Investors Meeting
2nd Quarter FY2018

October, 2018

CHUBU
Electric Power

INDEX

01 Outline of Financial Results for Six-Months ended September 30, 2018

Note: The company's fiscal year (FY) is from April 1 to March 31 of the following year. FY2018 represents the fiscal year begun on April 1, 2018, and ending on March 31, 2019. 2nd Quarter(2Q) represents six months period ended September 30, 2018.
Monetary amounts are rounded down to the nearest whole number of the units being used, while principal figures like electrical energy sold or electric power supplied are rounded to the nearest unit.

<Points of Financial Results>

■ Consolidated operating revenues : 1,487.4 billion yen

Operating revenues increased by 94.1 billion yen compared with 2017/2Q, mainly due to an increase in surcharge and grant based on Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities (+24.7 billion yen), in addition to an increase in fuel cost adjustment charge (+47.3 billion yen), in spite of a decrease in electrical energy sold (-10.5 billion yen).

■ Consolidated ordinary income : 94.2 billion yen

Ordinary income increased by 6.8 billion yen compared with 2017/2Q, mainly due to a decrease in fuel cost by an increase in hydroelectric power generated (+11.0 billion yen) and an increase in electrical energy sold to other companies (+9.0 billion yen), in addition to the improvement of the efficiency (+20.0 billion yen), in spite of expansion of time lag loss (-25.0 billion yen) and a decrease in electrical energy sold (-7.0 billion yen).
Further, consolidated ordinary income excluding the effect of time lag is approx.132.0 billion yen (increased by 32.0 billion yen compared with 2017/2Q).

[Consolidated]
- Operating revenues increased for 2 consecutive years since 2017/2Q.
- Ordinary income increased following 2015/2Q, for the first time in 3 years.
- We recorded increased sales and income following 2014/2Q, for the first time in 4 years.

(Billion yen,%)

	2018/2Q (A)	2017/2Q (B)	Change (A-B)	Change (A-B)/B
Operating revenues	1,487.4	1,393.3	94.1	6.8
Operating income	94.8	96.9	(2.1)	(2.2)
Ordinary income	94.2	87.3	6.8	7.8
Net income attributable to owners of parent	66.5	62.1	4.3	7.0

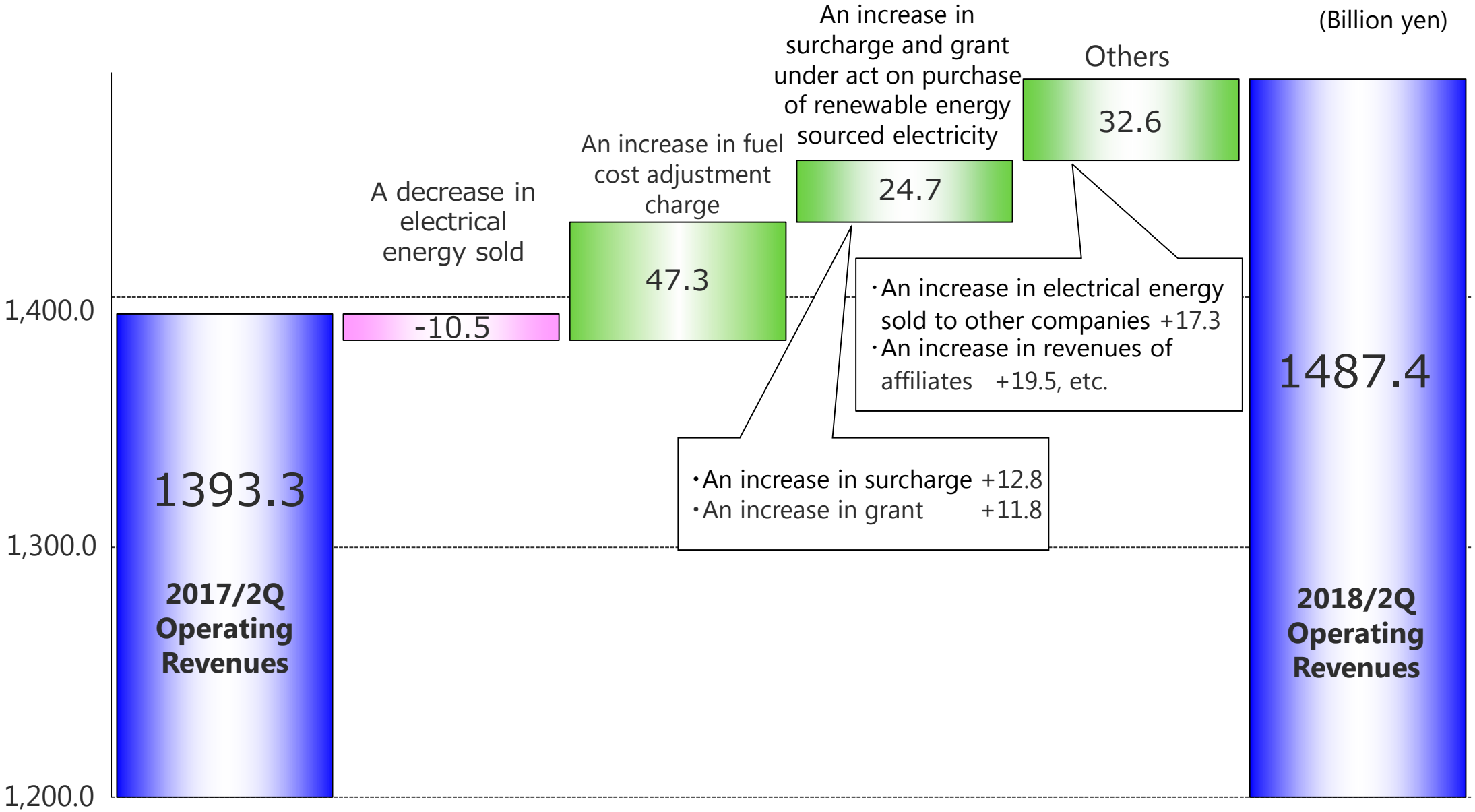
*The number of consolidated subsidiaries [change from the same period of the previous year in parenthesis]
2018/2Q : 34 subsidiaries (+3 companies) , 34 affiliates accounted for under the equity method (+8 companies)

[Nonconsolidated]

(Billion yen,%)

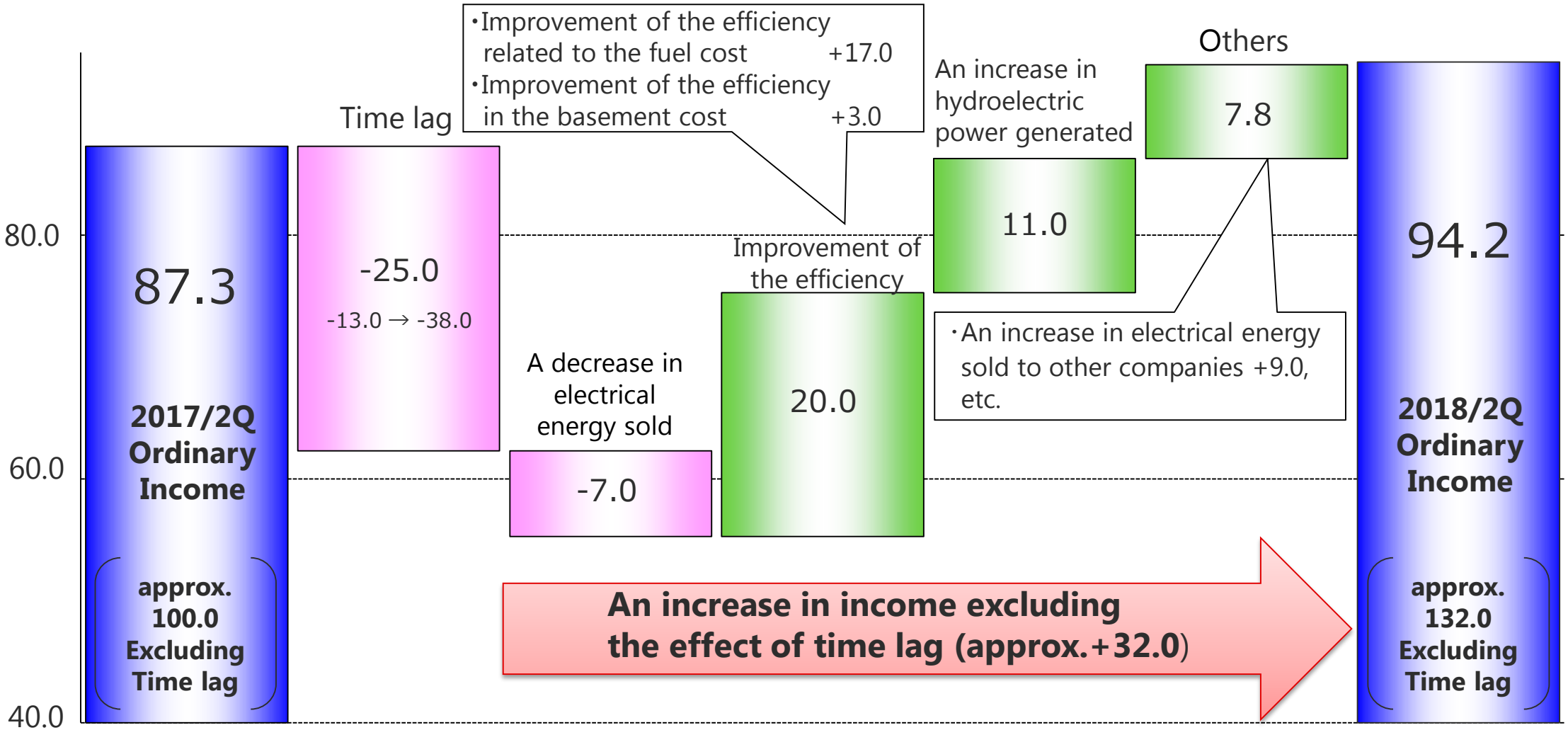
	2018/2Q (A)	2017/2Q (B)	Change (A-B)	Change (A-B)/B
Operating revenues	1,354.6	1,280.0	74.6	5.8
Operating income	85.8	88.5	(2.6)	(3.0)
Ordinary income	82.5	78.2	4.2	5.5
Net income	59.2	57.1	2.0	3.6

[Factors contributing to change in consolidated operating revenues]



[Factors contributing to change in consolidated ordinary income]

(Billion yen)



<Electrical Energy Sold> (Nonconsolidated)

- **Dropped by 0.5TWh to 59.4TWh**, compared with 2017/2Q, mainly due to an effect of switches made to other operators, in spite of an increase in air conditioning demand by higher temperature in this summer compared with the previous year and an increase in production of the semiconductor industry, in addition to a sales increase outside Chubu region.

(TWh,%)

		2018/2Q (A)	2017/2Q (B)	Change (A-B)	Change (A-B)/B
Electrical Energy Sold	Low voltage	17.4	17.8	(0.5)	(2.5)
	High voltage ・ Extra-high voltage	42.0	42.1	(0.1)	(0.2)
	Total	59.4	59.9	(0.5)	(0.9)
[Reference(1)]					
Electrical Energy Sold including group companies (*)		61.9	61.8	0.1	0.1

* The sum of the company, consolidated subsidiaries, and affiliates accounted for under the equity method.

[Reference(2)]					
Electrical Energy Sold to other companies (*)		5.0	3.4	1.6	46.9

* Electrical Energy Sold to other electric utilities represents wholesale volume in the electric power supplied.

<Electric Power Supplied> (Nonconsolidated)

- **Hydro :** The flow rate was higher than 2017/2Q ; thus hydroelectric power output **increased by 1.1 TWh.**
- **Wholesale : Increased by 1.6 TWh**, mainly due to an increase in wholesale volume.
- **Purchased power : Increased by 1.5 TWh**, mainly due to an increase in purchase of renewable energy.
- **Thermal :** As a result of decrease in electrical energy sold and above, thermal power output **decreased by 1.2 TWh**.

(TWh,%)

			2018/2Q (A)	2017/2Q (B)	Change (A-B)	Change (A-B)/B
Electric Power Supplied	Internally generated	Hydro	5.8	4.7	1.1	23.4
		<flow rate>	<115.1>	<86.0>	<29.1>	
		Thermal	50.1	51.3	(1.2)	(2.3)
		Nuclear	(0.1)	(0.1)	(0.0)	5.3
		<utilization rate>	<ー>	<ー>	<ー>	
		Renewable energy	0.0	0.0	0.0	138.0
	Externally generated(*)	Wholesale	(5.0)	(3.4)	(1.6)	46.9
		Purchased power	11.2	9.7	1.5	14.9
	Power used for pumped storage		(0.4)	(0.7)	0.3	(39.0)
	Total		61.5	61.5	0.0	0.1

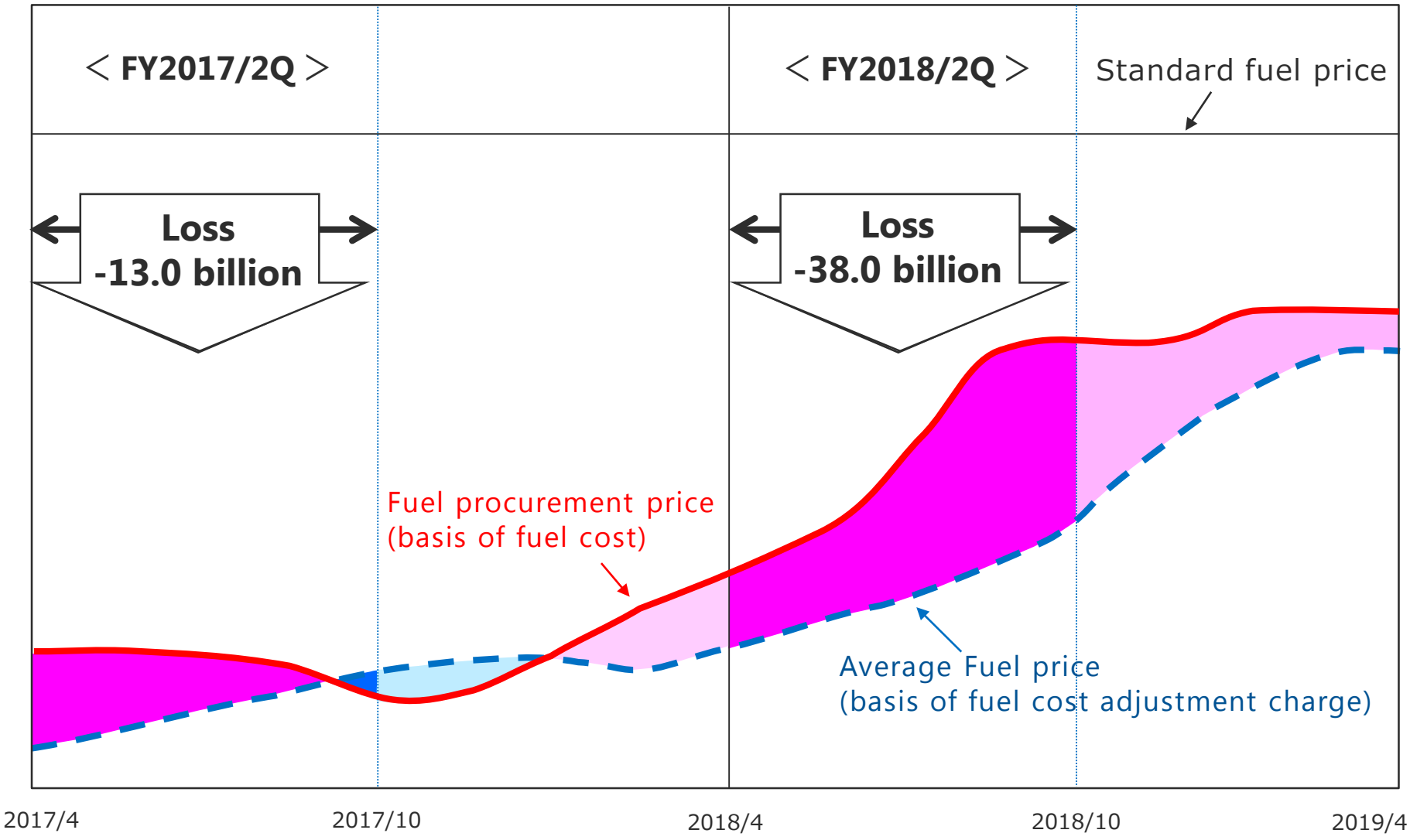
* Externally generated represent power output that we grasp at the end of the 2018/2Q.

[Principal Figures]

		2018/2Q (A)	2017/2Q (B)	Change (A-B)
CIF price: crude oil	($/b)	73.4	51.4	22.0
FX rate (interbank)	(yen/$)	110.3	111.1	(0.8)

*CIF crude oil price for 2018/2Q is tentative.

(Reference) Impact of Accrued Income Incurred by Fuel Cost Adjustment System (Result)



* Accrued income include the effect of time lag of gas supply business.

<The Policy on Shareholder Return>

- 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.

<Dividends>

- The board of directors has determined that the interim dividend per share is 20 yen per share today.

	Dividend per share (yen)	
	FY 2018	FY 2017
Interim	20	15
Year-end	<20>	20
Total in annual	<40>	35

*1 Forecast in < >.
*2 We have not changed the forecast of the dividend since the previous announcement (July 31, 2018).

Summary of Forecast for FY2018 <1>

<Forecast>

Forecasts of financial results have been revised from the previous announcement made in July 31, 2018.

- **Consolidated operating revenues: 3,000.0 billion yen (forecast)**
  Consolidated operating revenues will increase by 20.0 billion yen mainly due to an increase in electrical energy sold.
- **Consolidated ordinary income: 100.0 billion yen (forecast)**
  Consolidated ordinary income have not been revised from the previous announcement mainly due to an increase in electrical energy sold, in spite of the expansion of time lag loss because of rise in fuel price.
  Further, consolidated ordinary income excluding the effect of time lag is expected to be approx.160.0 billion yen (Increase by 10.0 billion yen from the previous announcement).

[Consolidated]

- Operating revenues will increase for 2 consecutive years since FY2017.
- Ordinary income will decrease following FY2016, for the first time in 2 years.
- We will record increased sales and decreased income following FY2013, for the first time in 5 years.

