspection and assessment of the nuclear pressure vessel and core internals by September 2014.
- Excepting the nuclear pressure vessel and core internals, we will complete the inspection and evaluation of the equipment and fuels within FY2013.
- As required, we will report the progress of the integrity inspection and evaluation to the national investigation committee for review by the committee members.



※ Yellow areas are flowed by seawater

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# Hamaoka Nuclear Power Station <4>: 19

## Reinforcement of disaster measures of Hamaoka Nuclear Power Station

### - Review and Strengthening of Nuclear Disaster Prevention System

- In addition to construction of tsunami protection wall and other tangible measures, we will strengthen its disaster prevention system and other intangible measures so that our group companies can jointly resolve the situation within the shortest possible time even if a nuclear disaster occurs.
- To enhance its preparedness for nuclear disasters resulting from earthquakes/tsunamis, we will strengthen its education/training systems and improve the related procedures.

### - Improvement and Strengthening of Disaster Prevention Materials and Equipment

- We will strengthen the materials and equipment that are indispensable for coping with a nuclear disaster, such as communication systems (e.g., teleconference systems) necessary for information exchange inside and outside the site, radiation meters for use in the event of a nuclear disaster, and means for securely transporting the above equipment and other disaster prevention materials and equipment.

### - Enhancing Cooperation with the Central Government and Local Governments

- We will actively cooperate with local governments around the nuclear power plant in revising regional disaster prevention plans. We will also actively participate in disaster drills hosted by the central government or local governments so that we can appropriately implement necessary countermeasures in cooperation with the various governments if a nuclear disaster occurs.



<In-house training>

Training at 0.5 million V switching station on power plant's premises Trainees measure the contamination level of evacuating site workers using survey meters.



<Participation in disaster prevention drill hosted by Shizuoka Prefectural Government >

A dispatched electric power transmission line inspector is trained to transport his inspection vehicle by Self-Defense Forces helicopter.

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# Electric Power System Reform <1> : Schedule of the Electric Power System Reform

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## - Ordinary 2013 Diet session

The bill for the Act for Partial Revision of the Electricity Business Act was submitted to the Diet session, but the bill was abandoned.

## - Extraordinary Diet session in the fall of 2013

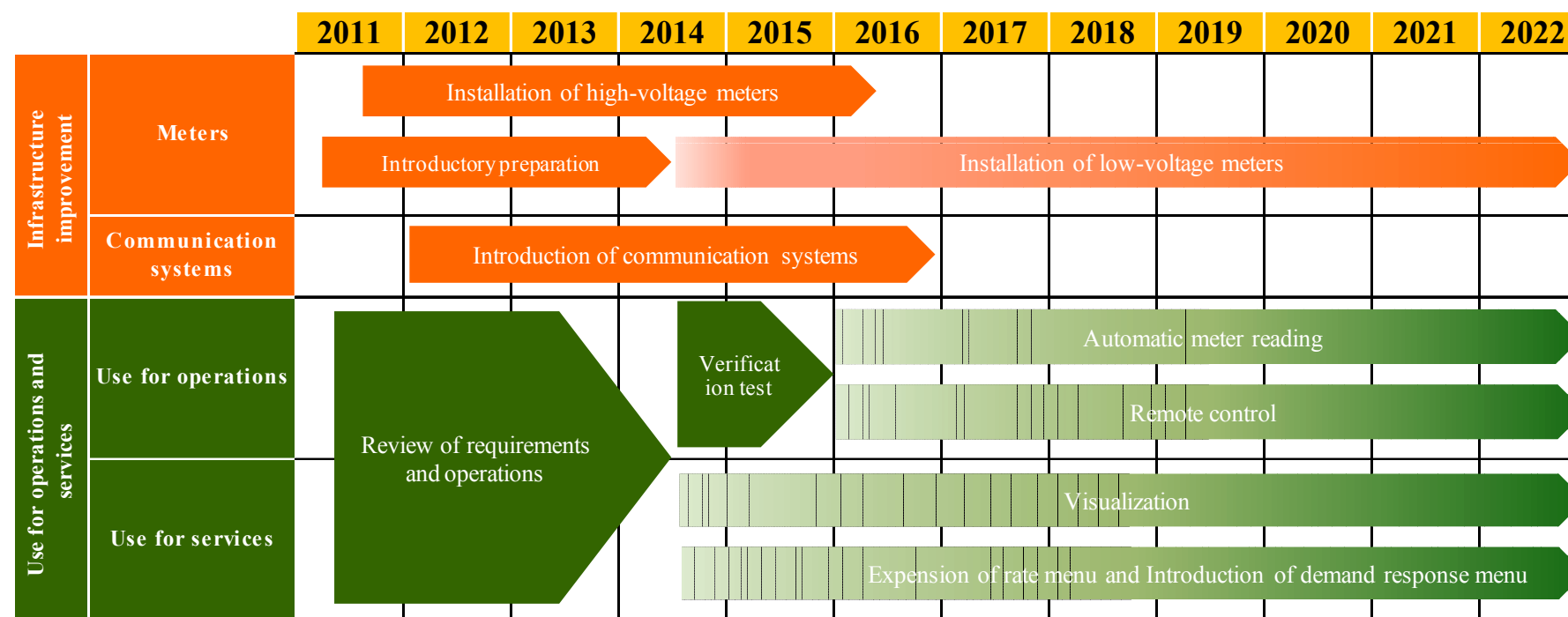
The Minister of Economy, Trade and Industry resubmitted the bill , and it was enacted.

(Reference) The Amended Electricity Business Act (Enacted on November 13, 2013)

	Schedule for implementing the measures	Schedule for enacted/submitting the bill
1st phase: Establishing the Organaization for Nationwide Coordination of Transmission Operators	In about 2015	Enacted on November 13, 2013
2nd phase: Fully liberalizing the electricity retail market into which retail entities are able to enter	In about 2016	To the ordinary Diet session in 2014
3rd phase: Further securing the neutrality of the power transmissiion/distribution sector through legal unbundling; Fully liberalizing electricity rates	By about 2018-2020	The Government of Japan shall aim to submit the bill to the ordinary Diet session in 2015

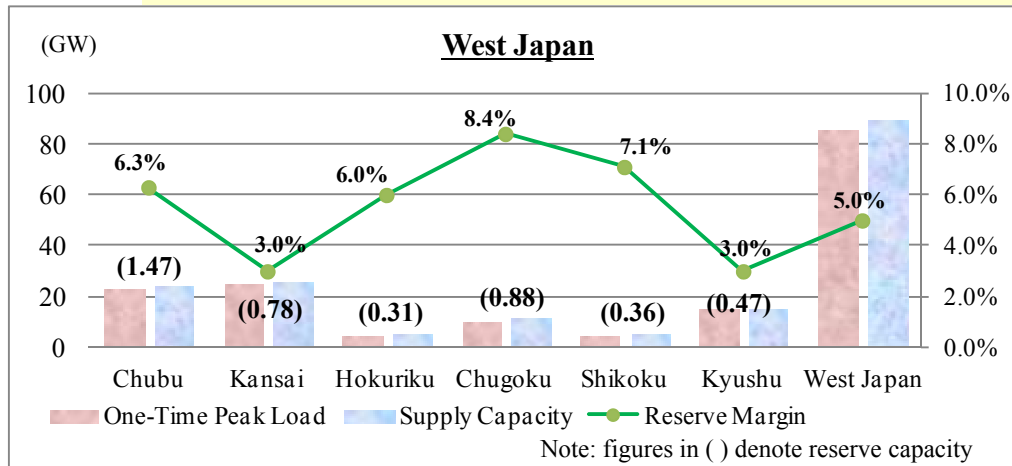
## - The introduction schedule of smart meters

- Installation of smart meters has already been completed for our special high-voltage and high-voltage (500 kW and above) customers.
- In the case of other high-voltage (less than 500kW) customers, we began installing smart meters in January 2012, and we plan to complete installing by FY2016.
- For low-voltage customers, we intend to begin installation from October 2014 in selected regions, expanding to all regions in July 2015. Although we initially planned to complete installing by June 2025, we shorted it by two years and three months, and we are now looking forwards completion in March 2023.

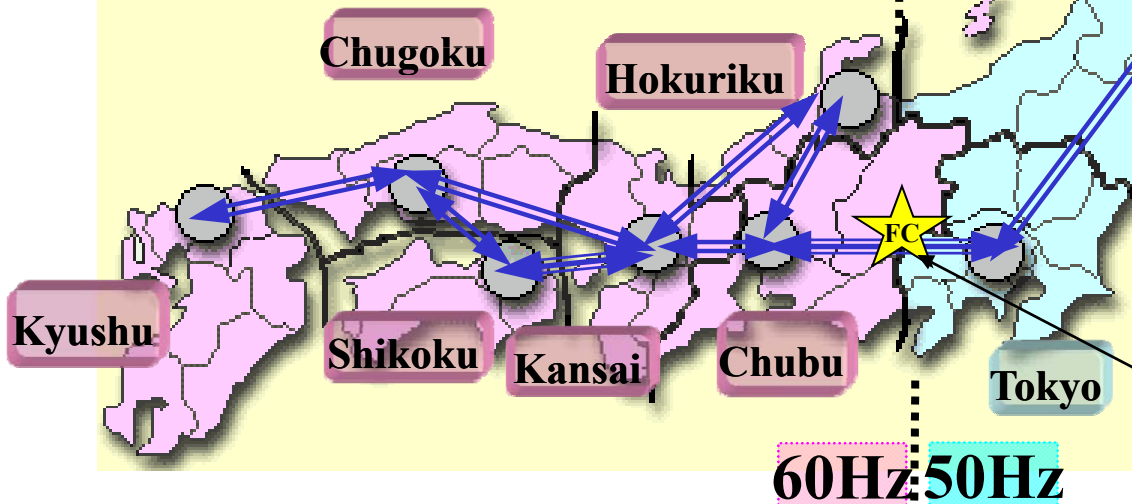
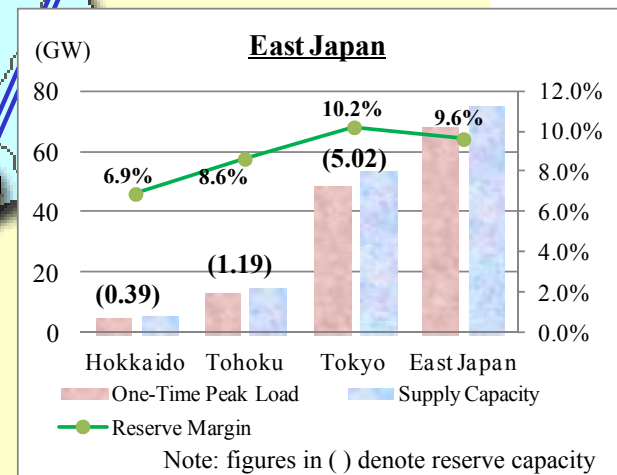


