



Chubu Electric Power Group Corporate Philosophy

# Chubu Electric Power Group delivers the energy that is indispensable for people's lives and so contributes to the development of society.

Sincere and Sustained Effort	We make a constant and sincere effort to fulfill our unchanging mission and retain the trust of our customers and society.
Creativity and Spirit of Challenge	We continually act with creativity and an enthusiasm for new challenges in order to pursue excellence in our services and meet the expectations of our customers and society.
Independence and Cooperation	We work together as individuals showing respect for one another to create a vibrant and dynamic corporate culture.





# Message from the Chairman and the President

First of all, we would like to express our deepest appreciation for your support of our business operations.

Following the full liberalization of the retail electricity market, the full liberalization of the retail gas market took place this April; this has pulled the energy business into a vortex of change. In addition, what we call "the 4th industrial revolution," which is driven by IoT, AI and other cutting-edge technologies, is changing our economic and social structures drastically.

The company is standing at a historic turning point right now and is making a fresh start. With a strong will to achieve reform in a unified effort across the group, we are working to develop a new business model and to enhance our business foundation to support that model.

We will fulfill our unwavering mission of providing eco-friendly and high-quality energy in a safe, reasonable and stable form, and will create new value at the same time as we enter a new age. By achieving this, we will continuously take on challenges with an aim to become a "total energy service corporate group that is one step ahead."

We will also fulfill our corporate philosophy of providing energy that is indispensable for people's lives and contribute to the development of society, so we can preserve the trust and meet the expectations of our customers and stakeholders. We ask for your continued support and patronage.

July 2017



# Contents / Editorial Policy

#### **Editorial Policy**

This annual report provides comprehensive coverage of both financial and non-financial information to inform all stakeholders of the entire range of the Chubu Electric Power Group's business activities.

This 2017 edition has been edited to reflect the opinions that we have received from a great many of our stakeholders through reader questionnaire surveys, opinion exchange with experts and employees, and other opportunities where we have received feedback.

This particular year, we have clearly explained our value creation process and, based on that, enhanced the storyline of the entire booklet's content. Through these improvements, we aim to create a report that conveys attractive features of the company and its growth on a mid-to-long term basis.

Firstly, the "Chubu Electric Power's Value Creation" section introduces the whole picture of the value creation the group is working on. In the "Messages from Management" section, our president and senior executives talk about strategies and measures for value creation

The "Realizing the Creation of Value" section explains the overall picture of value-creating business activities performed by the three in-house companies (Power Generation, Power Network, and Customer Service & Sales), JERA Co., Inc. and the group companies all together. The "Foundation for Creating Value" section describes our CSR activities from the viewpoint of ESG\*, in which investors are highly interested due to its role of supporting and evolving value creation.

\* Abbreviation for Environment, Social and Governance

Additionally, we improved design and layout of this booklet as part of our continuous effort to make it more readable.

#### Date of publication

August 2017

(Next report: scheduled for August 2018; previous report: August 2016)

# Organizations covered by the scope of the report

Chubu Electric Power Co., Inc. and associated companies

#### Reporting period covered

Fiscal year 2016 (April 2016 through March 2017)
This report also includes information regarding some important events and activities that occurred outside the above period.

#### <Guidelines used as references>

GRI, Sustainability Reporting Guidelines (Version 4) Ministry of the Environment, Environmental Reporting Guidelines (2012 Version) ISO 26000

IIRC, International Integrated Reporting Framework

#### **About the Forecasts**

The future plans and forecasts described in this document are based on information the company possesses at the present time and involve potential risks and uncertainty. Therefore, actual performance or business developments in the future may differ from those described.

Examples of potential risks or uncertainty include changes in the economic or competitive circumstances affecting a business sector, fluctuations in fuel prices, or modifications of laws or regulations.

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# **Progress toward Value Creation**

# History of Chubu Electric Power

—Driving force accumulated since its founding—

Chubu Electric Power was established in 1951 as an electric power company that supports people's lives and industry in the Chubu region.

Since its founding, we have developed onsite capabilities, personnel and organizational power, and constructed infrastructures from power generation to transmission and distribution facilities, while fulfilling our "mission" of delivering eco-friendly and high-quality energy in a safe, reasonable and stable form.

The "onsite capabilities" and "facility infrastructures" have served as "driving forces" to fulfill our unwavering mission and at the same time to create new value.



Restoration efforts made across the company amid destructive damages



Proposal of a more convenient and comfortable life using electricity

Electric Water Heater / 200 V Appliance Exhibition (1990)



Training Center founded (1969)

Improvement and succession of technical strength



## Onsite capabilities—

Organizational power exercised by personnel assets having a sense of mission, aspiration for change and high technical skill

# Fulfilling our unwavering mission

Providing environmentally friendly, high-quality electricity at reasonable prices in a safe and stable manner

# Facility infrastructures—

Power generation, transmission and distribution facilities to produce and deliver electricity



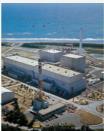
Conversion from hydroelectric power generation to thermal power generation

Mie Thermal Power Station Units No. 1 & No. 2 (1955)



Delivering sufficient electricity farther and more extensively





Hamaoka Nuclear Power Station Unit No. 1 (1976) Chita Thermal Power Station Units No. 5 and No. 6 (1978) Utilizing LNG with less CO<sub>2</sub> emissions



Rapid economic growth— Meeting increasing electricity needs

From 1951 to 1972

During this period, power source development and system enhancement were promoted on a large scale to satisfy the needs of increasing electricity demand along with the rapid economic growth after having achieved post-war restoration.

Oil crisis— Diversification of power sources

- From 1973 to 1990

During this period, in the light of the electricity shortage due to the oil crisis and growing concern over environmental issues, dependence on oil was reviewed and a pursuit of diverse power sources started.



**Key efforts** which have accumulated steadily



Strengthening of quick and appropriate response capabilities





Electric power

restoration

during the

Great East Japan Earthquake (2011)

support

The earliest possible lifeline restoration

member service PR activities (2015)

KatEne web

household

Proposal of more reasonable and useful services combining electricity and gas



Onsite capabilities accumulated through electric power restoration in the wake of disaster, persistent efforts in maintenance and inspection, training and sales activities on a daily basis

#### Facility infrastructure created steadily while responding to the needs and changes of the times





Utilization of inexpensive coal

Kawagoe Thermal Power Station Units No. 3 and No. 4 (1996)

Introduction of heat-efficient power generation method





**Proactive** introduction of renewable energy

Shimizu (2015) Hamaoka Nuclear

**Power Station** Breakwater Wall (2016)

Aiming to become the world's safest nuclear power station



#### Collapse of the bubble economy-Beginning of the electric power liberalization

From 1991 to 2010

Thermal Power

Station (1991)

Amid the trend of deregulation following the collapse of the bubble economy, during this period wholesale and retail sales of electricity started to be liberalized and the efficiency of facilities was raised to increase competitiveness.

#### The Great East Japan Earthquake-Electricity business that is going through changes

- 2011 onward

With the Great East Japan Earthquake as a turning point, during this period, we are making efforts to further improve nuclear safety and increase renewable energy that is independent from fossil fuels.

# A numerical breakdown of Chubu Electric Power

Onsite capabilities (personnel assets)

Number of employees (employees including senior staff, temporary staff, etc., but excluding loaned employees, those on temporary retirement, etc.)			
Chubu Electric Power: Non-consolidated	16,632 persons		
Group: Consolidated	30,635 persons		

Facility infrastructure Non-consolidated

Power generation facilities				
J-s	Nuclear	1 location	3,617 MW	
	Thermal power (including internal combustion power)	10 locations	24,034 mw	
-	Renewable energy	200 locations	5,487 mw	
	Hydroelectric	196 locations	5,450 мw	
	New energy	4 locations	37 mw	
Total		211 locations	33,138 мw	

Power transmission/distribution facilities			
	Transmission	Transmission line length	12,229 km
	facilities	Number of supporting structures (iron tower, etc.)	36,083 units
Transforma	Transformation	Number of substations	938 locations
	facilities	Capacity of substations	125.143 million kVA
Distribution facilities	Distribution	Transmission line length	133,870 km
	facilities	Number of supporting structures (utility poles, etc.)	2,813,214 units

306.7 billion yen

Capital investments



#### Value Creation Process

Using our onsite capabilities, which have been developed since the founding of the company, and facility infrastructures as driving forces, we are creating value that meets the needs of society, while also aiming to become a "total energy service corporate group that is one step ahead" through our value chain comprising from fuel procurement to sales.

Furthermore, we will deliver the value to all of our stakeholders, and preserve their trust and meet their expectations, thereby fulfilling our corporate philosophy. With CSR positioned as a foundation to support value creation, we are moving forward with our initiatives.

#### Stable supply of indispensable energy

Conservation of global environment

#### Social needs

Safe, secure and comfortable social life

Development of regional communities

# Realizing the creation of value Business activities

# Value chain See page 27

#### Driving force of value creation

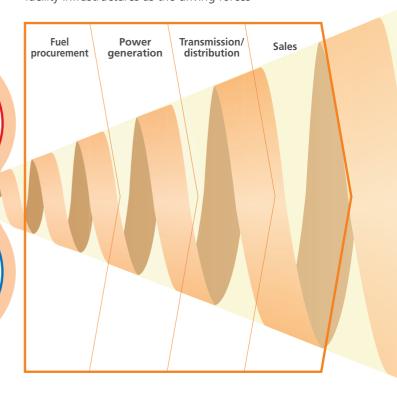
#### Onsite capabilities (Soft power)

Organizational power exercised by personnel assets having a sense of mission, aspiration for change and high technical skill

#### **Facility** infrastructure (Hard power)

Power generation, transmission and distribution facilities to generate and deliver electricity

Creating value throughout the entire value chain, from fuel procurement to sales, with onsite capabilities and facility infrastructures as the driving forces



Foundations for CSR Creating Value

Mutual communication with stakeholders

See page 54

Nurturing and utilization of personnel assets (utilization of

See page 59

#### Values to create

#### What we aim for

Total energy service corporate group that is one step ahead

# Principles of action

**Fulfilling our** unwavering mission

**Achieve** simultaneously

Creating new value With consideration for the global environment, deliver high-quality energy services at reasonable prices in a safe and stable manner

Offering new attractive products and services ahead of other companies, and expanding the business area at home and abroad by making use of accumulated managerial resources and know-how

#### Customers

We are committed to providing our customers with safe, convenient and affordable energy services, as well as other services of value that meet their needs.

#### **Shareholders and Investors**

We are striving to maintain and increase profits for our shareholders and investors through efficient management and effective investment.

#### **Local Communities**

We are determined to conserve the global environment and contribute to sustainable local development in partnership with local communities.

#### **Business Partners**

We promise to deal fairly with our suppliers as equal business partners toward mutual growth and development.

#### **Employees**

We respect individuals and are endeavoring to create a cheerful and motivating workplace.

Chubu Electric **Power Group** 

# Corporate Philosophy

The Chubu Electric Power Group delivers the energy that is indispensable for people's lives and so contributes to the development of society.

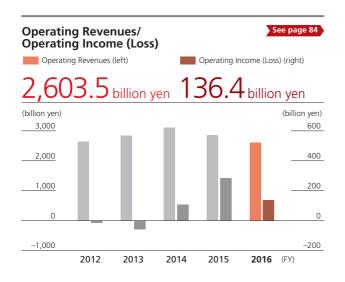
See next page for the outcome of value creation

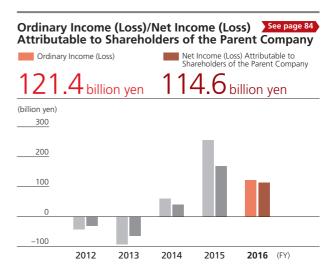
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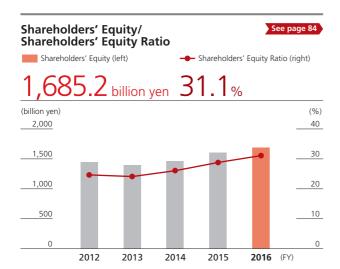
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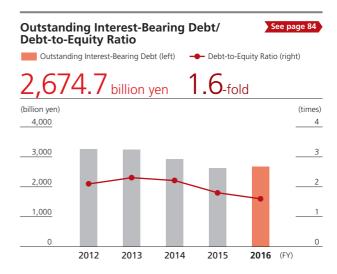
# Outcome of Value Creation (Financial and Non-Financial Highlights)

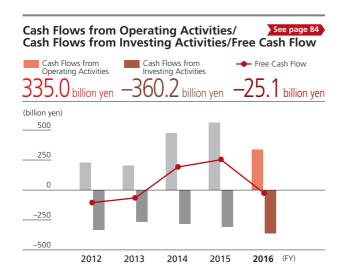
## **Financial Indicators**

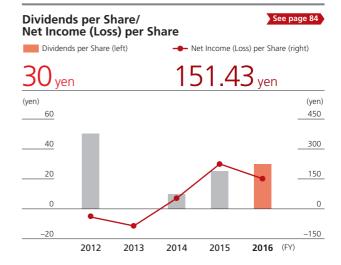




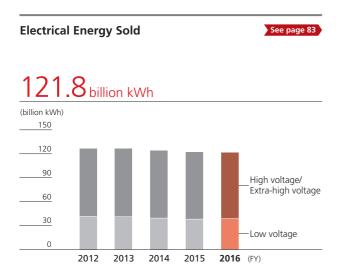


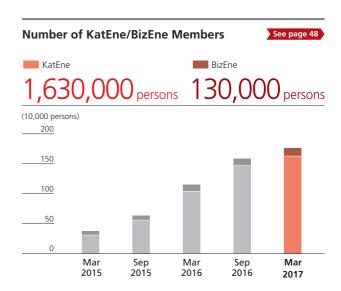




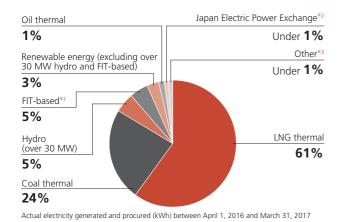


## Non-Financial Indicators

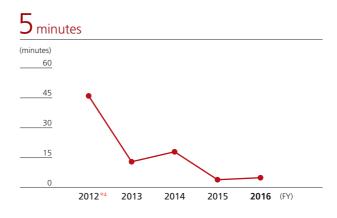


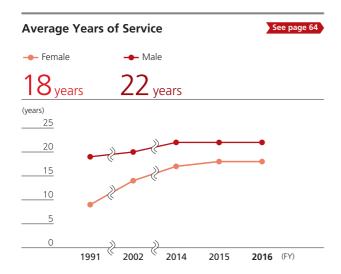


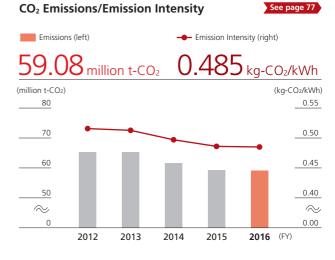
#### **Electricity Generated and Electricity Procured**



Annual Power Outage Hours per Household See page 81







- \*1 Electricity based on the FIT (feed-in tariff) scheme: Electricity generated from renewable energy sources and purchased by electric power companies under the FIT scheme. The procurement cost for this type of electricity is partially funded by surcharges collected from all electricity users, including those who are not customers of Chubu Electric Power, and CO<sub>2</sub> emissions are calculated based on national average CO<sub>2</sub> emissions, including those from thermal power generation.

  \*3 Electricity generated at unidentified power stations and procured from other companies is classified as "Other."

  \*4 Impact of landfall of typhoon is included in fiscal 2012 data.

# Top Commitment 13 Chubu Electric Power Company Group Annual Report 2017

# One step ahead through reform

Striving to "fulfill our unwavering mission" of providing a stable energy supply and taking on the challenge to "create new value." This annual report describes the resolution of the Chubu Electric Power Group, which is to become a total energy service corporate group that is one step ahead.

I am Satoru Katsuno. This June marks my third year as president of the company.

In February 2016, my first year as president, we formulated our new Management Vision to respond to major changes in the business environment, including the electricity and gas system reform. In April of the same year, we established an autonomous business structure by introducing an internal company system in order to quickly and flexibly adapt to business environmental changes.

In my second year, to embrace the full liberalization of the retail gas market implemented in April 2017, we entered the gas sales business targeting households and other customers with an aim to expand the provision of a one-stop gas and power service. By concluding a joint venture agreement to integrate our fuel and thermal power generation businesses with TEPCO Fuel & Power Inc. in June 2017, we paved the way for full integration with JERA Co., Inc.

Furthermore, we accelerated review of concrete measures to "reinforce and make our business foundation more sophisticated" and "create new businesses and services" with the use of IoT, AI and other state-of-the-art technologies.

We would like to express our deepest gratitude to our stakeholders for their steadfast understanding and support, which extends to our business operations.

# Satoru Katsuno

#### Personal profile | Satoru Katsuno

Born in Aichi Prefecture. Earned a bachelor's degree in electrical engineering from Keio University. Joined Chubu Electric Power in 1977 and served as manager of Hydro Power & Substations Section of the Electrical Engineering Department, general manager of the Okazaki Regional Office, and general manager of the Tokyo Office. Became director, senior managing executive officer, and general manager of the Corporate Planning & Strategy Division in 2010. Became representative director and executive vice president in 2013, while continuing to head the Corporate Planning & Strategy Division. Has been in the present position since June 2015. Appointed chairman of the Federation of Electric Power Companies of Japan in June 2016. Values integrity as his credo.

# Please let me talk first about "What We Aim For" together with all employees.

What we aim for

As the leading company that provides services that exceed expectations to customers ahead of our competitors, we aim to become a "total energy service corporate group that is one step ahead."

#### Adapting to major changes in a concerted effort of the entire group

The business environment surrounding us is facing major changes.