(Billion yen,%)

	Current (A)	July 31 (B)	Change (A-B)	Change (A-B)/B
Operating revenues	3,000.0	2,980.0	approx. 20.0	0.7
Operating income	110.0	110.0	—	—
Ordinary income	100.0	100.0	—	—
Net income attributable to owners of parent	75.0	75.0	—	—

[(Reference) Nonconsolidated]

(Billion yen,%)

	Current (A)	July 31 (B)	Change (A-B)	Change (A-B)/B
Operating revenues	2,690.0	2,670.0	approx. 20.0	0.7
Operating income	90.0	90.0	—	—
Ordinary income	80.0	80.0	—	—
Net income	60.0	60.0	—	—

Summary of Forecast for FY2018 <2>

[Principal figures]

(TWh,%)

(Electrical energy sold)	Current (A)	July 31 (B)	Change (A-B)	Change (A-B)/B
Low voltage	36.4	35.7	0.7	2.0
High voltage・Extra-high voltage	82.1	81.6	0.5	0.6
Total	118.5	117.3	1.2	1.0
[Reference]				
Electrical energy sold including group companies (*1)	124.2	123.0	1.2	1.0

(Other principal figures)		Current	July 31
CIF price: crude oil	($/b)	approx. 77	approx. 74
FX rate	(yen/$)	approx. 110	approx. 110
Nuclear power utilization rate	(%)	-	-

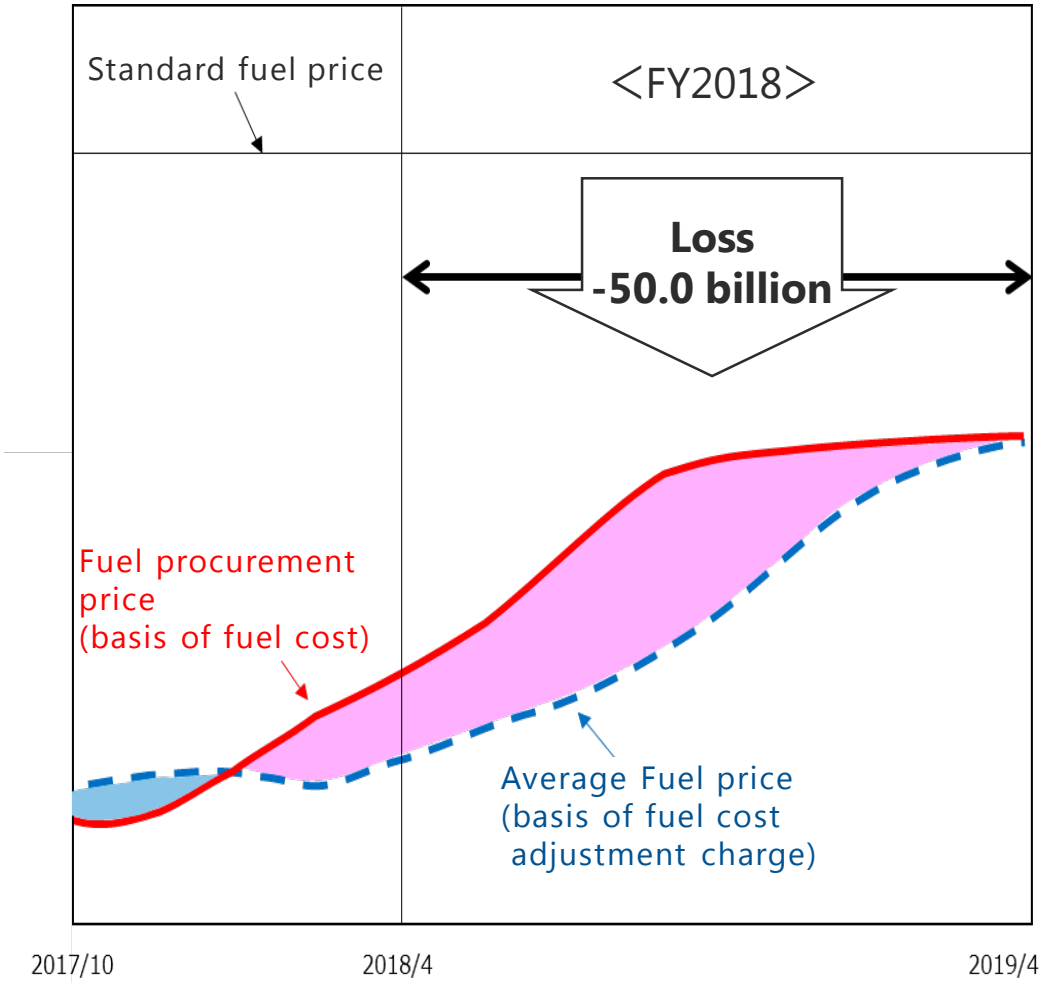
(Billion yen)

(Income sensitivity)		Current	July 31	
CIF price: crude oil	(1$/b)	7.0	7.0	(*2,3)
FX rate	(1yen/$)	6.5	6.5	(*2)
Flow rate	(1%)	0.8	0.8	
Interest rate	(1%)	4.5	4.5	

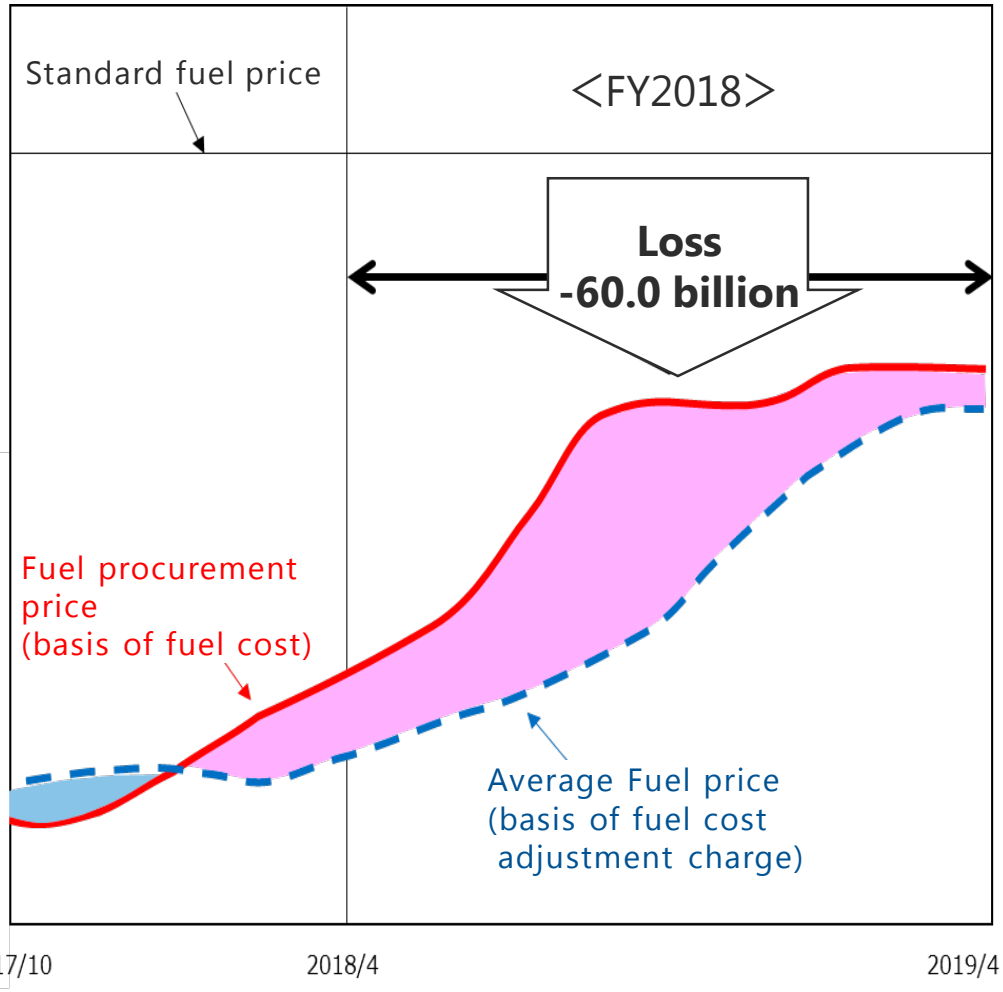
*1 The sum of the company, consolidated subsidiaries, and affiliates accounted for under the equity method.
*2 These figures represent income sensitivity for fuel expenses. Fluctuation of CIF price (crude oil) and FX rate will be reflected in sales revenue, in cases where average fuel price fluctuates and fuel cost adjustment system will be applied.
*3 The impact value of crude oil price includes the impact of LNG price because LNG price is subject to crude oil price.

(Reference)
Impact of Accrued Income Incurred by Fuel Cost Adjustment System in FY2018 (Forecast)

○ July 31 (Loss of 50.0 billion yen)



○Current(Loss of 60.0billion yen)



* Accrued income include the effect of time lag of gas supply business.

02 Management Situation

Initiatives to Address Management Challenges and Toward Realization of Our "Vision"

Changing social structure

- Shrinking energy market
- Diversifying customer needs
- Growing importance of working style reform

Changing business systems

- Intensifying competition among business operators
- Tightening nuclear regulations
- Business operation/structure changes

"Initiatives to Address Management Challenges" (four priority measures)

(1) Improving safety further at Hamaoka Nuclear Power Plant
(2) Stable power supply for a new age
(3) Strengthening our business base for growth and achieving sustainable growth
(4) Establishing a business structure/management base that can respond instantly to environmental changes

Changing technology

- Spread of smart grids
- Progressing storage battery technology
- Progressive digital technology (blockchains, etc.)

Changing environmental awareness

- Introduction/expansion of renewable energy
- Growing interest in ESG initiatives
- Formation of international frameworks for reducing greenhouse gases

Achieve goal

Business goal
Consolidated ordinary profit of **150** billion yen or more by FY2018

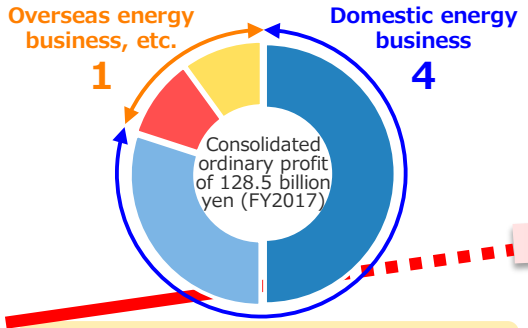
Strengthen business base for growth

FY2019 – FY2022 (outlook)
Consolidated ordinary profit of **150** billion yen or more

Achieve continued growth

Second half of 2020s (vision)
Consolidated ordinary profit of **250** billion yen or more

Management vision "Vision"
A total energy service corporate group that is one step ahead

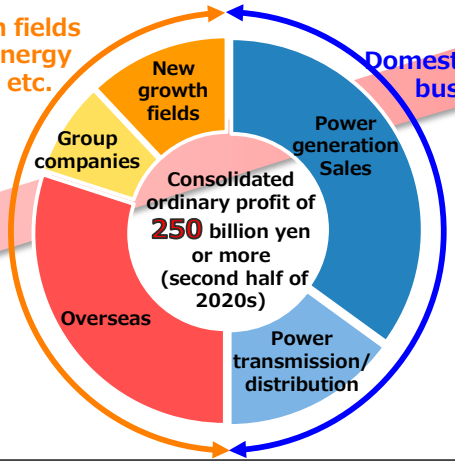


Thorough efforts to increase management efficiency

Deepen efforts to increase management efficiency
Increase revenue in the energy business
Open/commercialize new growth fields

Build a balanced business portfolio

New growth fields
Overseas energy business, etc.
1

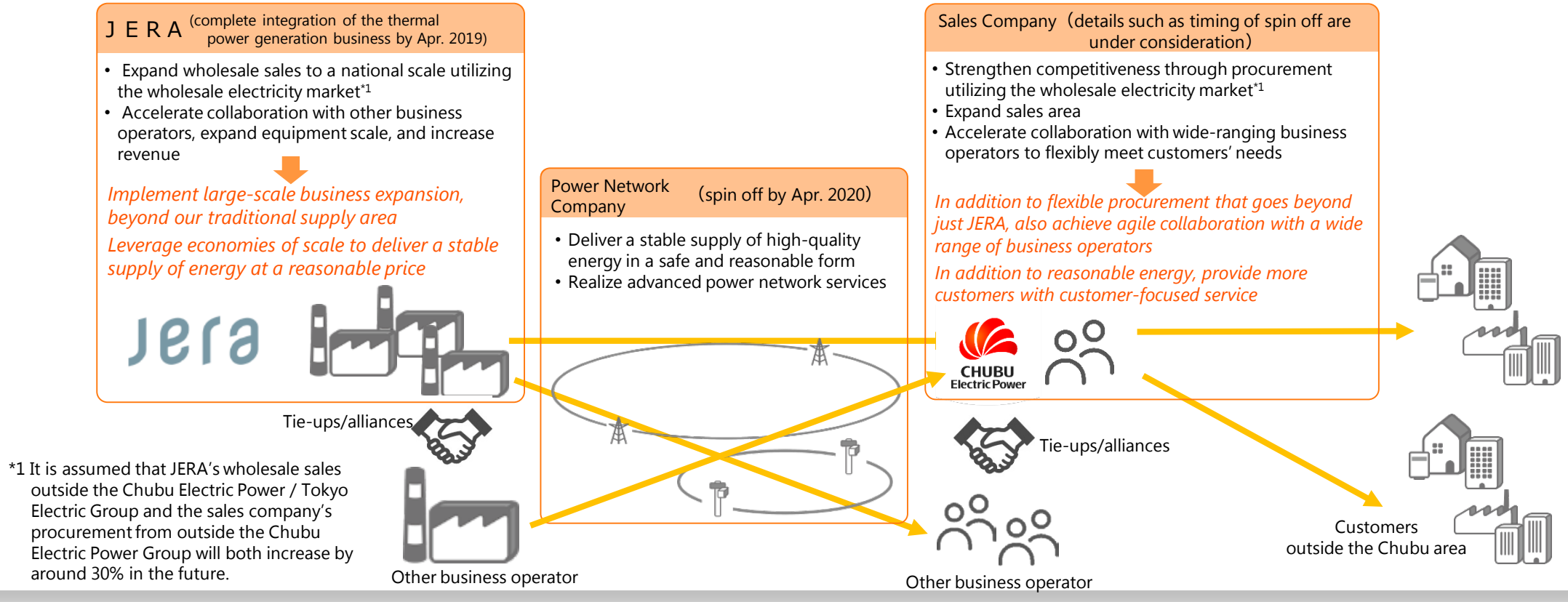


Domestic energy business
1

2016 2018 2022 2030

Transition to a Business Model with Unbundling of Each Sector

- With the changes in the system, including full liberalization of the electricity retail market and the legal unbundling of the power transmission/distribution division, that made power generation, power transmission/distribution, and sales into different businesses, the operators of these businesses came to face their different markets (business activities area, business partners, customers).
- That is why we will make a transition by integration of the thermal power generation businesses into JERA and spinning off the power transmission/distribution and sales business to create a "business model with unbundling each sector". This is different from our traditional "vertical integration business model," in which operations from power generation to sales are conducted in an integrated system.
- By having each business entity facing its own market and carrying out autonomous initiatives, we will provide new services in addition to delivering a stable supply of high-quality energy in a safe and reasonable form.



*1 It is assumed that JERA's wholesale sales outside the Chubu Electric Power / Tokyo Electric Group and the sales company's procurement from outside the Chubu Electric Power Group will both increase by around 30% in the future.

13 Safety improvement measures for Hamaoka Nuclear Power Plant (prevent accidents and prepare for their occurrence)

CHUBU Electric Power

- Under a strong determination to "not allow another accident like that at the Fukushima Daiichi Nuclear Power Plant," the Hamaoka Nuclear Power Plant has strengthened its equipment measures to improve safety and is going through an inspection of conformity with new regulatory standards by the Nuclear Regulation Authority.
- Furthermore, we have strengthened our ability to respond on-site to ensure equipment functions effectively in an emergency and our coordination with national and local governments, etc., in case of an accident or problem.
- We will strive to improve safety further and provide careful explanations, aiming to be a power plant that earns more trust from the public.

Conformity inspection application

- Inspection of application for approval of nuclear reactor establishment/change (basic design of equipment) → Approval
- Inspection of application for approval of construction plan (detailed design of equipment) → Approval
- Inspection of application for approval of change to operational safety program (operational management system, etc.) → Approval

Restart operations

Main inspection items and progress of application for approval of nuclear reactor establishment/change

Application → Earthquake/tsunami-related inspection → Plant-related inspection → Approval

Earthquake/tsunami related	Geology	Site vicinity	On the site	
	Earthquake	Underground structures	Oceanic intraplate earthquake	
		Interplate earthquake	Inland crustal earthquake	
	Tsunami, etc.	Tsunami	Volcanic event/ground	
Plant related	Design standards	Aseismic/anti-tsunami design policy	Tornado	Volcano
		External fire	Other natural phenomenon	
		Internal fire	Internal inundation	
	Serious accident countermeasures	Effectiveness assessment	Equipment/technical capabilities	

Legend: Mostly complete / Under deliberation / To be deliberation complete

As of September, 2018

Strengthen ability to respond on-site in an emergency

Education/training of personnel involved in activities to control an accident

Strengthen coordination with nation/local governments, etc.

Participation in nuclear emergency response drills organized by Shizuoka Prefecture

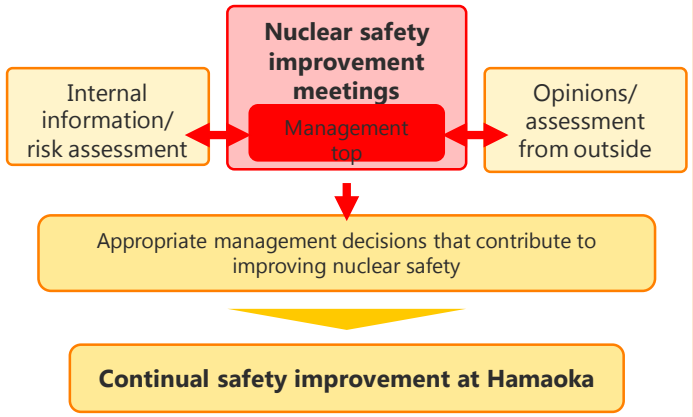
Implementation of combined exercises with the Omaezaki Coast Guard Station

14 | Aiming for a power plant that is safer and more trusted

- In order for the business operator itself to squarely reconsider the safety of nuclear power and make efforts to continuously improve safety in the wake of the Fukushima Daiichi accident, the top management at Chubu Electric Power are taking responsibility for improving nuclear power safety and strengthening governance, risk management, and risk communication.
- We will push ahead with responses to the new inspection system that stresses independent safety using risk information, which will be introduced in fiscal 2020.

Strengthen governance

Top management will listen to opinions/assessment from in and outside the company about risk and will establish systems for risk management.