# Electricity Supply & Demand <1>: Outlook of Electricity Supply and Demand for Winter (February 2014) in Japan

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**Tohoku**



Capacity of Frequency Converter

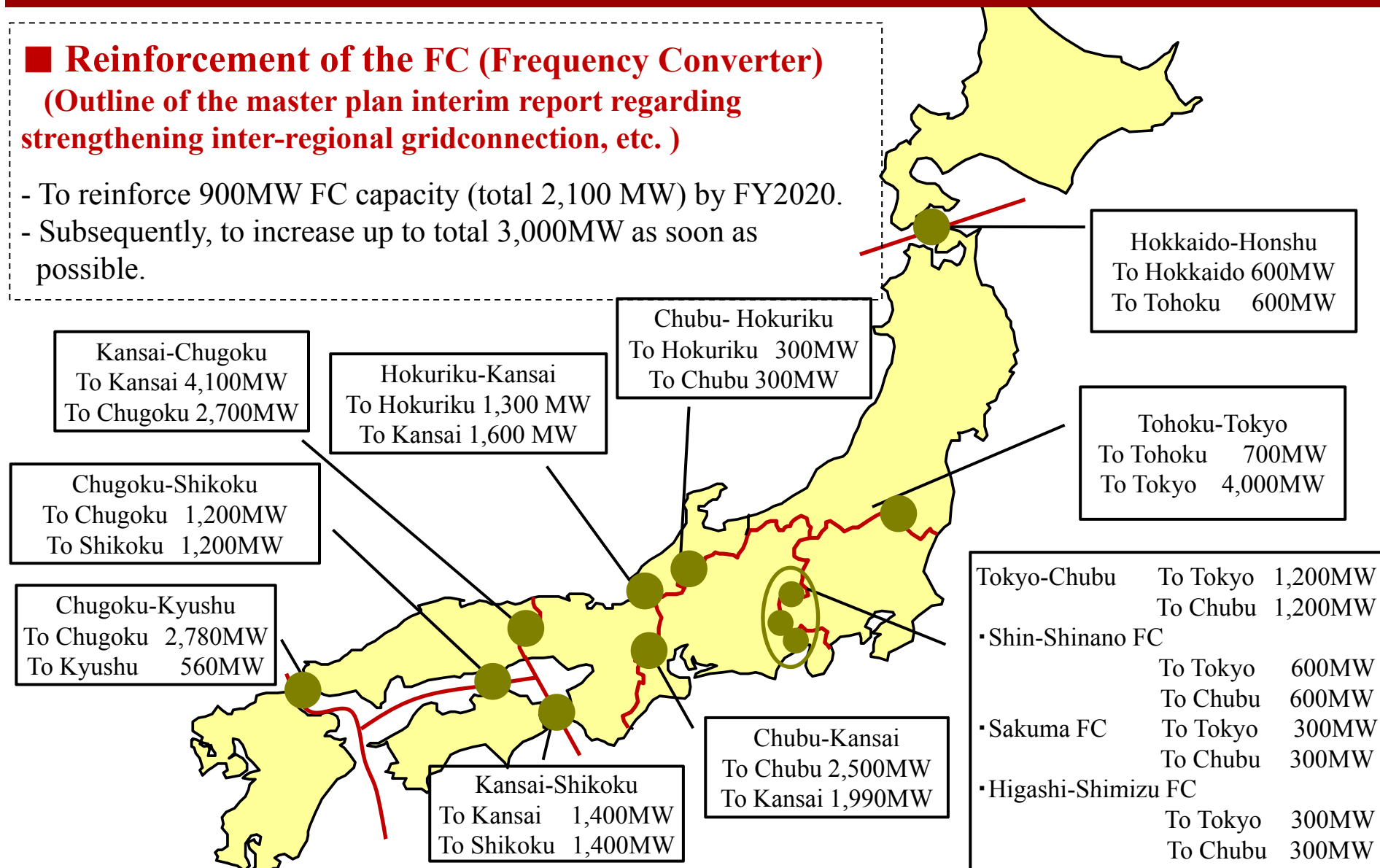
- ◇ Shin-Shinano (Tokyo) × 2 : 600MW
- ◇ Sakuma (J-Power) : 300MW
- ◇ Higashi-Shimizu (Chubu) : 300MW

# Electricity Supply & Demand <2>: Strengthen Mutual Support among power companies

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## ■ Reinforcement of the FC (Frequency Converter) (Outline of the master plan interim report regarding strengthening inter-regional gridconnection, etc. )

- To reinforce 900MW FC capacity (total 2,100 MW) by FY2020.
- Subsequently, to increase up to total 3,000MW as soon as possible.



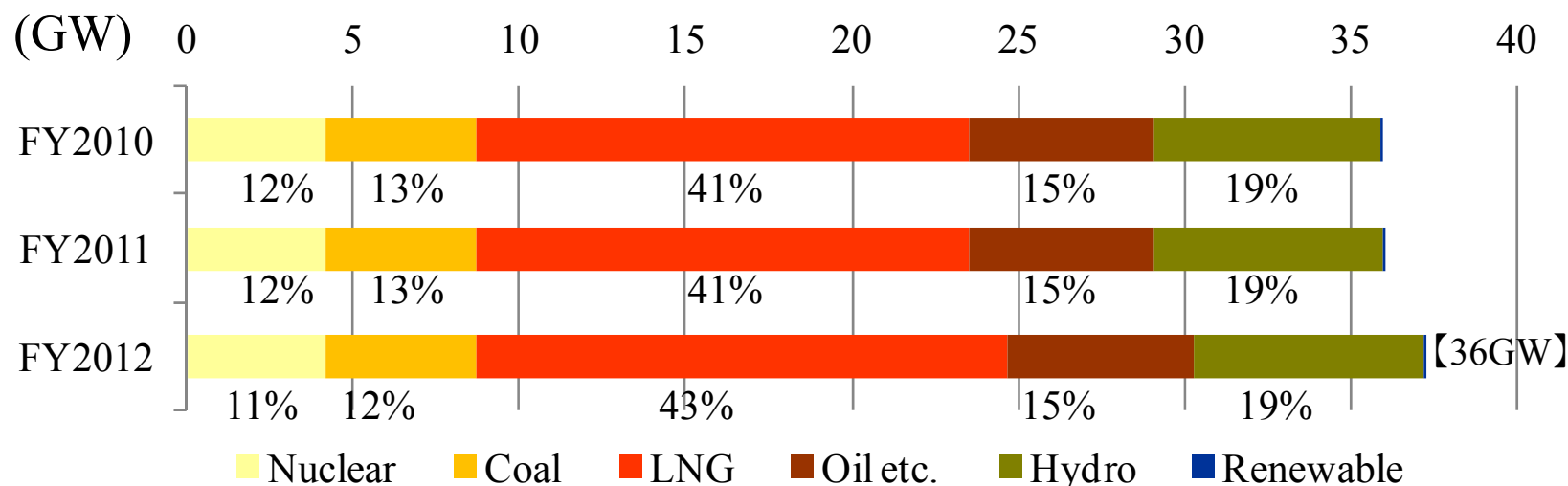
Note: The figures for the operating capacity during the day time (8 a.m. to 8 p.m.) in February are derived from data of the Electric Power System Council of Japan.

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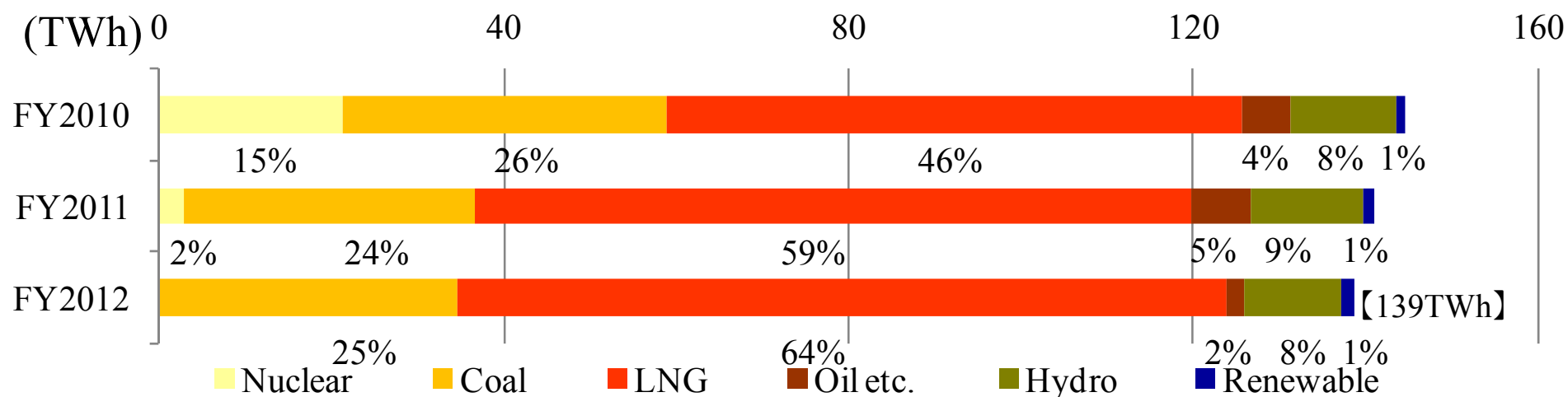
# Electricity Supply & Demand <3>: Composition of Power Sources and Electric Power Output