To adapt to various environmental changes—the full liberalization of the electricity and retail gas markets, regulatory reform requiring legal unbundling of the power transmission/distribution business, sluggish domestic demand, the rise of new renewable energy and other changes in the energy market, diversifying customer needs along with technological innovations such as ICT, as exemplified by IoT, big data and Al-and to realize our corporate philosophy, we formulated the "Chubu Electric Power Group Management Vision" in February 2016. Aiming to become a total energy service corporate group that is one step ahead, we are accelerating our efforts with a unified voice.

#### Fulfilling our unwavering mission and taking on the challenge of creating new value

Specifically,

- Expansion of business domains (areas and services) through utilization of the group's internal and external management resources, such as the foundation of JERA Co., Inc.
- Promotion of self-sustaining business activities in the power generation, transmission/distribution and retail business, including implementation of the internal company system

Thereby we will "build a new business model."

We will also work to "further reinforce our business foundation" through continuous exploitation of nuclear power generation, thorough environmental management including promotion of energy saving, and utilization and development of advanced technologies.

Through these initiatives, we will accomplish "our unwavering mission" of "always delivering geo-ecological high-quality energy in a safe and stable manner at a reasonable price."

And based on that, we will challenge ourselves to "create a new value" in anticipation of changes of the time, such as business activities by way of JERA Co., Inc. and sale of electricity outside the Chubu area. Out of these efforts to "create new value," we aim to secure an additional profit of more than 160 billion yen by 2030, separate from the revenue from the conventional electricity business.



Realizing the creation of value (business activities)

# Next, I am going to explain our four priority measures to be implemented primarily over the next five years to achieve "What We Aim For."

#### Four priority measures

- Measures to increase the safety of the Hamaoka Nuclear Power Station
- 2 Measures to ensure a stable power supply for a new age
- Measures to accelerate growth
- 4 Measures to establish a business mechanism to swiftly respond to environmental changes

#### 1 Measures to increase the safety of the Hamaoka Nuclear Power Station

In Japan, a country that is not rich in natural resources, we need to utilize nuclear power generation to ensure a stable power supply on a long-term basis and price stability, as well as to help solve global environmental problems.

We are taking steps to enhance the safety of the Hamaoka Nuclear Power Station, firmly committed to preventing the recurrence of a nuclear accident similar to that which occurred at the Fukushima Daiichi Nuclear Power Station.

Reactors No. 3 and No. 4 are now being examined by the Nuclear Regulation Authority (NRA) to verify their compliance with the new regulatory standards. As an examination develops or new findings are considered and it is decided that we must conduct a review of work or additional work, we will do so as soon as possible.

#### See page 30 for the present status of reactors.

We believe that there is no such thing as being too safe. I am highly committed to increasing nuclear safety and strengthening equipment measures beyond the new regulatory standard levels, while also incorporating findings at home, abroad, and insights from the worksite itself. On top of that, we are dedicating all our strength to improve the ability of our on-site personnel, based on the idea that all equipment is operated by humans.

Moreover, to be prepared in the event of a severe accident, we are bolstering cooperation with the national government and autonomous bodies to ensure the safe evacuation of residents.

In March 2017, the company signed an agreement on mutual technical cooperation and support for evacuation of residents with Tokyo Electric Power Company Holdings, Inc. and Hokuriku Electric Power Company, given their close proximity.

See page 31 for the details of safety enhancement measures.

With regard to our initiatives mentioned above, we will disseminate detailed information to the local communities and societies involved. In addition, we will strive to increase our understanding of as many citizens as possible by creating opportunities where we listen to and address their concerns and questions.

See page 33 for the details of dialogues with local <u>residents.</u>

#### Measures to ensure a stable power supply for a new age

While the business environment is changing drastically, the significance of a stable supply shall not change. In the event of a blackout or disaster, our employees make recovery efforts and respond to customers at any hour of the day or night; their firm sense of mission is the strength of the group that has passed down undisputedly since its foundation.

Going forward, in-house companies and JERA Co., Inc. will collaborate inside the group while fulfilling their roles independently and achieve a balanced power generation mix to accomplish our unwavering mission at an even higher level.

Specifically, we will develop the Nishi-Nagoya Thermal Power Station Unit No. 7 as one of the world's most efficient LNG-powered plants and the most advanced coal-based Taketoyo Thermal Power Station Unit No. 5 as a reasonably priced base power source combined with biomass power generation, aiming to improve thermal efficiency of thermal power generation and to reduce CO<sub>2</sub> emissions.

In addition, we will proactively develop renewable energy resources, producing eco-friendly and precious domestic energy, and also take various measures to increase the load capacity of the transmission and distribution network.

Along with the above, we will expand and reinforce our frequency conversion facilities, which will allow an increase in electric power interchange between regions with different frequencies, and will also improve and expedite information dispatching in the event of a blackout. See page 46

#### 3 Measures to accelerate growth

Seeing the full liberalization of the retail electricity and gas markets as a tremendous business opportunity to create new, unprecedented value and accelerate our growth, we will implement two growth strategies.

One of the growth strategies is the "Rollout of a total energy service focused on gas and power." More specifically, through our web member services "KatEne" and "BizEne," as well as proposals of a total energy solution, we will develop and offer services that will improve the lives and businesses of our customers beyond their expectations.

We responded to the full liberalization of the retail gas business by making a full-scale entry into the gas sales business geared toward households and other customers. As well as offering competitive prices and services, we will work on building a solid safety system so our customers can use gas safely.

Additionally, we will give a boost to our business in the Tokyo Metropolitan area, which is sizeable and has potential for growth. In April 2017, we enhanced our sales structure with our newly set up Customer Service & Sales (Tokyo Area). By expanding our sales channel, securing power sources in the Tokyo metropolitan area, and offering competitive prices and services, we will increase sales. See page 35

Another growth strategy is "business expansion by JERA Co., Inc." The company founded JERA Co., Inc. together with TEPCO Fuel & Power in April 2015. Since then, we have been integrating our businesses sequentially in sectors where we can proceed smoothly and rapidly maximize our effectiveness. Having concluded a joint venture agreement on the integration of the existing thermal power generation business in June 2017, we are having discussions about details and going through necessary procedures toward the business merger scheduled in the first half of fiscal 2019. By integrating our entire value chain including the upstream fuel business, procurement, and power generation into JERA, we will be able to operate our business on a greater scale. Then, we will evolve into an energy service company that can compete in global markets to raise the corporate value of the group. See page 37



Company-wide disaster drills

#### 4 Measures to establish a business mechanism to swiftly respond to environmental changes

We regard technological innovation including ICT as an important key to reform our existing business and to create new business. We will henceforth harness it to reinforce and improve our business foundation, and will look into offering new services taking advantage of smart meters that connects our customers with the company's network. See page 39

As for continuing business in the wake of large-scale disasters, in the summer of 2015 we mapped out necessary measures that will allow us to resume energy supply as early as possible, while ensuring public security. We will implement equipment safety measures steadily, while maintaining and improving emergency response capabilities through repeated drills. See page 72

Our efforts also include responding to market structure changes such as lackluster domestic demand or a decrease in sales share resulting from deregulation. We will step up efforts to raise operational efficiency, while at the same time build a business entity enabling proactive efforts to establish new revenue sources including gas & power.

Through the initiatives described above:

We aim to become a corporate group that can deliver "consolidated ordinary income exceeding 150 billion yen" by fiscal 2018.

Despite that our Hamaoka Nuclear Power Station has not yet resumed operation, we have set a challenging goal to regain pre-earthquake level profits. The group will work as one to achieve it.

# Basic ideas of investment and return to shareholders

As for investment, we will swiftly and steadily take measures to further enhance the safety of the Hamaoka Nuclear Power Station and other facilities, while we steadily continue to design facilities indispensable for a stable energy supply. When making investments, we place special emphasis on efficiency.

To ensure sustainable growth into the future, we will also implement strategic investments toward business growth and development in a surefooted manner, on the

premise of appropriate risk management and assessment of necessity.

Regarding returns to shareholders, we have a basic policy of stable dividend distribution while taking financial conditions into consideration, while also making continuous investments for designing and operating facilities indispensable for a safe and stable electric power supply.

# To support value creation and meet customers' trust, we put weight on our CSR initiatives.

For a business supporting critical infrastructure, it's the trust of customers and society that lays the foundation of their business activities. And we believe that two-way communication with our stakeholders—customers, shareholders and investors, communities, business partners and employees—is more important than anything else. We will sincerely listen to their opinions, develop better services and improve our business operations to maintain



Opinion exchange with employees

their trust and meet their expectations.

Diverse human resources supporting our business activities with a firm sense of mission is no doubt the most valuable asset of the group. We will create an inclusive work environment where employees with a variety of background can fully display their abilities and have motivation to work, by promoting diversity and other means. At the same time, we will proactively secure and nurture employees to become growth drivers.

Moreover, further enhancement of corporate governance, (a framework allowing appropriate monitoring of business management and operations and quick decision-making), promotion of compliance across the group while prioritizing meeting varied demands of the society, realization of a low-carbon society and other proactive initiatives to conserve the earth's environment are all a part of our mission. By achieving the CSR (corporate social responsibility) goals listed above, we will reinforce our business foundation that supports value creation and helps us preserve the trust of our customers.

# Lastly, I will talk about my resolution for value creation.

In fiscal 2017, which marks my third year in office, we are in the midst of severe competition triggered by the full liberalization of the retail gas market.

Despite dramatic changes in the business environment, we will redouble our efforts to attract and retain customers by delivering services beyond their expectations and other means.

What I aim for is to make the company a dynamic entity so that each and every one of our employees thinks with his or her own head and rises to new challenges. To help them gain a mindset to buckle down to work, I take every opportunity I can to talk about "Chi (learning)," "So (idea)" and "I (will)" to our employees. I talk about these words in hopes that we will get to know our customers and facilities on a deeper level, with a sense of importance placed on field work (learning) and come up with new "ideas" based on the knowledge acquired from "learning," and ultimately move ahead with strong "will."

I will lead our employees through harsh competition on the back of new ideas and strong will, and widely share all the subsequent outcomes with our stakeholders.

Cherishing dialogues with our stakeholders as we always do, we will realize a "total energy service corporate group that is one step ahead."



## Medium- to Long-term Management Strategy

# Path toward growth

Responding to the trust and high expectations of our customers and society at large, we formulated the Chubu Electric Power Group Management Vision to express our resolution and corporate vision in February 2016. Having done so, we are confident that we will continue to be chosen by our customers amid changes in the business environment, including the reform of the electricity and gas industry. We are also moving ahead with our four priority measures to be implemented mainly over the next five years as concrete efforts to achieve our management vision (What We Aim For).

# Changes in the operational environment

Historic turning points since the founding of the company

- Intensified competition triggered by full liberalization of the retail electricity and gas markets (Started for electricity: April 2016, for gas: April 2017)
- Regulatory reform such as legal unbounding of the power transmission and distribution sectors (2020)
- Changes in energy markets, such as sluggish domestic demand and increasing amounts of renewable energy
- Diversified customer needs brought by technological innovation including ICT

Website of the Agency for Natural Resources and Energy, the Ministry of Economy, Trade

Full liberalization of the retail electricity market

http://www.enecho.meti.go.jp/category/electrici ty\_and\_gas/electric/electricity\_liberalization/

Full liberalization of the retail gas market http://www.enecho.meti.go.jp/category/electrici ty\_and\_gas/gas/pdf/pamphlet.pdf

# Initiatives for Management Issues

#### Medium-term

Concrete efforts to be made mainly over the next five years to achieve our management vision (What We Aim For).

#### Medium-term goal

We aim to become a corporate group that can deliver

"consolidated ordinary income of 150 billion yen or more"

by fiscal 2018.

#### Four priority measures

- 1 Measures to increase the safety of the **Hamaoka Nuclear Power Station** 
  - Safety improvement measures for the Hamaoka Nuclear Power Station Equipment measures, strengthening of on-site capabilities, enhanced cooperation with the national government, autonomous bodies, etc.
  - To make the power station safer and more reliable, enhance governance, risk management and risk communication.
- Measures to ensure a stable power supply for a new age
  - Improvement of thermal efficiency in thermal power generation
  - Promotion of renewable energy
  - Reduction of CO₂ emissions
  - Additional measures for stable supply
- Measures to accelerate growth
  - Rollout of total energy services Offer gas & power-focused new services. Expand business in the Tokyo Metropolitan area, etc.
  - Business expansion by JERA
- 4 Measures to establish a business mechanism to instantly respond to environmental changes
  - Efforts to continue business in the event of large-scale disaster, etc.
  - Utilization of ICT, including IoT, big data and AI
  - Creation of a business structure capable of responding to changes in the market structure In response to lackluster domestic power demand and intensifying competition triggered by liberalization, further increase management efficiency and create new businesses and innovative services.

# Chubu Electric Power Group's Management Vision

Long-term (until 2030)

Long-term policies to create a new Chubu Electric Power Group taking advantage of the changes occurring in the business environment

#### Direction to realize What We Aim For

Taking on the challenge of "creating new value" based on the resolution of

"fulfilling our unwavering mission"

With consideration for the global environment, deliver high-quality energy services at reasonable prices in a safe and stable manner



Offering new attractive products and services ahead of other companies, and expanding the business area at home and abroad by making use of accumulated managerial resources and know-how

#### Efforts toward "creating new value" (building a new business model)

- Expansion of business domains leveraging management resources inside and outside the group
  - Founding of JERA Business expansion in a phased manner
  - Electricity sales outside the Chubu area, including the Tokyo Metropolitan area
  - Aggressive gas & power sales (package deal of

Self-sustaining business activities in the power generation, transmission/ distribution and retail sectors

• Introduction of in-house company system, etc.

Through initiatives described on the left with a view to create new value,

we aim to gain additional profit of 160 billion yen or more (as of 2030),

separately from the conventional electricity business in the Chubu Region\*

#### Initiatives to reinforce the business foundation

- Refine technological, service, and management capabilities to the top-level exceeding competitors at home and abroad.
  - Realization of a low-carbon society on a global basis by thorough environmental management
  - Utilization and development of ICT and other advanced technologies
  - Fulfillment of social responsibility (CSR) including compliance
  - Securing, nurturing and utilizing diverse human resources
- \* What differs from the medium-term goal? "Consolidated ordinary income of more than 150 billion yen or more" set forth in our medium-term goal is a total sum, which is to be achieved by fiscal 2018, obtained from initiatives toward "creation of new value," and the conventional electricity business. On the other hand, "160 billion yen" described above is our target profit obtained by "creation of new value" only.

#### What we aim for

Leading the industry in providing customers with services that exceed expectations

"Total energy service corporate group that is one step ahead"

# **Directors and Corporate Auditors**

(as of June 28, 2017)



(From the left) Fumiko Nagatomi. Kenichi Suzuki, Nobuaki Katoh. Kazuhiro Matsubara, Michinari Hamaguchi, Takavuki Hashimoto, Akihisa Mizuno, Naoko Nemoto

#### Akihisa Mizuno **Chairman of the Board of Directors**

Apr 1978: Joined Chubu Electric Power Jun 2008: Director & Senior Managing Executive Officer, and General Manager of the Corporate

Planning & Strategy Division
Jun 2009: Director & Executive Vice President and
General Manager of Corporate Planning & Strategy Division and Affiliated Business Planning & Development Dept. Jun 2010: President & Director

Jun 2015: Chairman of the Board of Directors (incumbent)

#### Satoru Katsuno **President & Director**

Apr 1977: Joined Chubu Electric Power

Jul 2007: Managing Executive Officer and General Manager of the Tokyo Office

Jun 2010: Director & Senior Managing Executive Officer, and General Manager of Corporate Planning & Strategy Division
Jun 2013: Director & Executive Vice President and General Manager of Corporate Planning & Strategy Division Strategy Division

Jun 2015: President & Director (incumbent)

Jun 2016: Chairman of the Federation of Electric Power Companies of Japan (incumbent)

#### Yoshinori Masuda **Director & Executive Vice President**

#### General Manager of Corporate Planning & Strategy Division

Apr 1979: Joined Chubu Electric Power
Jun 2011: Director & Senior Managing Executive Officer,
General Manager of Gas Sales & Service Dept.

and Deputy General Manager of Corporate
Planning & Strategy Division
Jun 2013: Senior Managing Executive Officer, General
Manager of Gas Sales & Service Dept. and
Deputy General Manager of Corporate
Planning & Strategy Division

Jul 2014: Senior Managing Executive Officer and Deputy General Manager of Corporate Planning & Strategy Division

Jun 2015: Director & Executive Vice President and General Manager of Corporate Planning & Strategy Division

Apr 2016: Director & Executive Vice President and General Manager of Corporate Planning & Strategy Division (incumbent)

#### Masanori Matsuura **Director & Executive Vice President**

#### President of Power Network Company

Apr 1978: Joined Chubu Electric Power

Jul 2010: Executive Officer, General Manager of Electrical Engineering Dept., Power System Division Jun 2013: Director & Senior Managing Executive Officer, General Manager of Land Affairs Dept. Telecommunications Engineering Dept. and Power System Division

Apr 2016: Director & Executive Vice President and President of Power Network Company (incumbent)

#### Akinori Kataoka **Director & Executive Vice President**

#### General Manager of Legal Affairs Dept., General Affairs Dept., Finance & Accounting Dept. and Purchasing & Contracting Dept.

Apr 1981: Joined Chubu Electric Powe

Jul 2011: Executive Officer, General Manager of Finance & Accounting Dept. Jul 2013: Executive Officer, General Manager of Mie

Regional Office, assigned to Environmental Affairs & Plant Siting Division Apr 2016: Senior Managing Executive Officer, General Manager of Finance & Accounting Dept. and Purchasing & Contracting Dept. Jun 2016: Director & Senior Managing Executive Officer,

General Manager of Finance & Accounting
Dept. and Purchasing & Contracting Dept.
Apr 2017: Director & Executive Vice President, General

Manager of Legal Affairs Dept., General Affairs Dept., Finance & Accounting Dept. and Purchasing & Contracting Dept. (incumbent)

#### Chiyoji Kurata **Director & Executive Vice President**

#### General Manager of Civil & Architectural Engineering Dept., Environmental Affairs & Plant Siting Dept., General Manager of Nuclear Power

Apr 1980: Joined Chubu Electric Power Jun 2014: Director & Senior Managing Executive Officer, General Manager of Hamaoka Nuclear Power Executive Headquarters and Environmental Affairs & Plant Siting Dept.