Strengthen risk management

Emergency Response Force

24 hours/day, 365 days/year
+
Specialized organizations
+
All-around capabilities

Establish/increase specialist emergency response teams

Third party reviews/assessments

Strengthen risk communication

Visit dialogues

Meetings to exchange ideas

Touring educational campaigns in the community

Power plant tours

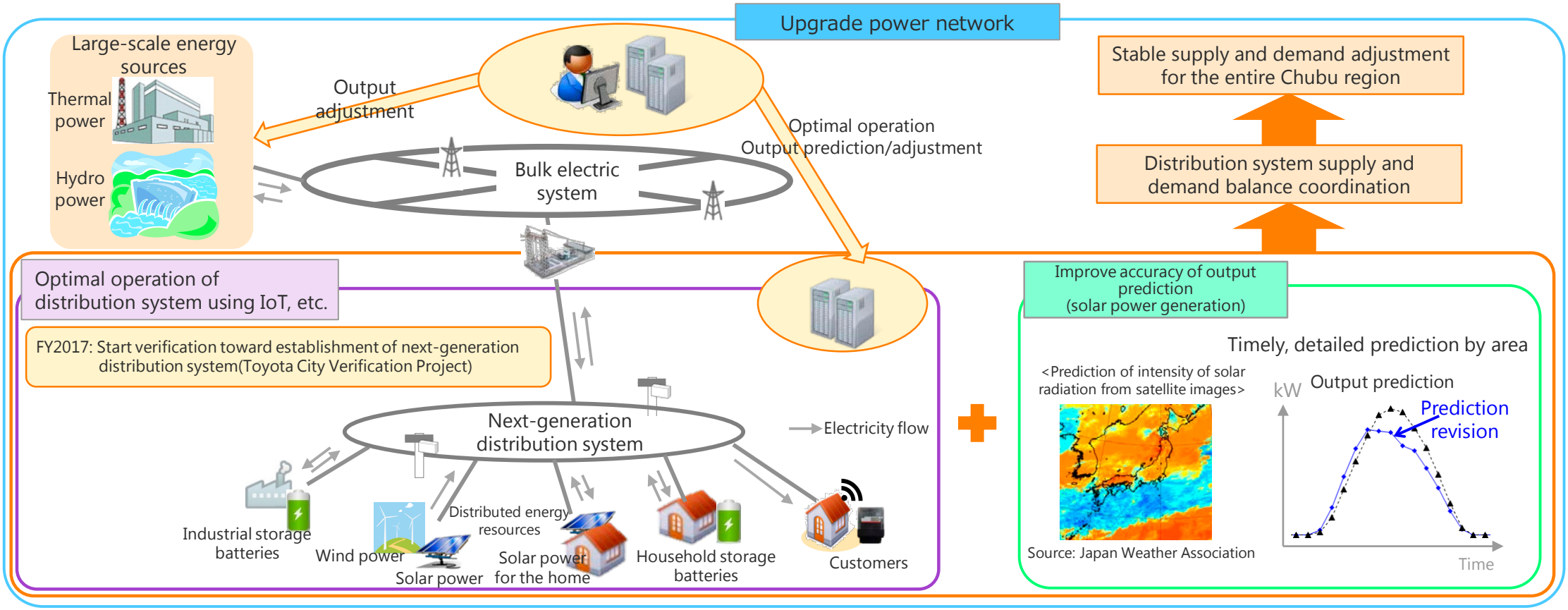
2014 2015 2016 2017 2018 2019 2020 2021 – (FY)

▼ Introduction of new regulatory system

Roadmap to strengthen risk management (new regulatory system compliance)		
	Establish risk management (respond to new regulatory system)	Operate new risk management system; verify and improve it continually
	Consider means to use risk information	
	Establish risk quantification model	Improve/develop risk quantification methods

15 Responding to the introduction/expansion of renewable energy (upgrading the power network)

- In response to output fluctuations in renewable energy (distributed energy resources), we will improve the accuracy of output prediction and conduct optimal operation of distribution system using IoT, etc.
- On top of that, we will combine large-scale energy sources from the bulk electric system in an effort to provide a stable supply of power to the entire Chubu region.



16 Improve management efficiency to strengthen business base <1>

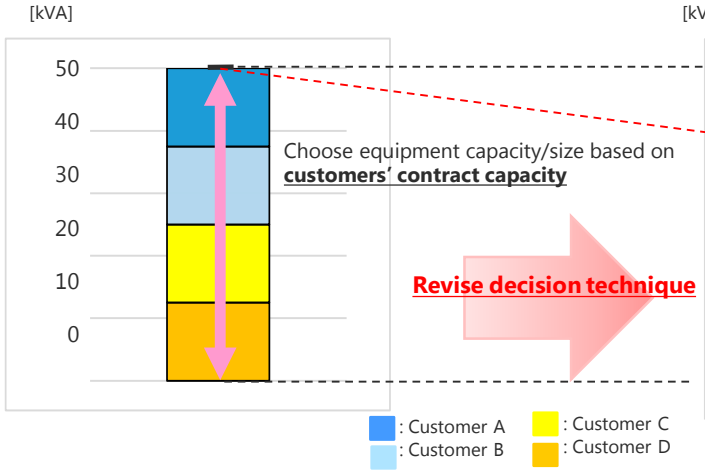
- Aiming to strengthen our business base through improved management efficiency, we will continually work at reducing repair costs and will streamline equipment in light of changes in the supply-demand structure caused by the introduction/expansion of renewable energy.

[Specific initiative example: equipment rationalization using smart meters]

We will increase the capacity factor and reduce device costs by installing equipment according to customers' actual power usage, based on the use of measurements from smart meters introduced.

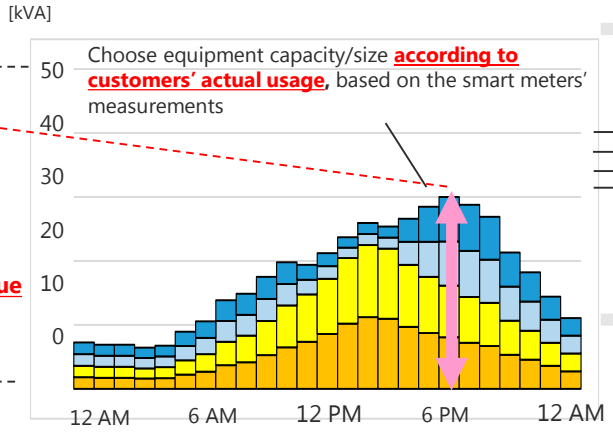
<Decision method for equipment capacity/size>

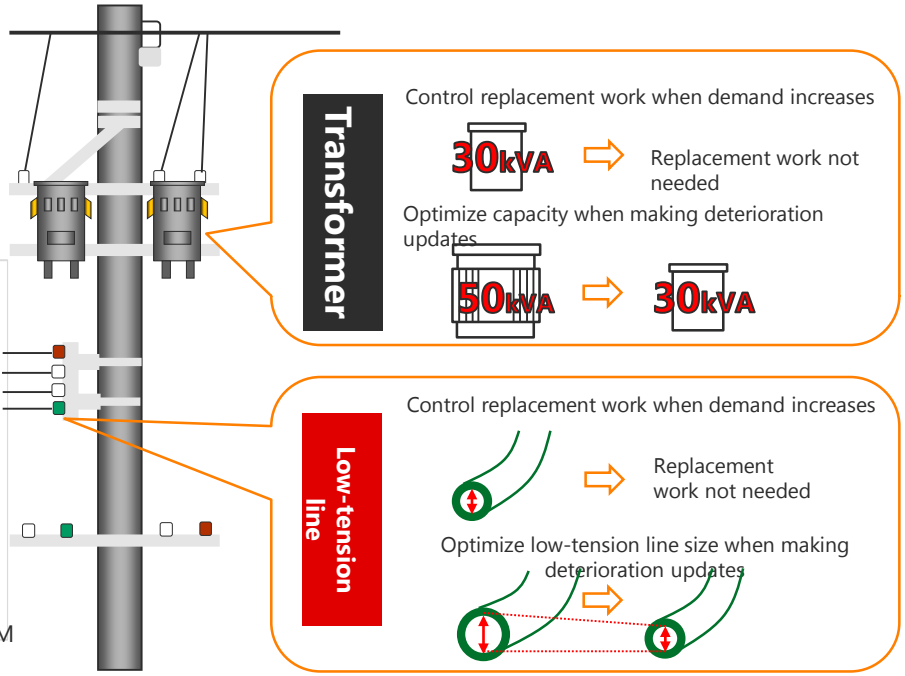
Before smart meter introduction



Revise decision technique

After smart meter introduction





17 Improve management efficiency to strengthen business base <2>

[Specific initiative example: improving thermal efficiency of LNG combined cycle generation plants]

We are working on cutting fuel costs by improving the efficiency of existing LNG combined cycle generation plants.

The following construction projects are being planned or implemented to further improve thermal efficiency, restore summer output capacity, and extend intervals between inspections.

- Replacement of Kawagoe Thermal Power Station Unit No. 3's gas turbine into a newer model (completed)
- Replacement of Joetsu Thermal Power Station's hot gas turbine parts into a newer model (completed)
- Replacement of Nishi-Nagoya Thermal Power Station Unit No.7's gas turbine into a newer model (replacement underway)

Harnessing the performance of latest gas turbine models, we are taking steps to further improve output change rates and shorten the time for starting up LNG combined cycle generation plants, in an effort to address significant supply-demand fluctuations stemming from an increase in solar power generation.

Kawagoe Thermal Power Station Unit No. 3

Carrying a gas turbine on the premises

Installing a newer gas turbine

18 Improve management efficiency to strengthen business base <3>

CHUBU Electric Power

[Specific initiative example: improving thermal efficiency of LNG combined cycle generation plants]

Based on past hazard results and process of failure development, we categorize periodic inspection items for distribution substation transformation equipment that undergo periodic inspection from preventive maintenance aspects into groups with "large" and "small"*1 impact that are caused during failure. We save costs by doing so and carefully examining necessary inspection items and cycles.

By evaluating hazards after previous inspection cycle extensions and by evaluating accelerated aging through the use of removed items, we extend the cycle for replacing parts during periodic inspections and save costs accordingly.

*1 Matters challenging energy supply or involving public safety issues are categorized as "large" impact. Issues that constrain operation are grouped into the "small" impact category.

◇Review of periodic inspection (items and cycles)

Target : distribution substation

Before

Inspections are conducted under a constant cycle and on a per-item basis

Inspection of circuit breaker bushing

Inspection of transformer pressure relay

Inspection of disconnecting switch body

All of these are preventive maintenance initiatives

After

Inspection approaches (e.g. extension of preventive maintenance cycle, corrective maintenance) are streamlined on a per-item basis

Large influence

Status monitoring*2 + preventive maintenance (cycle extension)

Inspection of circuit breaker bushing

Damage in bushing
⇒ Influence on public safety

<example>
Inspection : once in 6 years
⇒Status monitoring + Inspection : once/12years

Inspection of transformer pressure relay

Relay device malfunction caused power outage
⇒ Risk of power loss

<example>
Inspection : once in 6 years
⇒Status monitoring + Inspection : once/12 years

Small influence

Status monitoring*2 + corrective maintenance

Inspection of disconnecting switch body

Malfunctioning of disconnecting switch
⇒ Risk of constraining operation

<example>
Inspection : once in 24 years
⇒ Status monitoring + corrective maintenance

*2 Rounds, equipment performance tests, temperature measurement of energized cables, transformer anomaly diagnoses (e.g. in-oil gas analysis)

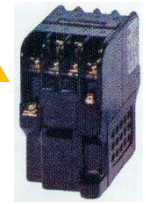
◇ Cycle extension for replacing parts during periodic inspections

Target : all substation

<example of cycle extension>
Replacement of circuit breaker's magnetic contactor

circuit breaker

magnetic contactor



<cycle for replacing>
Before : 18 years
↓
After : 24 years

19 | Accelerate growth after completion of value chain in JERA

- We will complete a whole value chain from upstream investments and fuel procurement through power generation to power and gas wholesale sales by integrating our existing thermal power generation business, etc., with JERA in April 2019.
- We will aim to become a global energy corporate group by producing synergistic effects with the already integrated fuel/overseas power generation business and energy infrastructure business and by accelerating growth in each business field.

[Initiatives after value chain completion]

Fuel upstream

World's largest fuel trading scale

[Investment projects]
<At present>
5 projects
<FY2025>
Approx. 10 projects

Fuel procurement

<FY2025>
Approx. 35 million tons LNG

Fuel trading/sales

- Return trading knowhow to domestic thermal power business
- Expand gas/LNG wholesale sales

Fuel transportation

- Expand JERA-owned carrier fleet

<At present> 16 vessels
<FY2025> Approx. 25 vessels

Domestic power generation

- Electricity/gas market trading; expand third-party sales
- Optimize power source portfolio to balance strengthening of cost competitiveness and achievement of low-carbon
- Rationalization through joint procurement of equipment and materials
- Improve efficiency through competitive O&M model in the global market

[Existing output]
<At present>
23 million kW
<FY2025>
66 million kW*

[Developed output]
<At present>
650 MW
(under construction)
<FY2025>
Approx. 9 million kW
(new)

* Including 43 million kW of assets succeeded from TEPCO Fuel & Power, Inc.

Optimization through integrated operation of the entire value chain

Overseas power generation/energy infrastructure

- Accelerate renewable energy development
- Develop global-level O&M business

[Developed output]
<At present> 8 million kW
<FY2025> Approx. 15 million kW

Income/expenditure standard: net income of around 200 billion yen in FY2025

Synergy from JERA integration
At least 100 billion yen/year (within 5 years after integration)
(Efficiency effect: 60 billion yen / income growth: 40 billion yen)

Stably deliver energy that is internationally competitive / Increase the corporate value of the Chubu Electric Power Group

20 Provide energy services that continue to be chosen by customers

- In order to continue to be chosen by customers in a liberalized retailing market, we will deliver new services that meet customers needs using IoT, etc., not just stable, affordable energy.
- Also, aiming for sustainable growth, we will work at business expansion centered on the Tokyo metropolitan area.

Intensifying competition following electricity/gas liberalization

To continue to be chosen by customers

Deliver a stable supply of energy at an affordable price

Diversification of services

Aiming for sustainable growth

Active gas & power development

- Optimal energy procurement
- Optimal electricity/gas projects according to customer needs

[Sales alliance with KDDI]

- Alliance in gas sales and point linkage (started in June 2018)
- Electricity sales (started in Sep. 2018)

[For household customers]

Services focused on daily life

- Online services with rich content
- Life support services, etc.

[For business customers]

Total energy solutions

- Energy solutions
- Energy saving support overseas
- Integrated development solutions

Business expansion cantered on the Tokyo metropolitan area

Expand sales through collaboration with partner companies and other business operators

- Started discussions on sales partnership with Premium Water (Jan. 2018)
- Started discussions on sales partnership with Kikuya (Jan. 2018)
- **Started selling electricity by Established sales company for energy (Joint venture with Osaka Gas : Aug. 2018)**

Energy Direct

- **Electricity sales in Kansai area (Apr. 2018)), etc.**

[Target for second half of 2020s]

[Electric power sold]
124.2 billion kWh (FY2018 forecast)
Second half of 2020s
Maintain 130 billion kWh/year

[Gas/LNG sold]
970,000 tons (FY2018 forecast)
Second half of 2020s
Increase to 3 million tons/year

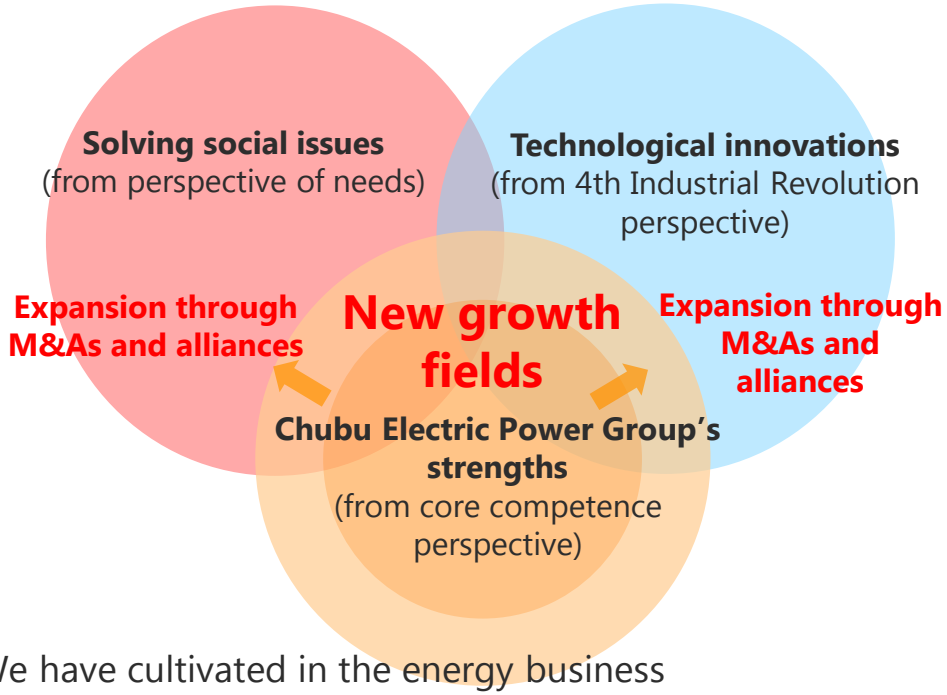
[Target for FY2018]

[Gas applications in the Chubu region]
180 thousand (as of Oct. 2018)
Acquire 200 thousand customers by FY2018

[Electricity sales in the Tokyo metropolitan areas]
220 thousand (as of Oct. 2018)
Acquire 300 thousand customers by FY2018

21 | Establish new growth fields (provide new forms of community)

- The Chubu Electric Power Group has contributed to regional development through the energy business. In order to help resolve social issues faced by communities, we will establish growth fields by working at providing "new forms of community."



We have cultivated in the energy business
- connections and relationships of trust with customers in the community,
- knowhow building and operating electricity infrastructure, and
- energy saving and CO2 reduction proposals based on optimal use of energy that leverage our technical capabilities, proposal capabilities, and relationships of trust with customers

Services to raise the quality of life of individuals by using various data

- Approach of attempting to maintain and raise quality of life by making use of our customer base and various data, focusing on the inconveniences of each customer's life

Combine two approaches in various ways

Establish new growth fields = Provide new forms of community

Community services based on connecting and evolving several kinds of social infrastructure

- Approach of making customers' lives convenient and comfortable by evolving energy infrastructure into community support infrastructure that can meet social issues, working on community units of a certain scope

22 Carrying out ESG management (E)

- We carry out business activities with awareness of ESG (environment, society, and governance), in order to fulfil our corporate social responsibility (CSR), increase our medium- to long-term corporate value, and contribute to the sustainable development of society.

E (Environment)
In line with the Chubu Electric Power Group Basic Environmental Policy, we establish action plans as specific goals and practice environmental management.

Reduce CO2 emissions

☐ Develop, introduce, and expand renewable energy
- Actively develop power sources
- Increase connection volume to transmission lines

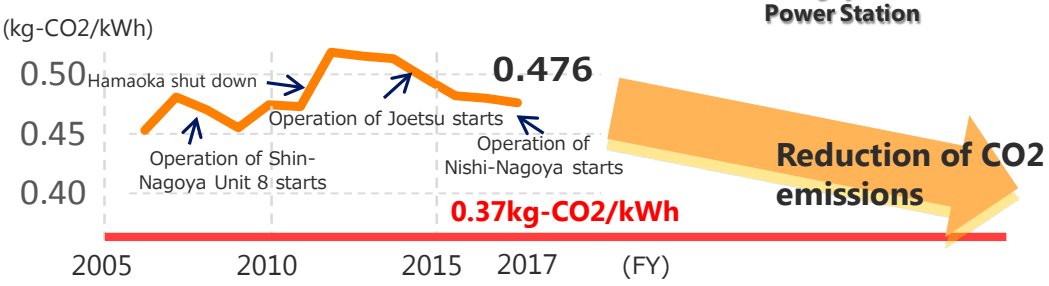
☐ Increase thermal efficiency of thermal power generation
- World-class high efficiency power generators
- Optimize power plant operation using IoT

☐ Use nuclear power generation


Mega Solar Shimizu

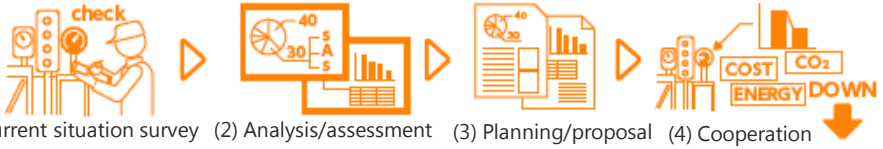

Nishi-Nagoya Thermal Power Station

[Image of our reduction of CO2 emission intensity]



Help customers/communities reduce CO2

☐ Energy solutions & energy saving support



(1) Current situation survey (2) Analysis/assessment (3) Planning/proposal (4) Cooperation (implementation)

☐ Energy management

Practice environmental management

☐ Harmony with nature
☐ Achieve recycling society
☐ Local and global cooperation


Training Chuden Foresters

23 Carrying out ESG management (S・G)

S (Social)

So that employees will work with vitality, we will promote work-life balance, based on the idea that life (physical and mental health and a fulfilling life) is the foundation.
Also, we will contribute to sustainable development of communities by valuing communication with members of the community.