24

## - Composition of Power Sources



## - Composition of Electric Power Output



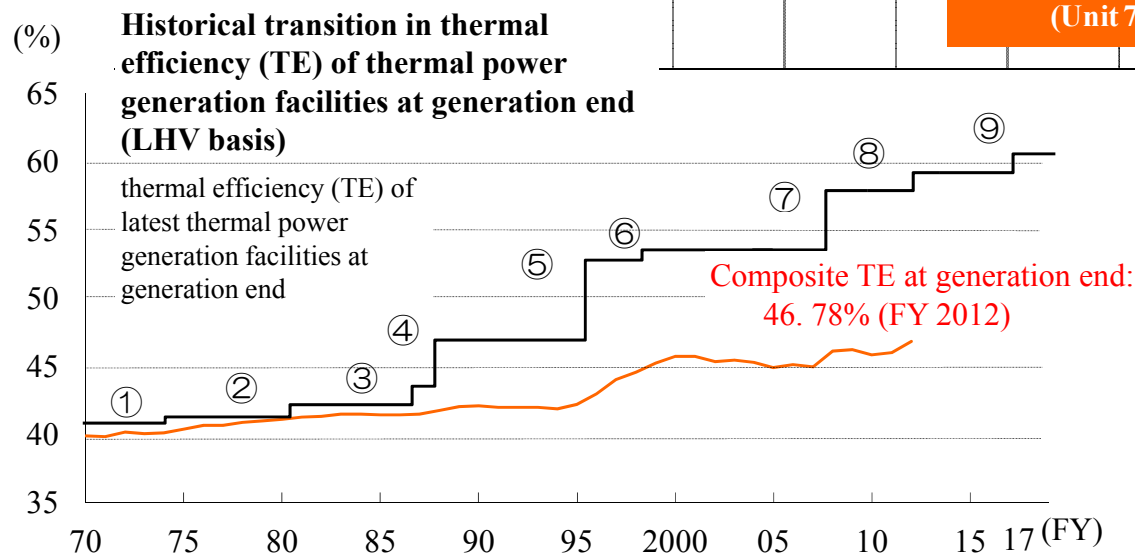
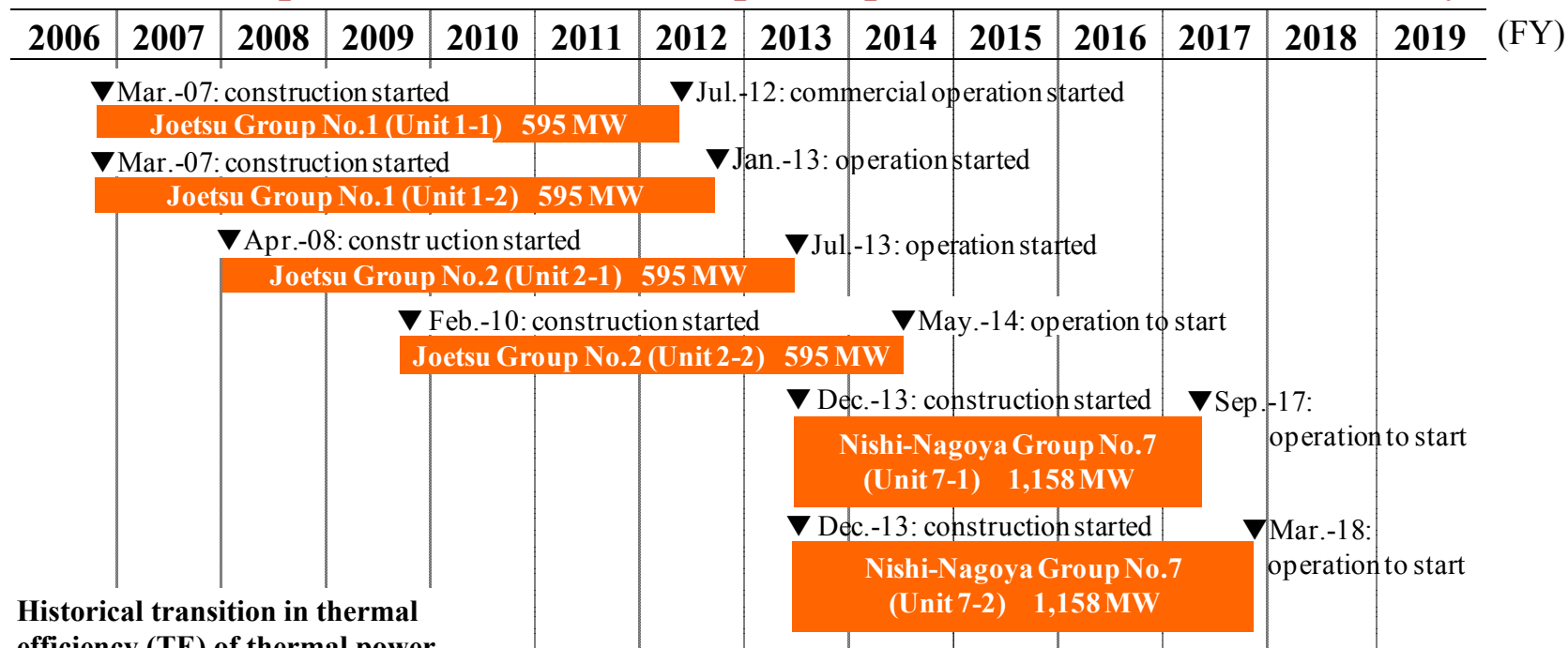
Note: Figures include output from Interchanged, Purchased power

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# Thermal Power Plants <1>: Development of LNG Thermal Power Plants with Enhanced Efficiency

25

## - Outline of development of LNG thermal power plants with enhanced efficiency



	Unit	TE*(%)	Principal fuel
1	Chita No.4	41.7	Heavy / crude oil
2	Atsumi No.3	42.5	Heavy / crude oil
3	Owase Mita No.3	44.0	Heavy / crude oil
4	Yokkaichi No.4	47.3	LNG
5	Kawagoe Gr. No.3	53.9	LNG
6	Shin-Nagoya Gr. No.7	54.0	LNG
7	Shin-Nagoya Gr. No.8	58.0	LNG
8	Joetsu No.1, 2	58.5	LNG
9	Nishi-Nagoya No.7	approx.62	LNG

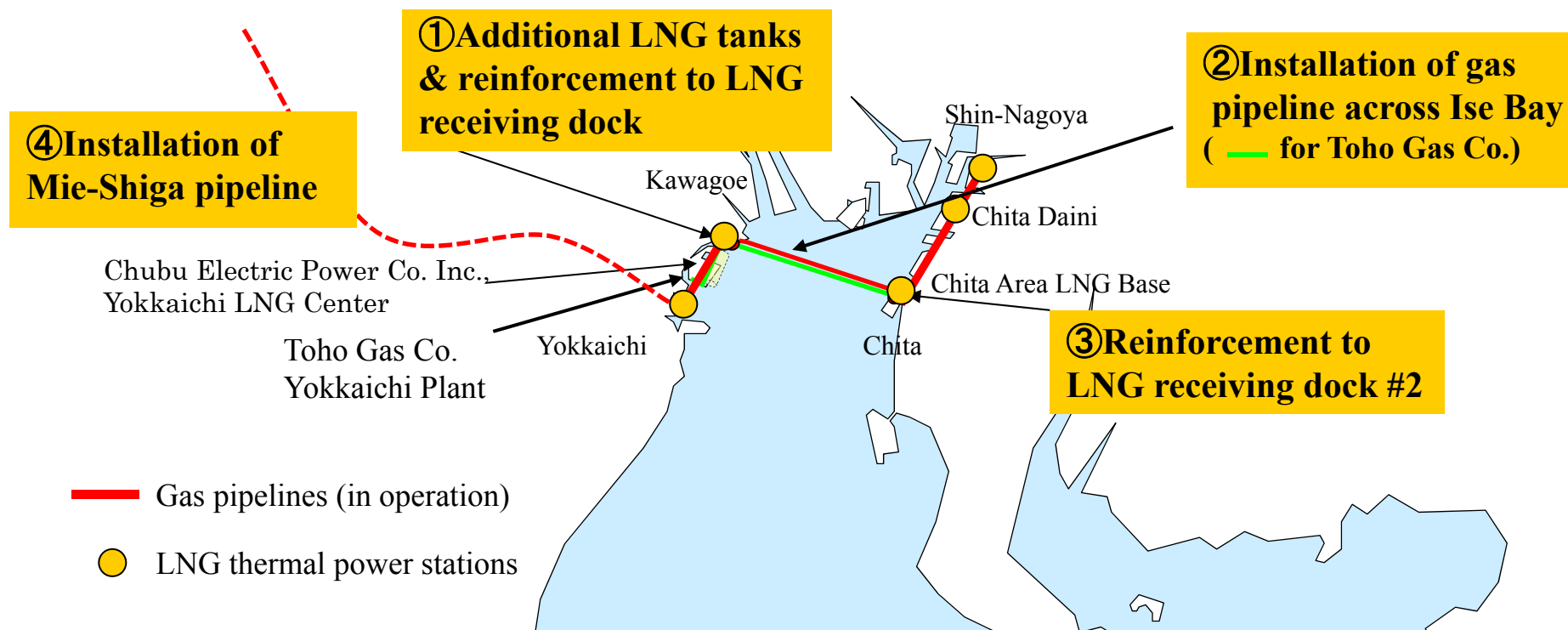
\*TE: Thermal efficiency

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# Thermal Power Plants <2>: Reinforcement Plan for LNG Handling Facilities

26

## - Supporting stable yet flexible LNG procurement



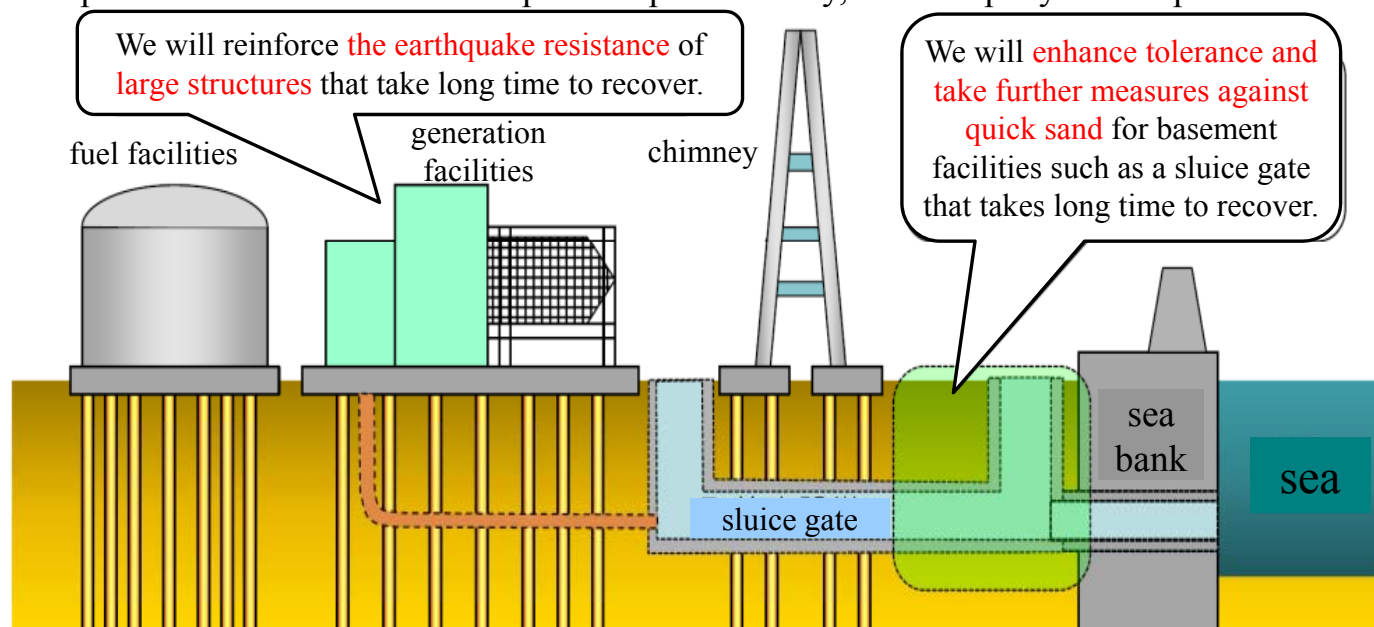
	Project name	Project outline	commencement	completion
①	Additional LNG tanks in Kawagoe	Two additional tanks in Kawagoe Thermal Power Station (capacity: 180,000m <sup>3</sup> each)	FY2007	FY2012
	Reinforcement to receiving dock in Kawagoe	Enabling to accommodate LNG super tankers with class of over 200,000m <sup>3</sup>	FY2009	FY2010
②	Gas pipeline across Ise Bay	Kawagoe Thermal Power Station - Chita Area LNG Base approx. 13.3km	FY2008	FY2013 (Completed in Sep.)
③	Reinforcement to No.2 receiving dock in Chita	Enabling to accommodate LNG super tankers with class of over 200,000m <sup>3</sup>	FY2008	FY2009
④	Mie-Shiga pipeline	Yokkaichi Thermal Power Station - Taga Governor Station (Osaka Gas Co.) approx. 60 km	FY2004	FY2013 (Completed in Jan.)