Apr 2016: Director & Senior Managing Executive Officer, General Manager of Hamaoka Nuclear Power Executive Headquarters

Director & Executive Vice President, General Manager of Civil & Architectural Engineering Dept., Environmental Affairs & Plant Siting Dept., General Manager of Nuclear Power Division (incumbent)

#### Kozo Ban

#### **Director & Senior Managing Executive Officer**

#### **President of Power Generation Company**

Apr 1981: Joined Chubu Electric Power

Jun 2014: Director & Senior Managing Executive Officer, General Manager of Power Generation Division

Apr 2015: Director & Senior Managing Executive Officer, General Manager of Fuel Dept., International Business Dept. and Power Generation Division

Apr 2016: Director & Senior Managing Executive Officer, President of Power Generation Company, General Manager of Fuel Dept. and

International Business Dept.

Jul 2016: Director & Senior Managing Executive Officer,
President of Power Generation Company (incumbent)

# Shigenobu Shimizu

#### **Director & Senior Managing Executive Officer**

#### **President of Customer Service & Sales Company**

Apr 1980: Joined Chubu Electric Power

Jul 2012: Managing Executive Officer, General Manager

of Nagoya Regional Office
Jun 2015: Director & Senior Managing Executive Officer,
General Manager of Customer Service Division, General Manager of Gas Sales & Service Dept.

Apr 2016: Director & Senior Managing Executive Officer, President of Customer Service & Sales Company (incumbent)

#### Hiromu Masuda

#### **Director & Senior Managing Executive Officer**

#### General Manager of Hamaoka Nuclear Power **Executive Headquarters**

Apr 1982: Joined Chubu Electric Power

Jul 2012: Executive Officer, General Manager of Nuclear Power Dept., Nuclear Power Division Senior Managing Executive Officer, General

Manager of Hamaoka Nuclear Power Executive Headquarters

Jun 2017: Director & Senior Managing Executive Officer,

General Manager of Hamaoka Nuclear Power Executive Headquarters (incumbent)



(From the left) Chiyoji Kurata, Satoru Katsuno, Kozo Ban, Yoshinori Masuda, Shigenobu Shimizu, Masanori Matsuura, Hiromu Masuda, Akinori Kataoka, Taisuke Misawa

#### Taisuke Misawa

#### **Director & Senior Managing Executive Officer**

# General Manager of Secretarial Services, Corporate Communications and Personnel Divisions

Apr 1981: Joined Chubu Electric Power Apr 2016: Senior Managing Executive Officer, General Manager of Legal Affairs Dept. and General Affairs Dept., assigned to Corporate Planning

& Strategy Division Apr 2017: Senior Managing Executive Officer, General Manager of Secretarial Services, Corporate Communications and Personnel Divisions

Jun 2017: Director & Senior Managing Executive Officer, General Manager of Secretarial Services, Corporate Communications and Personnel Divisions (incumbent)

#### Naoko Nemoto Director

#### **Economist, Asian Development Bank Institute**

Apr 1983: Joined Bank of Japan Apr 1991: Retired from Bank of Japan

Sep 1994: Joined Standard & Poor's Ratings Japan K.K.

Mar 2016: Retired from Standard & Poor's Ratings Japan K.K. Apr 2016: Joined Asian Development Bank Institute as economist (incumbent)

Jun 2016: Outside Director of Chubu Electric Power (incumbent)

#### Takayuki Hashimoto Director

#### Honorary Executive Advisor, IBM Japan, Ltd.

Apr 1978: Joined IBM Japan, Ltd.

Apr 2000: Director, IBM Japan, Ltd.

Apr 2003: Managing Executive Officer, IBM Japan, Ltd. Jan 2007: Senior Managing Executive Officer,

IBM Japan, Ltd.

Apr 2008: Director & Senior Managing Executive Officer, IBM Japan, Ltd.

Jan 2009: President & Director, IBM Japan, Ltd. May 2012: Chairman of the Board of Directors, IBM Japan, Ltd.

Apr 2014: Chairman, IBM Japan, Ltd.

Jan 2015: Vice Chairman, IBM Japan, Ltd. Jun 2016: Outside Director of Chubu Electric Power

(incumbent)

May 2017: Honorary Executive Advisor, IBM Japan, Ltd. (incumbent)

#### Kazuhiro Matsubara Senior Corporate Auditor (full-time)

Apr 1976: Joined Chubu Electric Power
Jul 2007: Managing Executive Officer, General Manager
of Finance & Accounting Dept.

Jun 2009: Director & Senior Managing Executive Officer, General Manager of Finance & Accounting Dept. and Purchasing & Contracting Dept. Jun 2010: Director & Executive Vice President, General

Manager of Finance & Accounting Dept. and Purchasing & Contracting Dept.

Jun 2011: Director & Executive Vice President, General Manager of Legal Affairs Dept., General Affairs Dept., Finance & Accounting Dept., and Purchasing & Contracting Dept

Jun 2013: Director & Executive Vice President, General Manager of Legal Affairs Dept., General Affairs Dept., Finance & Accounting Dept., Purchasing & Contracting Dept. and Information Systems Dept.

Apr 2016: Director

Jun 2016: Senior Corporate Auditor (full-time) (incumbent)

#### Kenichi Suzuki

#### Corporate Auditor (full-time)

Apr 1979: Joined Chubu Electric Power Jul 2013: Senior Managing Executive Officer, General

Manager of Research & Development Division Apr 2016: Advisor

Jun 2016: Corporate Auditor (full-time) (incumbent)

#### Michinari Hamaguchi **Corporate Auditor**

#### President, Japan Science and Technology Agency

Dec 1993: Professor, Nagoya University School of Medicine

Apr 2009: President, Nagoya University Apr 2015: Professor, Nagoya University Graduate School

of Medicine (until September 2015) Jun 2015: Outside Auditor of Chubu Electric Power (incumbent)

Oct 2015: President, Japan Science and Technology Agency (incumbent)

## Nobuaki Katoh

#### **Corporate Auditor**

#### Chairman of the Board of Directors, DENSO Corporation

Apr 1971: Joined Nippondenso Co., Ltd. (Now DENSO Corporation)

Jun 2000: Director, DENSO

Jun 2004: Managing Officer, DENSO Jun 2007: Senior Managing Officer, DENSO

Jun 2008: President & Director, DENSO

Jun 2015: Chairman of the Board of Directors, DENSO

(incumbent)

Jun 2016: Outside Auditor of Chubu Electric Power (incumbent)

#### Fumiko Nagatomi **Corporate Auditor**

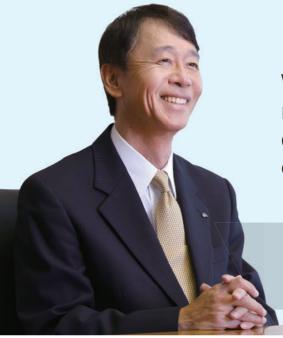
#### Attorney at low

Apr 1981: Registered as lawyer Joined Hachisuka Law Firm

Mar1989: Retired from Hachisuka Law Firm Apr 1989: Established Nagatomi Law Firm (incumbent) Jun 2016: Outside Auditor of Chubu Electric Power

(incumbent)

# Message from General Manager of Finance & Accounting Dept.



We will fulfill our duties and responsibilities so we can meet your expectations and enhance the corporate value of the entire group.

Akinori Kataoka

**Executive Vice President** 

# Consolidated financial results for the year under review

As to the group's consolidated financial results for fiscal 2016, we recorded decreases in both sales and profit for the first time in 14 years, due mainly to a decrease in electricity sales revenues resulting from a decrease of the fuel cost adjustment charge, as well as a decrease in accrued income incurred by fuel cost adjustment system that resulted from falling fuel prices. On the other hand, the profit level, excluding accrued income attributable to fuel price fluctuations, improved; this resulted from autonomous and agile management exercised by individual in-house companies, which improved profits of

the entire group, as well as our careful efforts to analyze circumstances at each worksite on a case-by-case basis. The main factors of the improvement are decreases in fuel costs, repair costs, and other expenses.

Despite the decrease in profit, we have decided to pay a full-year dividend of 30 yen for fiscal 2016, a 5-yen increase year-on-year, on the premise that we will continue to improve management efficiency to the maximum extent possible and carefully consider our mid-to-long financial status, management environment, and other factors.

#### Future course of action

It's not an overstatement to say that we are currently going through the most dramatic change since the founding of the company. Viewing this change as an opportunity, we will thoroughly improve management efficiency more than ever before in all aspects, thereby shifting toward an entity capable of securing profit even in a harsh business environment.

More specifically, we will reduce fixed costs through abolishment of low-efficiency power generation facilities and optimal designing of power transmission and transformation facilities. We will also cut repair costs by evaluating our procedures such as scrutiny of inspection items, extension of inspection cycles and other ways. Moreover, we have been working to reduce costs of administrative/indirect divisions in various ways on a continual basis. On top of that, through flexible, economical and stable fuel procurement by JERA Co., Inc., we will achieve further cost reductions.

Meanwhile, in order to increase income, we have started enhancing our profitability by promoting gas & power sales after the full liberalization of the retail gas market this last April, utilization of ICT, business activities of JERA, and other measures.

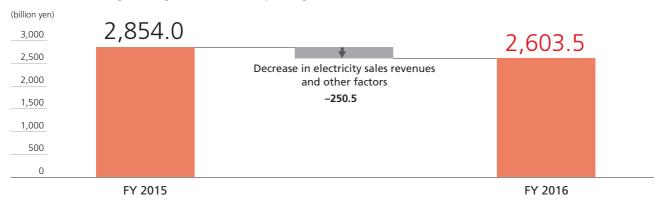
Of the above, JERA's business scale will expand as the integration of existing thermal power generation business proceeds. As the parent company, we will aim to enhance the corporate value of the entire group, while executing risk management appropriately.

Regarding returns to shareholders, we need to continue seeking recovery and reinforcement of our financial base in preparation for possible increases of business risks in the future. For fiscal 2017, we plan to pay a dividend of the same level as fiscal 2016 in line with our basic policy of delivering stable dividends. We will continue with our efforts to improve management efficiency as much as possible and promote constructive dialogues with our shareholders and investors, so we can meet their expectations.

#### **Consolidated operating revenues**

Operating revenues decreased by 250.5 billion yen, year-on-year, to 2,603.5 billion yen due primarily to the decrease in electricity sales revenues, which resulted from the decrease in the fuel cost adjustment charge and other factors.

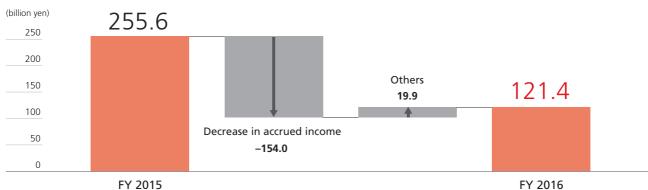
#### ■ Factors contributing to change in consolidated operating revenues



#### **Consolidated ordinary income**

Ordinary income decreased by 134.1 billion yen, year-on-year, to 121.4 billion yen due primarily to a decrease in accrued income incurred by fuel cost adjustment system that resulted from falling fuel prices and other factors.

#### ■ Factors contributing to change in consolidated ordinary income



#### Dividend per share

Regarding dividends for fiscal 2016, we have decided to pay a full-year dividend of 30 yen per share, on the premise that we will continue to improve management efficiency to the maximum extent possible, and carefully consider our mid-to-long term financial status, management environment, and other factors.

	Interim dividend per share	Year-end dividend per share	Total	
FY 2016	15 yen	15 yen	30 yen	
FY 2015	10 yen	15 yen	25 yen	

# Realizing the Creation of Value

(Business Activities)

The Chubu Electric Power Group is realizing the creation of value that responds to the needs of society through the entire value chain from fuel procurement to sales. We seek to be a "total energy service corporate group that is one step ahead."

Overview of Business Activities (Value Chain)

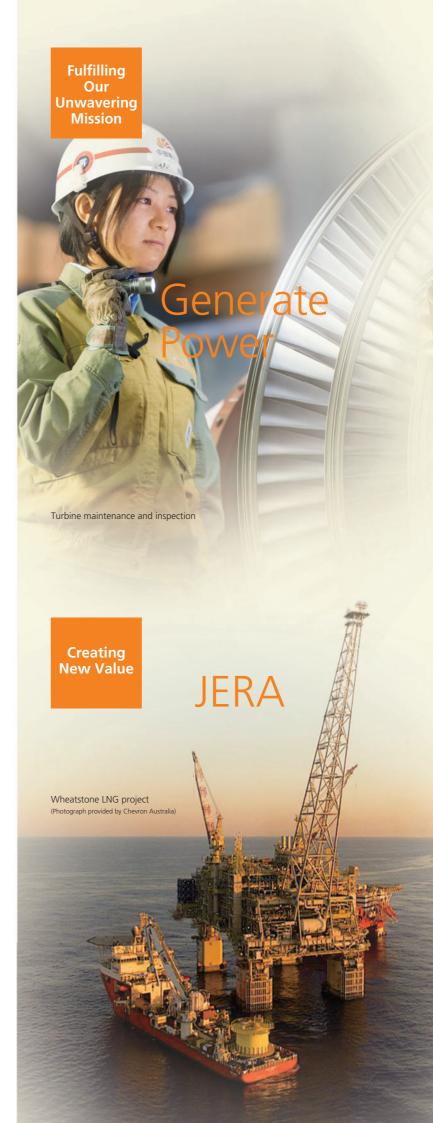
#### Focus

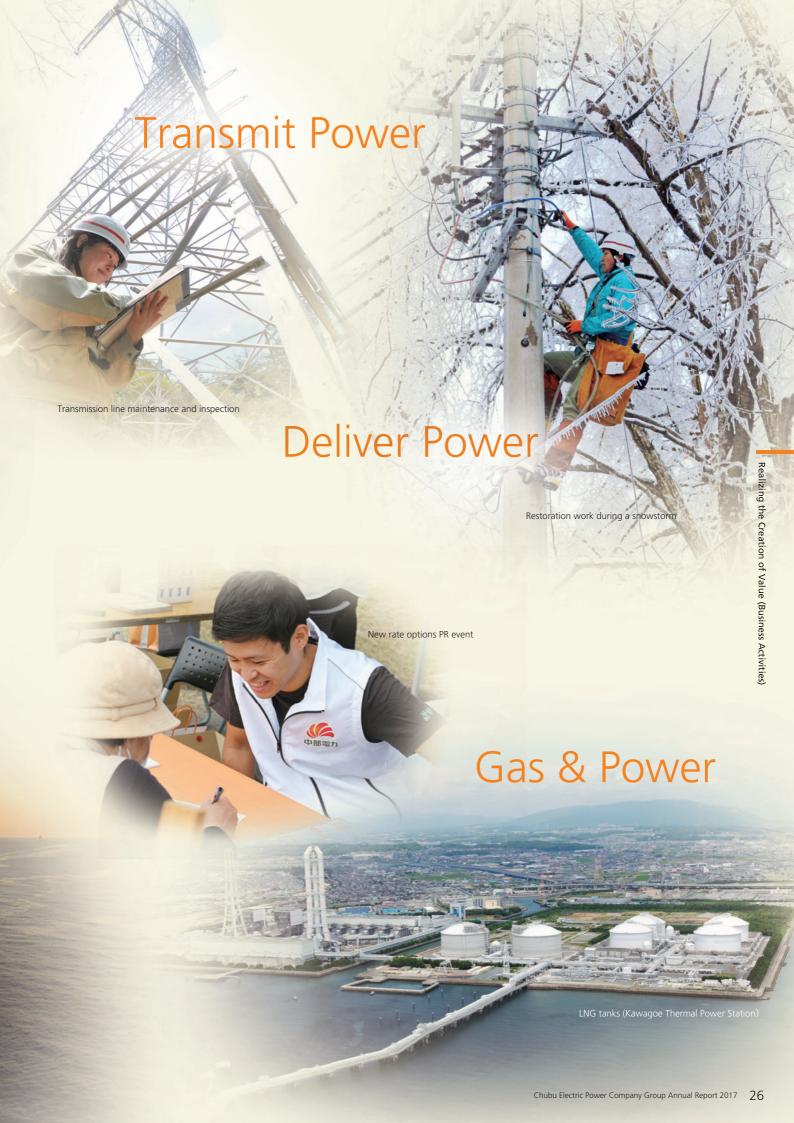
#### **Fulfilling Our Unwavering Mission**

Measures to Further Increase the Safety of the Hamaoka Nuclear Power Station

#### **Creating New Value**

- 35 **Expanding New Business Domains**
- 37 JERA—Seeking to Be a Global Energy Business
- Utilizing Innovative Technologies, Including Information and Communication Technologies
- The Missions of Our Companies and JERA and What They Aim For
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- 45 Power Network Company
- 47 Customer Service & Sales Company
- 49 **Associated Companies**





# **Overview of Business Activities (Value Chain)**

From fuel procurement to sales, the continuous business flow that provides electricity and gas is the value chain that is the core of our business activities as the Chubu Electric Power Group. Based on our strong sense of mission to support the stable provision of energy, we seek to be a total energy service corporate group that is one step ahead. We will do this by having our three companies, JERA Co., Inc., our Nuclear Power Division and our associated companies all fulfill their roles while cooperating together in every business activity.



Fuel procurement

Power generation

Transmission/distribution

Power Generation Company / JERA See page 43

**Power Network Company** 

**Nuclear Power Division** 

#### Business operations unified among associated companies See page 49

Economical, stable, and flexible fuel procurement

Through JERA Co., Inc., we are stably and economically procuring the fuel (LNG, coal, oil, etc.) that is necessary to generate power from supplier countries (Qatar, Australia, Indonesia, etc.).

