# Presentation Materials for Investors 1<sup>st</sup> Quarter FY 2013 August, 2013



Note: The Company's fiscal year (FY) is from April 1 to March 31of the following year. FY2013 represents the fiscal year begun in April 1, 2013, and ending in March 31, 2014. 1st Quarter (1Q) represents three months period ended June 30, 2013.

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# I Outline of Financial Results for Three-Months Ended June 30, 2013

# Summary of Financial Results <1>

-Operating revenues decreased for the first time in three years after 1Q FY2010. -We sustained an operating loss, ordinary loss and net loss for two consecutive years.

#### [Consolidated]

				(Billion yen,%)
	2013/1Q 2012/1Q		Chang	ge
	(A)	(B)	(A-B)	(A-B)/B
Operating revenues	623.3	623.3 629.5		(1.0)
Operating loss	(36.9)	(1.3)	(35.5)	-
Ordinary loss	(46.3)	(9.7)	(36.6)	-
Net loss	(29.5)	(12.5)	(17.0)	-

#### [Non-Consolidated]

				(Billion yen,%)
	2013/1Q	2012/1Q	Chang	je
	(A)	(B)	(A-B)	(A-B)/B
Operating revenues	586.0	593.4	(7.4)	(1.3)
Operating loss	(39.6)	(3.5)	(36.1)	
Ordinary loss	(45.9)	(9.5)	(36.4)	—
Net loss	(28.2)	(11.7)	(16.5)	

#### [Principal Figures]

Item		2013/1Q (A)	2012/1Q (B)	Change (A-B)
Electricity sales volume	(TWh)	29.3	30.1	(0.8)
CIF price: crude oil	(\$/b)	108.1*	122.6	(14.5)
FX rate (interbank)	(yen/\$)	99	80	19
Nuclear power utilization rate	(%)	_	_	

\* CIF crude oil price for 1Q FY2013 is tentative.

# Summary of Financial Results <2>

< year-on-year comparison factors for change in consolidated or	dinary loss >
- A decrease in electricity sales volume	-5.4 billion yen
(with subtraction of fuel cost)	
- An increase in fuel price	-24.5 billion yen
- Others (A decrease in hydroelectric power output, etc)	-6.7 billion yen

[Factors for change in condolidated ordinary loss]



### **Electricity Sales Volume, Generated and Received Power**

- Electrisity Sales V	olume				(TWh, %)
		2013/1Q	2012/1Q	Chai	ıge
		(A)	(B)	(A-B)	(A-B)/B
Demand from	Electric lighting	7.6	7.9	(0.3)	(4.0)
customers under regulation	Electric power	1.3	1.4	(0.1)	(6.8)
	Subtotal	8.9	9.3	(0.4)	(4.4)
Demand from customers under liberalization	Commercial power	5.0	5.1	(0.1)	(1.6)
	Industrial power, etc	15.4	15.7	(0.3)	(2.0)
	Subtotal	20.4	20.8	(0.4)	(1.9)
	Total	29.3	30.1	(0.8)	(2.7)

- Generated and Received Power (TWh, %)					
		2013/1Q	2012/1Q	Chan	ige
		(A)	(B)	(A-B)	(A-B)/B
	Hydro	2.1	2.5	(0.4)	(13.7)
	<flow rate=""></flow>	<83.0>	<100.1>	<(17.1)>	
Internally Thermal generated Nuclear		27.0	28.5	(1.5)	(5.3)
		_	_		—
	<utilization rate=""></utilization>	<>	<>	<>	
<b>Renewable energy</b>		0.0	0.0	(0.0)	(7.8)
Interchanged	, Purchased power	2.5	1.0	1.5	143.6
Power used for	or pumped storage	(0.2)	(0.2)	(0.0)	7.0
	Total	31.4	31.8	(0.4)	(1.2)

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# **Summary of Forecast for FY 2013**