# Thermal Power Plants <3>: Actions at Thermal Power Plants etc. against Earthquakes

27

## ■ Thermal power plants

To further improve the reliability of all power stations from the standpoint of public safety, the Company will implement measures necessary to ensure the seismic resistance of fire prevention and extinguishing facilities, and their functions in case of disaster. We will also enhance the seismic-resistant tolerance of thermal power stations and LNG facilities that are important from the standpoint of ensuring early electricity supply capacity after a disaster.



## ■ Hydro electric power plants

It was confirmed that the dam itself will be safe and will not be seriously affected by the potential triple interrelated earthquakes. A seismic performance of dam-related structures (hydraulic iron pipes, dam floodgate columns) will be assessed gradually, and measures to improve their seismic resistance will be taken as necessary.

## ■ Distribution facilities

To prevent greater hindrance to electricity supply, the Company has been implementing measures for moving main equipment in substations to higher ground, constructing tsunami protection walls and increasing portable electric substation equipment at major substations (super voltage substations, primary substations and secondary substations). We have been preferentially implementing measures at major substations (primary substations and secondary substations) that may cause greater hindrance to electricity supply in the event of equipment failure.



## - Principal LNG Contracts

				(1,000 t/year)
Projects / <delivery>		Period of contract		Contract volume (approximate figure)
Existing Contracts	Qatar1 / <Ex-ship>	1997 - 2021	(approx.25 years)	4,000
	Australia (extension) / <Ex-ship>	2009 - 2016	(approx.7 years)	500
	Australia (expansion) / <Ex-ship>	2009 - 2029	(approx.20 years)	600
	Malaysia / <Ex-ship>	2011 - 2031	(approx.20 years)	max. 540
	Sakhalin II / <Ex-ship>	2011 - 2026	(approx.15 years)	500
	Indonesia (re-extension) / <FOB/Ex-ship>	2011 - 2015	(approx.5 years)	950
		2016 - 2020	(approx.5 years)	640
	BP Singapore / <Ex-ship>*1	2012 - 2028	(approx.16 years)	*2
	ENI / <Ex-ship>	2013 - 2017	(approx.5 years)	*3
Future Contracts	Qatar3 / <Ex-ship>	2013 - 2018	(approx.5 years)	1,000
		2018 - 2028	(approx.10 years)	700
	Woodside / <Ex-ship>*1	2014 - 2017	(approx.3 years)	*4
	Gorgon / <FOB/Ex-ship>	2014 - 2038	(approx.25 years)	max. 1,440
	Donggi-Senoro / <Ex-ship>	2015 - 2027	(approx. 13 years)	1,000
	BG Group / <Ex-ship>*1	2014 - 2035	(approx.21 years)	*5
	Wheatstone / <FOB>	2017 - 2037	(approx.20 years)	1,000
	Ichthys / <FOB>	2017 - 2032	(approx.15 years)	490

\*1 Contract to purchase LNG from multiple sources

\*2 Approx. 8 million ton through the contract term

\*3 Joint Purchase by Chubu Electric and KOGAS. Approx. 1.7 million ton in total of two companies through the contract term.

\*4 Maximum 21 cargos through the contract term (or maximum approx. 1.47 million ton if using ships with 70,000 ton cargo capacity)

\*5 Maximum 122 cargos through the contract term (or maximum approx. 8.54 million ton if using ships with 70,000 ton cargo capacity)

## ■ Three Contracts of LNG Ship Charter

- Based on the FOB contract ( Gorgon, Ichthys, Wheatstone) , we concluded three contracts of LNG ship charter to enhance efficiency and flexibility of procurement by managing freight charge.

	1st Ship	2nd Ship	3rd Ship
Shipowner	Foreign corporation, whose stocks are owned by Mitsubishi Co., and NYK	Foreign corporation, whose stocks are owned by Mitsubishi Co., and Mitsui O.S.K. Lines, Ltd.	Foreign corporation, whose stocks are owned by Kawasaki Kisen Kaisha, Ltd.
Freighter	Chubu		
Period of Contract	approx 15 - 20 years		

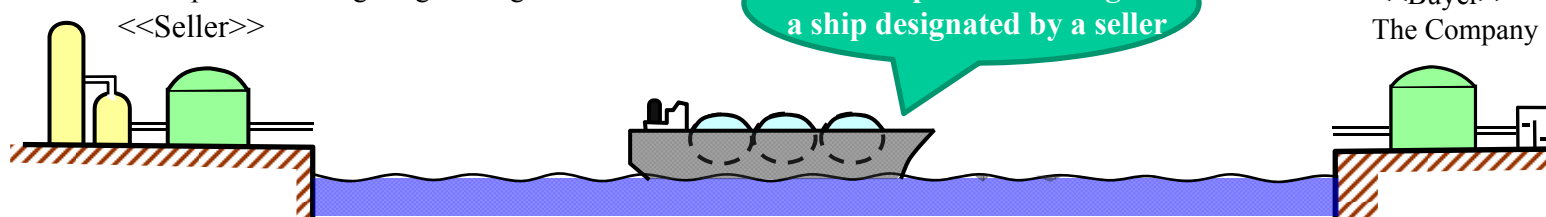
## ■ Future Contracts of LNG Ship Charter

- We are planning to arrange five more LNG ship charters for Freeport LNG project.

### <Shipping scheme>

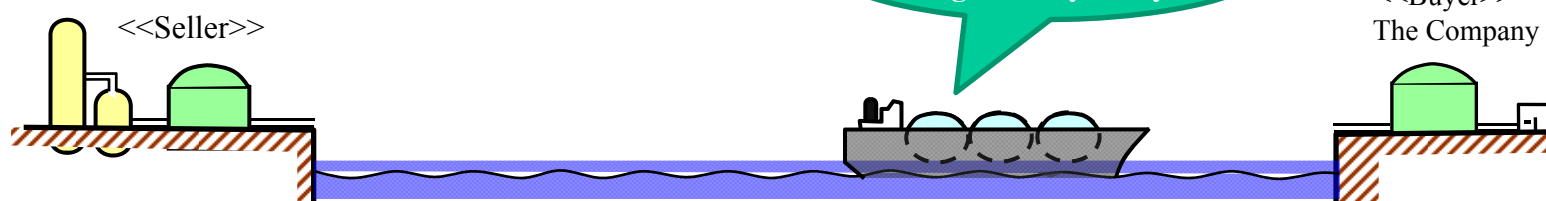
#### ◆ Ex-ship contract: LNG price = Cost of goods + Freight charge

- Transportation under the seller's responsibility
- LNG price including freight charge



#### ◆ FOB contract: LNG price = Cost of goods only

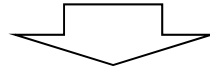
- Use of the flexible destination clause
- Shipment at the buyer's discretion



# Fuel Procurement<3>: Advancement of Coal Trading 30

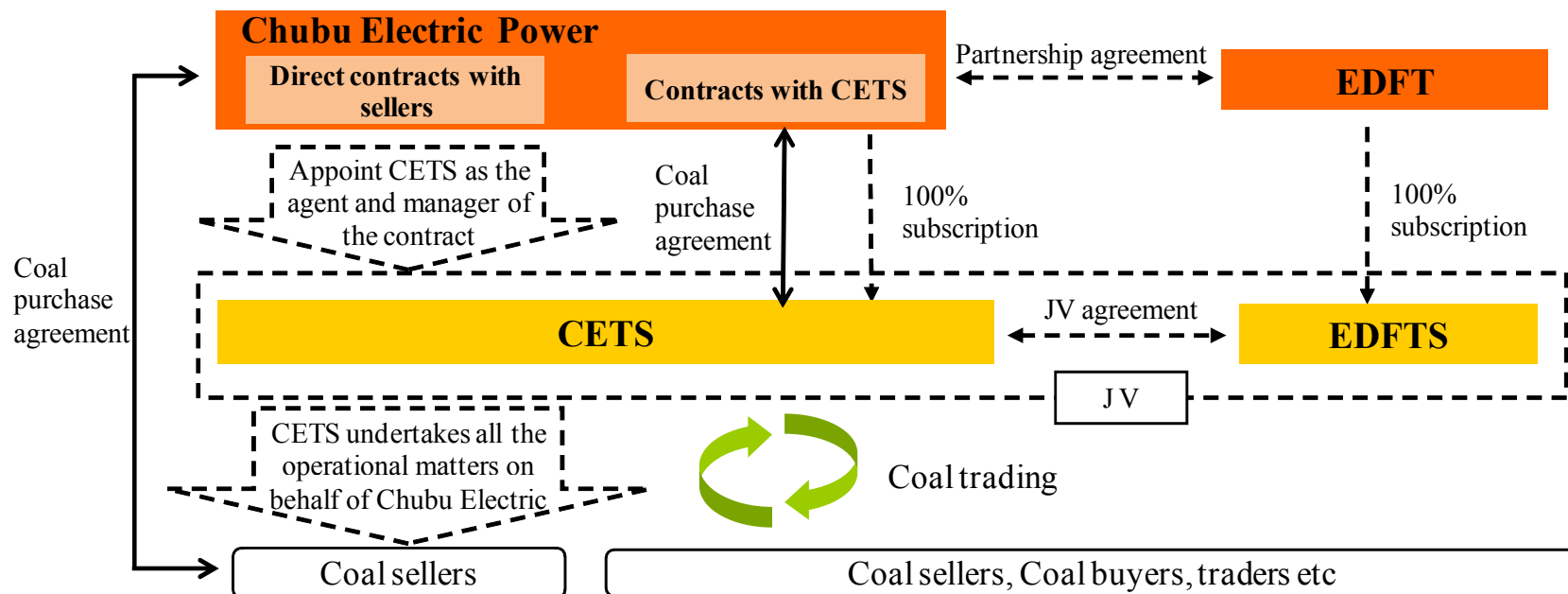
## - Coal trading business

- Chubu Electric and Electricite de France's subsidiary EDFT each established 100% subsidiaries in Japan and started fuel trading business under partnership agreement in FY2008.
- Effective in April, 2010, Chubu Energy Trading controls Chubu Electric's whole coal procurements in unitary.