Establishment of a balanced energy source structure

In order to steadily provide customers with safe and inexpensive electric power, while prioritizing safety first and foremost, we seek to secure supplies that are simultaneously stable, economical and environmentally-friendly by establishing a well-balanced energy source structure that includes nuclear power, thermal power, renewable energy, and other diverse power sources.

Deliver high-quality electricity at reasonable prices in a safe and stable manner

We transfer electricity from power stations to substations through transmission lines. We deliver electricity to customers from substations through distribution lines. We monitor and control the entire power network so that we can steadily provide customers with good-quality electric power safely and at low cost 24 hours every day of the year. In addition, we adjust the amount of power generated (supply) according to the amount used (demand), which changes moment by moment in order to provide a stable electricity quality, such as frequency,

#### •• Efficient facility structures and regularly scheduled facility maintenance

Along with steadily advancing efficient facility composition by incorporating the most advanced technologies and eliminating unnecessary facilities, we are striving to sustain and enhance the health of facilities through continuous maintenance and improvement.

Shared sense of mission A strong sense of mission to ensure the stable supply of energy that is shared by all



**Sales** 

**Customer Service & Sales Company** 

Development of a total energy service centered on gas and power

We will continue developing a total energy service centered on valuable gas and power that fulfills customer needs, including service, quality, and value. For our household customers, we seek to become a "daily-life coordinator" in every aspect of their lives via comprehensive web services, for example. For our business customers, in addition to providing a total solution around the axis of energy, we also provide support to help them solve problems related to their businesses.

What we aim for

Total energy service corporate group that is one step ahead

business units of the Chubu Electric Power Group

Please see the section starting on page 41 for details about the missions, aims and efforts of each company and JERA Co., Inc.



# Measures to Further Increase the Safety of the Hamaoka Nuclear Power Station



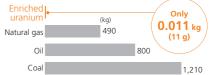
At Chubu Electric Power, we are striving to further increase safety based on our strong commitment to never letting an accident like the Fukushima Daiichi Nuclear Power Station disaster occur again. Moreover, we are seeking to make this power plant one that earns even more confidence from the public. For Japan, which has few natural energy resources, nuclear power is a key base load power source that contributes to the stability of the energy supply and demand structure. With safety as our first priority, we will keep advancing preparations for the continued utilization of the Hamaoka Nuclear Power Station as a key power source.

## The need to continue nuclear power generation

The energy self-sufficiency rate of Japan is a mere 6%. Our country is dependent on supplies from abroad for the majority of our energy resources. Under these circumstances, the advancement of an "energy mix" that combines a good balance of diverse energy sources is necessary to supply abundant electric power in an inexpensive, stable, and environmentally-friendly manner. Among the sources, nuclear power generation is said to be exceptional in terms of supply stability, environmental impact, and economical value.

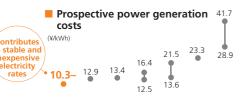
Nuclear power generation is a source that can generate power using very small quantities of uranium, which has high storability as a fuel and provides excellent supply stability.

Amount of fuel necessary to provide electricity to an average household for one year



Source: Federation of Electric Power Companies of Japan, "Consensus document on nuclear power for 2014" (March 2014)

Nuclear power generation is not affected by the violent fluctuations in crude oil prices and can supply power stably at a level that compares favorably with other power sources.



Nuclear Coal LNG Household Land-based Small-scale Oil power thermal thermal solar power wind power hydropower thermal power Dower power power power power by Dower power by Dower Power Source: Power Generation Cost Verification Working Group, "Report related to investigations into power generation costs, for example, for the Long-term Energy Supply and Demand Outlook Committee" (May 2015).

Nuclear power generation, which does not emit CO<sub>2</sub> at the time of generation, is an effective measure against global warming, equivalent to solar power generation and similar renewable energy sources.

Lifecycle CO<sub>2</sub> emission amounts for



Source: Central Research Institute of Electric Power Industry, "Comprehensive evaluation of lifecycle CO<sub>2</sub> emissions for power generation technologies in Japan" (July 2016)

#### TOPICS

#### Steady implementation of the nuclear fuel cycle

The reprocessing plant of Japan Nuclear Fuel Ltd. is expected to be the location of a semi-domestic energy resource. Examination of new regulatory standards is being steadily advanced in preparation for the completion of its construction. Chubu Electric Power is continuing to provide support for the advancement of the nuclear fuel cycle.

**Energy Security** 

Safety

**Environment** 

**Economic** 

**Efficiency** 

Moreover, the business of disposing high-level radioactive waste generated in the course of reprocessing is being advanced primarily by the Nuclear Waste Management Organization of Japan (NUMO), which is the main implementing body. In fiscal 2015, fundamental guidelines based on the Final Disposal Act were established by cabinet decision, and it was determined that the country would take the lead in making these efforts. In order to make the people of Japan aware of deep geological repositories and increase their understanding of them in the future, the requirements and standards for map creation were publicized in April 2017 with a plan to present a map of scientific features. As a generator of high-level radioactive waste, a byproduct of nuclear power generation, our company will also continue to actively undertake efforts such as those listed above to promote understanding.

## Overview of the efforts of Chubu Electric Power

—Seeking to make a nuclear power station that is trusted as the safest in the world

We will continue working to further improve safety by anticipating potential risks and working to reduce them from our top management levels. We will also continue to seek two-way communication and inform the public about safety measures and risk information starting with local communities.

#### Enhancement of governance

We are building systems to analyze and evaluate nuclear power safety risks and suitably judge the implementation of necessary safety measures.

#### The Chubu Electric Power Group Nuclear Safety Charter

Learning lessons from the unprecedented nuclear disaster that happened at the Fukushima Daiichi Nuclear Power Station, we are strongly committed to preventing any similar accidents from occurring, and will make a unified effort across the group to make our nuclear power station the safest in the world, which will give peace of mind to local residents and society at large.

Safety first

We will deal with risks directly, deeming it our top management priority to ensure safety.

Ceaseless pursuit of safety

We will constantly incorporate both external and internal knowledge and findings at our workplaces for higher safety, and never be satisfied with whatever the present safety level is.

Hand in hand We will share information widely with local residents and society with stakeholders at large by closely communicating with them.

Minimize risks

remaining risks

- Top management deliberation of evaluations and countermeasures for risks (Nuclear Safety Improvement Committee)
- Outside expert inspections of safety efforts (Advisory Board)

#### Further pursuit of safety—Risk management enhancement

#### Efforts within power plants (on-site)

Enhancement of equipment measures

**Avoid accidents** 

Infrastructure

Enhancement of onsite staff's abilities

Personnel

- quipment measures
- Withstand great earthquakes
- Prevent tsunami penetration
- Strengthen power supply, flooding and heat removal functions

#### Prepare for accidents

- Stop container damage
- Suppress emission of large quantities of radioactive materials

#### • Strengthen initial responses

 Expand and enhance education and training

# Efforts around power plants (off-site)

Prepare for even the smallest

- Strengthen cooperation with the country, local governments, and other government bodies
- Strengthen systems related to resident evacuations

# Support nuclear power operators

 Our company signed a three-company cooperation agreement with Tokyo Electric Power Company Holdings and Hokuriku Electric Power Company

#### Toward the realization of thorough two-way dialogs—Strengthen risk communication

See page 33

Seek to build further trust with community members

- Opinion-exchange meetings with community members
- Visiting local residents to take part in dialogs
- Power plant "caravans"Power plant festivals
- and tours

etc.

#### ■ Present status of reactors at the Hamaoka Nuclear Power Station

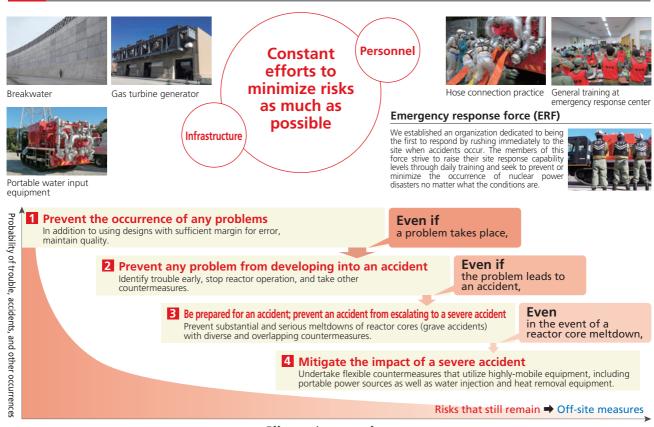
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
<b>Output</b> (10,000kW)	54	84	110	113.7	138
Present status	Decommissioning process underway Jan. 30, 2009 Operation ended Nov. 18, 2009 Transition to decommissioning process		The Nuclear Regulation Authority is currently investigating and confirming compliance with new regulatory standards Most of the main countermeasure construction for Unit 4 is complete (if additional facility countermeasures become necessary in response to examinations, for example, they will be implemented as quickly as possible)		Investigating specific recovery methods for seawater infiltration events Preparing applications for investigation and confirmation of compliance with new regulatory standards

Measures to Further Increase the Safety of the Hamaoka Nuclear Power Station

# Further pursuit of safety—Risk management enhancement

At the Hamaoka Nuclear Power Station, we have always applied the latest knowledge and sought to increase safety over the years. Since the accident at the Fukushima Daiichi Nuclear Power Station, we have been voluntarily advancing countermeasures, including for tsunamis and other major disasters. In addition, we have been undertaking many other safety measures, going beyond the new national regulatory standards. Moreover, along with strengthening facility measures (infrastructure aspects), based on the understanding that people are the ones that handle them, we are focusing on strengthening workplace capabilities (personnel aspects) in order to make the facilities function more effectively.

# Efforts within power plants (on-site)



Efforts to increase safety

# Efforts to further increase safety

Never stopping at current safety levels, we are always incorporating both inside and outside knowledge along with workplace "awareness" and striving to further increase safety.



Through the exchange of ideas with the Japan Nuclear Safety Institute (JANSI), apply the latest knowledge and good case studies from Japan and abroad



Take past failures as lessons and establish awareness about risks and how to handle



Utilize operation training simulators incorporate the latest knowledge, including lessons learned from the disaster at the Fukushima Daiichi Nuclear Power Station

# Support organization among nuclear power operators (three company cooperation agreement)

Technical cooperation to increase safety at nuclear power plants, capitalizing on the similarity\* of reactor models

- Joint training using operation training simulators
- · Sharing information related to knowledge about operation and maintenance, for example
- All 3 companies are operators that have boiling water reactors (BWR), and, in particular, advanced boiling-water reactors (ABWR) in operation

#### Cooperation 2

Cooperation in evacuation support to ensure the safety of people in the community, utilizing geographical proximity

#### Examples:

- Dispatch of engineers to operators where accidents have occurred to ascertain status
- Reinforce operation of disaster countermeasure support bases
- Radiation monitoring and examination in the case of evacuation
- · Joint participation in nuclear power disaster prevention trainings

Chubu Electric Power has established three-company agreement with Tokyo Electric Power Company Holdings and Hokuriku Electric Power Company. This will further raise the effectiveness of current cooperation agreements among nuclear power operators. Moreover, in the unlikely event that a nuclear power disaster occurs, we will work together to provide support for problem resolution and support for resident evacuations.

■ Chubu-Tokyo-Hokuriku mutual technical cooperation agreement (established March 2017)

Cooperation agreement among ---nuclear power operators (joined by 12
companies, including 9 power
companies, the Japan Atomic Power
Company, the Electric Power
Development Co., Ltd. and Japan
Nuclear Fuel Ltd. in October 2014)

Reference Mihama Nuclear Emergency Preparedness Center

This new support base was opened in December 2016 in preparation for the possibility of a serious accident at a nuclear power facility.

During emergencies: Transport necessary personnel and material resources to the power plant at times of disaster, for

Ordinary times: Conduct operation training with material resources for each nuclear power operator, etc.

# Efforts around power plants (off-site)

Since "hypothetically," "what if" and "in the unlikely event" worries accumulate, we are strengthening our cooperation with national and local governments in order to raise the effectiveness of our emergency response. For example, the evacuation of local residents in the event of a serious accident that could result in the release of radioactive substances.



Regarding our efforts inside power plants, we are endeavoring to strengthen cooperation with national and local government as well as technical cooperation systems with other power companies to further increase safety.

Measures to Further Increase the Safety of the Hamaoka Nuclear Power Station

# Toward the realization of thorough two-way dialogs— Strengthen risk communication

In order to improve our business activities related to nuclear power generation, we are listening to the voices of local community members and working to strengthen continuous communication so that we can understand their concerns, listen to their questions, and hear their opinions. We strive for proactive information sharing and mutual understanding through activities such as opinion exchange meetings, local resident visits, power plant "caravans," power plant festivals and tours,

#### Seeking to further build relationships of trust with community members

#### 1. Communication activities until now

We have been working to convey technical and specialized information in ways that are easy to understand in order to have local residents understand the safety of nuclear power.



#### 2. Concern increased with the occurrence of the Great East Japan Earthquake

Since the Fukushima Daiichi **Nuclear Power Station** accident, voices with concerns and doubts regarding nuclear power among local residents have grown louder.



#### 3. Expand and enhance communication activities

In order to listen to the concerns and doubts that local residents have about nuclear power, we are expanding and enhancing our previous communication activities and incorporating risk communication\* approaches.

\*Starting with the explanation that risks can never be completely eliminated with any kind of scientific technology, this kind of communication presents not just positive information about nuclear power, but also accurate risk but also accurate risk information for shared consideration.

#### 4. Continue two-way dialog activities that address concerns and doubts

By adopting risk communication approaches and seeking to build up dialogue with as many people as possible, we seek to deepen mutual understanding and further build relationships of trust with community members.



# Opinion-exchange meetings with community members

In the four cities\* near the Hamaoka Nuclear Power Station, Chubu Electric Power is continuously holding "opinion exchange meetings" where we talk with community members about issues related to power plant safety measures, energy problems, and other topics.

In order to make these opinion exchange meetings lively, we host them at local public halls, and split into small groups as much as possible.

\*Omaezaki, Makinohara, Kakegawa and Kikugawa

**District opinion** exchange meetings

**Opinion exchange** meetings with women's groups

(fiscal 2016 results)

#### ■ Comments from opinion exchange meeting participants

- Electricity continues to be supplied even when nuclear power generation stops, so I don't understand why it is necessary.
- I want elementary and middle school students to also study about energy.
- Information related to nuclear power is too difficult to understand.
- I learned that Chubu Electric Power is working really hard on safety
- The effect of radiation on children is frightening, even if an accident is unlikely.
- Considering the global warming problem, I think that using nuclear power is necessary







Opinion exchanges with women's



Hiroshi Nishiyama Hamaoka Nuclear Power

**Executive Headquarters** Hamaoka Community Relations Office Community Relations Group

#### We are seeking to further build relationships of trust

The accident at the Fukushima Daiichi Nuclear Power Station has caused a great deal of worry among the people who live around the Hamaoka Nuclear Power Station. A power plant is first made possible by the understanding and cooperation of the people in the area. As a person involved in the nuclear power business, I want to listen sincerely to the voices of the people in the area and build relationships that earn us more trust by speaking together about what we intend to do.

# Visiting local residents to increase communication

As one activity that shows the face of Chubu Electric Power, we are visiting residents who live in the four cities around the Hamaoka Nuclear Power Station to increase communication.

In addition to steadily increasing opportunities for dialogue and conveying the efforts of our company and power plant to as many people as we can, we are also asking them about their questions, concerns, and other thoughts.

Households visited

About **84,000** 

(Started in September 2014, we are now undertaking our 3rd round)



Visiting local residents to talk face-to-face

# Power plant "caravans"

We hold power plant "caravans" once or twice every month by setting up booths at shopping centers, local events, and other places in the area around the Hamaoka Nuclear Power Station. In addition to communicating information about the need for nuclear power generation, measures to increase safety, and other topics, we also ask for the thoughts of visitors.

**Number of times** 

19

Number of people

1,939

(fiscal 2016 results)



Talking at display booth

# Power plant festivals and tours

We hold power plant festivals and tours, particularly for people who live around the power plant, so that participants can see our efforts to improve the safety of Hamaoka Nuclear Power Station with their own eyes.

In order to have as many people as possible visit our power plant, our employees take various opportunities to guide guests.

Number of festival and tour participants

24,547

(fiscal 2016 results)



Scene from tour



Distributing information pamphlets in front of train station

#### INTERVIEW



Tomoko Tsuchiya Director & Secretary General HSE Risk C-Cube NPO

#### Advancing real risk communication

In the past, risk communication was thought to be about making people understand and accept the results of scientific and expert risk evaluations. Since this one-way presentation of information has resulted in repeated failures, however, risk communication has been redefined as "thinking about issues related to risks with those concerned and building relationships of trust." In order to think about things together, merely listening to opinions is not enough. Their ideas need to also be connected to risk reduction and risk management improvements. Moreover, to earn the trust of others, you must first trust them and make continuous efforts. Through these types of efforts, I expect that Chubu Electric Power will continue evolving into an organization that faces risks sincerely.



# **Expanding New Business Domains**

The business environment is changing rapidly. For example, the full liberalization of the gas retail market began in April 2017, following the liberalization of electricity the previous year. The Chubu Electric Power Group is approaching these changes as an opportunity and will increase earnings by expanding our business domains.

Gifu Pref.

City gas supply area

Aichi Pref.

# Entry into the household city gas market

Looking at the full liberalization of the gas retail market as an opportunity, we have begun selling gas to customers, including ordinary households and restaurants, that use city gas from Toho Gas Co., Ltd. We strive to provide optimal "gas and power" solutions for the household lifestyles and other customers in addition to the customers we have served for many years in the industrial and business fields.

Number of gas sale applications for ordinary households

As of June 2017

Our corporate gas retail sales strategy

> Competitive prices

- Establish gas price plans that are inexpensive and easy to understand
- Increase convenience for customers by combining bills for gas and electricity

- In addition to direct sales, conduct sales in cooperation with partner businesses that are well-established in
- **Build sales** structures
- Arrange safety systems
- Cooperate with businesses that have abundant experience and handle safety functions
- Reliably execute safety functions required for gas retailers in order to enable customers to use our gas safely

Nagano Pref.