G (Governance)

Aiming for sustainable growth, we will strive to further enhance our corporate governance, taking fairness and transparency as the core of management.
In April 2018, we will establish a Risk Management Meeting and make a structure for integrated management of risks that would have a material effect on the company's management.

For employees

Work style reform (increase productivity)

- ☐ Expand flextime system company-wide (from April 2018)
- ☐ Introduce telework (from April 2018)

Promote diversity

- ☐ Provide continual training to double, at least, the number of women in managerial positions compared to FY2014 (FY2020)

Health management

- ☐ Complete medical check-ups for all employees (from April 2019)

For the community

Communication with community members

- ☐ Cooperation with universities (Mie University, etc.)
- ☐ Women monitors (tours of energy facilities, etc.)

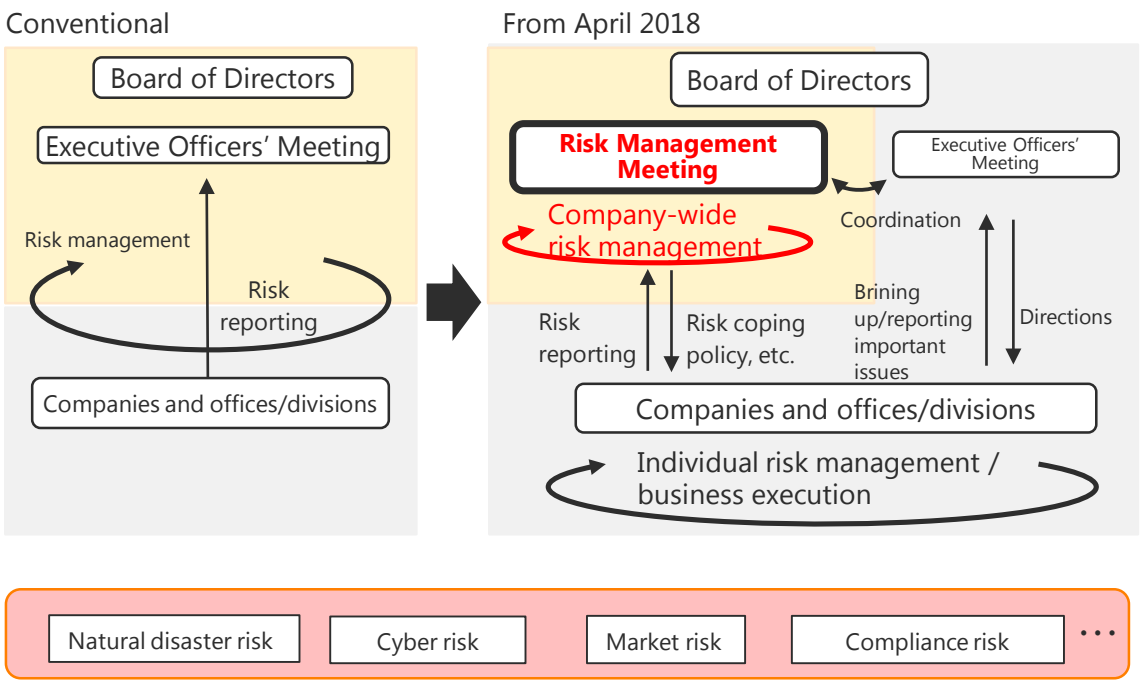
Social contribution activities

- ☐ PR for safe electricity use
- ☐ Guest classes / workplace experience

2018 健康経営優良法人 Health and productivity ホワイト500

Certified as an "Outstanding Health Management Corporation 2018 (White 500)" by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi.

Risk management system



03

Reference Data(1): Financial Results

Consolidated Statements of Income

(Billion yen,%)

	2018/2Q (A)	2017/2Q (B)	Change (A-B)	Change (A-B)/B
Operating revenues	1,487.4	1,393.3	94.1	6.8
Non-operating revenues	13.9	8.1	5.8	71.5
Ordinary revenues	1,501.4	1,401.4	99.9	7.1
Operating expenses	1,392.6	1,296.3	96.3	7.4
Non-operating expenses	14.5	17.7	(3.1)	(18.0)
Ordinary expenses	1,407.1	1,314.0	93.1	7.1
<Operating income>	<94.8>	<96.9>	<(2.1)>	<(2.2)>
Ordinary income	94.2	87.3	6.8	7.8
Reserve for fluctuation in water levels	-	(1.1)	1.1	-
Income taxes	26.4	25.3	1.1	4.3
Net income attributable to non-controlling interests	1.2	1.0	0.2	20.7
Net income attributable to owners of parent	66.5	62.1	4.3	7.0

Nonconsolidated Statements of Income <1>: Operating Revenues

(Billion yen,%)

	2018/2Q (A)	2017/2Q (B)	Change (A-B)	Change (A-B)/B
Electricity sales revenues	1,074.8	1,052.9	21.8	2.1
Sold power to other electric utilities(*1)	49.9	32.6	17.3	53.0
Transmission revenue, etc. (*2)	41.9	25.4	16.5	65.1
Grant under act on purchase of renewable energy sourced electricity	144.8	132.9	11.8	8.9
Other	13.0	12.4	0.5	4.7
Electricity business operating revenues	1,324.6	1,256.4	68.1	5.4
Incidental businesses operating revenues	30.0	23.6	6.4	27.4
Total operating revenues	1,354.6	1,280.0	74.6	5.8

[Major factors for change]

- An increase in fuel cost adjustment charge +47.3
- A decrease in electrical energy sold −10.5

- An increase in wholesale volume

- An increase in purchase of renewable energy sourced electricity

- Gas supply business +6.3
  <Gas/LNG sold>
  391 thousand tons
  → 427 thousand tons

*1 Sold power to other utilities and Sold power to other suppliers
*2 Transmission revenue and Settlement revenue among utilities

Nonconsolidated Statements of Income <2>: Operating Expenses

(Billion yen,%)

	2018/2Q (A)	2017/2Q (B)	Change (A-B)	Change (A-B)/B
Salaries and employee benefits	94.7	91.4	3.3	3.6
Fuel	366.9	339.3	27.5	8.1
Nuclear back-end expenses (*1)	8.0	6.4	1.5	24.1
Purchased power etc. (*2)	252.8	226.6	26.2	11.6
Transmission charges etc. (*3)	11.3	7.9	3.4	43.0
Maintenance	82.2	80.7	1.5	1.9
Depreciation	116.2	117.2	(0.9)	(0.8)
Taxes other than income taxes	62.0	60.7	1.2	2.1
Levy under act on purchase of renewable energy sourced electricity	147.5	134.7	12.8	9.5
Other	95.7	103.3	(7.5)	(7.3)
Electricity business operating expenses	1,237.8	1,168.6	69.1	5.9
Incidental business operating expenses	31.0	22.8	8.1	35.5
Total operating expenses	1,268.8	1,191.4	77.3	6.5

[Major factors for change]

- Differences in power generated : -18.3
  - ・Improvement of thermal efficiency by Nishi-Nagoya thermal power plant
  - ・An increase in hydroelectric power generated
- Increase in unit price : +45.8
  - ・Rise in CIF price
- An increase in purchase of renewable energy sourced electricity
- An increase in extra-regional power supply
- Gas supply business : +8.0

*1 Contributions for reprocessing of irradiated nuclear fuel, Designated radioactive waste disposal expenses, Decommissioning nuclear power plants

*2 Purchased power from other utilities, Purchased power from other suppliers, Portion of the existing power generation expenses such as spent fuel reprocessing for which contracts have been signed

*3 Transmission charges, Supply connection transmission charges, Settlement revenue among utilities

Nonconsolidated Statements of Income <3>: Net Income

(Billion yen,%)

	2018/2Q (A)	2017/2Q (B)	Change (A-B)	Change (A-B)/B
Operating income	85.8	88.5	(2.6)	(3.0)
Non-operating revenues	9.6	6.6	3.0	46.2
Non-operating expenses	12.9	16.9	(3.9)	(23.3)
Ordinary revenues	1,364.3	1,286.6	77.6	6.0
Ordinary expenses	1,281.7	1,208.3	73.3	6.1
Ordinary income	82.5	78.2	4.2	5.5
Reserve for fluctuation in water levels	-	(1.1)	1.1	-
Income taxes	23.2	22.2	1.0	4.7
Net income	59.2	57.1	2.0	3.6

Consolidated and Nonconsolidated Financial Standing

(Billion yen)

		Sep 30, 2018 (A)	Mar 31, 2018 (B)	Change (A-B)
Assets	Consolidated	5,567.8	5,529.4	38.4
	Nonconsolidated	5,012.8	5,001.2	11.5
Liabilities	Consolidated	3,709.9	3,737.4	(27.5)
	Nonconsolidated	3,516.8	3,556.1	(39.2)
Net assets	Consolidated	1,857.8	1,791.9	65.9
	Nonconsolidated	1,495.9	1,445.0	50.8
Shareholders' equity ratio (%)	Consolidated	32.2	31.3	0.9
	Nonconsolidated	29.8	28.9	0.9
Outstanding interest-bearing debt	Consolidated	2,599.9	2,595.6	4.2
	Nonconsolidated	2,565.4	2,569.4	(3.9)

Consolidated Statements of Cash Flows

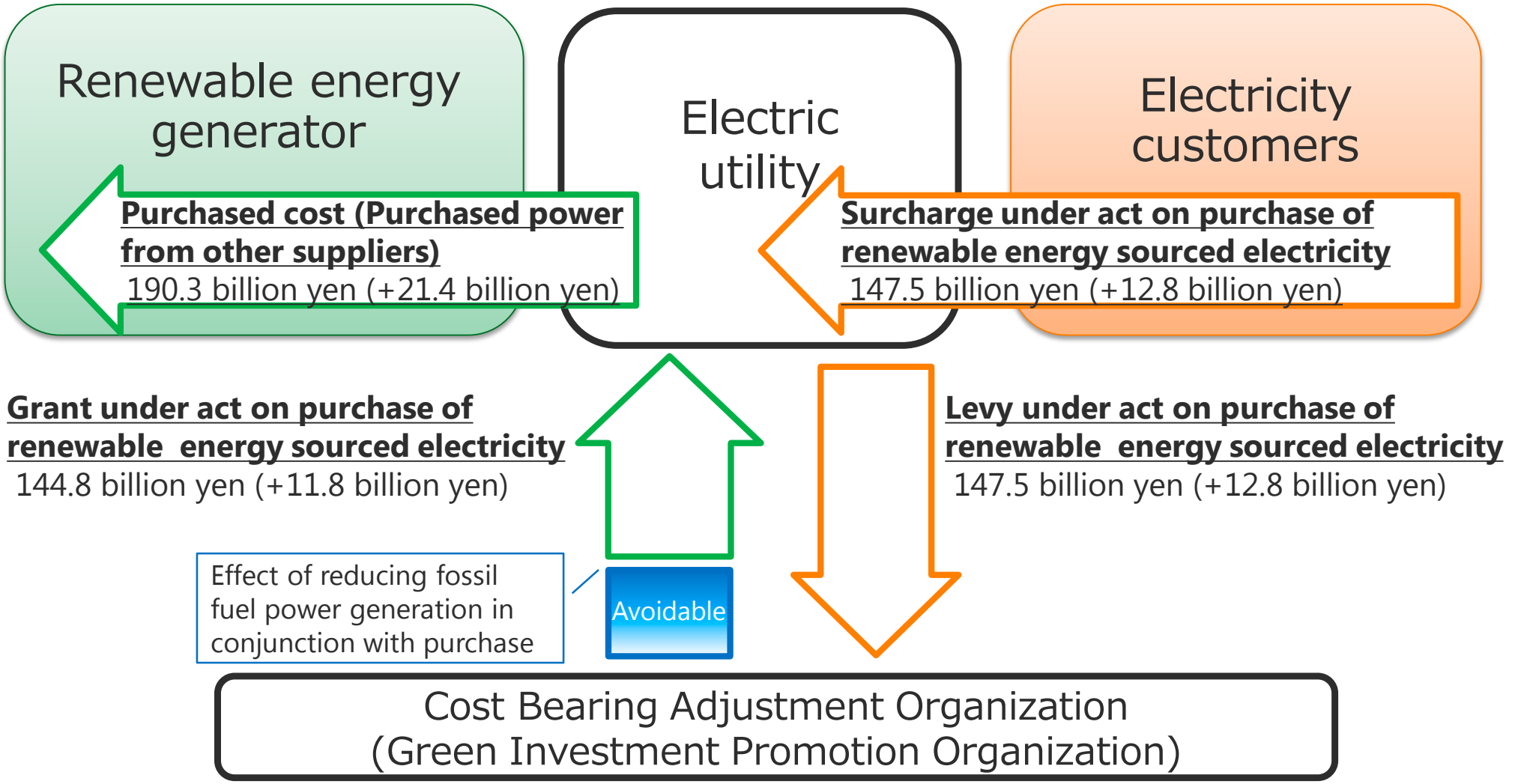
(Billion yen)

	2018/2Q (A)	2017/2Q (B)	Change (A-B)
Cash flows from operating activities (a)	101.1	142.8	(41.7)
Cash flows from investing activities (b)	(211.1)	(173.0)	(38.0)
Cash flows from financing activities (c)	(14.0)	(37.0)	23.0
Net decrease in cash and cash equivalents (a)+(b)+(c)	(123.9)	(67.2)	(56.6)

	2018/2Q (A)	2017/2Q (B)	Change (A-B)
Free cash flows (a+b)	(109.9)	(30.1)	(79.7)

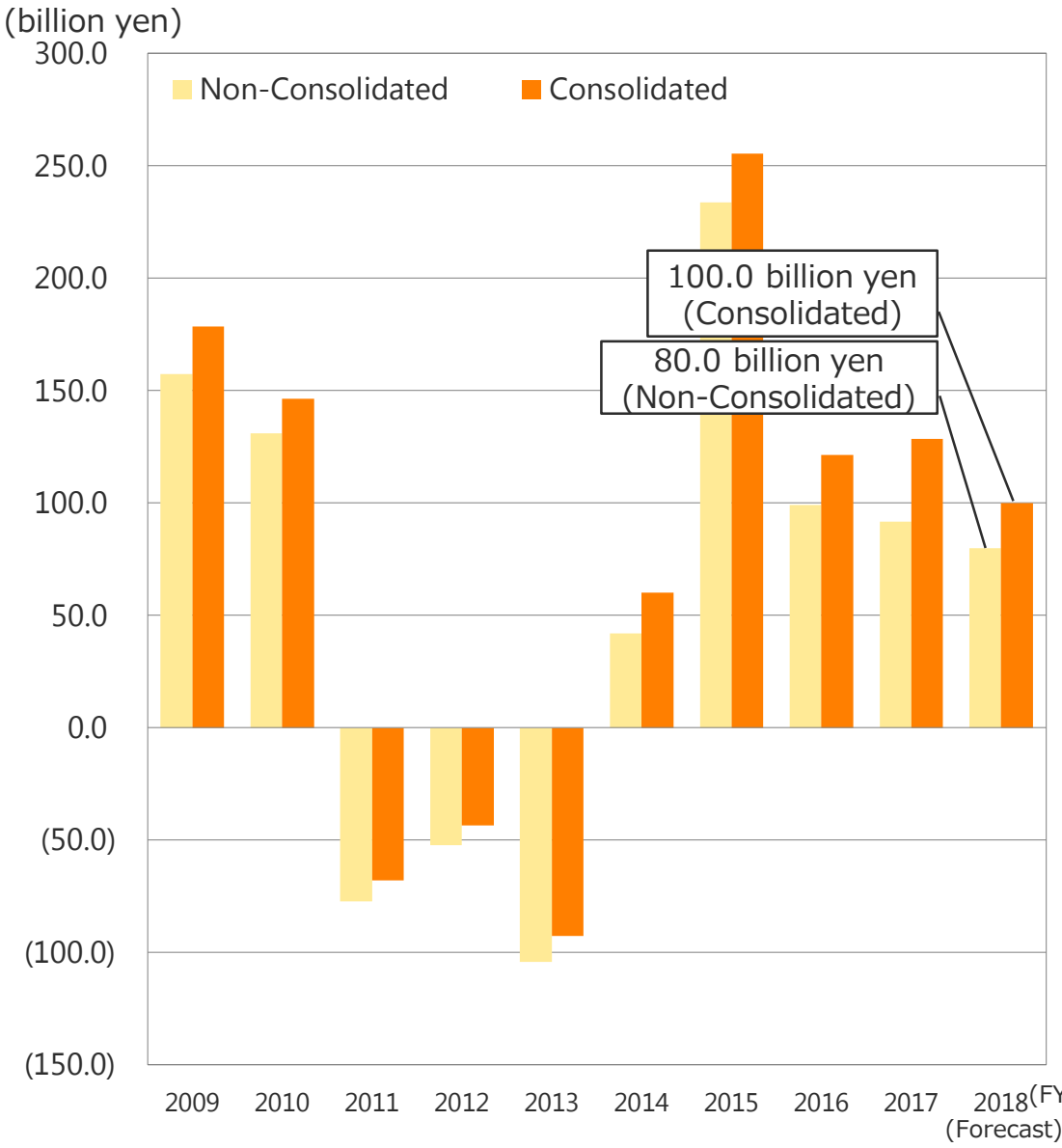
Impact of the Feed-in-Tariff Scheme for Renewable Energy