- Chubu Electric appointed Chubu Energy Trading Singapore Pte Ltd, ("CETS" newly established in Singapore also as a wholly owned subsidiary of Chubu Electric) to take over a role of CET from April 2012.

⇒ Benefits from more timely transactions in an efficient and economical manner through the utilization of abundant trading information and talented human resources available in Singapore.



# Fuel Procurement<4>

## Acquisition of Interests in Energy Resources

31

- Acquisition of upstream interests, etc.

### Ichthys (LNG)

Project output capacity:  
Approx 8.4 million ton/year  
Interest holding ratio: 0.735%  
Production scheduled for launch in FY2016.



### Gorgon (LNG)

Project output capacity:  
Approx 15.0 million ton/year  
Interest holding ratio: 0.417%  
Production scheduled for launch in FY2015.

### Integra (Coal)

Project output capacity:  
Approx 3.3 million ton/year  
Interest holding ratio: 5.95%  
In production

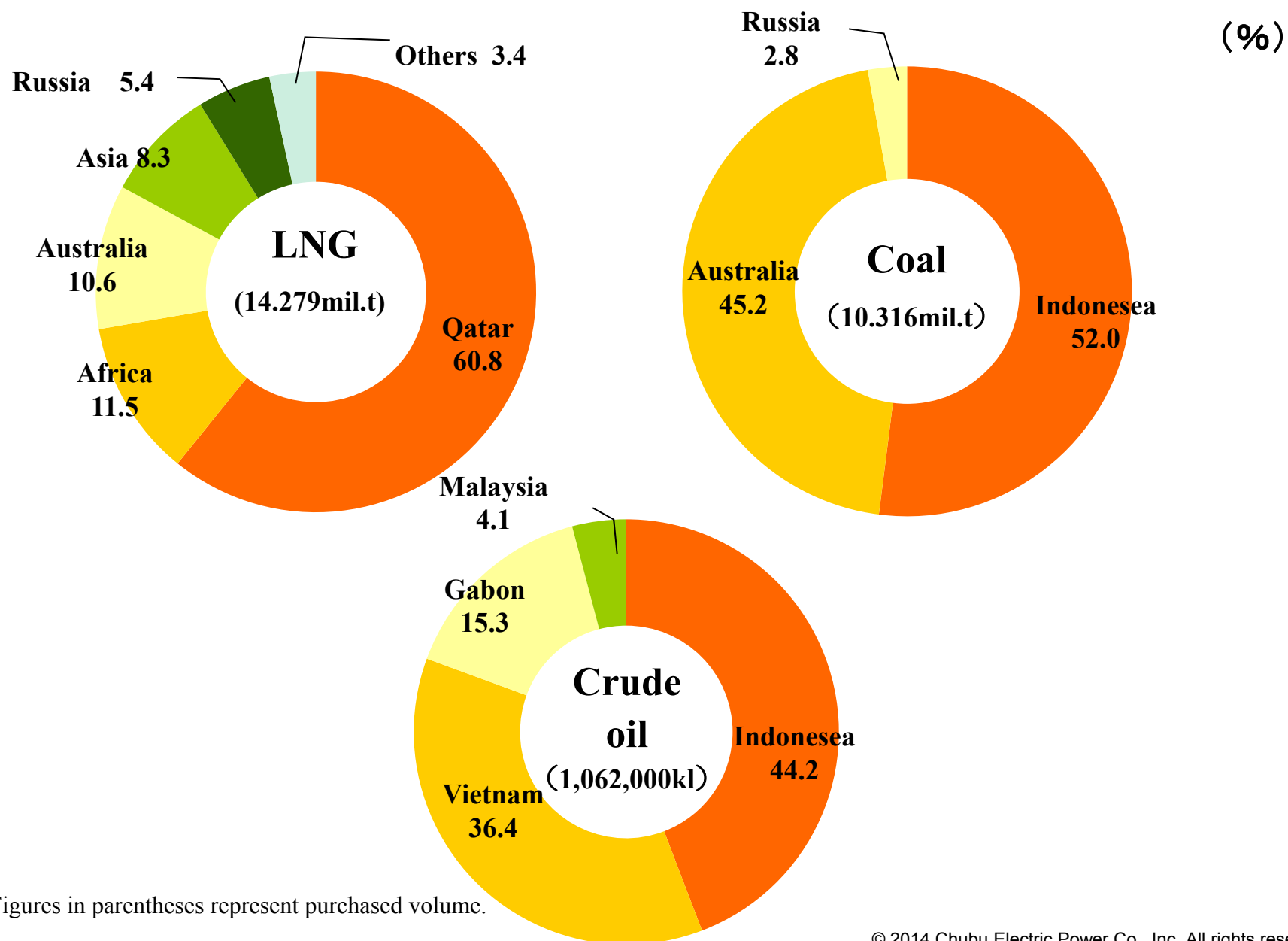
### Cordova Embayment (Shale gas)

Project output capacity:  
Approx 3.5 million ton/year in LNG  
(planned value)  
Interest holding ratio: 3.75%\*  
In production

### Freeport LNG

Liquefying facilities: 3 lines (max. 4 lines) ;  
each line with a contract capacity of around 4.4 million ton/year  
(Our secured capacity: 2.2 million ton/year)  
Liquefaction/processing scheduled for launch in 2018.  
⇒ In May 2013, the Department of Energy (DoE) in the United States gave approval to the Freeport LNG project to export liquefied natural gas (LNG) to Japan, one of countries that do not have a free-trade agreement with the United States.

\*Chubu Electric Power acquired 7.5% of the equity in Cordova Gas Resourced Ltd., a Mitsubishi Corporation Subsidiary that owns a 50% interest in the project.



## ■ Governmental efforts toward promotion of Renewable Energy

### Feed-in Tariff Scheme for Renewable Energy (Implementation from July 1, 2012)

What shall  
be purchased

-Electricity generated from Solar PV\*, wind power, hydraulic power, geothermal and biomass  
\*Electric utilities continue purchasing surplus electricity generated by photovoltaic systems at homes, etc.

Purchase rate  
Purchase  
period

-The purchase price in FY2012

**Solar PV** less than 10kW 42.00 yen/kWh (for 10 years)  
no less than 10kW 42.00 yen/kWh (for 20 years)

**Wind** less than 20kW 57.75 yen/kWh (for 20 years)  
no less than 20kW 23.10 yen/kWh (for 20 years)

-Payment of an average household electricity usage  
(300kWh/month)  
⇒ 66 yen per month (including consumption tax)

-The purchase price in FY2013

**Solar PV** less than 10kW 38.00 yen/kWh (for 10 years)  
no less than 10kW 37.80 yen/kWh (for 20 years)

**Wind** less than 20kW 57.75 yen/kWh (for 20 years)  
no less than 20kW 23.10 yen/kWh (for 20 years)

-Payment of an average household electricity usage  
(300kWh/month)  
⇒ 105 yen per month (including consumption tax)

Collection of  
purchased  
costs

-The equal cost (surcharge/kWh) shall be borne all over Japan (partial reductions exist)  
-Adjustment to make the surcharge equal all over Japan

## - Details for promotion of renewable energy

Detailed plans				Output (MW)	Operation commences
Solar	Chubu Electric		Mega Solar Iida	1	FY 2010
			Mega Solar Taketoyo	7.5	FY 2011
			Mega Solar Shimizu	8	FY 2014 (Plan)
Wind	Chubu Electric		Omaezaki	22	(Phase1) FY 2009 (Phase2) FY 2010
Hydro	Chubu Electric	New development	Susado	0.24	FY 2010
			Tokuyama unit 1	131.0	FY 2015 (Plan)
			Tokuyama unit 2	22.4	FY2014 (Plan)
			Atagi	0.19	FY 2015 (Plan)
			Nyuugawa	0.35	FY 2016 (Plan)
			Shinkushihara	0.22	FY 2015 (Plan)
			Conventional hydro	5.0	FY 2020 (Plan)
				7.3	FY 2022 (Plan)
		Generation with minimum water level	0.29	FY 2016 (Plan)	
			0.32	FY 2018 (Plan)	
		Improvement	Wago	0.2 <sup>*1</sup>	FY 2012
			Okuyahagi Daiichi unit 3	2.0 <sup>*1</sup>	FY 2012
			Okuizumi	5.0*1	FY 2012
			Okuyahagi Daiichi unit 1	3.0 <sup>*1</sup>	FY 2013
			Yokokawa	0.02 <sup>*1</sup>	FY 2013
	Acquired from the enterprize dept. of Mie prefecture (10 sites)			98	
Biomass	Chubu Electric		Mixture of wooden chip	—	FY 2010
			Mixture of fuel from carbonized sewage	—	FY 2012

\*1 Represents amount of improvement

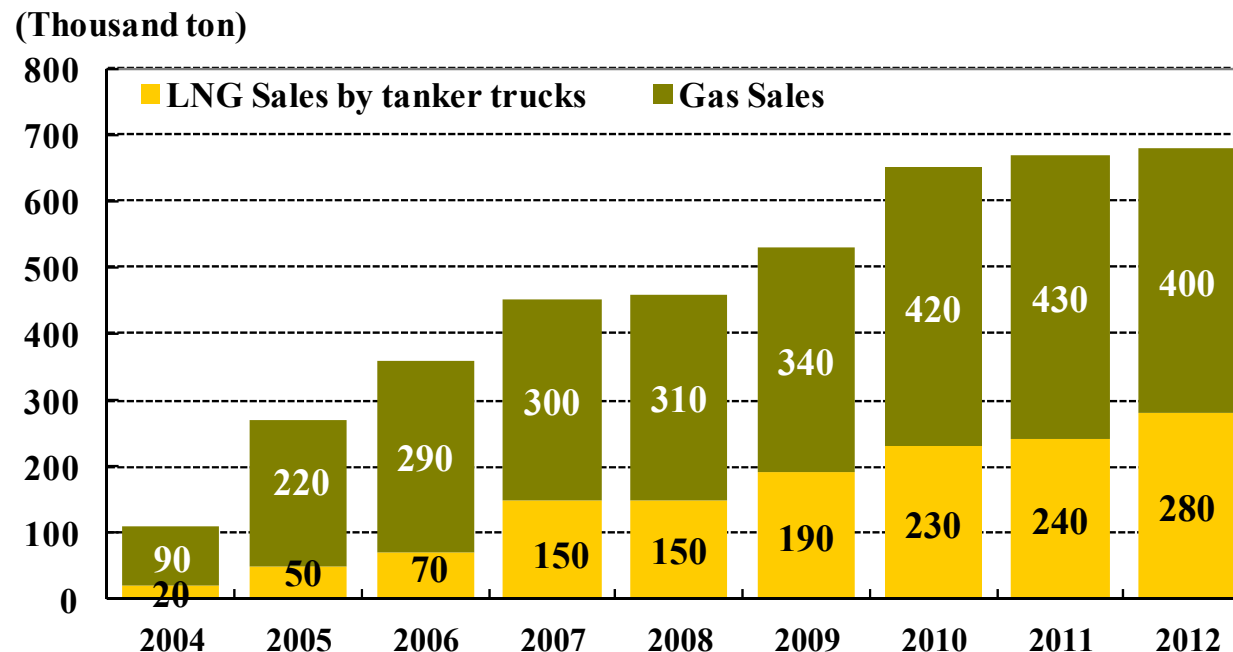
## - Offers of energy solution service

To respond to diversified and sophisticated customers' needs, Chubu Electric and its group companies combine forces to offer solution service using advantages of both electricity and gas.