#### Developing power source at JERA

• We seek to obtain large-scale power generation in the capital region where competition is strong by taking part in the planning of the new construction and replacement of 12,000,000 kW of power generation facilities.

#### **Tokyo Sales Division**

- We established a Tokyo Sales Division in April 2017 in order to further strengthen our sales structure in the capital region.
- We seek to accelerate decision-making, promote sales activities, and improve customer service.

#### Suzukawa Energy Center Ltd.

- A joint venture established by Chubu Electric Power, Mitsubishi Corporation, and Nippon Paper Industries Co., Ltd. (Chubu Electric Power holds a 10% share in the company)
- In September 2016, operation of a 100,000kW coal-fired thermal power generation plant began. The generated power is sold to Diamond Power Corporation.

Shizuoka

Ibaraki Pref.

#### Hitachinaka Generation Co., Inc.

- · A joint venture of Chubu Electric Power and TEPCO Fuel & Power
- Operation of a 650,000 kW coal-fired thermal power generation plant is scheduled to begin in the first half of 2021.

Yamanashi Pref.

Chiba Pref.

Kanagawa Pref.

Saitama Pref

Electricity sales area

# **Expanding electricity** sales in the capital region

The capital region is an extremely attractive market because of its great size and high growth.

While we steadily provide competitively-priced power, we will utilize multiple sales routes and expand sales.

Number of electricity sale applications for low-voltage customers in the capital region

**About** 

As of June 2017

#### Our corporate electricity sales strategy for the capital region

**Power supply** assurance

 Further securing power supply through the utilization of the Suzukawa Energy Center Co., Inc. in recent years and development of JERA power resources in the future

 Expand sales through multiple sales channels, including the development of unified sales activities by Diamond Power Corporation and Cenergy Co., which are corporate group companies, as well as sales through partner businesses

Strengthen sales structure

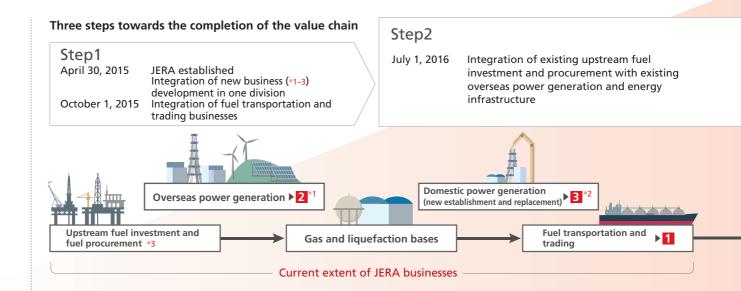
**Extensive** price plans for the capital region

 Realize industry-leading low prices in the capital



# JERA—Seeking to Be a Global Energy Business

Since Chubu Electric Power established JERA Co., Inc. with TEPCO Fuel & Power, Inc. in 2015, we have steadily advanced the integration of the entire value chain from upstream fuel investment and procurement to power generation in JERA. Utilizing the advantages of scale, we are providing a stable supply of energy (including electricity and gas) using our international competitive advantage, while seeking to increase the corporate value of the group.



#### Scale of annual procurement

**Among** largest in scale globally

#### ■ Amount of LNG imported by region (2015)



million t Coal

: BP Statistical Review of World Energy June 2016

\* Note: Total procurement by both companies before merger (fiscal 2015)

#### Fiscal 2016 efforts

Fuel businesses

#### 1 Development of global trading business

JERA Trading Singapore\* acquired the coal division of EDF Trading in April 2017. Going forward, by combining Atlantic and Pacific markets and advancing the business globally, we will seek to achieve three things: 1. flexible and economical fuel procurement, 2. stronger third-party sales, particularly in Asia, and 3. IT system expertise internalization.

Company name changed to JERA Trading on July 1, 2017



Overseas power generation businesses

#### Development of renewable energy power generation business in India

In February 2017, we acquired some stock of ReNew\* and have since become involved in the renewable energy power generation business in India. We will continue to strive to increase corporate value by building an generation business optimal power portfolio that includes renewable energy.

\* ReNew Power Ventures Private Limited



Domestic power generation businesses

#### B Hitachinaka Thermal Power Station

In September 2016, environmental impact assessment procedures were completed for the Hitachinaka Thermal Power Station Unit 1, and construction began in January 2017.



# Step3

March 28, 2017

Fundamental agreement related to the integration of existing thermal power generation businesses signed

June 8, 2017

Joint venture contract signed

First half of fiscal 2019

**Business integrated** into JERA



Extent of TEPCO Fuel & Power and Chubu Electric Power businesses (integrated into JERA in the 1st half of fiscal 2019)

#### Integration effects

#### **Domestic power generation businesses**

- Create an operations and maintenance (O&M) model that is competitive in the global market
- Increase efficiency through joint procurement of material resources
- Optimize power supply portfolio

#### New businesses and existing JERA businesses

- Electricity/gas market transactions and third-party sales
- Global-level O&M business
- Expand gas/LNG retail sales
- Optimize unified operation of entire value chain
- Apply trading expertise to domestic thermal power business

Value of integration effects within 5 years

#### Scale of domestic thermal power generation (existing)

TEPCO Fuel & Power As of July 2017

Chubu Electric Power As of July 2017

Among largest in scale globally

Comparison of power generation scales by major global electricity businesses



Source: Overseas Electric Power Business Statistics 2016 Note: For sources other than JERA, includes non-thermal power generation facilities

#### What we aim for from fiscal 2017 on

Domestic thermal power generation businesses (existing)

# Towards the completion of the value chain through the integration of existing thermal power generation businesses

In June 2017, a joint management agreement was signed for the integration of the fuel receiving, storage, and gas transportation business and the existing thermal power generation business. As a result, we have completed a continuous value chain from upstream fuel investment and procurement to power generation and wholesaling of electric power and gas. In addition to reorganizing the domestic thermal power generation businesses of Chubu Electric Power and TEPCO Fuel & Power, we seek to accelerate growth in all our business domains as well as optimize our entire value chain by maximizing the synergy of our recently integrated fuel businesses and overseas power generation and energy infrastructure businesses.



# **Utilizing Innovative Technologies, Including Information and Communication Technologies**

The structures of economies and societies are changing greatly in what is being called the "4th Industrial Revolution" due to the advancement of cutting-edge technologies, starting with information and communication technologies (ICT) such as IoT, big data, and artificial intelligence (AI). In order to actively advance the utilization and development of innovative technologies, we established a new dedicated division at Chubu Electric Power in April 2017. While coordinating with local governments and other businesses, we are seeking to strengthen and advance our business foundation and create new businesses and services.

#### Orientation of our strategy

#### Our facility infrastructure

Electric power infrastructure, telecommunication infrastructure such as smart meters, etc.

#### Our big data

Facility maintenance data, smart meter data, etc.

#### Services focused on our energy businesses

Electric power and gas supply services, etc.



IoT, sensors, big data, AI, etc.

**Distributed energy resources** (DER) installed in our territory

Renewable energy, batteries, demand response systems, PHV, PV, etc.

Strengthening and advancement of business foundations

**Creation of new** businesses and services

# Strengthening and advancement of business foundations

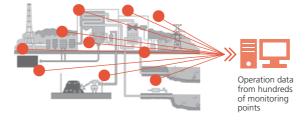
- Increase competitiveness and reduce environmental impacts simultaneously
- Utilize big data related to the operation and maintenance of power plants to detect signs of trouble and optimize power generation
- ▶ 1

- Make supply as stable as possible and enhance network services
- Advance the composition, operation and maintenance of facilities
- Disclose power transmission line capacities, strengthen information distribution, and make other enhancements
- Strengthen the foundations of services for customers
- Enhance web services (KatEne, BizEne,
- Raise the levels of solution services by utilizing IoT and AI

#### 1 Identify facility issues "super" early

Together with NEC Corporation, Chubu Electric Power is developing systems that enable the realization of improved reliability and increased facility safety for thermal power generation facilities with the goal of completion in fiscal 2017. Moreover, we will also offer the same systems as operation support services to power generation operators in Japan and abroad. By supporting the operation and maintenance of thermal power generation facilities, we will continue increasing the safety of infrastructure.

#### Benefits of system incorporation



#### Early discovery of malfunctions

Detect signs of trouble from operation data correlations

#### Raise levels of operation and maintenance

Along with conventional monitoring. comprehensive and effective operation and maintenance

#### Sustain high efficiency and high operation rates

Comprehensively analyze factors that reduce efficiency, for éxample

# Creation of new businesses and services

- Realize efficient energy use and build a low-carbon society
- Develop valuable services with utilizing analysis technologies for electricity use data acquired with smart meters > 2
- Establish technologies for the efficient operation of air-conditioners based on weather forecasts
- Utilize distributed energy resources such as renewable energy, and test local production of energy supplies for local consumption

etc.

Resolve problems faced by societies and contribute to community revitalization

- Develop new services, including the monitoring of children and the elderly, by installing ICT devices in power poles and other
- transmission facilities • Utilize smart meter infrastructure for water supply meter reading

etc.

#### 2 Realize new services that utilize analyses of electricity consumption amounts using AI

Cooperating with a business that has unique Al technologies, Chubu Electric Power is testing technologies that analyze electricity usage data acquired with smart meters. By acquiring these technologies, we are seeking to provide even more valuable services. Examples include providing advice tailored to customers about energy conservation methods and the use of household appliances, as well as monitoring members of families who live separately.

#### Examples of services that utilize smart meters



① Smart meter checks electricity use every 30 minutes



AI analysis

2 Al analyzes that data to determine the status of household appliance use



**Energy** conservation advice



member monitoring service

③ Offer various services to implement energy conservation methods that are more tailored to customers, as well as family member monitoring services and other new services

# The Missions of Our Companies and JERA and **What They Aim For**

While each of our companies and JERA Co., Inc. work together, they seek to achieve what they aim for by carrying out their missions based on our two action principles, "realizing our unwavering mission" and "creating new value."



## **Power Generation Company / JERA**

# **Fulfilling** unwavering mission

Achieve simultaneously

Creating new value · Supply electricity, gas, and other energy to customers in a stable and internationally competitive manner

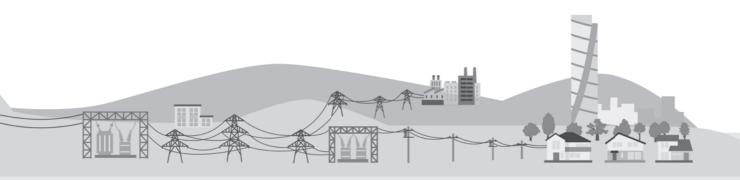
- Increase the size of our business by securing large-scale power sources and natural gas sources outside of the Chubu area
- Expand overseas power generation, energy infrastructure projects, and fuel procurement-related
- Promote greater use of renewable energy

		Status at the end of March 2017	Goals for 2030
Goals for 2030	Fuel businesses	Upstream development: 5 cases     Procurement scale: LNG 35,000,000 t	Build an optimal portfolio for procurement and upstream development using one of the largest procurement scales in the world  • Upstream development: about 12 cases  • Procurement scale: LNG 30,000,000–40,000,000 t, Coal 20,000,000–30,000,000 t  • LNG transport ships: about 30
	Domestic power generation businesses	We own 24,000,000 kW of thermal power generation capacity at 9 facilities in the Chubu area     Hitachinaka Thermal Power Station (main construction started)     650,000 kW	Utilizing existing infrastructure, build new and replace facilities for 12,000,000 kW
	Overseas power generation businesses	Equity ownership in electricity output 7,300,000 kW	Utilizing domestic power generation business expertise, seek 20,000,000 kW of equity ownership in electricity output

What we aim for

Pursue the largest business scale in Japan and achieve the highest global standard technological skills in order to excel in the global market

We will contribute to reducing greenhouse gas emissions



Power Network Company		<b>Customer Service &amp; Sales Company</b>		
<ul> <li>Deliver high-quality electricity at a reasonable price in a safe and stable manner</li> <li>Provide sophisticated power network services that can proactively meet the needs of customers and communities</li> </ul>		With consideration for the global environment, deliver high-quality energy services at a reasonable price in a safe and stable manner		
• Contribute to efficient ene energy businesses	ergy use and operate new	satisfactio	best services that can on to customers st to take on new cha	n deliver even greater allenges
Status at the end of March 2017 Goals for 2030		Status at the end of March 2017 Goals for 2030		
Japan's best "total network wheeling unit price"*  * unit cost that is "total wheeling charge" divided by "total demand"	Achieve a top domestic and global performance level regarding the number and duration of power outages per customer	Electric power sales business	Sales of about 2.5 billion kWh of electric power annually outside the Chubu area	Expand electric power sales outside the Chubu area to 20 billion kWh annually and increase earnings
	Achieve a top domestic price level for basic wheeling charges in each voltage class	Gas sales business	Sales of about 850 thousand tons of gas and LNG annually	Expand sales of gas and LNG inside and outside the Chubu area to 3 million tons and increase earnings
Live up to the trust and expectations of customers and support the development of communities and society			to become a leadi corporation that c and power bus	enters on the gas

**Power Generation Company / JERA** 

Power Generation Company:

- thermal power generation
- hydropower, wind power, solar power, and other renewable energy power generation
- fuel business
   overseas power generation business
- domestic power generation business (new facilities and replacements)

We will continue pursuing business scales that are among the largest in Japan and technological capabilities of the highest global standards





Fiscal 2016 efforts For information about JERA activities, see page 37.

#### **Highly efficient thermal power stations**

In order to reduce fuel consumption and CO2 emissions from thermal power generation, we are advancing the development of Nishi-Nagoya Thermal Power Station Unit No. 7, which is a highly-efficient LNG power generation facility. Moreover, with the development of Taketoyo Thermal Power Station Unit 5, which uses inexpensive coal thermal power generation as the base of its power supply, we are also considering the amount of CO<sub>2</sub> emissions by utilizing mixed incineration of wood biomass fuel, which is an environmentally-friendly renewable energy source.

#### Advancing renewable energy

In order to increase the utilization of hydropower, wind power, solar power, and other renewable energy power sources, we are promoting their development as we endeavor to reduce costs. With hydropower, we are also striving to increase the amount of electric power generated through improvements to existing facilities.

#### Efforts toward realizing what we aim for

	Issues	Efforts
Fulfilling our unwavering mission	<ul> <li>Improve thermal efficiency of thermal power generation</li> <li>Decrease CO<sub>2</sub> emissions</li> </ul>	<ul> <li>Start operation of high-efficiency combined cycle power generation of the highest worldwide standard See page 44</li> <li>Develop state-of-the-art coal thermal power stations with consideration for the environment</li> </ul>
Achieve simultaneously  Creating new value	<ul> <li>Promote renewable energy</li> <li>(JERA)</li> <li>Strengthen competitiveness in fuel procurement</li> <li>Grow in the international energy market</li> </ul>	<ul> <li>Actively develop renewable energy sources See page 44 </li> <li>(JERA) See page 37</li> <li>Fuel businesses</li> <li>Overseas power generation businesses</li> <li>Domestic power generation businesses (new facilities and replacements)</li> </ul>

# Toward starting the operation of high-efficiency combined cycle power generation of the highest worldwide standard

In order to reduce fuel consumption and CO<sub>2</sub> emissions, we are currently advancing the development of the Nishi-Nagoya Thermal Power Station Unit No. 7, which is a highly-efficient LNG power generation facility. Unit 7-1 is scheduled to start operation in September 2017 and Unit 7-2 is scheduled for March 2018. By combining state-of-the-art gas turbines in which combustion temperatures reach 1,600 degrees Celsius and steam turbines in combined cycle power generation, we

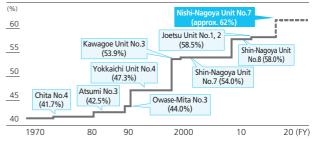
#### Effects of starting operation of the Nishi-Nagoya Thermal Power Station

500,000 t reduced annually

1,400,000 t reduced annually

seek to raise power generation efficiency and achieve a thermal efficiency of about 62%, which is the highest standard globally.

#### Thermal efficiency of thermal power generation facilities (LHV basis\*)



\* Thermal efficiency is calculated by subtracting condensation heat from water content in the fuel and water generated from combustion.

## Actively develop renewable energy sources

In addition to being low carbon, renewable energy is a precious domestically-produced energy for Japan, which has a low energy self-sufficiency rate.

While striving to reduce costs, we will continue to actively develop it, possibly collaborating with other businesses.

#### Corporate group wind and solar power generation facility sizes\*

	Status at the end of March 2017	At end of March 2022 (planned)	
Wind power	180 MW	289 MW	
Solar power	266 MW	325 MW	

<sup>\*</sup> Total including the entire capacity for joint projects

Hydroelectric power	• Efforts to increase the volume of power generation, such as the development of conventional and regular water-flow release* hydroelectric power plants and the improvement of existing facilities, have been made continuously.		
Wind power	<ul> <li>We are advancing the development of land-based wind power at multiple locations.</li> <li>We are exploring the development of ocean-based wind power. For example, we are conducting feasibility studies of ocean-based wind power business development in the Port of Akita and the Port of Noshiro jointly with other businesses.</li> </ul>		
Solar power	We are advancing development at multiple locations.		
Biomass power	<ul> <li>Wood biomass is co-fired with carbonized sludge in the Hekinan Thermal Power Station.</li> <li>We are advancing the development of mixed incineration of wood biomass at the Taketoyo Thermal Power Station Unit 5 and 100 percent wood biomass combustion power generation at the Yokkaichi Thermal Power Station.</li> </ul>		
Geothermal power	• We are conducting feasibility studies for development.		