<Result of 2018/2Q (change from the previous year in parenthesis)>

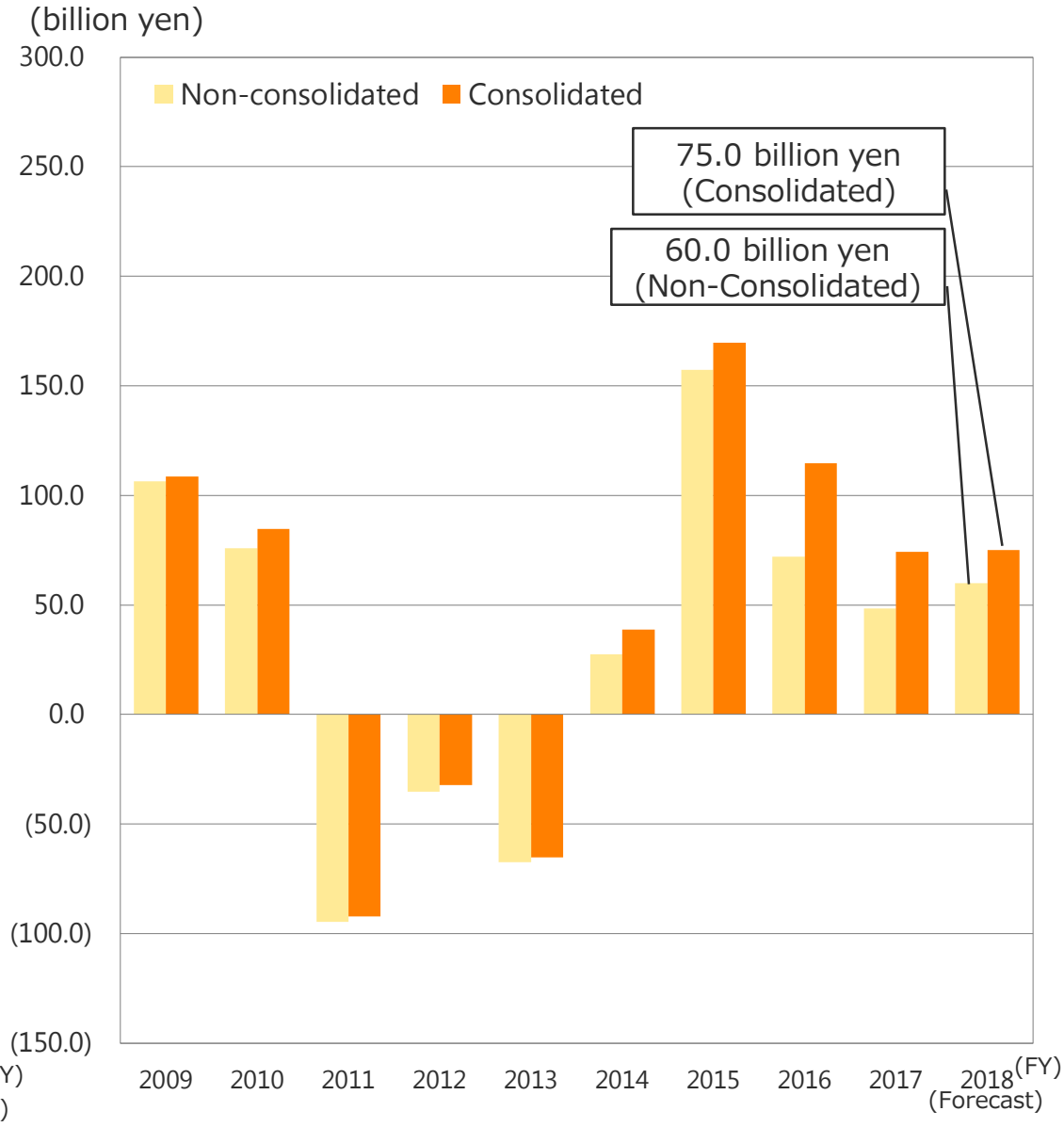


Ordinary Income(Loss) and Net Income(Loss)

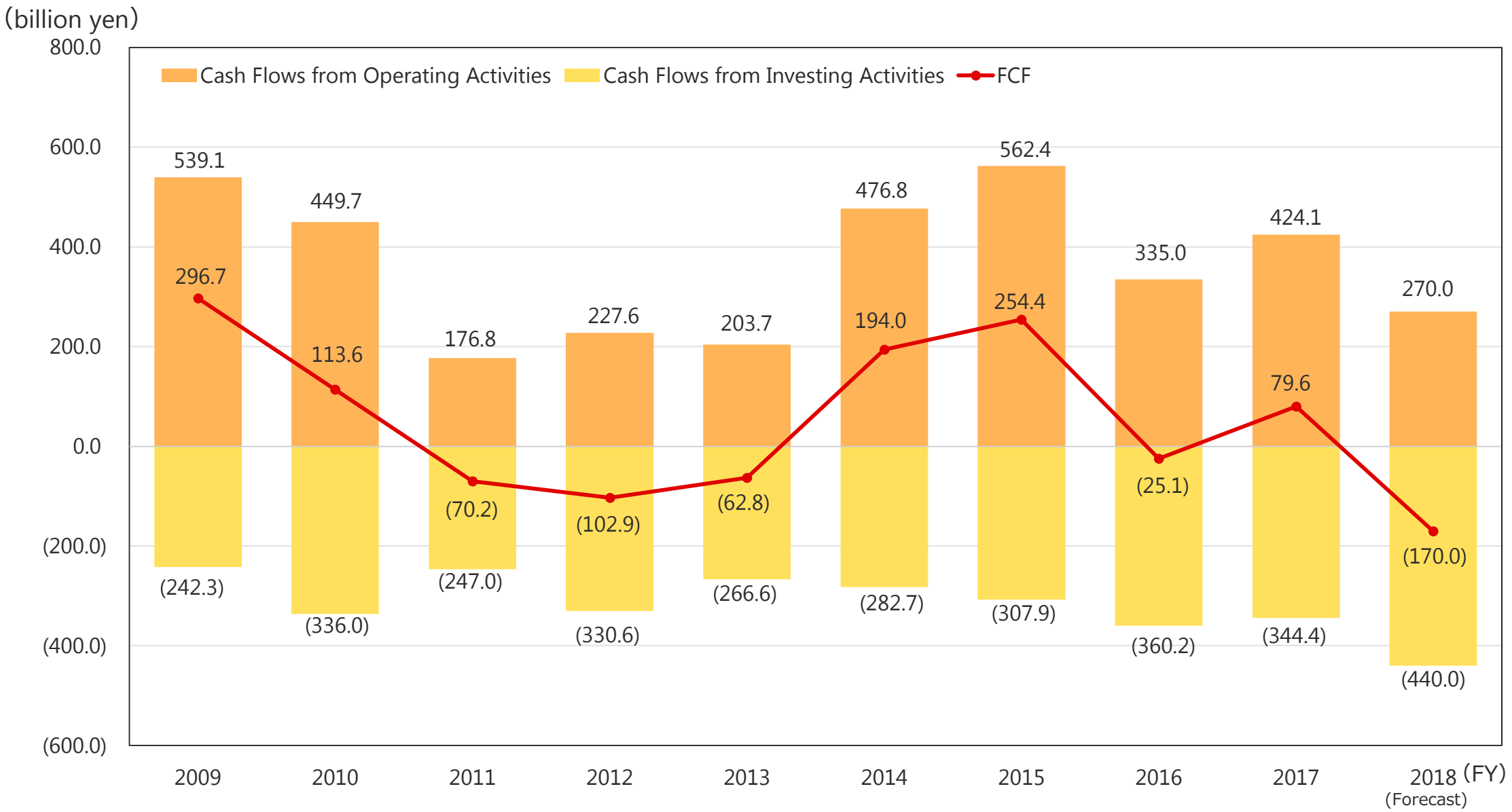
[Ordinary Income(Loss)]



[Net Income(Loss)]



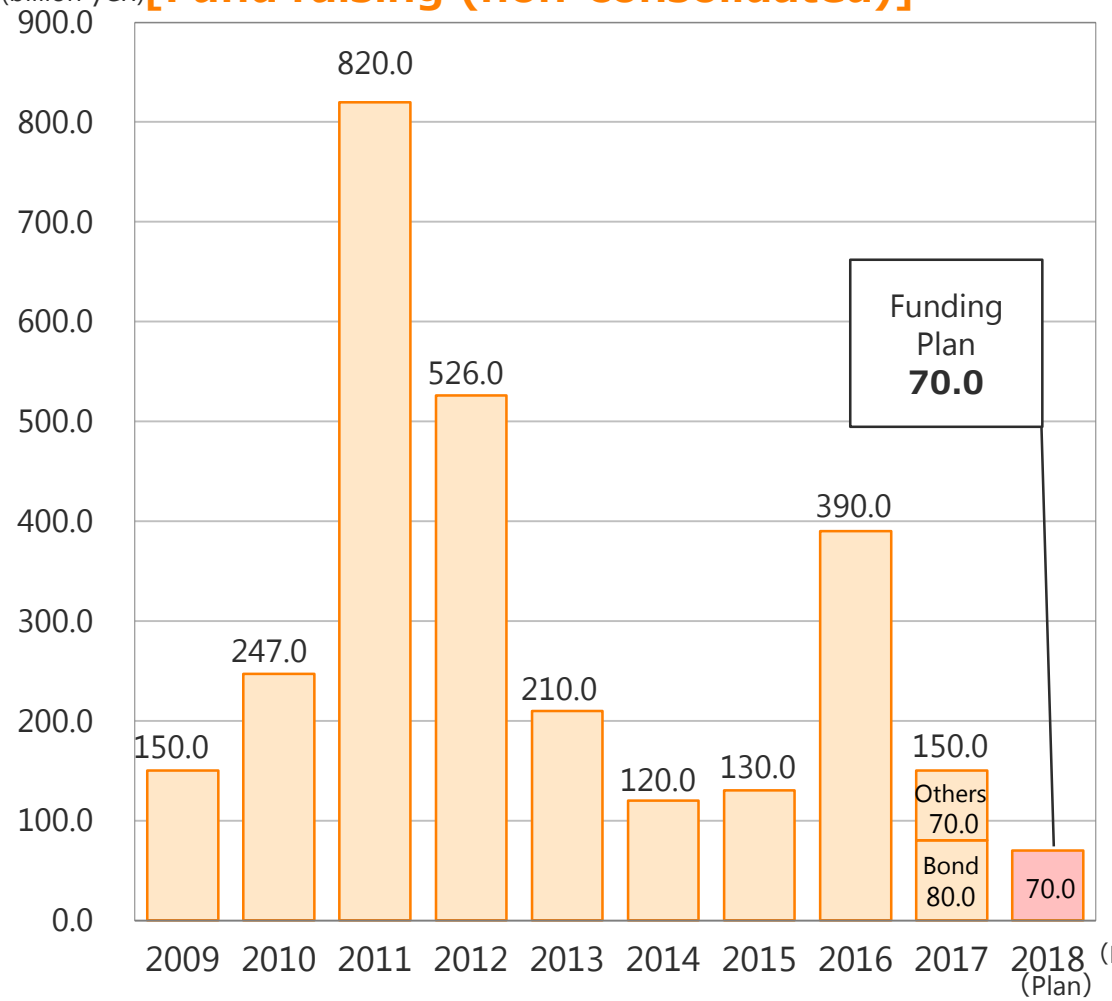
Cash Flow (Consolidated)



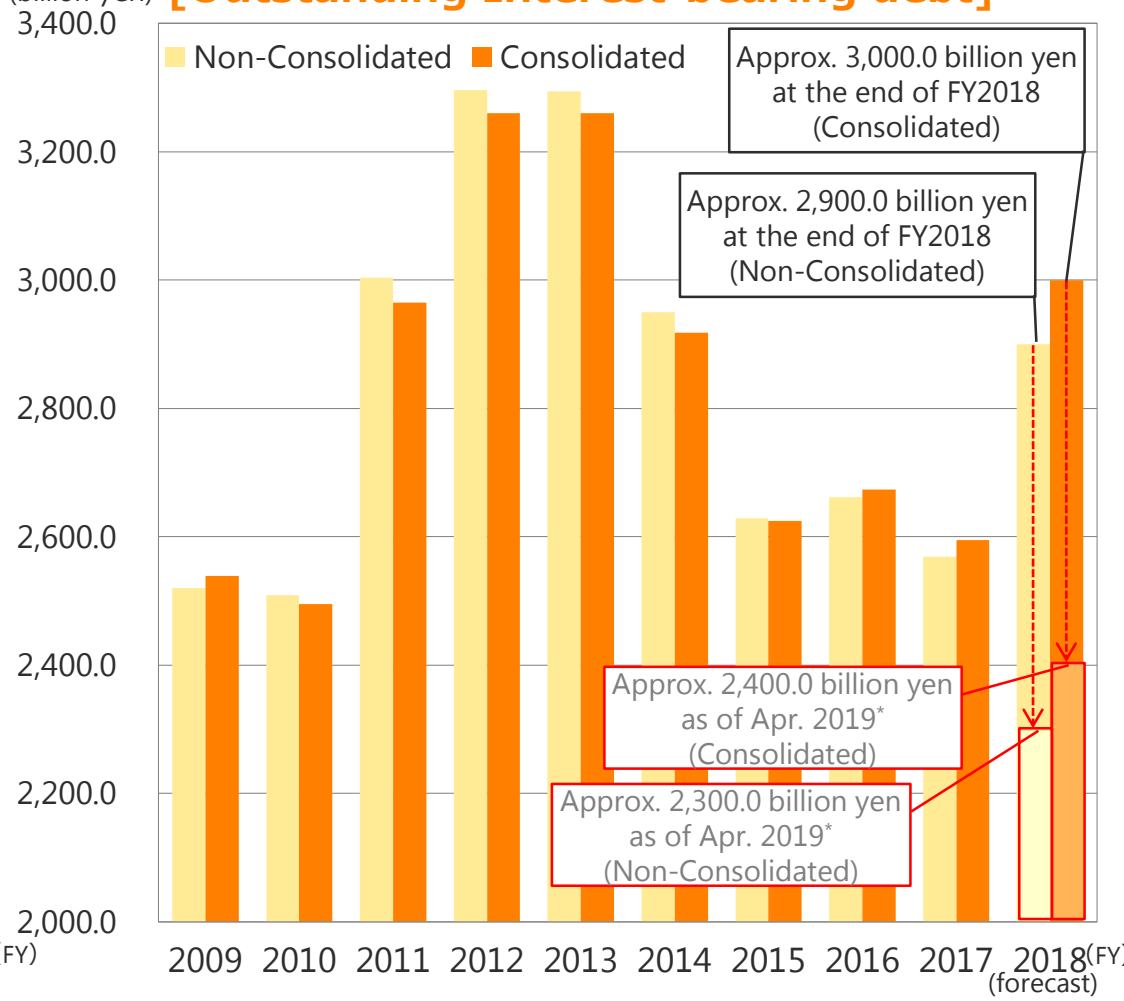
Fund Raising and Outstanding Interest-bearing Debt

- We raised total approx. 1,500.0 billion yen in long-term funding for 3 years since the shutdown of Hamaoka Nuclear Power Station.
- We forecast to raise approx. 70.0 billion yen in long-term funding in FY2018.
- We forecast outstanding Interest-bearing debt to become approx. 3,000.0 billion yen on consolidated base in FY2018, and approx. 2,900.0 billion yen based on non-consolidated in FY2018.

[Fund raising (non-consolidated)]



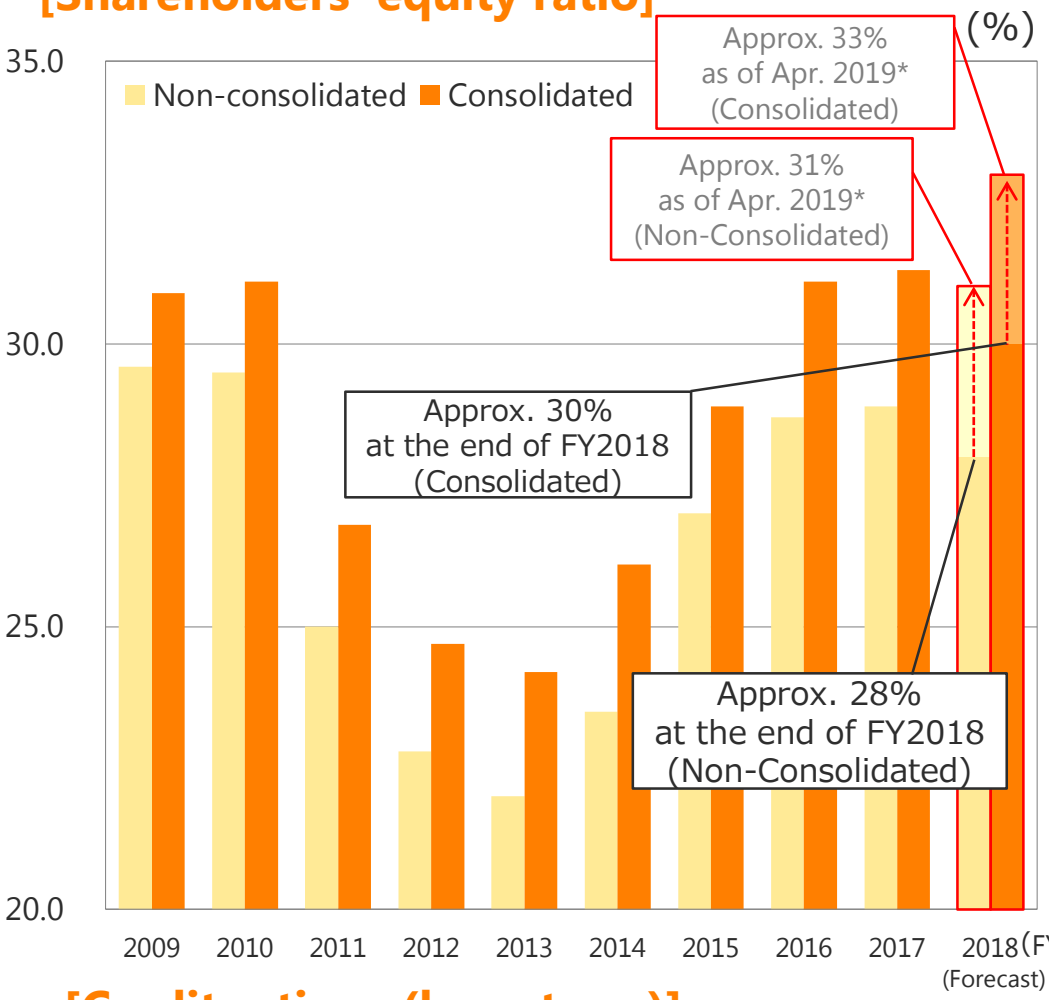
[Outstanding Interest-bearing debt]