### **2013** [Principal factors affecting ordinary loss]

Consolidated			(billion yen)	[1 metput factors affecting of analy	, 1055]
- Consolidated	FY 2013 forecast (Current)	FY 2013 forecast (Apr.26)	Change	Emergency measures for management efficiency	+ 10.0
	(A)	(B)	(A)-(B)	(Maintenance and overhead expenses)	+ 10.0
Operating revenues	2,720.0	2,710.0	10.0		
Operating loss	(75.0)	(85.0)	10.0	A change of fuel price	
Ordinary loss	(110.0)	(120.0)	10.0	(After taking fuel cost adjustment charge into	+ 9.0
Net loss	(75.0)	(85.0)	10.0	account)	
			(billion yen)	A decrease of hydroelectric power output, etc	- 9.0
-Non-consolidated	FY 2013 forecast	FY 2013 forecast	Change		
	(Current)	(Apr.26)	Change	Effect on ordinary loss	+ 10.0
	(A)	(B)	(A)-(B)		
Operating revenues	2,560.0	2,550.0	10.0		
Operating loss	(90.0)	(100.0)	10.0		
Ordinary loss	(120.0)	(130.0)	10.0		
Net loss	(80.0)	(90.0)	10.0		
Dringing figures				(billion yen)	
-i incipal liguies		EY 2013 forecas	t FY 2013 forecas	st	

-Principal figures		EV 2013 forecast	EV 2013 forecast		(dimon yen)	
Items		(Current) (Apr.26 (A) (B)		Change (A)-(B)	Income ser	nsitivity
Electricity sales volume	(TWh)	approx. 124.1	approx. 124.1	approx. 0	1%	3.0
CIF price: crude oil	(\$/b)	approx. 113	approx. 115	approx. (2)	1\$/b	9.0 <sup>*1,2</sup>
FX rate (interbank)	(yen/\$)	approx. 98	approx. 98	approx. 0	1yen/\$	12.0 *1

\*1 These figures represent income sensitivity for fuel cost. 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.

\*2 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)

			(Billion yen)	[Principal factors affecting ordinary	loss]
	FY 2013 Forecast	FY 2012 Result	Change	A decrease in electricity sales volume (with subtraction of fuel cost)	- 17.0
	(A)	(B)	(A)-(B)	An increase of fuel price	
Operating revenues	2,560.0	2,485.6	approx. 74.0	(After taking fuel cost adjustment charge into account)	- 31.0
Operating expenses	2,650.0	2,514.5	approx. 135.0	An increase of personnel expenses	- 7.0
Operating loss	(90.0)	(28.9)	approx. (61.0)	An increase of depreciation	- 7.0
Ordinay loss	(120.0)	(52.1)	approx. (68.0)	Emergency measures for management efficiency	+ 10.0
	(0.0.0)	(25.2)	(15.0)	An increase of interest expenses, etc	- 16.0
Net loss	(80.0)	(35.3)	approx. (45.0)	Effect on ordinary loss	- 68.0

#### [Principal Figures on Assumption]

Item		FY 2013 Forecast (A)	FY 2012 Result (B)	Change (A-B)
Electricity sales	(TWh)	approx. 124.1	126.6	approx. (2.5)
CIF price: crude oil	(\$/b)	approx. 113	113.9	approx. (1)
FX rate(interbank)	(yen/\$)	approx. 98	83	approx. 15
Nuclear power utilization rate	(%)	_	_	_

### - Dividends for the Fiscal Year 2013

The Company has not yet decided forecast dividends for the fiscal year 2013.

	Div	idends per Share (y	ren)
	Interim	Year-end	Total
FY 2013 (Forecast)	—		—
FY 2012	25	25	50

### - The Policy on Shareholder Return(announced on July 30, 2012)

The Company will work to maintain stable dividends after taking account of financial condition and other factors, while continuously investing in building and operating facilities that are essential for a safe and stable supply of electricity.

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# **I** Management Situation

### Safety Measures at Hamaoka Nuclear Power Station<1>: Progress in the Safety Measures

### -Our voluntary efforts based on the accident at the Fukushima No. 1 nuclear power plant

#### -Tsunami countermeasures(aiming to complete by the end of FY 2014)

- Flood Prevention Measures (1) :Prevention of flood within the power station premises by constructing Tsunami protection walls (T.P.+22m), etc.
- Flood Prevention Measures (2) :Maintaining seawater cooling function in the submerged premises, Prevention of housing inundation
- Enhanced Emergency Measures : Maintaining cooling function in the event that all AC power and seawater cooling function are lost

### -Severe accident countermeasures (Units 3 and 4: Aiming to complete by end of FY 2014;

### **Unit 5: Under consideration)**

- Severe accident countermeasures, such as the installation of filter vent equipment and increasing the capacity of rechargeable batteries, are being implemented.

### - Efforts to respond to the new regulatory standards (aiming to complete by the end of FY 2014)

- Countermeasures against overflow from intake ponds, etc. and construction work for the emergency response center and fire protection equipment is being implemented.

### -Future action

We will take necessary measures to meet the new regulatory standards promptly.