<sup>\*</sup> A type of hydroelectric power generation that utilizes water discharged from a dam for maintenance of the riparian environment at the downstream toe of the dam

#### TOPICS

# Miyashiro No. 1 Hydroelectric Power Station, the oldest hydroelectric facility in the country, becomes the first Japanese facility to be added to the Hydro Hall of Fame

The Miyashiro No. 1 Hydroelectric Power Station, which is in Azumino, Nagano Prefecture, was selected by PennWell Corporation, a publisher of professional hydropower journals in the USA, as the first Japanese facility to be added to the Hydro Hall of Fame. It was praised for its benefits to the development of society. Due to impacts such as sand mixed in with river water, facilities like it are usually expected to last only 60 to 80 years. This plant, however, is still continuing to function more than 100 years since it started operation thanks to dedicated maintenance over the decades as well as the hardiness of the power generation equipment itself.

We will continue to sustain its operation by taking good care of it and pass on this expertise to the next generation.



**Power Network Company** 

Providing electric power network services

We will continue to reliably ensure the steady supply of electric power and contribute to the development of communities and societies by responding to their diversifying needs.





#### Fiscal 2016 efforts

#### Efforts for achieving a stable supply

While the amount of renewable energy is increasing, which has a tendency to fluctuate, we are also working towards achieving stable supply and demand by utilizing the flexible capabilities of thermoelectric and pumped storage power generation, while also securing the necessary extra capacity for stable supply in the Chubu region. In addition, we are striving to stabilize transmission networks.

Moreover, while continuing to be extremely thorough with facility maintenance and inspections, we are steadily advancing the augmentation of our facilities in preparation for the retrofit of aging facilities, which are expected to increase in the future. We are also enhancing electric power accommodations with other companies.

#### Realization of reasonable wheeling fees and improved electric power network services

We are advancing efforts toward the realization of reasonable wheeling charges. These include reducing unnecessary power transformers, transmission lines, and other equipment in response to changes in supply and demand structures as well as forecasting needed renovations according to deterioration conditions. In addition, we are working to improve services through the utilization of ICT. For example, we are enhancing the transmission of power outage information by making power outage areas visible and exploring advanced ways to use smart meters, which are currently being installed.

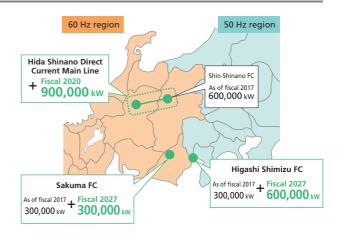
## Efforts toward realizing what we aim for

Issues **Efforts** • Increased amounts of work due to aging facilities • Rationalization of facility composition through the More renewable energy sources connected to reduction of unnecessary facilities • Publication of unused transmission line capacities transmission networks • Ensuring of stable power supply during the • Enhancement of frequency converters (FC) See page 46 **Fulfilling** occurrence of large-scale natural disasters Diversification of outage information distribution unwavering • Timely and suitable information distribution mission Responding to the separation of power Stabilization of area supply and demand through transmission businesses ensurance of power resources for regulation Achieve Responding to diversifying energy utilization Overseas consulting business Overseas power transmission business needs Creating · Growth in the international energy market See page 46 new value

## Enhancement of frequency converters (FC)

We are advancing efforts to avoid long-term power outages to the greatest extent possible and provide stable power even if multiple large-scale power supplies should be cut off over a wide area due to the occurrence of a severe disaster. Specifically, in order to expand electric power accommodation between regions that use different frequencies, we are exploring the construction of an additional 900,000 kW of frequency converters to bring the total to 2,100,000 kW by fiscal 2020.

Moreover, with the goals of further securing supply capabilities during large-scale power outages and increasing electric power transactions, we are seeking to expand to 3,000,000 kW by fiscal 2027 by enhancing related grid facilities.

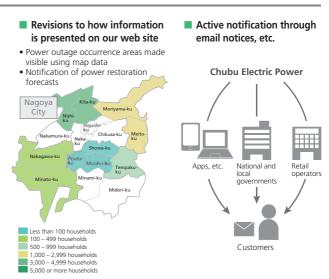


## Diversification of outage information distribution

Previously, we had shown a list with the number of households and times affected by outages divided by region on the Chubu Electric Power web site. In addition to subdividing this data into town name units, we have made other revisions so that we can provide more useful information. For example, we now make areas visible where power outages occur utilizing map data and publicize restoration forecasts. We will continue to enhance the contents of notifications, including the publication of outage information and restoration status by contract unit.

We have also begun services to provide notifications about regional outages using email and smartphone apps.

In the future, we will keep utilizing ICT and other cutting-edge technologies to improve power network services for our customers and other grid users.



#### TOPICS

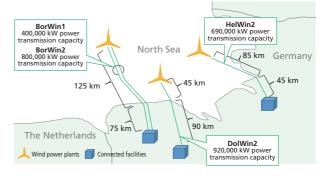
#### Efforts toward creating new value

In seeking to both "realize our unwavering mission" and "create new value," Chubu Electric Power continues to take on challenges in new fields so that we can ensure long-term and stable earnings.

In fiscal 2017, we began participating in a submarine power transmission business for offshore wind power plants in Germany. We will contribute greatly to the advancement of this project by utilizing our technologies and expertise related to the maintenance of power transmission and transformation with high reliability, abilities we have cultivated over the years as a power network company.

Moreover, we will continue to promote overseas consulting related to power transmission, including consideration of factors such as personnel cultivation and contributions to the societies of developing countries.

 Overview of submarine power transmission business for offshore wind power plants in Germany



**Customer Service & Sales Company** 

• Development of a total energy service centered on gas and power

We will go beyond the energy field to provide service that exceeds customer expectations





#### Fiscal 2016 efforts

#### Responding to the full liberalization of the retail market for electric power

In the Chubu region, in order to continue to have customers choose Chubu Electric Power, we prepared new rate options in April 2016. In addition, we have offered services with high value that meet customer needs, including expanded partnerships for KatEne points and their application to electric power fees. Furthermore, we prepared rate options for customers in the capital region in August 2016, which is very competitive.

#### Beginning of gas sales for households and other customers

Taking the full retail liberalization of gas, which started in April 2017, as an opportunity to expand our share of the gas market, we prepared competitive gas rate options and began accepting customers that use city gas in the areas supplied by Toho Gas Co., Ltd. in January 2017. We have built systems so that customers can use our services safely. Our company takes responsibility for safety and executes related procedures, and we also cooperate with businesses that have extensive expertise related to gas safety.

#### Efforts toward realizing what we aim for

	Issues	Efforts
	Expand gas and power  See page 35	<ul> <li>Make optimal proposals for gas and power by entering the gas retail market</li> </ul>
Fulfilling our unwavering mission  Achieve simultaneously  Creating new value	Expand business in the capital region  See page 36	<ul> <li>Secure power supplies in the capital region</li> <li>Strengthen sales organizations (develop through multiple sales routes)</li> <li>Have extensive rate options for the capital region</li> </ul>
	Provide new services See page 48	<ul> <li>Provide new services as a "daily-life coordinator"</li> <li>Provide new services that support the resolution of business issues</li> <li>Promote total energy solutions that respond to customer needs</li> </ul>

#### Provide new services

By increasing opportunities to interact with customers even more than before, Chubu Electric Power is focusing on developing and providing our own unique services before other companies. With emphasis on the following

three key words, we will continue to develop new services that satisfy customers while cooperating with partner businesses of various industries and types.

#### Three keys to service

#### New value

Propose new values and conveniences that are the first of their kind

#### Community

Offer services that are grounded in communities

#### Usefulness

Offer services that support the resolution of issues and concerns

#### Services for households

Going beyond the existing electricity service, we will develop and offer various kinds of valuable services, including further enhancing our KatEne online membership service for general households to help make our customers' lives more convenient and comfortable.



KatEneco the mascot cat of KatEne

#### **Services for businesses**

Through further improvement of our BizEne online membership service for corporate customers and the development and offering of various services, we will help solve customers' business-related issues, which include but are not limited to energy cost reduction.



## Support the resolution of business issues

#### **Enhance the KatEne online membership service**

Point service (KatEne points)

As a "daily-life coordinator"

- · Apply to electricity fee payments
- · Exchange with the points of cooperating businesses
- Services that utilize smart meters • Energy conservation support emails
- · Monitoring support email services, etc.
- Local shopping information
- Value plaza for everyone
- KatEne exclusive information

## **Enhance the BizEne online membership service**

- Business consultation hotlines
- Monthly use forecast emails
- Electricity rate reference services
- Notification services
- Reform case study reference services
- POP\* and flyer workshops
- \* Point of Purchase: Retailer, for example, places in store to promote sales.

#### Services that use meter reading slip

• Deliver some data provided through KatEne to customers who do not use the Internet, including monthly and daily usage and energy conservation information

#### Lifestyle support services

- Rapid resolution services for troubles such as plumbing and lost keys
- Various consultation services related to health, such as medical and child-rearing
- House cleaning

#### Joint services with various businesses

 Partnership with Toyota Motor Corporation

As an extension of KatEne, provide CarEne service to support green driving and charging for users of the new Prius PHV model sold by Toyota Motor Corporation



#### **Develop total energy solutions**

#### **Energy solutions**

Investigate energy waste Propose reforms for the operation of facilities used, etc.

Proposal record (since 2000) About **37,500** 

#### Integrated development solutions

Improve quality and productivity while conserving energy

Make detailed proposals of customer production lines

#### Overseas energy conservation support services

Develop "energy solution activities" for customer workplaces overseas

Adoption record (since 2012)

About 75

Proposal record (since 2015)

9

# Associated Companies 中部電カグループ



In addition to fulfilling their roles for the stable supply of electricity and energy, each company continues to develop new businesses and work to raise the corporate value of the entire group.

#### Main associated companies that support the value chain



Chita Berth Co., Inc.

- LNG cargo handling and maintenance and management of wharf facilities
- Shipping agency and line handling work



Chita LNG Co., Ltd.

• LNG (reception, storage, vaporization, and tanker



Techno Chubu Co., Ltd.

 Operation and maintenance of fuel



Chubu Plant Service Co., Ltd.

• Plant construction and maintenance

#### **Examples of major efforts in fiscal 2016**

Chubu Plant Service Co., Ltd.

#### Contributing to communities through biomass power generation business

Chubu Plant Services Co., Ltd. uses the skills that it has developed since its establishment in 1961 in constructing, maintaining, and operating thermal power and nuclear power plants, as well as oil, chemical, and various other plant facilities for Chubu Electric Power. With these skills, it provides various services, including constructing, maintaining, and supporting customer plants and other facilities.

Maximizing the application of the experience and technical abilities Chubu Plant Service had so far developed, the company itself designed, built, and is even operating Taki Biopower. In June 2016, the company began managing and operating this power generation plant, which uses woody biomass as a renewable energy source. In addition to serving to reduce CO<sub>2</sub> emissions and other environmental impacts, this plant also contributes to the revitalization of local communities and the forestry industry. It even helps to prevent accidents from driftwood damage, for example, by reducing discarded timber from forest thinning



Taki Biopower Power generation scale: 6,750 kW Fuel used: wood chips (ordinary and unused materials)

#### C-TECH CORPORATION

#### In-house development of a small-scale hydropower station

Since its establishment in 1962, C-Tech Corporation has filled a role in providing stable power supplies through construction and maintenance work in electric power, telecommunications, and civil engineering fields. In recent years, the company has been actively involved in renewable energy businesses, including wind power generation, solar power generation, and small-scale hydropower generation.

In May 2016, it began management and operation of the Akigami Hydroelectric Power Station, which is the first hydropower station that the company designed in-house. This hydropower station was newly installed just below the right edge of the Akigami Dam, which belongs to Chubu Electric Power, and is a "small-scale hydropower station" that effectively utilizes the maintenance flow.\* This company has designed, built, and maintained hydropower stations in the past. Utilizing its expertise and experience, it was able to develop a system enabling it to handle the entire project in-house from design and construction to maintenance after the start of operation. Furthermore, this company plans to begin operation of the Sakore Hydroelectric Power Station, in July 2018, which is a similar small-scale hydropower station.



Akigami Hydroelectric Power Station (power generator)
Power generation scale: 290 kW small-scale hydropower station that uses maintenance flow\*

\*Maintenance flow is water released from the dam to maintain the downstream environment



**Chuden Disaster Prevention** Co., Ltd.

• Disaster prevention and security for power plants, fuel bases, and other facilities



Chuden Haiden Support Co., Ltd.

- Tree trimming and site negotiations
- Fixed form design



**C-TECH CORPORATION** 

 Power transmission construction work



TOFNEC CORPORATION

 Power distribution construction work



Chuden CTI Co., Ltd.

 System development and maintenance



CHUBU SEIKI Co., Ltd.

• Meter manufacturing and home delivery

#### **TOENEC CORPORATION**

#### Efforts to become a leader in the industry

Toenec Corporation was founded in 1944 as Tokai Electrical Construction Co., Ltd. Now, as an "integrated facility enterprise," this company is involved in the standardization, design, installation, and maintenance of electrical, telecommunication, and power supply facilities as well as proposals related to the effective use of energy. It provides customers with secure, safe, and comfortable environments.

In March 2017, this company announced its medium-term business plan with assurance of stable profits as one of its key policies. As a concrete effort to maintain its status as a leader in the power distribution construction industry, it will seek to further improve safety, quality, and productivity, and expand the application of the Toyota Production System, which it had implemented on a trial basis, to all workplaces in the power distribution division from fiscal 2017.

Making warehouse management more efficient Material placement layout changes and pathways with division lines

#### Chuden Wing Co., Ltd.

#### New company building completion and new business expansion

Completely owned by Chubu Electric Power, Chuden Wing Co., Ltd. was established in 2001 as a special subsidiary company with the purpose of promoting the employment of people with severe physical disabilities and mental disabilities.

This company designs, prints and makes books, sells novelty gifts and other products, cultivates and sells flowers, maintains flowerbeds, inserts and seals direct mailings, and provides other services. Moreover, since 2015, it has also begun new office assistance and cleaning businesses.

When it was established, it started with 38 employees, but now it has grown to over 100. In January 2017, construction of a new annex company building was completed in anticipation of further business growth.



New annex building

# **Foundation** for Creating **Value**

(CSR)

As part of practicing the group's corporate philosophy, the Chubu Electric Power Company Group is steadfast in promoting the principles set forth in the group's CSR declaration, and dedicating time and resources to building the foundation for sustainably creating value.

#### Framework for the Chubu **Electric Power Company** Group's Corporate Philosophy & CSR Management

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# Responding to the hopes and expectations society places on Chubu Electric Power





# Framework for the Chubu Electric Power Company Group's Corporate Philosophy & CSR Management

# Framework for the Chubu Electric Power Company Group Corporate Philosophy

To facilitate employees' understanding of the Chubu Corporate Philosophy, the Chubu Electric Power Group clarifies below how the philosophy is related to their daily operations, and how it is positioned in relation to the CSR Declaration and each basic policy.

Framework for the Chubu Electric Power Company Group's Corporate Philosophy

#### The Chubu Corporate Philosophy Declaration on social responsibility **Chubu Electric Power Group CSR Declaration Chubu Electric Power Group Management Vision** Chubu Electric Power Group Basic Compliance Policy Chubu Electric Power Group Basic Corporate Governance Policy **Initiatives for Management Issues** Chubu Electric Power Group Basic Environmental Policy Chubu Electric Power Group Basic Corporate Citizenship Policy **Business** execution plan Chubu Electric Power Group Basic Procurement Policy **Daily operations Chubu Electric Power Group Nuclear Safety Charter**

#### Chubu Electric Power Group CSR Declaration

#### Fulfilling our responsibilities and meeting public expectations

Chubu Electric Power Group, as a group of sustainably growing businesses meeting a wide range of energy needs, contributes to the development of a sustainable society by giving top priority to safety and striving to both provide a stable supply of energy and protect the global environment. We aim to accomplish these goals by allowing the individuality of group companies to be fully expressed while achieving group synergy in enterprises within our core competence in energy.

We manage our businesses in a fair and sincere manner by observing national and international laws, following regulations and social rules, respecting corporate ethics, giving priority to dialogue with all our stakeholders, and maintaining high levels of transparency and openness in our business activities.

#### Main activities for stakeholders

We are committed to providing our customers with safe, reliable, convenient and affordable energy services, as well as other services of value that meet their needs.

#### (Main activities)

- Acting on customer feedback | See page 54
- · Exchanging ideas with consumer affairs specialists

We are striving to maintain and increase profits for our shareholders and investors through efficient management and effective investment.

#### (Main activities)

- Financial results and business plan briefings for institutional investors and analysts See page 56
- Financial results and management plan briefings for private investors
- Facility tours for shareholders

#### **Local Communities**

are determined to contribute to sustainable development partnership with local communities.

#### (Main activities)

- Exchanging opinions with Mie University on environmental reports and the group's annual reports | See page 57
- The Annual Chubu Electric Power Environmental Roundtable Meeting
- See page 76
- Facility tours and opinion exchanges for female monitors See page 57

We promise to deal fairly with our suppliers as equal business partners.

#### (Main activities)

- Procurement overview briefings See page 56
- Questionnaires for procurement overview briefings
- Counseling desks/opportunities

#### **Employees**

We respect individuals and are endeavoring to create a cheerful and motivating workplace.

#### (Main activities)

- Executive "Caravan" See page 56
- Informal dialogue between executive management and young employees at regional offices
- Promoting active events in the workplace

# **CSR Management**

At Chubu Electric Power, important CSR concerns are deliberated by the CSR Promotion Council, which is comprised of the heads of all company divisions, and the results are reported to the Senior Executive Committee. The CSR & Business Reform Promotion Group has also been established in the Corporate Planning & Strategy Division to promote CSR activities. The company is also in close collaboration with its group companies and shares information regularly for promoting CSR.

# Communication with Stakeholders

# Aiming to Be Customer-friendly

Chubu Electric Power holds customers' opinions and requests in high regard, and strives to offer superior services that will meet the diverse needs of our customers.