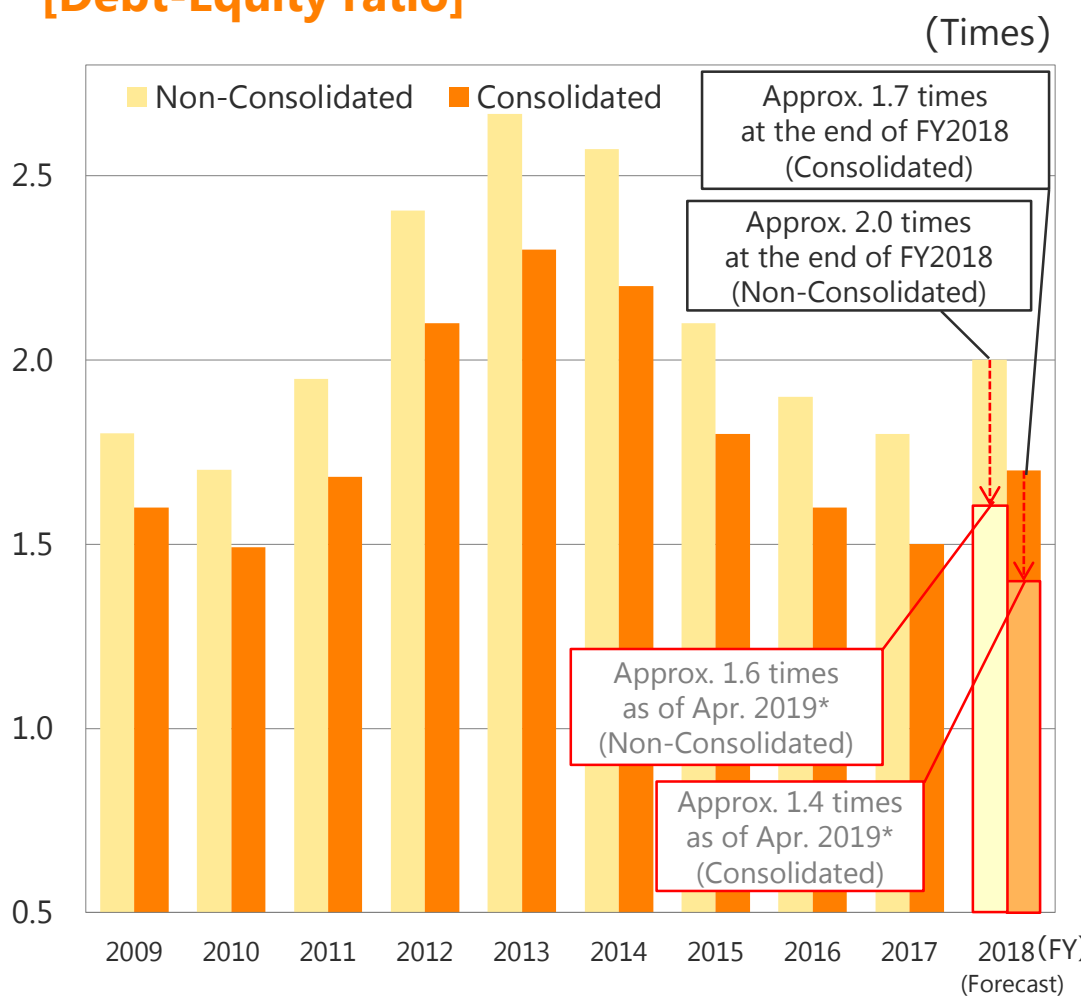
* Forecast after integration of existing thermal power generation businesses into JERA

Financial Ratio, Credit Ratings

[Shareholders' equity ratio]



[Debt-Equity ratio]

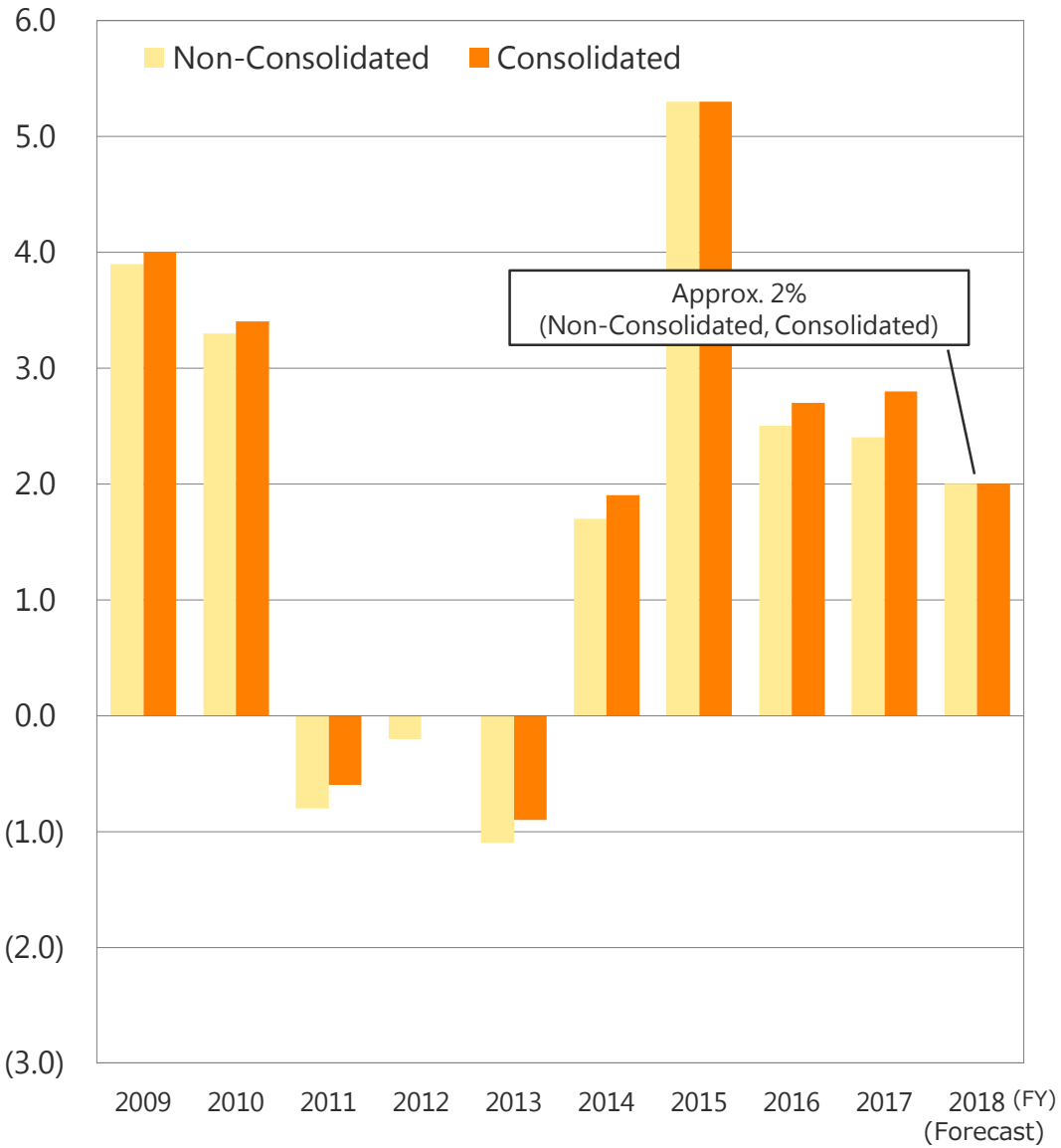


[Credit ratings (long-term)]

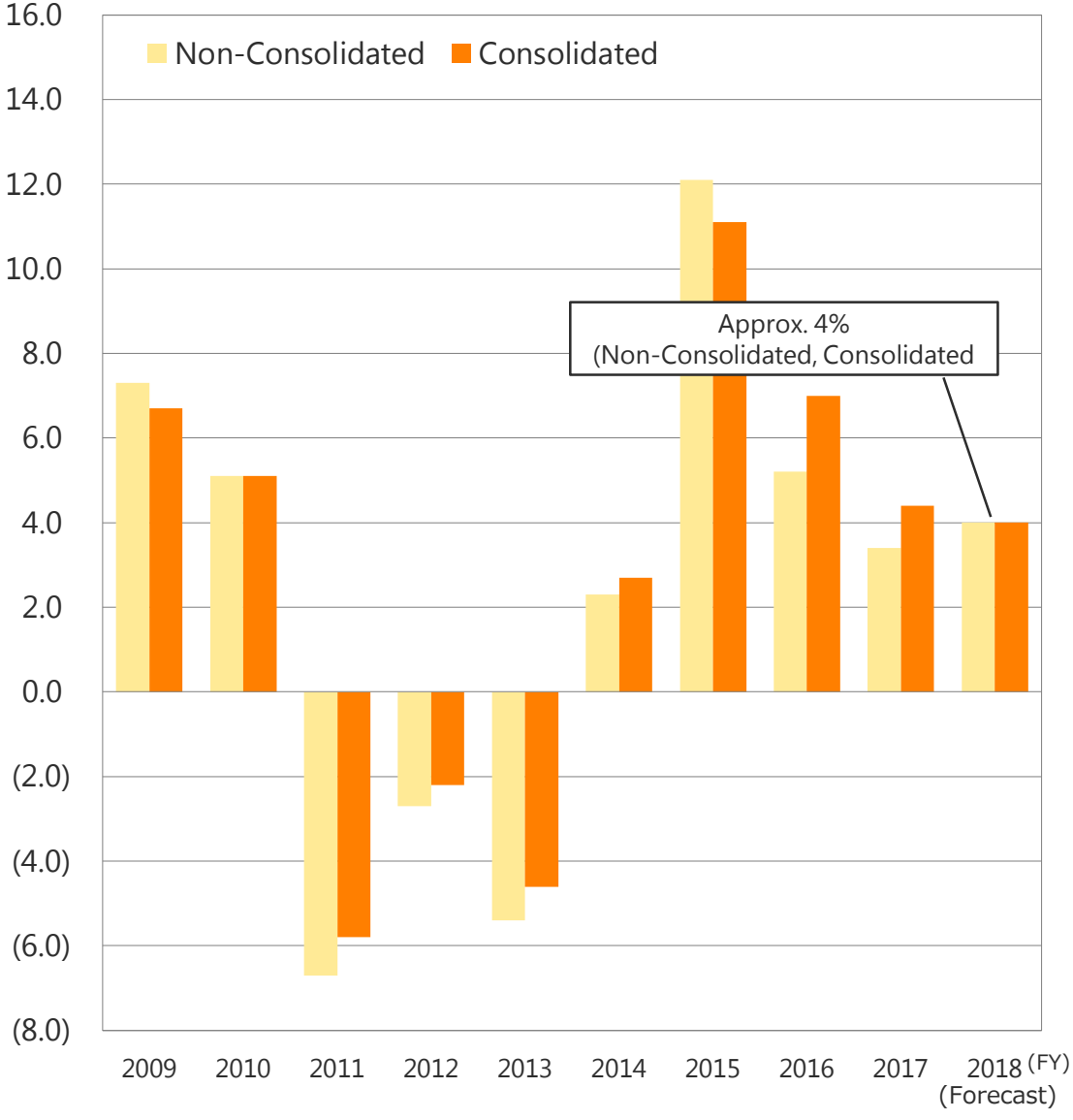
Moody's	R&I	JCR
A3	A+	AA

* Forecast after integration of existing thermal power generation businesses into JERA

[ROA]



[ROE]



[Operating revenues]

(Billion yen)

	2018/2Q (A)	external customers	2017/2Q (B)	external customers	Change (A-B)	external customers
Power Generation	539.9	25.1	518.4	16.0	21.4	9.0
Power Network	369.7	58.4	358.9	36.7	10.7	21.7
Customer Service & Sales	1,365.7	1,309.4	1,311.2	1,258.1	54.5	51.3
Others (*)	325.6	94.4	325.8	82.3	(0.1)	12.0
Total		1,487.4		1,393.3		94.1

[Operating income and loss]

(Billion yen)

	2018/2Q (A)	2017/2Q (B)	Change (A-B)
Power Generation	13.2	29.0	(15.7)
Power Network	22.2	20.9	1.2
Customer Service & Sales	46.3	26.8	19.5
Others (*)	13.7	20.5	(6.8)
Operating income	95.6	97.4	(1.7)

* "Others" is business segment that is excluded from reporting segments and includes nuclear power division, administrative division and other consolidated subsidiaries.

		2018/2Q	Target
Chubu region	The number of applications ; New electric tariff menu	1.54 million	—
Outside of Chubu region	Electrical energy sold outside of Chubu region	3.8 billion kWh	Increase to 30.0 billion kWh/year (second half of 2020s) in the Tokyo metropolitan area
	The number of applications ; Electricity in the Tokyo metropolitan area	220 thousand	Acquire 300 thousand customers by FY2018
Gas	Gas and LNG sold	427 thousand tons	Increase to 3,000 thousand tons/year (second half of 2020s)
	The number of applications ; Gas (for household, etc.)	180 thousand	Acquire 200 thousand customers by FY2018
KatEne members		2.10 million	—

Monthly Breakdown of Electrical Energy Sold

(TWh)

	FY2018						
	Apr.	May	June	July	Aug.	Sep.	Total
Low voltage	2.9	2.5	2.3	2.7	3.6	3.3	17.4
High voltage・Extra-high voltage	6.4	6.3	6.9	7.6	7.6	7.3	42.0
Total	9.3	8.9	9.1	10.3	11.2	10.5	59.4

(TWh)

	FY2017												
	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Total
Low voltage	3.6	2.7	2.3	2.9	3.3	3.2	2.5	2.8	3.4	4.6	4.3	3.4	38.8
High voltage・Extra-high voltage	6.6	6.3	6.9	7.4	7.5	7.3	6.9	6.6	6.8	6.7	6.8	6.8	82.6
Total	10.1	9.0	9.2	10.3	10.8	10.5	9.4	9.4	10.2	11.3	11.1	10.2	121.4

* The total may not match due to rounding.

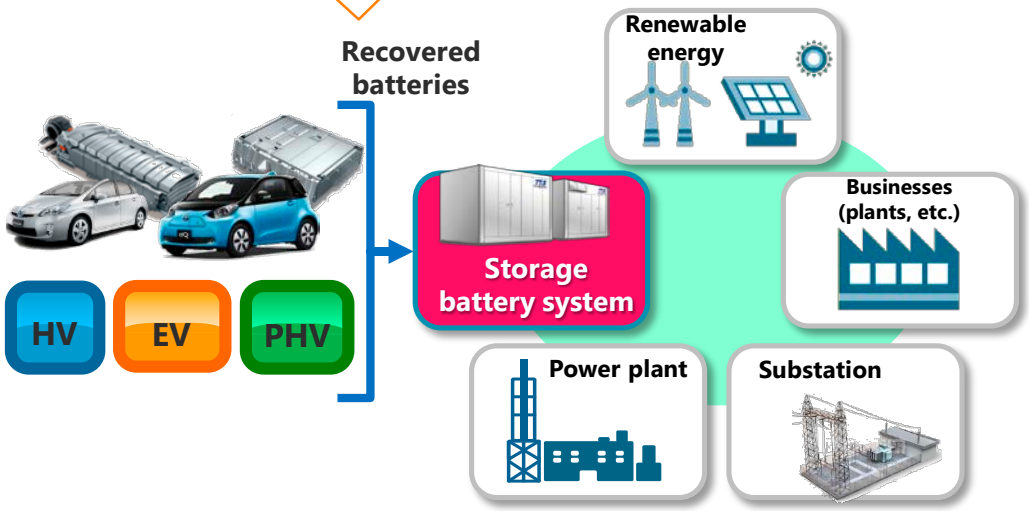
03 Reference Data (2) : Management Information

39 Responding to the introduction/expansion of renewable energy (reuse storage batteries for EVs)

- In cooperation with Toyota Motor Corporation, we will start new verification aimed at establishing a high-capacity storage battery system that reuses storage batteries for EVs, in order to use it in various distribution system issues caused by the introduction/expansion of renewable energy.

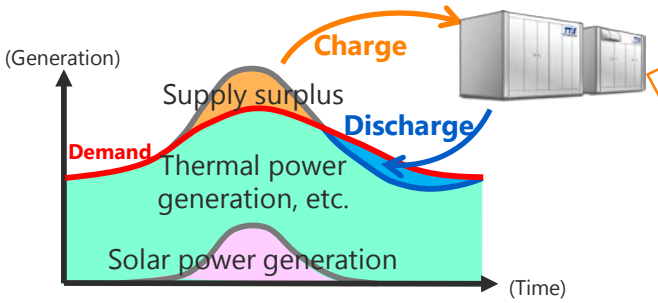
FY2018: Start verification of storage battery system
FY2020: Plan to introduce approx. 10,000 kW generation output / equivalent to 10,000 batteries

Even batteries whose performance has dropped on an individual basis can be reused in combination.



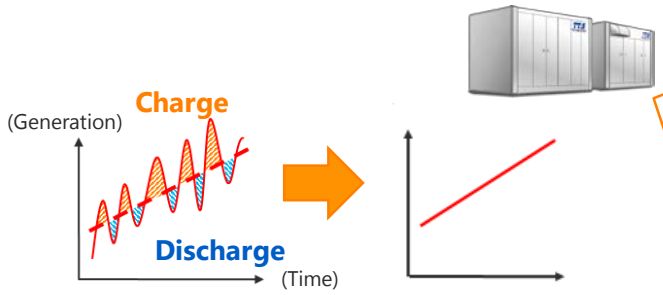
Example use of storage battery system

[1: Use for supply and demand adjustment]



Daylight hours when solar power generation is sufficient
⇒ Charge supply surplus
Night time hours, etc.
⇒ Use charged batteries

[2: Use for responding to frequency fluctuations]



Control frequency fluctuations by using storage battery charging/discharging to absorb output fluctuations caused by renewable energy.

40 | Initiatives of JERA <1>

[Domestic power generation business (New establishment and replacement)]

Bring together the knowledge and technology of both companies to establish and replace thermal power stations, and thereby seek a balance between achieving improved competitiveness and addressing global warming issues.
We will develop fair competitive activities and realize sound market development in the newly established domestic electric power market etc.