### Safety Measures at Hamaoka Nuclear Power Station <2>: Evaluation of Effects of Ground Motion and Status of review of Earthquake Countermeasures

### - Evaluation of ground motion

- The ground motion based on the Cabinet Office model is the same as the present seismic resistance (around 1,000 gals).
- The "hypothetical amplified ground motion", which we set ourselves to leave some leeway for the possible amplification of vibration at Unit 5, is a maximum of around 1,900 gals.

#### - Evaluation of effects on the facilities

- We confirmed that the seismic safety of Hamaoka Nuclear Plant Units, which are currently suspended, is ensured.



#### - Review of earthquake countermeasures

- We will further enhance the seismic resistance of Unit 5 and facilities important to safety in the surrounding area.
- After taking into account the review of ground motion by the Cabinet Office and the details of the new regulatory standards, we will study specific measures to work out a construction plan for facilities at Units 3 to 5.

 $\Rightarrow \frac{\text{Working out construction plan for facilities at Units 3 to 5, aiming to start construction at an early stage}{\text{in FY2013}}$ 

## **Outlook of Electricity Supply & Demand for Summer FY 2013** (generating end)

### Peak load (three-day average)

We estimated the peak load at 25,040MW with assumption of the effect of customers' energy conservation by 1,090MW in this coming summer.

### Supply capacity

By reflecting the start-up of Joetsu Thermal Power Station Unit No. 2-1 in July 2013, and outward power interchange to other EPCOs whose power supply capacity are very tight by approximately 1,080MW, it is estimated that our supply capacity in this coming summer will be 28,040MW.



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### - Outlook for fuel procurement (LNG)

- For FY2013, assuming we need the amount of the same level as in FY2011 and FY2012, although this amount varies depending on supply-demand situation, we have already started negotiation with LNG sellers for additional LNG procurement, and we estimate that we will manage to secure the necessary volume.



### (Reference) LNG procurement results

# **Fund Raising**

### - 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 130 billion yen by the end of the first quarter (end of June 2013).



(Billion yen)

# Efforts toward Promotion of Management Efficiency in FY2013 12

- Efforts toward Promotion of Management Efficiency in FY2013 (change from previously published value) (billion yen)

	Item	FY2013	Contents
Са	pital investments reduction	approx.10.0	-To review the timing, scope and method of construction works -To reduce cost of material procurement and services
	Maintenance	5.0	-To review the timing, scope and method of construction works -To reduce cost of material procurement and services
Exp	overhead expenses	2.0	-To review the welfare program and the travel expense system -To cut back expenses including expendable office supplies
enses reduc	Fuel	2.0	-To procure more economical fuels -To improve capacity utilization of thermal power stations with enhanced efficiency
ction	Salaries and employee benefits	1.0	-To cut back overtime work
	Subtotal	approx.10.0	
	Total	approx.20.0	

# **III** Reference Data

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### Movement of Nuclear Regulation Authority <1>: Outline of "the New Regulatory Standards"

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



Source: Materials published by Nuclear Regulation Authority (July 2013)

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

- In a normal review, reviews of the permission of installment/change, the approval of construction plans and the approval of safety regulations are conducted in a step-by-step manner.
- In this review, 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.



Source: Materials published by Nuclear Regulation Authority (July 2013)

## Movement of Nuclear Regulation Authority <3>: Influence of 40-years regulation 15

### Influence on Hamaoka Nuclear Power Station

	Output (MW)	Commencement of commercial operation	Age of reactors at the end of July 2013
Unit No.3	1,100	August 28 1987	25 years
Unit No.4	1,137	September 3 1993	19 years
Unit No.5	1,380	January 18 2005	8 years

CEPCO's units are mostly young. 40 years regulation will not significantly influence on our units compared with those of other EPCOs.