#### **Acting on customer feedback**



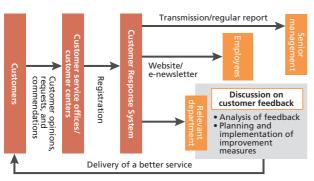
To increase our customer satisfaction, customer comments and opinions received at customer service offices and customer centers are entered in our Customer Response System and the information is shared with all employees.

Comments received are discussed at meetings of related departments for review, so that the feedback will lead to improvements in operations and customer services.

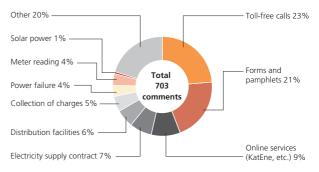
Customer feedback (fiscal 2016 results)

703 reviews

#### Flow for utilizing customer feedback



#### ■ Breakdown of customer feedback by type (fiscal 2016)



#### ■ Examples of improvements that began with customer feedback

#### Improved service for customers who are not on the internet by expanding the content of electricity consumption notifications

Customer feedback	KatEne benefits people who can get online from a computer or smartphone, so I'd like a little something for those who are not online.
Improvement	Services were improved for low-voltage customers who are not online but instead have their electricity consumption automatically read from a smartmeter by redesigning electricity consumption notifications to visualize consumption via graphs and adding energy-saving

#### Introduced SMS (Short Messaging Service) for widespread outages

Customer feedback	Calls do not get through in an outage. Not knowing what is going on makes me nervous, so I'd like you to provide information on when the power will come back on and provide other updates.
Improvement	In a wide-area outage, it is hard for calls to get through because of the flood of inquiries coming from customers. Therefore, in order to provide customers the information they want and need about the outage, automated voice response and SMS that guides users to the Chubu Electric Power Company's website were introduced.

#### Improvements to customer services

#### **Start of commercial broadcasts** with subtitles

In July 2016, Chubu Electric Power added subtitles to some of its commercials in order to assist persons who are hard of hearing and the elderly understand the broadcast message. These new commercials are intended to convey corporate activities to a larger audience.

Chubu Electric Power has also taken action to make website services and features more accessible to the



"Energy Classroom" commercial with subtitles

elderly generation and persons with hearing disabilities by creating webpages that support text-to-speech software.

#### **Expanded use of online services**

In order to save customers a trip to a customer service office, Chubu Electric Power offers online services for contracting electricity supply and ordering meters.

These online services were originally just for low-voltage (100/200 V) customers but were broadened in 2016 to also encompass high-voltage (6,000 V) customers. Many electrical installers are currently using these online services because they can be ordered on nights, weekends, and holidays. In addition, the electrical installer can check the progress of services ordered and transactions regarding construction can be completed online.

In fact, in fiscal 2016, about 90% of all orders were placed online.

Moreover, a call center has been opened to assist customers with online ordering so that even first-timers will feel at ease while navigating through the procedures.

#### Bugs in the new billing system and countermeasures to prevent reoccurrence

Chubu Electric Power updated its billing system during the 2016–2017 winter break. As with any new system, there were some bugs to work out such as incorrectly indicated information and cases of double-billing.

Needless to say, frequent system trouble inconvenienced a great many customers. And, though measures have been carefully taken to prevent the same problems from reoccurring, we reiterate our apologies to everyone.

These problems were caused by the complexity and massive scale of the update, numerous changes to specifications in the development stage, and multifaceted verification functions not performing adequately.

To avoid similar problems in the future, Chubu Electric Power will include third-party reviews of risk assessments in the project planning stage and whenever changes are made. Furthermore, Chubu Electric Power will prepare for any potential problems should they occur once the new system is put into service, and strengthen quality controls in system development by training engineers, delegating authority, and holding people accountable.

#### For Shareholders and Investors

Chubu Electric Power gives shareholders and investors briefings and tours to promote a better understanding of the surrounding business environment and what the group is doing about business issues, as well as to gain their continued support.

#### Financial results and business plan briefings



Chubu Electric Power stages briefings on financial results and management plans to give institutional investors, analysts, and other capital market professionals greater insight into the group.

Briefings held (FY 2016)

Attendance (May 2017) 83 persons

2

# **Enhancing Communication with Business Partners**

We actively share information and maintain good communication with our business partners so that both sides can develop and grow together.

#### **Procurement overview briefing session**



At the beginning of every new fiscal year, Chubu Electric Power holds a procurement overview briefing session where it explains business strategies, legal compliance, and other CSR practices, as well as announces its capital, equipment, and material procurement plans.

Corporate attendance (May 2017) 306 companies Number of attendees (May 2017) 539 persons

## For the Workforce

Chubu Electric Power promotes communications between management and labor on a variety of platforms by—for example—encouraging dialogue between corporate officers and employees and creating opportunities for regional office management and project site leaders to interact with their workforce.

#### **Executive "Caravan"**



Every year, Chubu Electric Power hosts an Executive "Caravan" in which corporate officers visit project sites to talk directly with employees and exchange opinions about the group's corporate philosophy, how business topics are being addressed, and more.

Project sites visited (fiscal 2017) **115** sites Participants in opinion exchanges (fiscal 2017) 1,064 persons

#### For Local Communities

The Chubu Electric Power Company Group values communicating with residents and public servants of the local communities that host group business operations. This leads to a variety of activities intended to fulfill their hopes and meet their expectations, allowing Chubu Electric Power to contribute to the community's sustainable development as a member of the community.

#### Communicating with people from the local community



#### **Exchanging opinions with Mie University**

As a part of its industry-academia collaboration initiatives, and in order to promote pioneering work regarding the environment, Chubu Electric Power holds a meeting each year to exchange opinions with Mie University, a national institution enthusiastic about university social responsibility (USR).



Female monitors touring the Hamaoka Nuclear Power Station

#### **Female monitors**

Chubu Electric Power recruits women who have an interest in energy and the environment as monitors. They are then given tours of energy facilities and take part in opinion exchanges. Through these activities, the monitors deepen their knowledge of energy and provide a woman's perspective on corporate PR activities.

FY2016 activity participants (Including family and friends)

**402** persons total

#### **Partnerships with universities**

University	Outline of partnership
Nagoya University	In FY2004, Chubu Electric Power concluded an agreement on joint research with the EcoTopia Science Institute of Nagoya University (now Institute of Materials and Systems for Sustainability, IMSS). Because the IMSS delves into multiple fields, project activities are equally diverse. Moreover, the IMSS has an Energy Systems Research Division, which Chubu Electric Power has funded since 1996 and is currently implementing its 6th research plan (until March 2018). The IMSS also added a Research Division on Disaster Precautions in the Energy Supply Area to the Disaster Mitigation Research Center in FY2012. Chubu Electric Power has placed 2 experts from its ranks in this research division, which is currently implementing its 2nd research plan (until March 2022).
Mie University	Signed a comprehensive partnership agreement in fiscal 2005 as part of industry-academia collaboration to connect the university's education and research results with our business activities.
Aichi University of Education	Signed a memorandum concerning the establishment of partnership courses in fiscal 2006 with a view of enhancing educational activities on energy and the environment and assisting local sustainable development, mainly in Aichi Prefecture.
Shizuoka Sangyo University	Established a course in 2009 to provide the students of future generations with education on the conservation of energy and the global environment.
Shizuoka University University of Shizuoka Hamamatsu University School of Medicine	Signed a research partnership agreement in fiscal 2014 as part of an industry-academia collaboration with a view of contributing to the development of local communities and technological advancement for future electric power business based on the expertise and knowledge of each university, which spans across engineering, science, medicine, and other fields. The research partnership is also aimed at providing new value to local communities and electric power business.

## Social Contribution Activities

Chubu Electric Power has based its Basic Corporate Citizenship Policies on the Chubu Electric Power Company Group's CSR Declaration and is conducting social contribution activities in accordance therewith. These activities are diverse in nature with the most important being to ensure the safety and security of local communities, protect the environment, and organize educational, cultural and sporting activities for the next generation.

Chubu Electric Power Group Basic Corporate Citizenship Policies: http://www.chuden.co.jp/corporate/csr/sociel\_kouken/csr\_policy/index.html

#### **Ensuring local welfare and peace of mind**



#### PR on the safe use of electricity

Customer service offices and the Chubu Electrical Safety Services Foundation inspect the electrical systems of cultural properties and the electrical wiring of elderly households, as a part of "Safe Use of Electric Power Month" that is marked every August and the "Autumn Fire Prevention Campaign" that is promoted in November.

#### (Other activities)

- PR activities for promoting the safe use of electricity
- "Kizuna Net" services On the web: http://kizuna.chuden.jp/
- Installation of evacuation guide sians, etc.
- Participation in disaster prevention drills of local communities

#### **Environmental conservation**



#### Shonaigawa Adopt

Since 2003, Aichi Electric Co., Ltd. has participated in the "Shonaigawa Adopt" program (sponsored by the Shonai River Management Office, Ministry of Land, Infrastructure, Transport and Tourism) in which, together with businesses and organizations from local communities, they act as foster-parents to the Shonai River and engage in cleanup activities to keep the riverbed and banks clean.

#### (Other activities)

- Green Curtain Campaign Providing memorial tree-planting (sapling) vouchers
- Participation in cleanup activities around business sites, etc.

#### **Education of the next generation**



#### Traveling "All About Energy Show"

Staff from the Electricity Museum in Nagoya operates a traveling "All About Energy Show" that visits school and youth groups in Nagoya and the surrounding area so that they can learn about energy through fun experiments and quizzes.

#### (Other activities)

- Operation of "Traveling Classrooms"
- Organizing workplace experience opportunities and study tours
  • "EleKids" (Science club for
- elementary school children)
- "Denki Kodomo" (Electricity and Children) newspaper series for posting on school walls
- Operation of PR facilities

#### **Cultural and sports activities**



#### **Chuden Rugby Camp**

Every April, Chubu Electric Power's Rugby Club invites high school students from the local community to the Nisshin Sports Park to learn rugby skills and interact with club players.

#### (Other activities)

- Interactive events sponsored by business sites for engaging the local community
- Participation in events and volunteer activities originating in the local community
- Allowing outside use of some company facilities



# Animating the Workplace

The Electricity system reform has ignited a new era of competition, which comes amidst serious socio-economic changes such as Japan's aging population, dwindling birthrate, diminishing labor supply, and diversifying customer needs. In order to achieve sustainable growth in this challenging environment, it is gravely important that workplaces be animated and every single employee put their abilities to work.

personality while on the job. Chubu Electric Power also seeks ways to improve corporate systems so that employees are in good health and can perform their duties safely and with peace of mind.

#### "Eruboshi" certified, recognized as an Aichi Josei Kagayaki Company and selected as a "semi-Nadeshiko" company

In fiscal 2016, Chubu Electric Power retained its "Eruboshi" certification that Japan's Minister of Health, Labour and Welfare awards under the Act on Promotion of Women's Participation and Advancement in the Workplace, and was recognized by the Aichi Prefectural Government as an Aichi Josei Kagayaki Company (Aichi Women's Career Success Supporting Company). Additionally, Chubu Electric Power was listed as a "semi-Nadeshiko" company under the "Nadeshiko Brand" program jointly

managed by Japan's Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange. All of this points to Chubu Electric Power being viewed by the public sector as a company that takes constructive steps to empower women via enhanced training, support for balancing work and family, and in other ways. Going forward, Chubu Electric Power will continue its support for its diversified workforce that includes women, elderly people, and the physically challenged, all the while increasing its competitiveness as a business.





#### Main activities in fiscal 2017

#### Support for a **Diversified Workforce** See page 60

• Develop a corporate culture where all employees can fully utilize their individual capabilities regardless of gender, age, disabilities, etc. • Support employees in balancing their professional, parental, and nursing care duties and promote a more efficient and

#### **Development of Human Resources** See page 62

- productive work style
- Systematically implement level-based training (e.g., training for new recruits, officers, etc.) and training designed to develop strategic human resources
- Continue support for self-improvement activities (e.g., acquiring certifications, etc.).

#### Occupational **Health and Safety** See page 63

- Well-Being Campaign Policies. Take disaster prevention measures for young and elderly people.
- Provide mental health education by level and rank
- Develop measures that enable people to stay healthy and enjoy their jobs, e.g., providing information on the health hazards of overworking, etc.

• Conduct traffic safety training and drills, small group activities and safety patrols in accordance with Corporate Labor Safety and

#### **Respect for Human** Rights

• Provide education and hold seminars on human rights. Provide education to prevent harassment.

See page 64

Provide training to counselors for the purpose of improving the quality of harassment counseling services

# Support for a Diversified Workforce

Chubu Electric Power views an active and diversified workforce and support therefor as an important business issue. This belief led to the establishment of the "Women's Activities Promotion Office" as an organization solely for promoting the activities of women in 2007. In 2013, operations were expanded under the "Diversity Promotion Office" to add support for physically handicapped persons and the elderly.

#### **Empowering female** employees

Since Chubu Electric Power recruiting and hiring women, the group offers them a variety of educational programs focused on career development tailored to their age, position, and personal situation (e.g., raising small children, etc.). addition Moreover, in strengthening these programs, Chubu Electric Power is assigning women authority and transferring them within the company to accelerate their growth, providing training programs to all women serving as managers and officers, updating employment systems to promote more flexible ways of working, and teaching new world concepts intended to do away with antiquated gender-based role assignments in child-rearing.

Furthermore, the percentage of women recruits is increasing and their range of activity is broadening.

Going forward, Chubu Electric Power will continue these programs with the goal of doubling the number of women managers in fiscal 2014 by fiscal 2020.

#### Hiring more challenged people

For some time. Chubu Electric Power proactively expanded employment of challenged persons and long maintained its employment level above the statutory percentage. At present, about 340 challenged persons are active and demonstrating their abilities in diverse fields, including at Chubu Electric Power's special subsidiary Chuden Wing Co., Ltd. (established in 2001).

To hire more mentally and intellectually challenged persons. Chuden Wing has branched into new job fields such as office support and cleaning. They also built a new annex building in January 2017 to expand job opportunities for the lesser advantaged. See page 50

#### **Hiring seniors**

Since April 2002, Chubu Electric Power has had a rehiring program in place that brings back retired staff to work fewer days and shorter hours, in order to capitalize on their seasoned abilities and rich experiences. That system was updated in July 2016 so

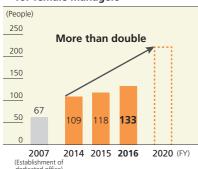
that rehirees could contribute more to their workplaces, by modifying the scope of work, working hours and other working conditions to levels equivalent to regular employees (senior "full-time" staff). Resultantly, about 370 rehirees were active in the Group at the end of March 2017.

"self-help training" Moreover, that is designed for helping people retain their motivation and skills, and stay active in their older years, is available to employees age 52 and above

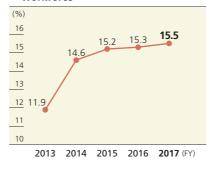
#### **Promoting diversity across** the Group

Diversity is promoted throughout the Group. This includes seminars and training programs specifically for group company presidents, women and managers. In fiscal 2016, officers and managers at group companies were invited to a seminar on "shaping into cheerful workplaces motivating environments where human rights are respected".

#### Historical numbers and future target for female managers

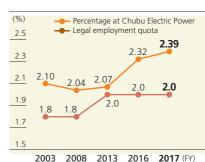


#### Percentage of women in the workforce



#### Note: All employment figures are from Chubu Electric Power and are valid as of July 1.

#### Percentage of challenged employees



#### Support for balancing work and pleasure

Chubu Electric Power has taken steps to help employees find ways to work that match their lifestyles. Along this same train of thought, efforts will be

taken to make workplaces more motivating as is encouraged by the "work style reforms" promoted by the Japanese government.

Objective	Support systems and mechanisms			
Encourage ways of working that improve labor productivity.	Introduction and broader application of "flex-time systems" that enable efficient ways of working by allowing the individual to set his/her own working hours according to the situation and circumstances of their work     Setting "no overtime days", use of "overtime order card" and other means that inspire people to focus on work, work efficiently and enhance their productivity and creativity			
Assist working people in balancing work, childcare, nursing responsibilities, etc.	"Childcare leave system" that allows employees to take a leave of absence from work until the "day that the child turns 2 years old" or work reduced hours until the "child's final day in first grade"  "Nursing care leave system" that allows employees a total leave of absence from work of 2 years and shorter working hours  "Flex-time system" that allows employees to flexibly adjust their work schedules according to childcare and nursing care responsibilities and circumstances  "Life-support leave" that allows employees to partake in volunteer activities and other social contributions, tend to one's own or a family member's medical condition, and attend school functions.  Seminars on balancing work and childcare/nursing care			

#### Days taken as paid annual leave per person



#### Persons taking childcare leave



#### TOPICS

#### Hosting "Ikuboss" seminars

On October 21, 2016, the Chubu Electric Power Mie Regional Office and NTT West Japan Corp. jointly hosted an "Ikuboss" seminar due to the increasing number of employees requiring time for childcare or nursing care, which promoted strategies to develop workplaces where each and every employee can perform to the best of their abilities. The seminar participants, which included 19 people from management (including the General Manager), learned about the meaning of an "Ikuboss", a person of authority who encourages his or her employees to balance work and personal life. They also had an opportunity to exchange opinions on producing good business results and setting an example as a person who knows how to enjoy life. Since they interacted with managers in a different line of business, all parties broadened their insights and raised their awareness of the importance of engaging others.



#### **Collaboration with local** communities

In collaboration with other companies in the Chubu region, the Chubu Diversity Net was established in 2007 to share diversity-related information and their own experiences and practices. Consisting of 111 member companies and organizations (as of March 31, 2017), this business coalition organizes lecture events and opinion-exchange meetings for senior management and diversity champions, training for female workers, and other programs. Through the activities of the Chubu Diversity Net, we also work together with governmental and economic organizations to contribute to the advancement of diversity across the region.