Place (Fuel)	Output	Start of operation
Hitachinaka (Coal)	650 MW	FY 2020
Goi (LNG)	Approx. 2,340 MW	FY 2022 - FY 2023
Anegasaki (LNG)	Approx. 1,950 MW	FY 2022 - FY 2023
Yokosuka (Coal)	Approx. 1,300 MW	FY 2023

[Assets subjected to integration of existing thermal power generation businesses into JERA]

Assets subjected to integration			Chubu	TEPCO FP
Assets	Thermal power generation business	Existing thermal power generation	10 locations*1	15 locations*2
		Generation capacity*3 (MW)	23,410	42,960
		Electricity generated*4 (billion kWh)	1,102	1,902
	Fuel acceptance/ storage/gas transmission business	LNG terminals	Owned terminals : 3 locations*5 Joint terminal : 1 location*6	Own terminals : 2 locations*7 Joint terminal : 2 locations*8
		Tank capacity (million kL)	1.93	2.98
		Payout amount*4(million tons)	12.77	22.57
	Related companies	Subsidiaries	2 companies*9	6 companies*10
		Affiliated companies	4 companies*11	4 companies*12

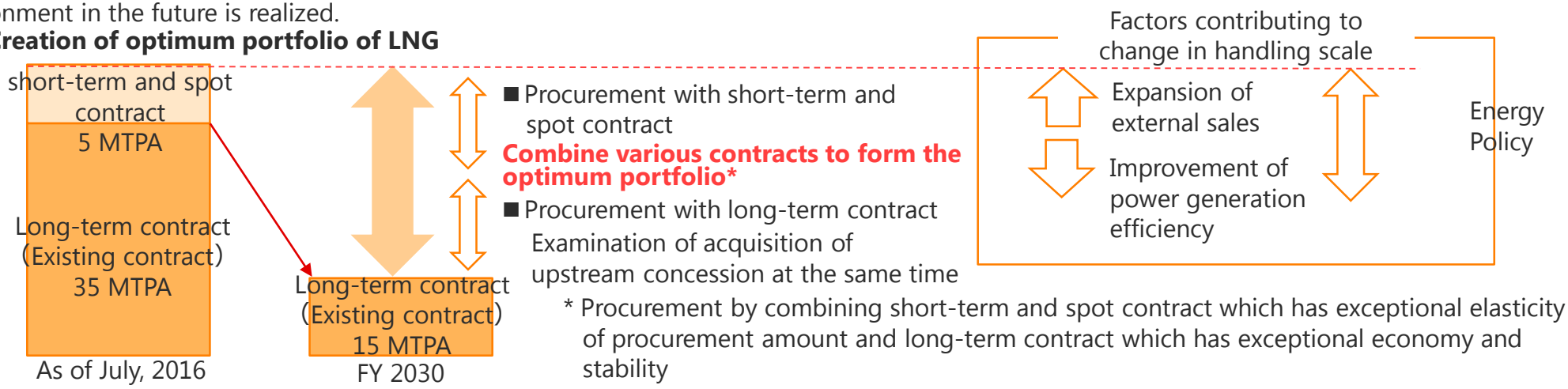
*1 Shin-Nagoya, Yokkaichi, Chita, Taketoyo, Nishi-Nagoya, Atsumi, Chita Daini, Kawagoe, Hekinan, Joetsu
*2 Futtsu, Chiba, Goi, Anegasaki, Sodegaura, Yokohama, Yokosuka, Kawasaki, Minami-Yokohama, Higashi-Oghishima, Oi, Shinagawa, Hitachinaka, Hirono
*3 As of 1 January 2018
*4 Results for FY2016
*5 Kawagoe LNG Terminal, Yokkaichi LNG Center, Joetsu LNG Terminal
*6 Chita LNG Joint Terminal
*7 Futtsu LNG Terminal, Higashi-Ogishima LNG Terminal
*8 Sodegaura LNG Joint Terminal, Negishi LNG Joint Terminal
*9 Chita L.N.G Co., Ltd., Chita Berth Co., Inc.
*10 Bio Fuel Co., Inc., Fuel TEPCO, Tokyo Waterfront Recycle Power Co., Ltd., Kawasaki Steam Net Co., Ltd., Nanso Service Co., Ltd., Ogishima Gas Supply Co., Ltd.
*11 Kasumi Berth Co., Inc., Aichi Kinuura Bio K.K.
Central LNG Marine Fuel Japan Co., Inc., Central LNG Shipping Japan Co., Inc.
*12 Kimitsu Cooperative Thermal Power Company, Inc., Kashima Kyodo Electric Power Co., Ltd., Soma Kyodo Power Company, Ltd., Joban Joint Power Co., Ltd.
(Only equity method affiliated companies)

41 | Initiatives of JERA<2>

[Fuel business (upstream, procurement, transportation, trading)]

Optimum portfolio is create using the world's largest procurement scale and trading, and fuel procurement that can flexibly respond to change of business environment in the future is realized.

○**Creation of optimum portfolio of LNG**



* Procurement by combining short-term and spot contract which has exceptional elasticity of procurement amount and long-term contract which has exceptional economy and stability

Oct, 2017	(LNG) Conclusion of LNG Sales and Purchase HOA with Malaysia LNG	JERA plans to purchase up to approx. 2.5 million tons of LNG for a period of three years beginning in 2018. JERA will continue to focus on building and maintaining an optimal LNG procurement portfolio that enables economical and competitive procurement, as well as flexibility to respond to changes in the business environment.
July, 2018	(LNG) Signing of binding agreements to form an LNG optimization and trading joint venture	Through JERAT, JERA will establish a system to globally conduct risk assessment and management of LNG procurement and sales in the first half of 2019, and begin optimizing the LNG portfolio.
Aug, 2018	(LNG) Conclusion of LNG Sales and Purchase MOA with ADNOC LNG	JERA plans to purchase up to 8 cargoes per annum of LNG from ADNOC LNG for a period of three years beginning in 2019. JERA will continue to focus on building and maintaining an optimal LNG procurement portfolio that enables economical and competitive procurement, as well as flexibility to respond to changes in the business environment.

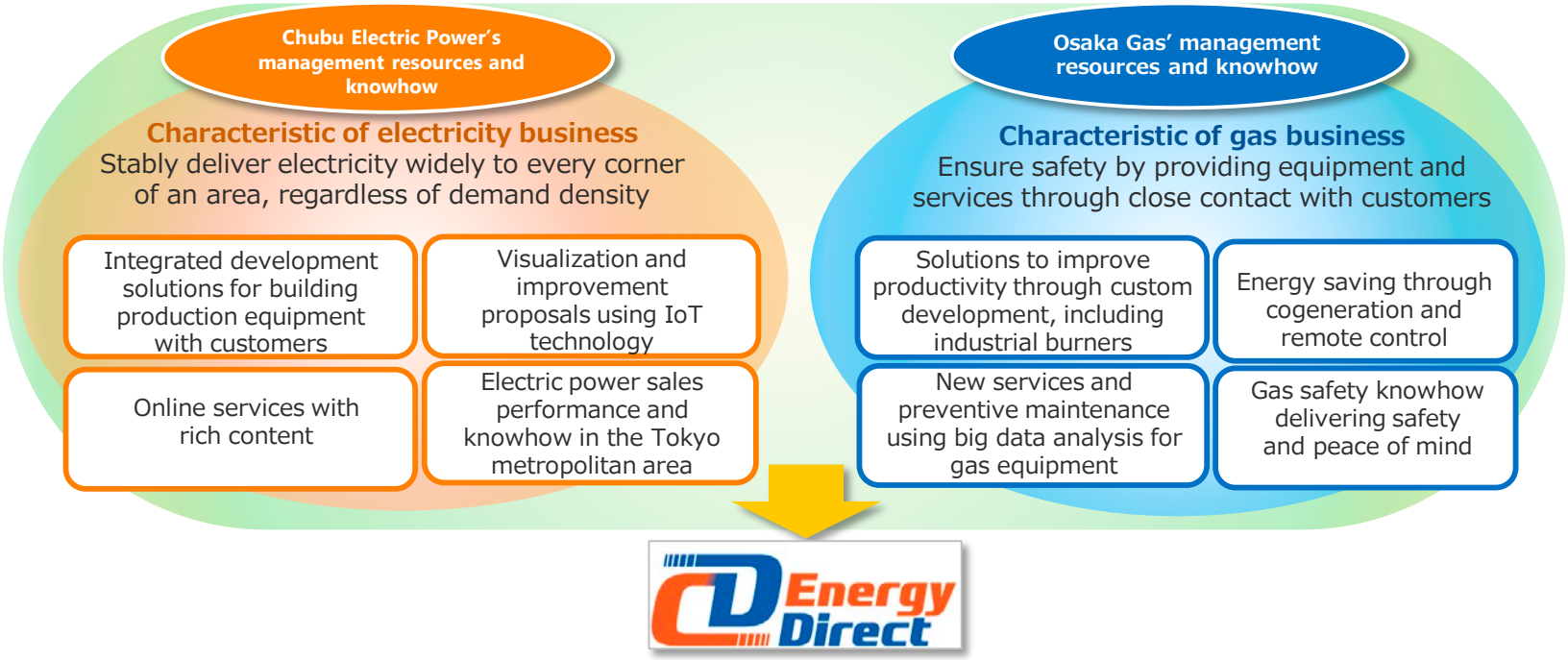
[Overseas power generation business]

By expanding power generation and energy infrastructure business overseas, economic growth and reduction of environmental load in developing countries are supported and new revenue source is acquired.

Feb, 2017	(India) Participation in Renewable Energy Business	Acquisition of a part of shares from ReNew in India. Aim to construct the power generation portfolio that includes renewable energy.
Oct, 2017	(US) Participation in Linden Gas Thermal IPP	Actively participate in energy projects situated in its portfolio regions to ultimately become a key player in energy markets in those regions. JERA will also seek to benefit from gaining knowledge of NYISO, one of the most advanced US power markets.
Aug, 2018	(US) Participation in Natural Gas-fired Thermal Power Generation in the Northeastern United States	Acquisition of equity interest in three natural gas-fired thermal power generation plants. Utilizing operation and maintenance technologies developed domestically and overseas to improve efficiency and leading the project.

42 Provide energy services that continue to be chosen by customers (expand business in the Tokyo metropolitan area)

- We jointly established a new company with Osaka Gas to conduct sales of services related to electric power/gas, lifestyle, and business.
- By combining management resources and business knowhow cultivated by both companies in the electricity and gas businesses and making the most of them in the Tokyo metropolitan area, we will contribute to society by maximizing the value provided to household and corporate customers.



Company name	CD Energy Direct Co., Ltd.
date of establishment	Apr. 2, 2018
Capital	1.75 billion yen (Chubu Electric Power: 50% Osaka Gas: 50%)
Business	Business selling services related to electricity and gas as well as lifestyle and business in the Tokyo metropolitan area

[Household customers] Provide confortable and convenient living through optimal use of electricity and gas

[Corporate customers] Provide business solutions with excellent economic and environmental performance by leveraging electrification technology and combustion technology

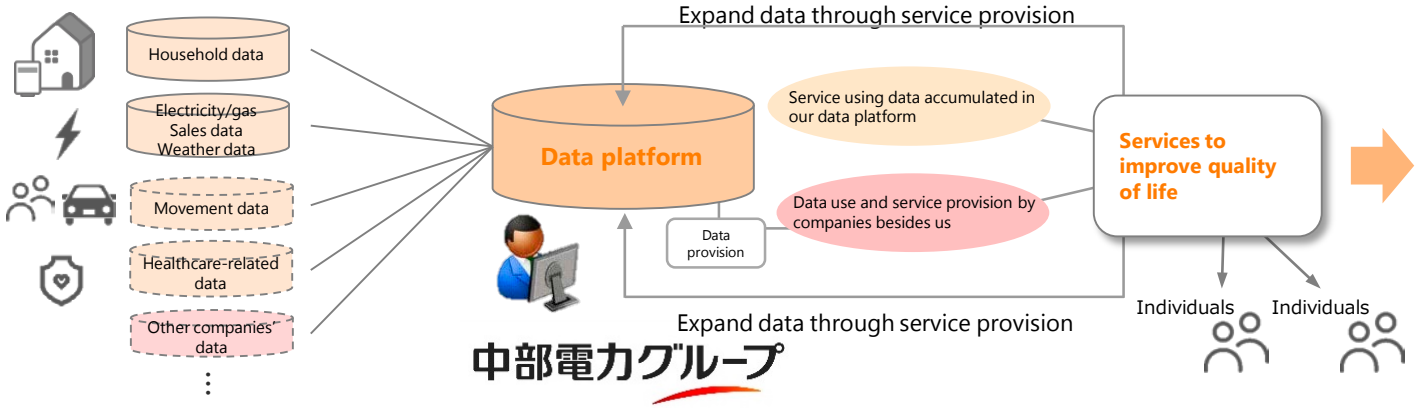
Furthermore, we will create "new value" useful in living and business through services using IoT technology with the aim of establishing a new business model and providing services that go beyond the framework of the energy business operator.

[Topics]

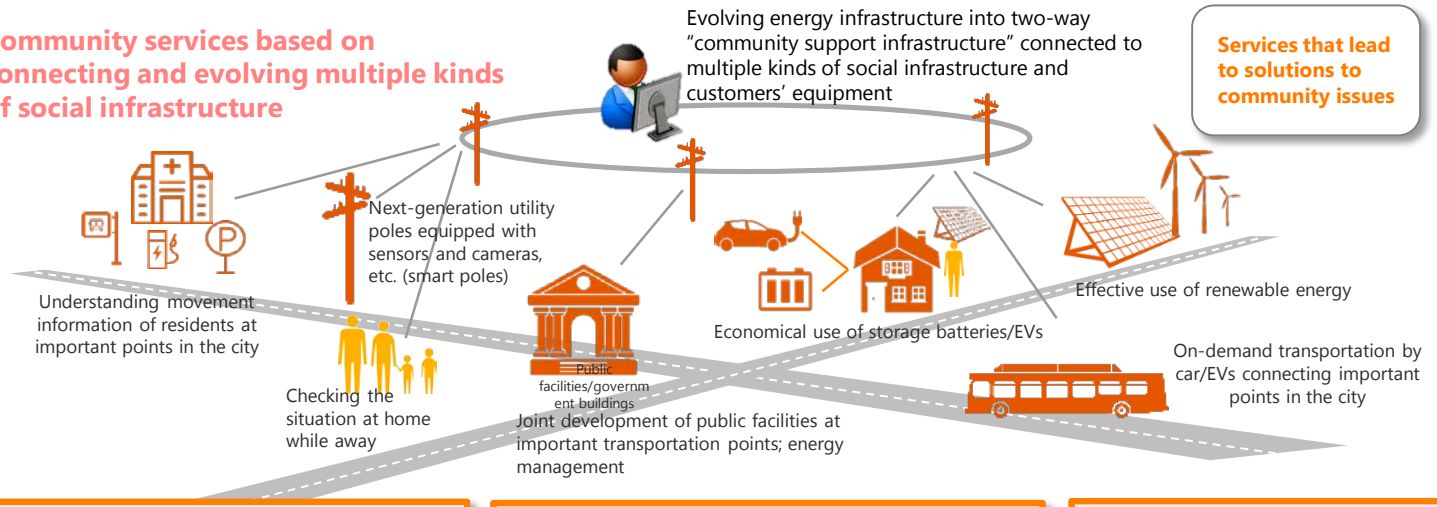
May 29, 2018	Conclusion on absorption-type split agreement
May 30, 2018	Publication of alliance with Tokyu Power Supply
June 12, 2018	Beginning of tariff menu application
Aug. 1, 2018	Beginning of power and gas supply

43 Establish new growth fields (provide new forms of community)

Services to improve the quality of life of individuals by utilizing various data



Community services based on connecting and evolving multiple kinds of social infrastructure



Provide various "new forms of community"

- **For new community development in urban areas:**
  Development of safe communities where children and senior citizens can live with a sense of security
- **For provincial cities with declining populations:**
  Revitalization of the local economy through local production for local consumption of renewable energy
  Economical and low-carbon local transportation using movement data and renewable energy
  Development of attractive communities through establishment of community support infrastructure
- **For local communities such as schools:**
  Watching over children as they go to and from school through coordination of movement data
  Broadcasting of safe transit routes in real time and guiding of children
- **For households attempting to balance work and parenting:**
  Care of and watching over children through utilization of household data and remote control of household devices
- **For families living far away**
  Sharing of electricity between families living far away
  Watching over the health of parents living in far removed communities by coordinating household data and medical data
- **For far removed individuals**
  Easy trading of surplus solar power-generated electricity between individuals by matching the needs of far removed individuals

IoT services for the home

✓ We will provide **services that make life rich and comfortable** by using IoT devices to gather and make use of household data.

Energy management service

✓ We will **enable efficient use of energy by using IoT technology to connect** the energy resources of multiple customers.

Smart poles

✓ We will **provide new community services** by **installing ICT devices** such as sensors and communications equipment **on utility poles** and using the data obtained.

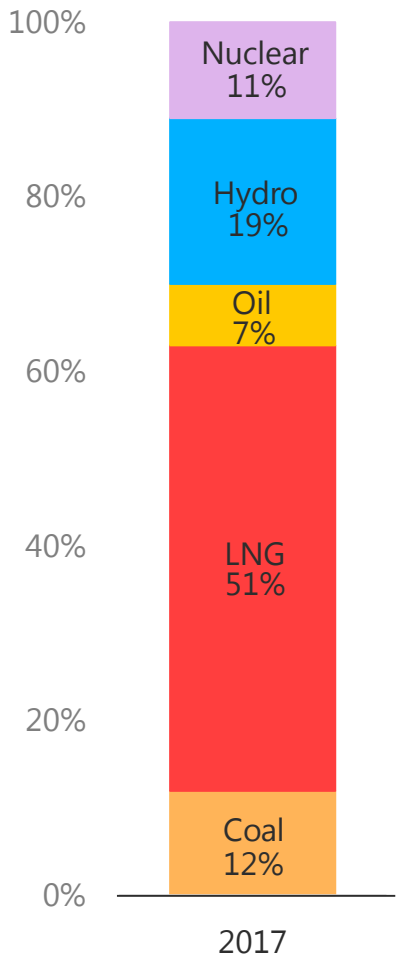
Strengthening relationships with local governments

✓ Working with local governments such as Toyota City in Aichi Prefecture and Iida City in Nagano Prefecture, we will work at creating community services that lead to higher quality of life for various communities and residents.

44 Carrying out ESG management (E : Composition of Electric Power Output)

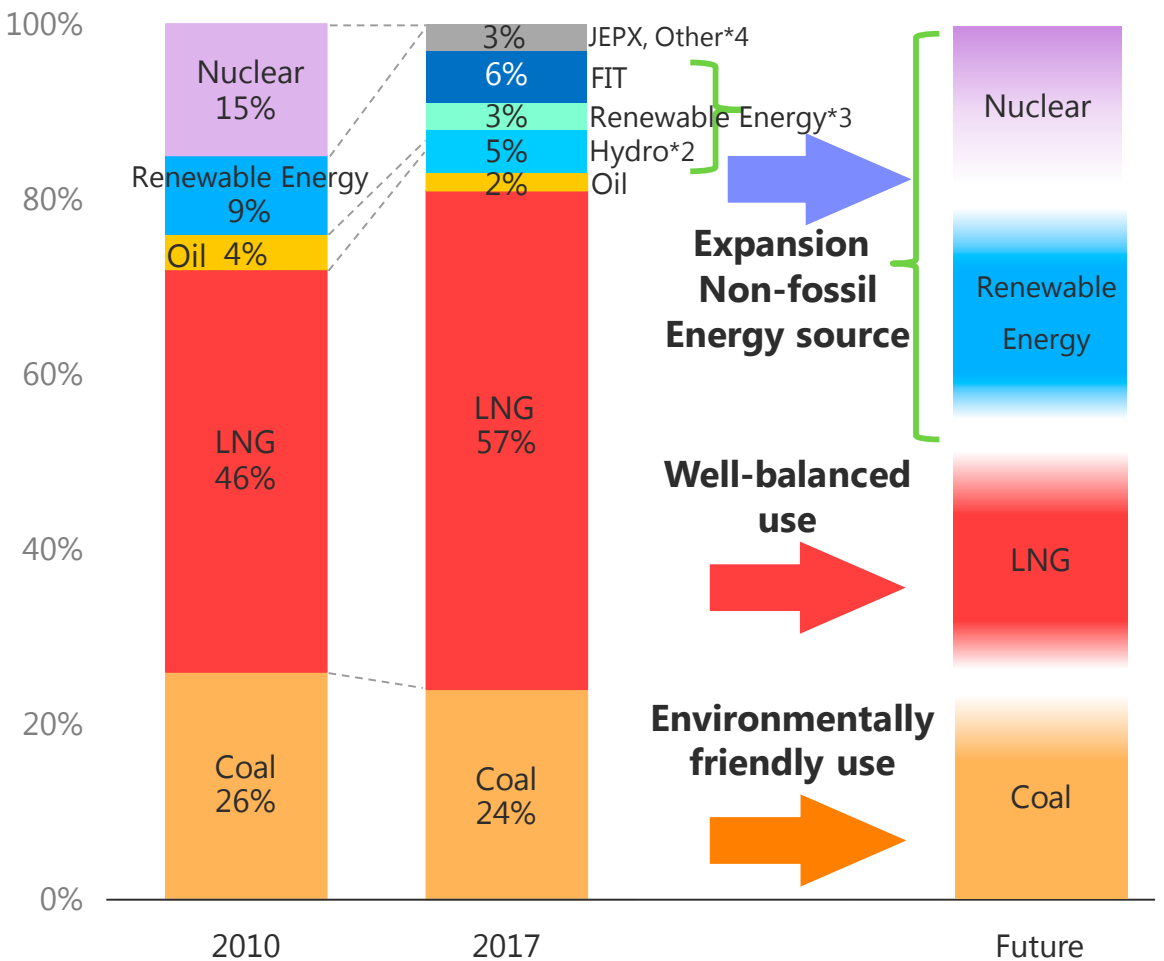
- Based on energy mix of Japan, aim for optimum composition of power sources by combining various types of power source, such as nuclear power, thermal power and renewable energy, in a well-balanced manner from the standpoint of "S+3E" while taking aging of equipment into account.