### Hamaoka Nuclear Power Station <1>: Progress in the Safety Measures

#### - Tsunami countermeasures

Principal measures		FY2011	FY2012	FY2013		FY2014
		Apr-Jun Jul-Sep Oct-Dec Jan-Mar	Apr-Jun Jul-Sep Oct-Dec Jan-Ma	r Apr-Jun Jul-Sep Oct-Dec	Jan-Mar	Apr-Jun Jul-Sep Oct-Dec Jan-Mar
	-Construction of Tsunami	▼Started on	November 11th <b>V</b> 18 me	eters high from sea level		
Flood		Tsuna (foundation	mi protection walls construction 1 work, wall construction)	Raising the height of protection walls	Our aim	is to complete construction by the end of FY2014. (*)
Measures (1)	Overflow from Intake Ponds etc.			▼Started on June 2	7th	
(Measures for Compliance with New Regulatory Standards )				Countermeasure	es against	Overflow from Intake Ponds etc.
		▼Star	rted on January 7th			
Flood Prevention Measures (2) -Installation of EWS	-Reinforcement of watertight doors		<b>Reinforcement of wate</b>	rtight doors	Our aim	i is to complete construction by the end of FY2014. (%)
		▼Started on Oc	tober 13th			
		Construction for installing	EWS	Our aim	is to complete construction by the end of FY2014. (%)	
Enhanced Installation of emergency	Installation of emergency AC	Arranging and Instal	ling gas turbine generators on hi	gh ground, etc.	Our aim	is to complete construction by the end of FY2014. (%)
Emergency	generators (gas turbine	▼Started on	November 21st			
Measures	generators) on ingn ground	Develop 1	nigh ground,Installing power panel or ground	n the upper floor and high	Our aim	is to complete construction by the end of FY2014. (%)

(\*) we decide a detailed process after having conducted a detailed analysis of earthquake resistance

#### - Severe accident countermeasures

		▼Started on June 14th
Severe accident countermeasures	Units 3 and 4	Installation of filter vent equipment
	-Unit 5	A specific implementation schedule under consideration (construction period : two to three years )

#### - Earthquake countermeasures

Earthquake countermeasures		Working out the project fiscal year, with the	plan at the earliest possible date in the current aim of starting early-stage construction.

### Hamaoka Nuclear Power Station <2>: Installation of a filter vent equipment

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Measures to prevent a large-scale discharge of radioactive materials

- -Venting containment vessels is indispensable for prevention of their damage. We will install a filter vent equipment to minimize discharge of particulate radioactive materials (cesium, etc.) and thereby prevent soil contamination.
- -A filter vent equipment is expected to cut the discharge of particulate radioactive materials to 1/1000 or less.

Measures to prevent damage to the containment vessel

- We will reduce containment vessel pressure to protect the vessels from overpressure.

Measures completion aim : The end of FY 2014 (Units 3 and 4)



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### Hamaoka Nuclear Power Station <3>:

### 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 facts 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 also inspected the fuels that had been loaded before seawater intrusion. As a result, their external appearance did not show any sign of negative effect of seawater.

#### **Future plan**

-Inspection of the nuclear pressure vessel and core internals of Unit No. 5 has temporarily been suspended until the end of FY2013 since this plant receives fuels spent by Units 1 and 2. We will complete the integrity inspection and evaluation of this plant by the end of 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.



XYellow areas are flowed by seawater

### **Hamaoka Nuclear Power Station <4>:**

### Reinforcement of disaster prevention 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.
- Improving 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.



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<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.

## Schedule of the Electric Power System Reform

#### - 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 plans to resubmit the bill.

(Reference)Cabinet Decision on the Bill for the Act for Partial Revision of the Electricity Business Act (Disclosed on April 12, 2013)

	Schedule for implementing the measures	Schedule for submitting the bill
1st phase: Establishing the Organaization for Operations of Wide-area Electrical Grids (tentative title)	In about 2015	To this session of the Diet (formulating provisions for implementing the reform of the 2nd and 3rd phases)
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 neutrality of the power transmimission/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

Source: Materials published by METI (April 12, 2013)

### Electricity Supply & Demand <1> Outlook of Electricity Supply and Demand for Summer (August 2013) in Japan 21



Source: METI/ "Committee for Electricity Supply & Demand Review"



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

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

### - Composition of Power Sources



Nuclear ■Coal ■LNG ■Oil etc. ■Hydro ■ New Energy

### - Composition of Electric Energy 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 24

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



### Thermal Power Plants <2>: Reinforcement Plan for LNG Handling Facilities 25

#### - Supporting stable and flexible LNG procurement



	Project name	Project outline	commencement	completion
	Additional LNG tanks in Kawagoe	Two additonal tanks in Kawagoe Thermal Power Station (capacity: 180,000 m <sup>3</sup> each)	FY2007	FY2012
	Reinforcement to receiving dock in Kawagoe	Enabling to accomodate LNG super tankers with class of over 200,000 m <sup>3</sup>	FY2009	FY2010
2	Installation of gas pipeline across Ise Bay	Kawagoe Thermal Power Station - Chita Area LNG Base approx.13.3km	FY2008	FY2013 (September target)
<b>3</b> I	Reinforcement to No.2 receiving dock in Chita	Enabling to accomodate LNG super tankers with class of over 200,000 ${\rm m}^{\!\scriptscriptstyle 3}$	FY2008	FY2009
4	Installation of Mie-Shiga pipeline	Yokkaichi Thermal Power Station - Taga Governor Station (Osaka Gas Co.) approx. 60 km	FY2004	FY2013 (Winter target)