## - Offers of gas, LNG and on-site energy service

The Chubu Electric Group combines forces to offer gas, LNG and on-site energy service for commercial customers and help them to reduce energy consumption, emission of carbon dioxide and costs and create a reliable energy supply system.

### Sales volume of gas and LNG





## Growth Business <2>: Business Alliance with Tokyo Electric Power (TEPCO)

36

- To develop the electric generation business in the 50Hz area of Japan , on December 6, 2013, the Company, together with TEPCO established "Hitachinaka Generation Co., Inc.", that will operate and maintain a new 600MW class coal-fired thermal facility to be built within TEPCO's Hitachinaka Thermal Power Station.
- We plan to start operation in FY 2020.

### <Outline of Hitachinaka Generation Co., Inc.>

President	Akira Kuriyama* (part time)	
Business areas	Operation and maintenance of facilities and sale of electricity	
Start of business	December 6, 2013	
Equity capital	100 million yen (We intend to increase our capitalization together with the beginning of construction)	
Investment ratio	Chubu Electric Power Co., Inc. (96.55%) Tokyo Electric Power Co., Inc. (3.45%)	
Overview of electric power facility	Generating Capacity	Generating end: approx. 650MW (Transmission end : approx. 600MW ) one unit
	Fuel	Coal
	Power generation systems	Ultra-supercritical (USC) pulverized coal thermal
	Start of operation	FY2020 (planned)

\*Chubu Electric Executive Officer & General Manager-Thermal Power Department, Power Generation Division

# Growth Business <3>: Acquisition of Shares of Diamond Power Corporation

37

- The Company has acquired shares of Diamond Power Corporation and jointly established a power generation company to promote the electricity sales business in the 50Hz area of Japan (East Japan).
- Regarding the project as the first step for expanding its revenue base in the future, the Company takes over Diamond Power's electricity sales business and focuses on obtaining know-how for sales of electricity outside our existing business area.

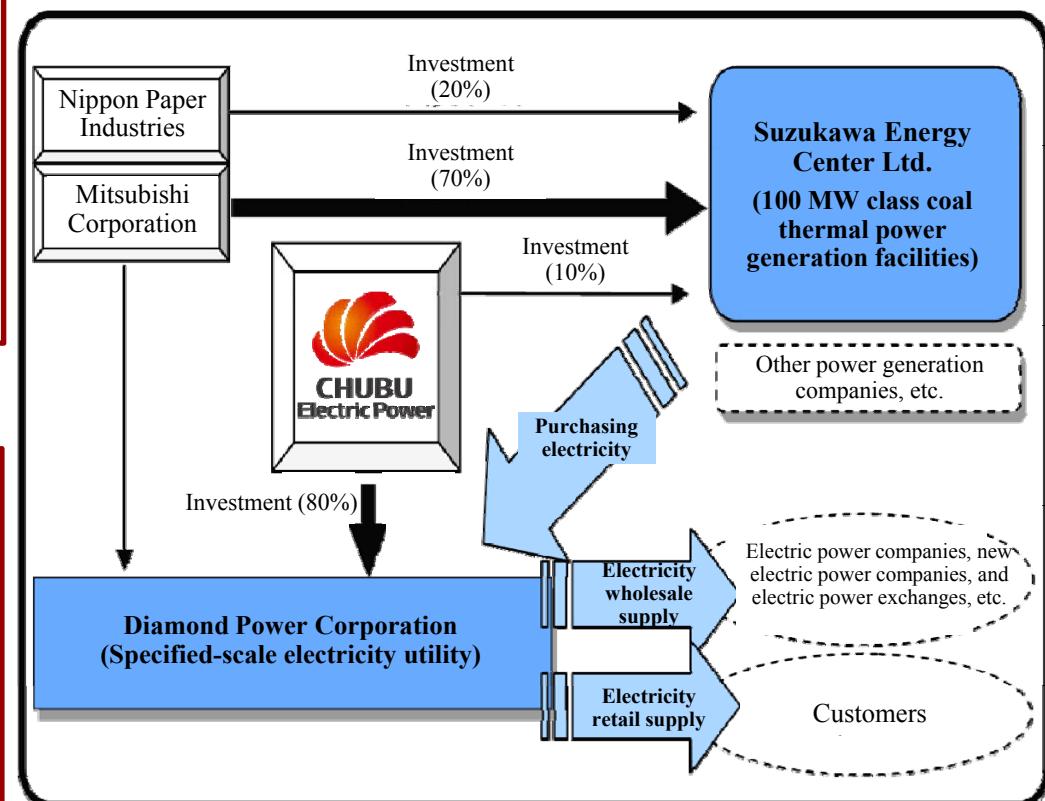
## ■ Outline of the project

- On October 1, 2013, the Company acquired an 80% equity in Diamond Power Corporation, a 100% subsidiary of Mitsubishi Corporation.
- The Company also established a power generation company with Mitsubishi Corporation and Nippon Paper Industries to construct and operate coal thermal power generation facilities.

## ■ Objectives of the project and scheme

- The Company aims to efficiently obtain know-how and infrastructure (electric power source, customer base, and electricity supply-demand control method) to develop the electric sales business in the 50Hz area of Japan.
- Diamond Power will conduct electricity wholesale and retail supply using electricity purchased from the new company.

## [Scheme of the project]



## - Outline of overseas business

	Investment amount (approximate)	Output based on Chubu's stake*
At the 3Q FY2013	Cumulative total 100 billion yen	Cumulative total 3,260 MW

\* represents Chubu's stake in total output of whole projects it participates

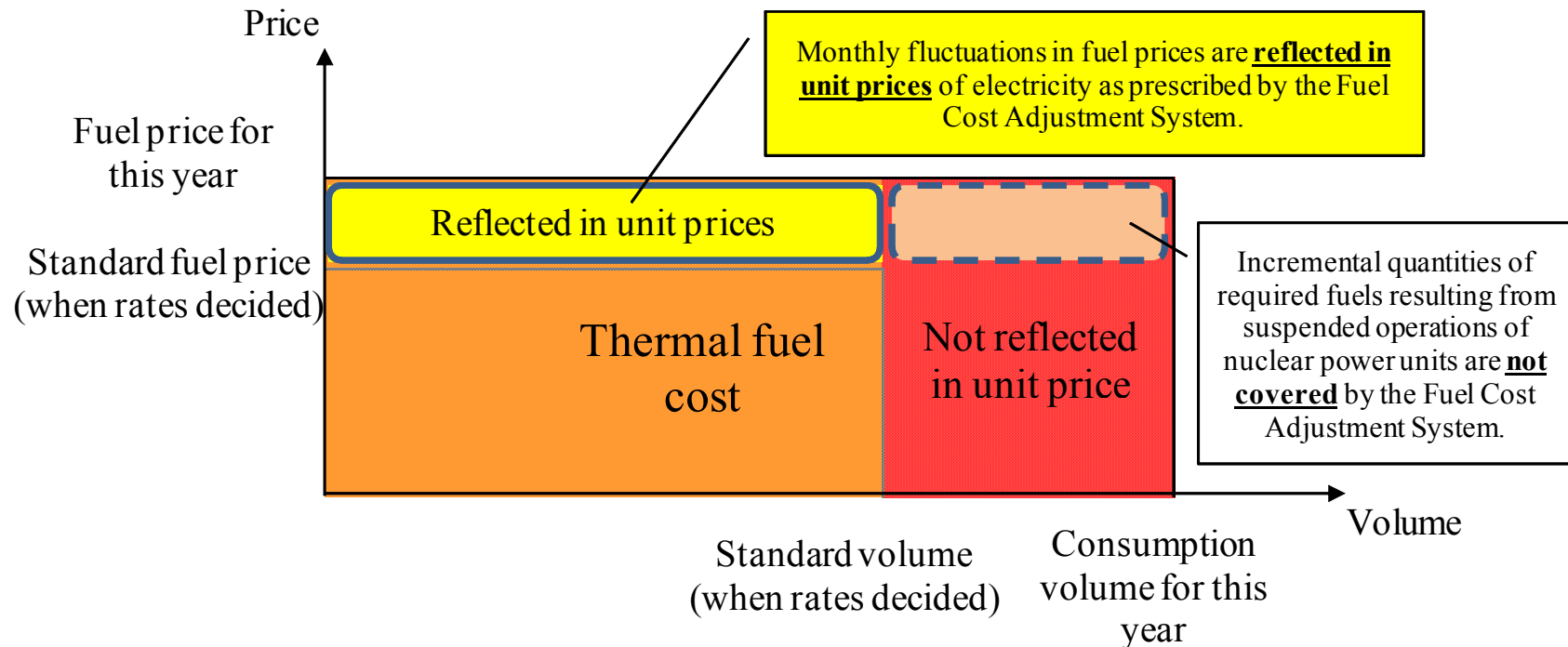
## - Projects in participation

	Region	Project	Output (MW)	Chubu's stake	Participation	Operation commences
Power generation	North America	Aquisition of Tenaska's interest in gas thermal IPP (5 sites), USA	4,780	approx.11%-18%	FY 2010	2001 - 2004
		Gas thermal IPP, Goreway, Canada	875	50%	FY 2009	Jun. 2009
		Gas thermal IPP, Valladolid, Mexico	525	50%	FY 2003	Jun. 2006
		Aquisition of Falcon's interest in gas thermal IPP (5 sites), Mexico	2,233	20%	FY 2010	2001-2005
	Asia	Gas thermal IPP, Thailand	1,400	15%	FY 2001	Jun. 2008
		Cogeneration in industrial park (3 sites), Thailand	120×3	19%(2 sites) 24%(1 site)	FY2011	2015-2016 (plan)
		Wind energy, Thailand	90×2	20%	FY2011	Nov. 2012 (site 1) Feb. 2013 (site 2)
		Solar energy, Thailand	31	49%	FY2012	2011-2013
	Middle East	Power generation & desalination, Ras Laffan B, Qatar	1,025	5%	FY 2004	Jun. 2008
		Power generation, Mesaieed A, Qatar	2,007	10%	FY 2008	Jul. 2010
		Power generation & desalination, Ras Laffan C, Qatar	2,730	5%	FY 2008	Apr. 2011
		Gas thermal IPP, Sur, Oman	2,000	30%	FY 2011	2014 (plan)
Environmental	Asia	Rice husk power generation, Thailand	20	34%	FY 2003	Dec. 2005
		Palm oil biomass power generation, Malaysia	10×2	18%	FY 2006	Jan. 2009 (site 1) Mar. 2009 (site 2)
		Asia Environment Fund	-	26%	FY 2003	2004 - 2014 (fund operation phase)

\* Amount of CO<sub>2</sub> credits is corresponding to the first commitment period of the Kyoto Protocol.