[Composition of power sources]



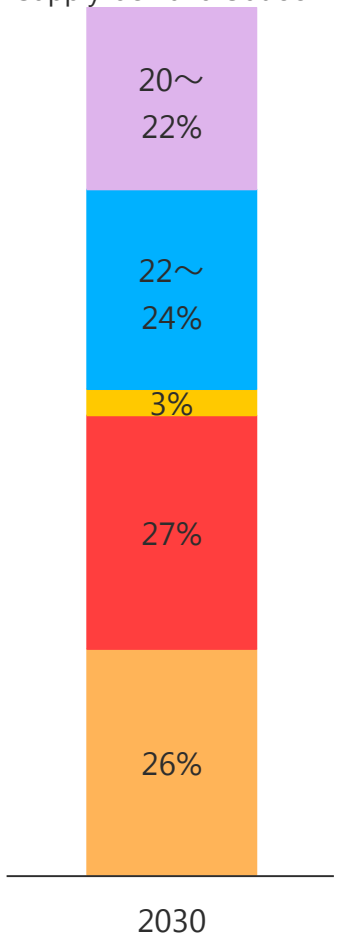
(Note) Figures include purchased power

[Composition of Electric Power Output]



*1 Figures include interchanged, purchased power *2 Over 30 MW
*3 Excluding over 30 MW hydro and FIT-based
*4 Figures in JEPX represent procurement from Japan Electric Power Exchange and Others represent output from purchased power of which we cannot specify the power source

(Reference) Long-term Energy Supply-demand Outlook

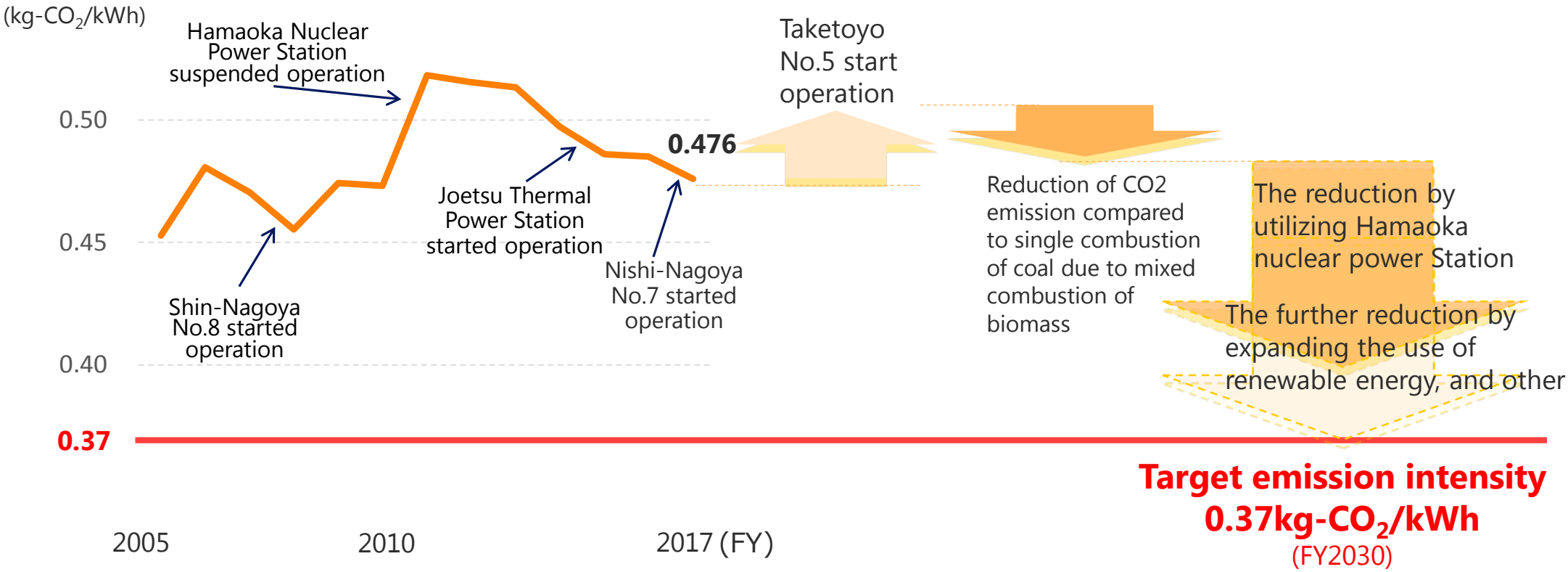


Source: Materials published by Subcommittee on Long-term Energy Supply-demand Outlook

45 | Carrying out ESG management (E : Reduction of CO_2 emissions)

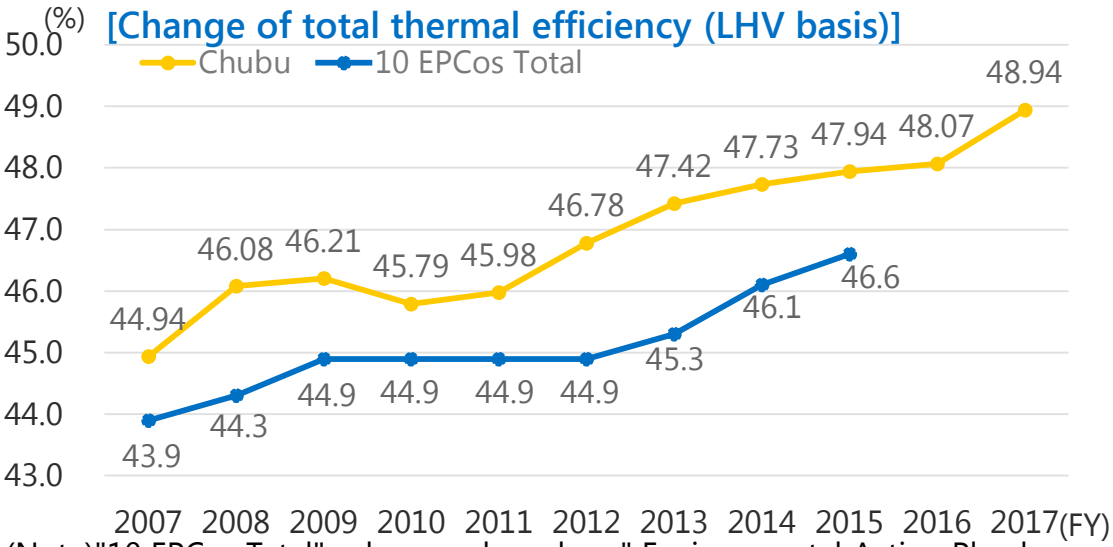
- Japanese government set up the target of reducing greenhouse gas emissions (26% reduced by FY2030) as Japan's goal of the Paris Agreements, and decide the proportion of nuclear power generation and renewable energy(Non-fossil energy sources ratio is more than 44% by FY2030) to achieve the target.
- The entire electric utility industry set the target emission intensity 0.37kg-CO2/kWh (FY2030).
- In order to achieve the target, we take various actions such as making thermal power facilities highly efficient and continuously utilizing nuclear power generation which largely contributes to reduction of CO2 emission.

[Trends and outlook of CO_2 emission intensity (before reflecting CO_2 credits)]



46 | Carrying out ESG management (E : Improvement of thermal efficiency)

[Change of total thermal efficiency (LHV basis)]



(Note)"10 EPCos Total" values are based on " Environmental Action Plan by the Japanese Electric Utility Industry" published by The Federation of Electric Power Companies of Japan (FEPC)

[Outline of development of Nishi-Nagoya Thermal Power Plant Unit No.7]

Output (at the generation end)	2,376 MW（1,188MW×2）
Thermal efficiency	Approx. 62% (LHV basis)
Fuel	LNG
operation started	Sep. 2017（Unit7-1） Mar. 2018（Unit7-2）

Effect due to start of operation

- LNG consumptions **Reduce 0.5 million tons per year**
- CO_2 emissions **Reduce 1.4 million tons per year**

TOPICS

Unit 7-1 having been granted with recognition as the world's most efficient combined cycle power plant.

[Outline of development of Taketoyo Thermal Power Plant Unit No.5]

Output (at the generation end)		1,070 MW
Thermal efficiency (LHV basis)		46%(LHV basis)
Fuel		Coal･Wood biomass
Wood biomass	type	Wooden pellet
	Mixed fuel burning ratio	Approx. 17%（Heating value ratio）
	Annual use of fuel	Approx. 0.5 million tons
	Electricity generated by Biomass power	Approx. 1.2 TWh per year

One of Japan's largest biomass generation output (*)

* A single unit's generation output including both single- and co-firing

Effect due to start of operation

- Secure the stable and reasonably priced base load power source
- CO_2 emissions **Reduce 0.9 million tons per year**

* Comparison with single-firing of coal

[Construction progress of Taketoyo Thermal Power Plant]

	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Unit No.5 (1,070MW)		▼Jan. 2018 : preparatory works started ▼Mar. 2018 : construction plan notified ▲Apr. 2018 : construction started			△July 2021 : first firing	▽ Mar. 2022 : operation to start

47 | Carrying out ESG management (E : Promotion of Renewable Energy)

(As of the end of September, 2018)

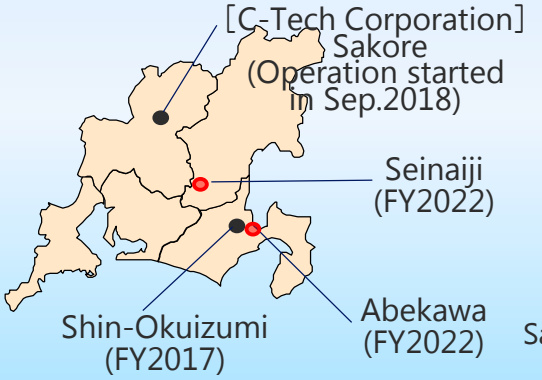
		Chubu Electric	(Reference) Chubu Electric Group	
Hydro	operating	197 Site : 5,459MW	Akigami : 0.29MW(FY2016) Sakore : 0.38MW(FY2018)	
	plan	Kurokawadaira : 0.17 MW (FY2021) Seinaiji : 5.6 MW (FY2022) Abekawa : 7.1 MW (FY2022)	Amazake : 0.53MW(FY2018)	
Wind	Operating	Omaezaki：22MW	150MW	
	Plan	—	—	
Solar	Operating	Mega Solar Iida : 1.0 MW Mega Solar Shimizu : 8.0 MW Mega Solar Kawagoe : 7.5 MW	223MW	
	plan	—	6 Site : 20 MW (FY2018) 7 Site : 131 MW (FY2019)	
Biomass	operating	Mixture of wooden chip Mixture of fuel from carbonized sewage sludge	Taki bio power : 6.75 MW (FY2016)	
	plan	Biomass power generation facility at Yokkaichi Thermal Power Station : 49MW	CEPO Handa biomass : 45 MW (FY2019)	
Total	operating	**5,497.5MW**	Grand Total	**5,878.11MW**
	plan	**61.87MW**		**394.15MW**

* Joint businesses are recorded by equity interest.

Development locations of hydroelectric power station

- Conventional hydro
- Generation with minimum water level

Parentheses denote the commercial operation start year.

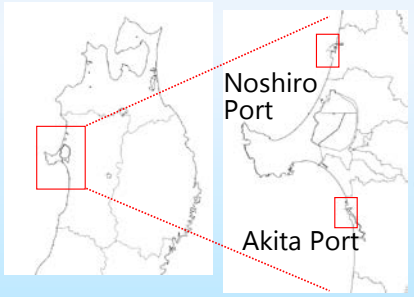


Sakore Hydroelectric Power Station

Wind Power Generation

Akita Port and Noshiro Port survey of development possibility of offshore wind power generation business in Akita Pref. (joint survey)

【Site map】



【Summary of Project】

Power generation method
: Offshore wind power generation

Site : Akita port area and Noshiro port area in Akita Pref.
(Total : Approx. 730ha)

Output
: Supposition total output 145 MW
(Akita port 65 MW,
Noshiro port 80 MW)

Project Period : 20 years (planned)

Power generation output of renewable energy

* Increase over the level in 2016

Increase 20% by 2030

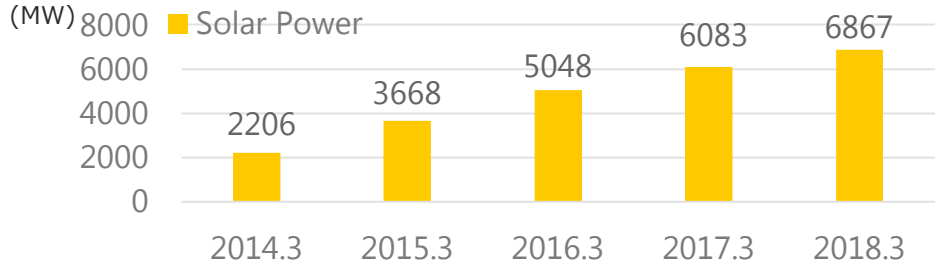
Note: Renewable energy developed by JERA Co., Inc. is excluded.

48 Carrying out ESG management (E : connect & manage)

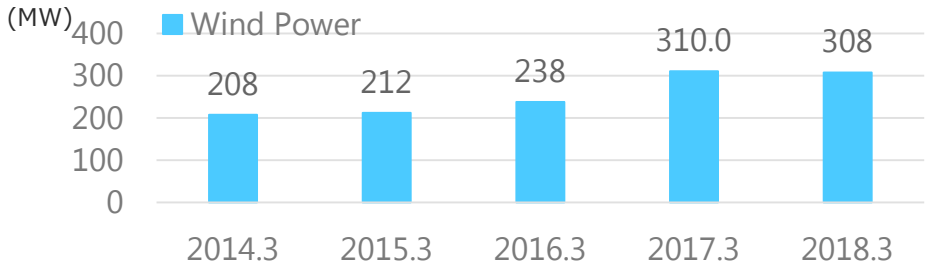
- Chubu Electric Power has begun an initiative (N-1 power control) to use capacity that is set aside for an emergency in case of failure, based on the anticipated flow of electricity in check with power generator operation (anticipated current), so that more sources of power, including renewable energy, can be connected to transmission lines.
- In the future, we will look at an initiative (non-firm connection) to use transmission lines when there is available capacity, as even more effective utilization.

[Introduction of renewable energy in Chubu region]

◆Solar Power Generation



◆Wind Power Generation

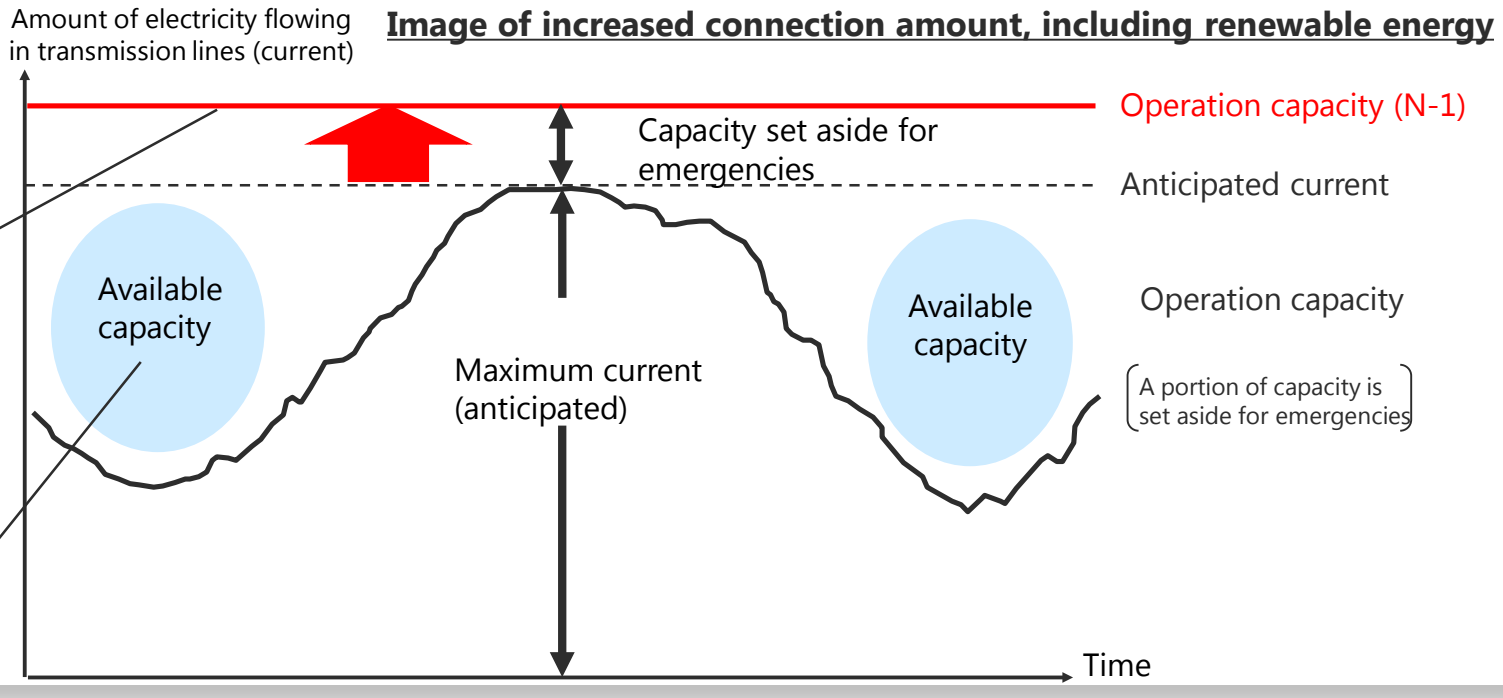


What is connect & manage?
A system that makes maximal use of existing transmission lines and allows the connection of renewable energy, etc., with certain conditions, enabling the connection of lots of power sources while attempting to reduce the costs of connection

N-1 power control
Increase the amount of electricity that can flow through transmission lines (operation capacity), on the premise that generator output will be limited instantly during a failure, such as on a transmission line

Non-firm connection
Allow use of transmission lines when there is available capacity, on the premise that generator output will be limited when operation capacity is exceeded

Image of increased connection amount, including renewable energy



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