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

### 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 a 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.

# **Fuel Procurement<1>: LNG Contracts**

#### - Principal LNG Contracts

(1,000 t/year)

Projects / <delivery></delivery>		Period of contract		Contract volume (approximate figure)
	Qatar1 / <ex-ship></ex-ship>	1997 - 2021	(approx.25 years)	4,000
	Australia (extension) / <ex-ship></ex-ship>	2009 - 2019	(approx.10 years)	500
	Australia (expansion) / <ex-ship></ex-ship>	2009 - 2029	(approx.20 years)	600
	Malaysia / <ex-ship></ex-ship>	2011 - 2031	(approx.20 years)	max. 540
its	Sakhalin II / <ex-ship></ex-ship>	2011 - 2026	(approx.15 years)	500
stin trac	Indonesia (no outonsian) / Eu shin>	2011 - 2015	(approx.5 years)	630
Exi	Indonesia (ie-extension) / <ex-snip></ex-snip>	2016 - 2020	(approx.5 years)	320
H C	Indonesia (re-extension) / <fob></fob>	2011 - 2020	(approx.10 years)	320
	BP Singapore / <ex-ship>*1</ex-ship>	2012 - 2028	(approx.16 years)	*2
	ENI / <ex-ship></ex-ship>	2013 - 2017	(approx.5 years)	*3
	Ostar? / Ex chin>	2013 - 2018	(approx.5 years)	1,000
	Qalars / <ex-ship></ex-ship>	2018 - 2028	(approx.10 years)	700
	Gorgon / <fob ex-ship=""></fob>	2014 - 2038	(approx.25 years)	max. 1,440
uture ntracts	Donggi-Senoro / <ex-ship></ex-ship>	2014 - 2027	(approx. 13 years)	1,000
	BG Group / <ex-ship>*1</ex-ship>	2014 - 2035	(approx.21 years)	*4
F Coi	Wheatstone / <fob></fob>	2017 - 2037	(approx.20 years)	1,000
	Ichthys / <fob></fob>	2017 - 2032	(approx.15 years)	490

\*1 Contract to purchase LNG from multipul sources \*2 Appre

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

### - LNG Ship Charter

We concluded time charter of 3 tankers to enhance efficiency and flexibility of procurement by managing freight cost.

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

## Fuel Procurement<2>: Advancement of Coal Trading 28

### - 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 Eclectic'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<3> Acquisition of Interests in Energy Resources

#### **Cordova Embayment** Integra -Acquisition of upstream interests, etc. (Shale gas) (Coal) Ichthys Project output capacity: Project output capacity: (LNG) Approx 3.3 million ton/year Approx 3.5 million ton/year in LNG) Interest holding ratio: 5.95% Interest holding ratio: 3.75%\* Project output capacity: In production In production Approx 8.4 million ton/year Interest holding ratio: 0.735% Production starts from FY2016(scheduled) **Freeport LNG** Liquefying facilities: 2 lines (max. 4lines); each line with a contract capacity of around 4.4 million ton/year Our secured capacity:2.2 million ton/year Liquefaction processing starts from FY2017 Gorgon (scheduled) (LNG) Project output capacity: Approx 15.0 million ton/year Interest holding ratio: 0.417%

Production starts from FY2014(scheduled)

\*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.

## **Fuel Procurement**<4> **Results of FY2012**



## **Renewable Energy <1>: Feed-in Tariff Scheme**

#### 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	<ul> <li>-The purchase price in FY2012</li> <li>Solar PV less than 10kW 42.00 yen/kWh (for 10 years) no less than 10kW 42.00 yen/kWh (for 20 years)</li> <li>Wind less than 20kW 57.75 yen/kWh (for 20 years) no less than 20kW 23.10 yen/kWh (for 20 years)</li> <li>-Payment of an average household electricity usage (300kWh / month)</li> <li>⇒ 66 yen per month (including consumption tax)</li> <li>-The purchase price in FY2013</li> <li>Solar PV less than 10kW 38.00 yen/kWh (for 10 years) no less than 10kW 37.80 yen/kWh (for 10 years) no less than 10kW 37.80 yen/kWh (for 20 years)</li> <li>Payment of an average household electricity usage (300kWh / month)</li> <li>⇒ 105 yen per month (including consumption tax)</li> </ul>
Collection of purchased costs	-The equal cost (surcharge/kWh) shall be borne all over Japan (partial reductions exist) -Adjustment to make the surcharge equall all over Japan