## Fuel cost adjustment system and thermal fuel cost

<Diagram of impacts of thermal fuel cost on the Fuel Cost Adjustment System>



<Mechanism of reflection in prices> A three-month average fuel price will be reflected in a monthly rate.

January	February	March	April	May	June	July	August	September
			Application to electricity tariff					
Average Fuel Price								
	Average Fuel Price							
		Average Fuel Price						

# Financial Results <2>

## Retirement Benefit Cost (Non-consolidated)

40

### ■ Actuarial Differences

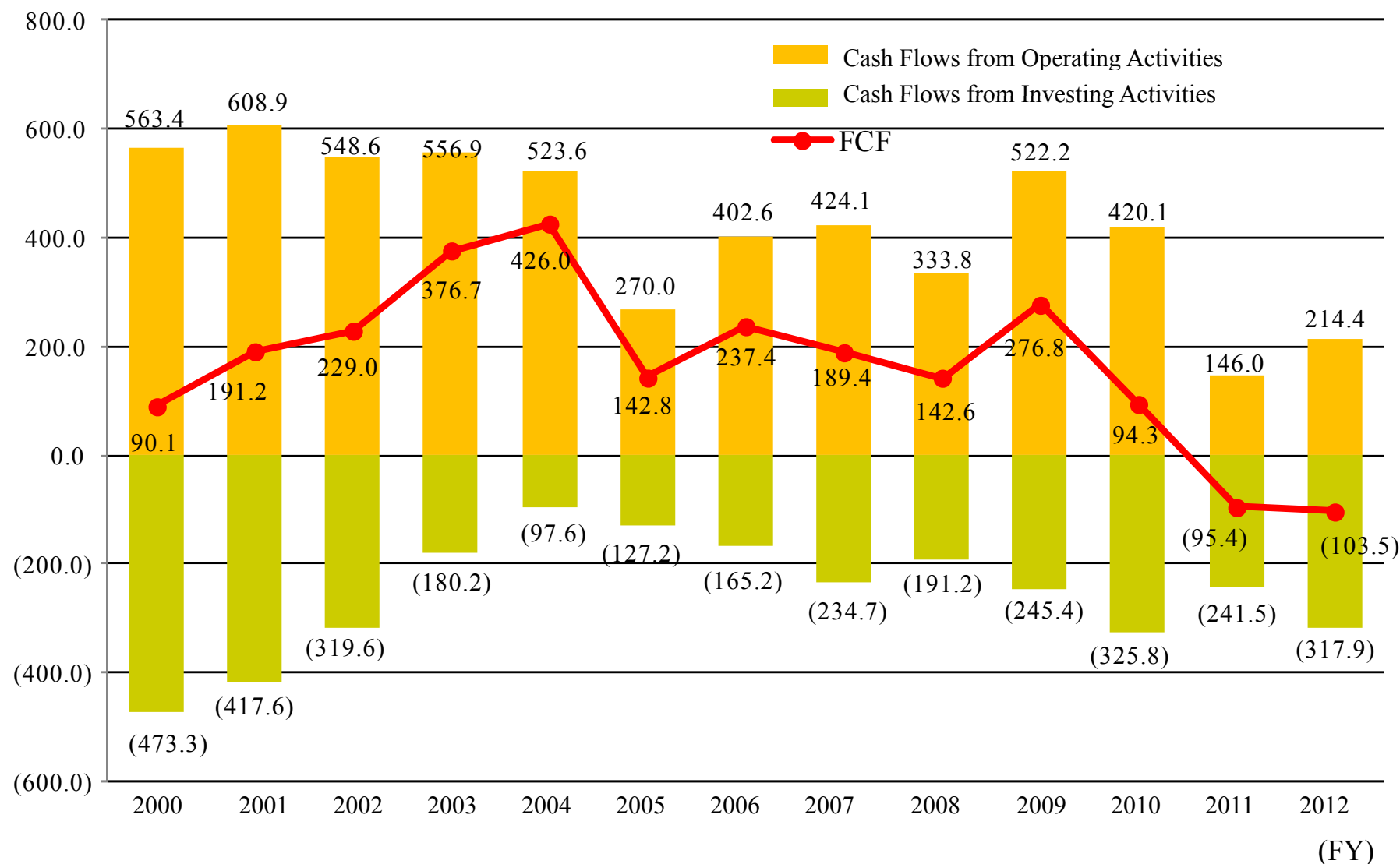
(billion yen)

Recorded year	Recorded amounts (Excess amounts reserved)	Amount of amortization		Change
		FY2012(A)	FY2013(B)	(B)－(A)
FY2009	(29.3)	(8.5)	—	8.5
FY2010	12.2	3.4	3.4	—
FY2011	(3.5)	(1.1)	(1.1)	—
FY2012	5.4	—	1.8	1.8
Total		(6.2)	4.1	10.3

# Financial Results <3> Cash Flow (Non-consolidated)

41

(billion yen)

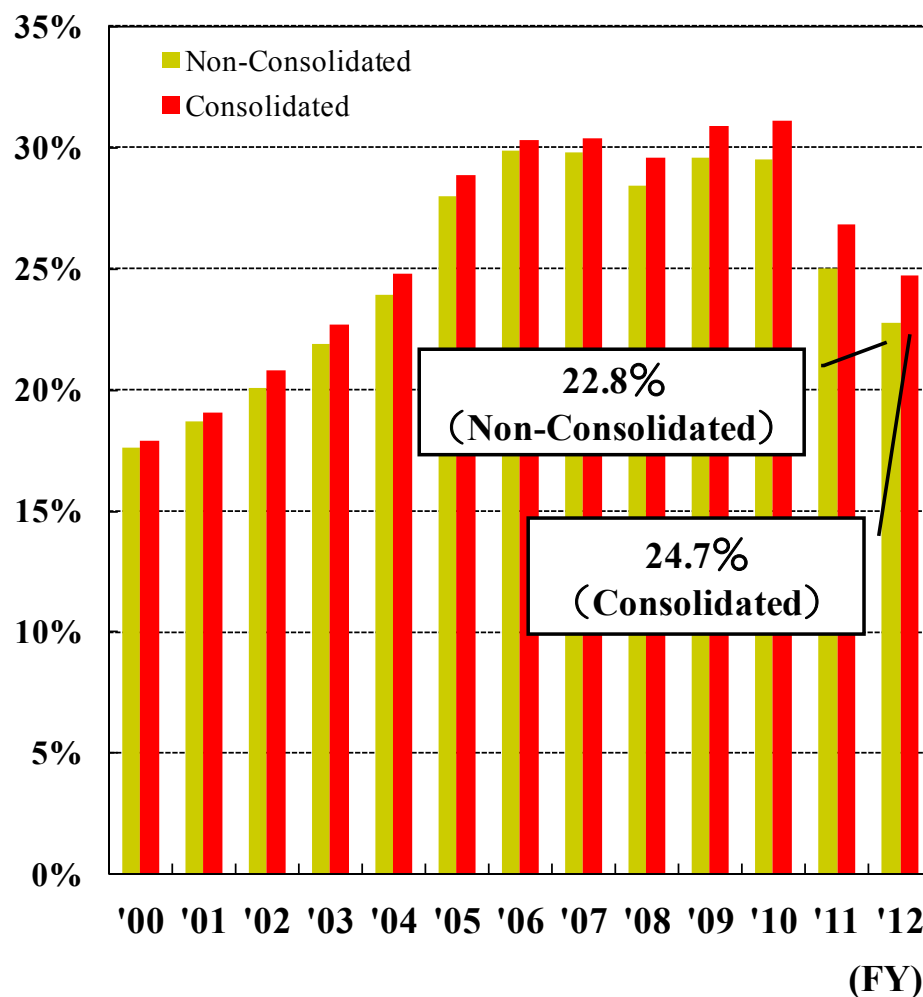


Note: Parentheses denote negative figures.

# Financial Results <4> Shareholders' Equity Ratio, Debt - Equity Ratio

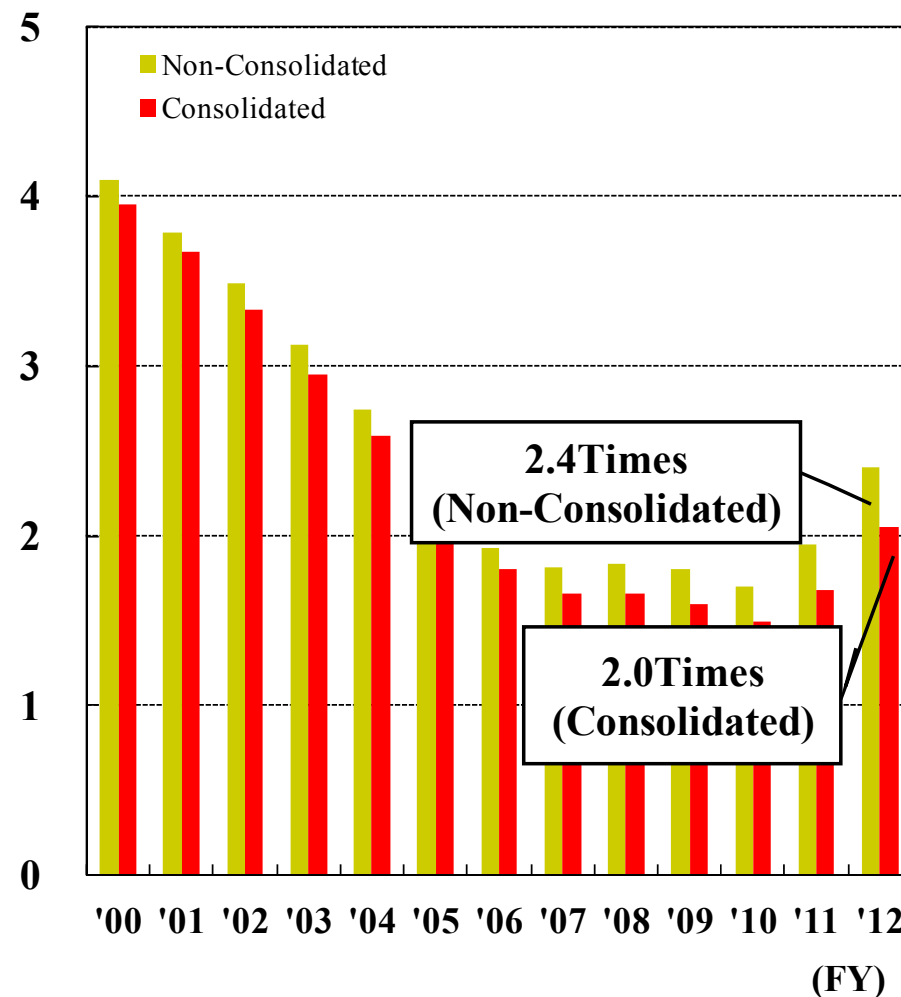
42

## - Shareholders' equity ratio



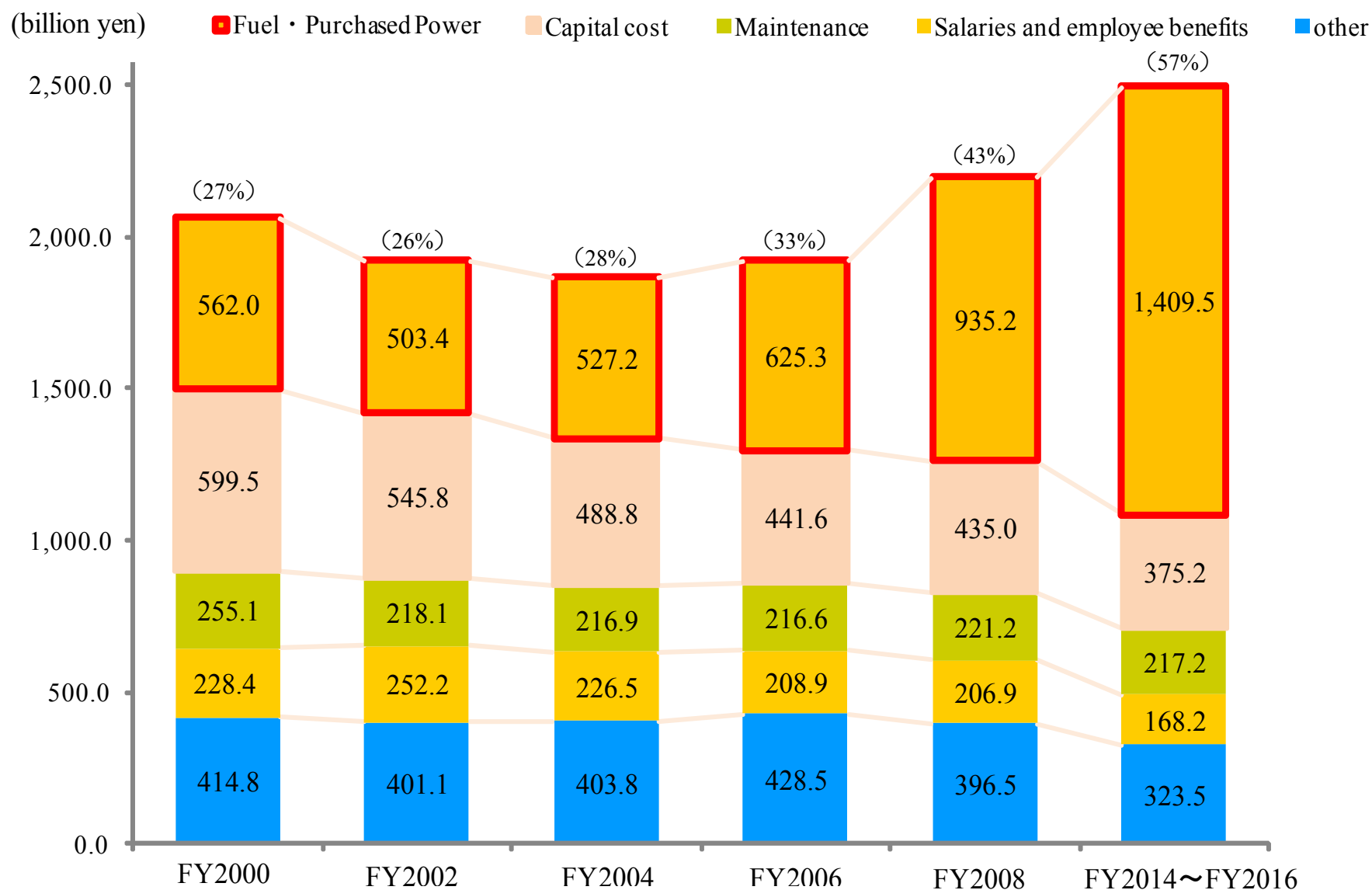
## - Debt - equity ratio

(Times)



# Application for Electricity Rate Increases <1> : 43

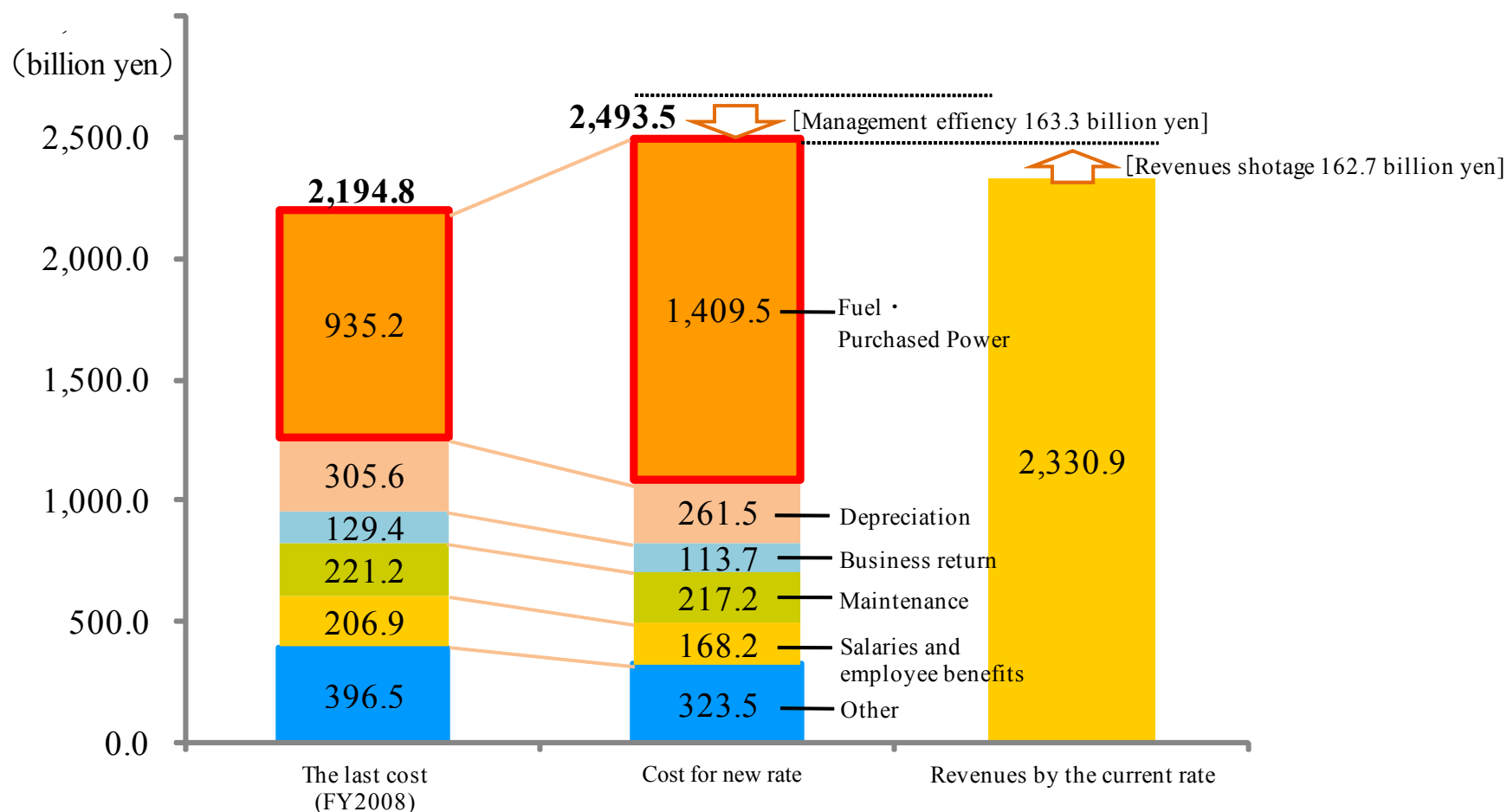
## A change in the cost at the time of the electricity rate revision





# Application for Electricity Rate Increases <2> : Cost for new rate 44

- Although we factored into the applied electricity rates a cost reduction of 163.3 billion yen, through the maximum possible efforts in raising management efficiency, we saw the costs used as a basis for the rate revision amount to 2493.5 billion yen per year (three-year average) due to increasing fuel prices.
- Meanwhile, since operating revenue under the current electricity rate structure is estimated to total 2330.9 billion yen, the revenues shortage will be 162.7 billion yen.



# Application for Electricity Rate Increases <3>: Efforts toward Promotion of Management Efficiency

45

- The Company has been implementing extensive cost reduction efforts to raise management efficiency since the suspension of all reactors at the Hamaoka Nuclear Power Station in May 2011. In April 2013, the Company set up the “Emergency Management Efficiency Improvement Headquarters,” focusing on raising management efficiency more than ever.
- In the electricity cost calculation, the Company held increases in electricity rates to a minimum, reflecting the average annual cost reduction of 163.3 billion yen from FY 2014 to FY 2016

	Average of FY 2014 to FY 2016	[Major factors for Change]
Salaries and employee benefits	46.0	<ul style="list-style-type: none"> <li>-To reduce directors’ remuneration</li> <li>-To lower annual income of employees including a cutback in base salaries</li> <li>-To reduce welfare costs through the abolishment of all resort houses</li> </ul>
Fuel ・ Purchased power	58.0	<ul style="list-style-type: none"> <li>-To improve thermal efficiency by commencement of operation of Joetsu Thermal Power Plant (reduction of fuel costs)</li> <li>-To reduce fuel costs through procurement of less expensive fuels</li> <li>-To reduce costs of electricity purchased from other generators</li> </ul>
Capital investment	8.3	<ul style="list-style-type: none"> <li>-To cut back procurement costs by increasing competitive bidding</li> <li>-To cut back investment amounts by adopting new technologies and methods</li> </ul>
Maintenance	33.1	<ul style="list-style-type: none"> <li>-To cut back procurement costs by increasing competitive bidding</li> <li>-To cut back costs by adopting new technologies and methods, reviewing specifications and improving facility operation efficiency</li> </ul>
Other	17.9	<ul style="list-style-type: none"> <li>-To cut back procurement costs by increasing competitive bidding</li> <li>-To cut back PR costs such as sales promotion activities and advertisement to improve the Company’s image</li> <li>-To cut back miscellaneous expenses, such as donations and organization membership fees, and research expenses related to concerning sales</li> </ul>
Total	163.3	

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This presentation contains assumptions and forward-looking statements with respect to the financial conditions, and forecasts of the company, which are based on information currently available.

These assumptions involve certain risks and uncertainties, and may cause actual results materially differ from them, by changes in the managerial environment such as economic activities and market trends.

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