## **Renewable Energy <2>: Our efforts toward Promotion** 32

### - Details for promotion of renewable energy

Detailed plans					Operation commences	
ur	Chubu Electric		Mega Solar Iida	1	FY 2010	
olo			Mega Solar Taketoyo	7.5	FY 2011	
			Mega Solar Shimizu	8	FY 2014 (Plan)	
ind	Chubu Electric		Omaezaki	$\gamma\gamma$	(Phase1) FY 2009	
M			O III de Zaki		(Phase2) FY 2010	
		New development	Susado	0.24	FY 2010	
	Chubu Electric		Tokuyama (unit 1, 2)	153.4	FY2014~FY 2015 (Plan)	
			Atagi	0.19	FY 2015 (Plan)	
			Nyuugawa	0.35	FY 2016 (Plan)	
			Conventional hydro	5.0	FY 2020 (Plan)	
0				7.3	FY 2022 (Plan)	
ydr				0.22	FY 2015 (Plan)	
Ĥ.			Generation with minimum water level	0.29	FY 2015 (Plan)	
				0.32	FY 2018 (Plan)	
		Improvement	Wago	$0.2^{*2}$	FY 2012	
			Okuyahagi Daiichi unit 3	$2.0^{*2}$	FY 2012	
			Okuizumi	$5.0^{*2}$	FY 2012	
	Transfered by 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 Approximate estimations made at announcement of plans

\*2 Represents amount of improvement

# **Sales Strategy**

### - 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



# **Overseas Business Deployment**

### - Outline of overseas business

	Investment amount (approximate)	Output based on Chubu's stake*
At the end of FY 2012	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
	ica	Aquisition of Tenaska's interest in gas thermal IPP (5 sites), USA	4,780	approx.11%-18%	FY 2010	2001 - 2004
	Amer	Gas thermal IPP, Goreway, Canada	875	50%	FY 2009	Jun. 2009
	North A	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
on	Asia	Gas thermal IPP, Thailand	1,400	15%	FY 2001	Jun. 2008
enerati		Cogeneration in industrial park (3 sites), Thailand	approx. 110×3	19%(2 sites) 24%(1 site)	FY2011	2015-2016 (plan)
wer g		Wind energy, Thailand	90×2	20%	FY2011	Nov. 2012 (site 1) Feb. 2013 (site 2)
Po		Solar energy, Thailand	30.9	49%	FY2012	2011-2013
	st	Power generation & desalination, Ras Laffan B, Qatar	1,025	5%	FY 2004	Jun. 2008
	Middle Eag	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)
ironmental	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)
Env		Asia Environment Fund	-	26%	FY 2003	2004 - 2014 (fund operation phase)

# **Smart Meter**

### - Progress of argument regarding the introduction of smart meters

"Basic Energy Plan" decided at the cabinet meeting (June 18, 2010)

- Aim to introduce smart meters to basically <u>all</u> <u>users by the end of the 2020s or as early as</u> <u>possible</u>, fully taking cost performance and other factors into consideration.

"Tentative plan for the energy supply-demand balance" decided at the cabnet meeting (Aug 5, 2011)

- The previous plan to introduce smart meters basically to all users by the end of the 2020s will be replaced with a more aggressive plan that aims to increase the ratio of smart meter users to 80% of total demand base within the next five years.

### - The introduction schedule of smart meters

- With the August 5, 2011 Cabinet decision "to use smart meter s for 80% of total electricity demand by the end of FY 2016" in mind, we aim to take an active role in popularizing the smart meters.



Source: Materials published by METI (March 2012)

# **Financial Result**<1>

### 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
Ave	erage Fuel P	rice	Application	to electricity	tariff			
	Ave	erage Fuel P	rice	Application	to electricity	tariff		
Ave		erage Fuel P	rice	Application	o electricity	tariff		

# Financial Result<2> Retirement Benefit Cost (Non-consolidated)

#### Actuarial Differences

				(billion yen)
	Recorded amounts	Amount of a	Change	
Recorded year	():Excess amounts reserved	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

Note: Parentheses denote negative figures.

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

(billion yen)



Note: Parentheses denote negative figures.

### **Financial Results <4> Shareholders' Equity Ratio,** 39 **Debt - Equity Ratio**



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