#### External recognition

By whom	Fiscal year	Award name	
Ministry of	2013	Received the Aichi Labour Bureau Director Award for Excellence, the Corporation Awards for the Promotion of Gender Equality and Good Work-Life Balance (category of gender equality)	
Health, Labour and Welfare	2016	Acquired "Eruboshi" certification under the Act on Promotion of Women's Participation and Advancement in the Workplace	
	2010	Acquired "Kurumin (3rd Trimester)" certification under the Act on Advancement of Measures to Support Raising Next-Generation Children	
Ministry of Economy, Trade and Industry	2014	Selected from among the Diversity Management Selection 100 companies	
	2015	Granted the Nadeshiko Brand* designation	
	2016	Granted the semi-Nadeshiko Brand designation*	
2010 Registered as a Family-Friendly Company		Registered as a Family-Friendly Company	
Aichi Prefecture	2015	Received the Aichi Josei Kagayaki Company (Aichi Women's Career Success Supporting Company) certification	
	2016	Recognized as an Aichi Josei Kagayaki Company (Aichi Women's Career Success Supporting Company)	
Nagoya City	2009	Received the Award for Excellence of Childcare Support Company	
ragoya City	2010	Received the Female-Friendly Company Award	

<sup>\*</sup> Selected jointly by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange

# **Development of Human Resources**

Human resources are the driving force behind a stable power supply and the competitive strength that enables the company to grow. Therefore, Chubu Electric Power continues to build and shape its human resource development programs and opportunities so that every single employee can perform to the best of their abilities.

# Training and education programs

Chubu Electric Power is committed to developing human resources who can contribute to the development of society by fulfilling the Company's operational mission of safe and stable supply of electricity.

Toward this end, our supervisors train their teams in the course of their day-to-day operations and hold interviews with individual employees semiannually to set targets and identify room for improvement for the purpose of developing the next generation of human resources.

We also offer systematic training

programs, ranging from practical training regarding specialized knowledge and skills to training by position level (e.g., new employees, managers), and to management and leadership training for personnel nominated by their superiors.

#### Support for self development

To encourage employees' active, voluntary efforts toward self-development, we offer support programs for those who take external correspondence courses or aim to acquire qualifications.

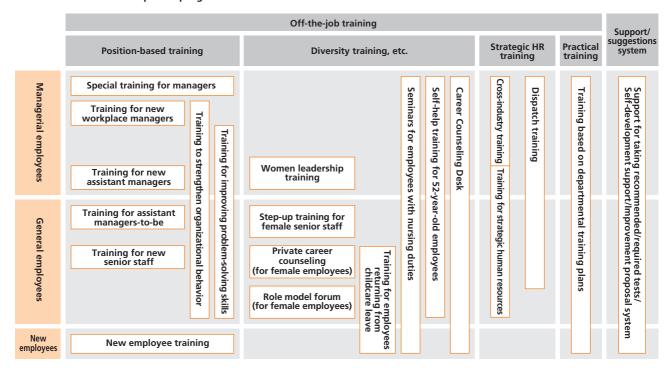
Many employees use those

support programs to voluntarily acquire necessary knowledge and skills and further improve their capabilities to acquire qualifications.

#### **Career Counseling Desk**

To help individual employees develop and demonstrate their own capabilities and lead a fulfilling career, we have been offering counseling services at the Career Counseling Desk since fiscal 2006. Staff with appropriate qualifications such as career consultants have provided advice on about 3,700 cases to date.

#### Overview of HR development programs



# Occupational Health and Safety

Chubu Electric Power recognizes that, no matter what the day and age, nothing is more important than ensuring the safety and health of those who work for the group. Therefore, so that every single member of the group's workforce is safe and healthy on the job, traffic safety is strictly enforced and activities designed to prevent work accidents and maintain physical and mental health are promoted.

#### **Labor Safety and Well-Being Campaign Policies**

In order to comprehensively promote safety and health management across the group, "Corporate Labor Safety and Well-Being Campaign Policy Meetings" are held. There, the directions of group safety and health management are discussed based on analyses of work accident trends and health management for employees and others, as well as reviews and evaluations of safety and health activities. From those discussions, a Safety and "Corporate Labor Well-Being Campaign Policy" is determined. This policy then serves as the basis for regional offices and project sites to craft their own safety and health management policies and

action plans, and to implement measures required by their respective situations.

#### **Efforts to Achieve Zero Industrial Accidents**

To prevent the occurrence of any industrial accidents, we focus on accident prevention measures for young and senior employees, who statistically tend to be more susceptible to accidents, as well as traditional safety activities to promote compliance with basic rules.

For road traffic safety, instructors and fleet operation managers in charge of ensuring safe driving in their respective workplaces work together with safety management

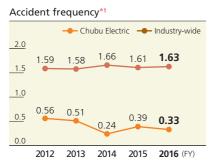
units to offer various programs for safe driving.

To ensure operational safety, construction work units and safety management units work closely to make Chubu Electric Power free from accidents by, for instance, conducting risk assessments to minimize accident risks, performing regular safety patrols and sharing the resulting findinas and the subsequent improvements made.

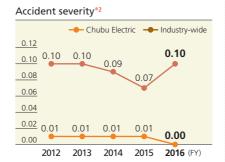
#### **Promoting Physical and Mental Health**

Chubu Electric Power has a health management system that is intended to encourage employees to take an interest in managing their health. Spearheaded by industrial health care staff, carefully designed support is provided to help employees develop routines for staying physically fit. More specifically, simple tests are given to anyone age 40 and over to measure their physical strength. Walking events, stretching classes and other health-related activities are offered during work breaks. Mental health support including level-based education and follow-ups provided by the industrial health care staff are part of a greater effort to discover and treat mental issues early on.

#### Industrial accident frequency and accident severity



\*1 Accident frequency: number of persons killed or seriously injured (with at least one day of leave) by industrial accidents per million working hours



\*2 Accident severity: number of days of work lost by industrial accidents per 1,000 working hours (figures less than 0.005 are recorded as 0.00.)

#### ■ Major health promotion activities

**Physical** 

- Simple tests for measuring physical strength and health-related activities are provided to help employees develop routines for staying physically fit
- Face-to-face advice and information are provided to prevent health problems caused by overworking.
- Health and nutritional advice is provided to prevent or control lifestyle diseases

Menta

- Mental health care services are offered by industrial health care staff (industrial physicians, healthcare practitioners, public health nurses, etc.) for the early detection and treatment of mental disorders.
- Mental health self-care and line care training is provided.
- Employees who have been absent from work due to illness or injury are monitored for their recovery and provided with support in their transition back to their work environment under a follow-up system. They are also assigned jobs in a phased manner and their performance is carefully monitored and supported under a reinstatement support program.

# **Respect for Human Rights**

In order to fulfill its corporate social responsibility to build a society in which all human rights are respected, Chubu Electric Power has formulated the Human Rights Awareness and Education Policy, and set up Individual Rights Awareness Promotion Committees at the head office and regional offices.

Guided by the promotion plan approved by the Individual Rights Awareness Promotion Committees, we provide employees—new employees and managers alike—with education in the spheres of human rights awareness and harassment prevention. We also organize lecture meetings for executives and managers throughout the group. Harassment consultation desks accessible to all employees have also been established within the company and at a specialist organization outside the company, which carefully deal with the problems consulted.

#### **Human rights awareness and education policy**

- 1. We carry out initiatives to deepen correct understanding and awareness among employees, etc., in regards to problems of human rights (e.g., problems of social integration and discrimination based on disability, nationality, gender, etc.).
- 2. We carry out awareness-raising initiatives on problems of social integration, understanding this to be an important part of human rights issues.
- 3. Our awareness-raising initiatives are systematic and continuous.

# Employment Situation under Good Labor-Management Relations

A union shop system is adopted at Chubu Electric Power, and all employees except for managers are members of the Chubu Electric Power Workers Union. As equal partners whose relationships are built upon equality, trust, and mutual respect, the management and the union hold Joint Management Council Meetings as needed to discuss management plans and important policies, and exchange opinions regularly through other opportunities to maintain good relations.

#### Employment statistics

	Men	Women
Number of employees	14,870 (89%)	1,879 (11%)
Average age	41	39
Average years of service	22	18
Numbers in managerial positions	5,548 (98%)	128 (2%)
Persons newly hired	321 (85%)	59 (15%)

Note: The figures are as of March 31, 2017. "Persons newly hired" are those who joined the Company in April 2017. The numbers of employees above represent the number of employees on our payroll.

The figures in parentheses indicate the percentage of males and females in each workforce category.

#### Message from General Manager of Personnel Department



Kazuhiro Yoshida General Manager, Personnel Department

#### Creating a positive and fulfilling workplace

We believe it important towards our being the definitive choice of customers and, by virtue thereof, growing sustainably as a business that every member of our diversified workforce improve and demonstrate their abilities, which we help them to do. This also means providing training and developing workplace environments so that women, the elderly, and challenged persons find it easy to work at Chubu Electric Power and can be just as active as others. In fact, the steps we have taken to help women play an active role in corporate business have been highly rated by outside entities. We also have been monitoring trends in response to the "work style reforms" promoted by the Japanese government and promoted changes of our own that enhance productivity, such as to allow employees to flexibly adjust their work schedules, which we continue to spread out within the group. Moreover, we are very proactive about providing training and education opportunities that help our employees to personally grow. Going forward, we will maintain a healthy corporate atmosphere where human rights are respected and will continue to develop "motivating" workplace environments where every single employee can perform to the best of his/her abilities.



# Corporate Governance

The Chubu Electric Power Company Group believes it necessary to put its corporate philosophy into practice and "continue to grow as a group that serves energy needs of all kinds" to maintain the trust of shareholders, investors and other stakeholders, as well as continue to be the customer's definitive choice of energy supplier. For this reason, bold steps have been taken to improve corporate governance, including positioning fairness and transparency at the core of business, ensuring proper oversight of management and operations execution, and providing mechanisms for swift decision-making, as espoused in the Chubu Electric Power Group CSR

#### Main activities in fiscal 2017

Risk Management See page 71	<ul> <li>(Deployment and functional verification of internal control system)</li> <li>Establish an internal control system, verify operation and report results to the Board of Directors as per the Companies Act.</li> <li>Have departments periodically conduct self-examinations of their operations and have corporate perform internal audits as required for the internal control component of financial reports.</li> <li>Conduct internal audits of associated companies.</li> <li>(Management of risks that could seriously impact business)</li> <li>Identify, assess and report to management meetings risks that could seriously impact business in the crafting stage of each management plan cycle.</li> <li>Periodically monitor adopted BCPs using BCM mechanisms.</li> <li>(Information management)</li> <li>Have departments in charge of information management visit operation sites and strategic associated companies to</li> </ul>
Ensuring Compliance Management See page 73	verify the state of their information management, conduct training, provide awareness tools, etc.      Set Compliance Promotion Month, conduct level-based training and awareness activities at associated companies in order to encourage self-directed compliance practices.      Continuously implement compliance awareness activities for employees, such as mandating e-learning for employees who handle important business information to prevent insider trading.
Fair and Equitable Transactions See page 74	New business partners were provided with an explanation about the Chubu Electric Power Group Basic Procurement Policy, and were requested to practice CSR.     Procurement overview briefing sessions were held to build a stronger partnership with business partners.
Intellectual Property See page 74	<ul> <li>Intellectual property seminars were held at Chubu Electric Power's head office and regional offices.</li> <li>Offer e-learning on the fundamentals of intellectual property to the entire workforce.</li> </ul>

# Our Efforts to Improve Corporate Governance

Chubu Electric Power has been implementing a variety of measures aimed at strengthening its corporate governance, such as those improving its management mechanism to further increase its management efficiency and help it develop into a robust corporate group.

Fiscal 2015 saw, among other measures, the adoption of the Chubu Electric Power Group Basic Corporate Governance Policy and the establishment of the Nomination and Remuneration Committee—two major steps toward corporate governance with greater transparency. At the beginning of fiscal 2016, we also introduced an internal company system that allows each internal company to function independently to respond to changes more flexibly and swiftly.

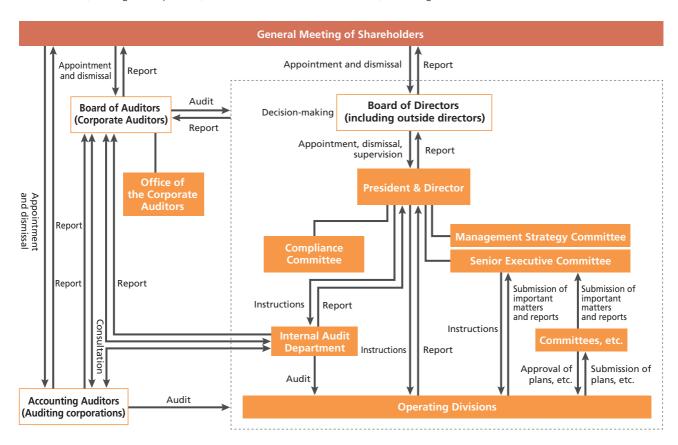
	Major actions
FY 2005	1. Reduction of the maximum number of directors from 32 to 20 2. Adoption of an executive officer system and the delegation of authority to general managers An executive officer system was introduced and a substantial part of the president's authority was delegated to general managers (executive officers).  3. Reduction of directors' term of office and the establishment of the retirement age of directors and other positions. The term of office of directors and executive officers was reduced to one year. A mandatory retirement age was also established.  4. Clarification of the procedures for the appointment of, and compensation decisions for, directors, corporate auditors, and executive officers. Proposed candidates are determined by the president after discussion by all representative directors. Discussion on corporate auditor candidates is conducted by all representative directors and the senior corporate auditor. Compensation of directors and executive officers is also determined by the president after discussion by all representative directors.  5. Establishment of the Advisory Board* The Advisory Board was established as a consultative body to the president, consisting of a number of representatives from the academic, business, labor, and consumer communities.  6. Revision of executive appointments of affiliated companies In addition to revising retirement ages of executives at affiliates, measures to promote personnel exchanges between Chubu Electric Power and its affiliates were taken.  7. Regular opinion exchange meetings for representative directors and all corporate auditors, began to meet regularly to exchange opinions.  8. Delegation of authority and the strengthening of internal control and check systems After a review, a substantial part of the approval authority of the president was delegated to general managers (executive officers). The reporting system on matters approved was improved and other necessary measures were taken to establish a fair and efficient business execution system.
FY 2006	In response to the enforcement of the Companies Act, the Board of Directors adopted the Systems for Ensuring Proper Conduct of Business Operations as the basic principles for developing the Company's internal control system.
FY 2007	Introduction of outside directors     Reconstruction of the executive officer system     The number of position levels of directors was reduced, while position levels for executive officers were introduced according to their authorities and responsibilities.
FY 2015	Establishment of the Chubu Electric Power Group Basic Corporate Governance Policy     Adoption of the Independence Standards for Outside Directors     Installation of the Nomination and Remuneration Committee     Establishment of the Policy for Constructive Dialogue with Shareholders
FY 2016	Introduction of the internal company system  The president of each company was appointed and executive authority over operations was delegated to each company.  A Company Board was also established in each company as a consultative body for the company president.

<sup>\*1</sup> Discontinued in fiscal 2006 due to the adoption of outside directors

<sup>\*2</sup> From fiscal 2007 and onward, outside directors also join the meeting.

# **Corporate Governance Structure**

To enhance the effectiveness of corporate governance in ensuring that business operations are conducted appropriately, the Board of Directors defined the group's internal control system as the system for ensuring proper conduct of business operations. Guided by this underlying principle, Chubu Electric Power strives to make this system work the way it was intended and, through that process, earn the trust of our stakeholders, including our shareholders and customers.



#### Status of primary systems and activities of corporate governance

Type of organization		Company with auditors
Board of Directors	Results disclosures	14 times
	Number and term of directors	12 of which 2 are outside directors / 1 year
	Method for appointing directors	Discussed by the Nomination and Remuneration Committee and all current directors, and submitted to and decided by the Board of Directors.
Board of Auditors	Results disclosures	14 times
	Number and term of auditors	5 of which 3 are outside auditors / 4 years
	Method for appointing auditors	Discussed by the Nomination and Remuneration Committee, all current directors, and the Senior Corporate Auditor, approved by the Board of Auditors, and submitted to and decided by the Board of Directors.
Risk management	Reporting of serious risks	Identify, assess and report risks that could seriously impact business to the Senior Executive Committee.
	Emergency response	Company-wide disaster drills, emergency response drills and large-scale outage initial response drills
Compliance Committee meetings		2 times

#### **Board of Directors**

The Board of Directors meets monthly in principle to discuss and decide important matters of management and items governed by law or the articles of incorporation. The Board also hears progress reports to monitor execute their as they duties. Additionally, outside directors have been appointed in order to enhance monitoring functions.

#### **Board of Auditors and Corporate Auditors**

The Board of Auditors works to allocate the roles of the Corporate Auditors and share information in order to conduct audits more systematically and efficiently. It also decisions and approvals regarding matters of law and the items prescribed by the articles incorporation.

Corporate Auditors audit every aspect of the performance of duties by the Directors, for which purpose they deepen their understanding of the Directors, the internal audit divisions, and operating divisions, meetings of the Board of Directors and other important meetings, hear from Directors regarding performance of their duties, and examine the circumstances of the company's operations and finances. They also perform their duties for the purpose of thoroughly monitoring and verifying resolutions made by the of Directors regarding establishment of systems to ensure the quality of corporate administration and the operating status of the system (internal control) developed by such resolutions

With regard to group companies, we maintain communication and share information with their directors and auditors, and keep ourselves informed of their business activities whenever necessary.

#### **Senior Executive Committee** and Management Strategy **Committee**

The Senior Executive Committee, comprised of the President, Executive Vice Presidents, Company Presidents, General Managers and executive officers, meets once a week principle for preliminary deliberation of items on the agenda of the Board of Directors and to discuss other important business matters.

Meanwhile, the Management Strategy Committee consisting of representative directors and other officers discusses the direction of the company's business in the mediumto long-term.

#### **Internal Audits**

The Internal Audit Department, under direct control of the president and independent of the operating divisions, is responsible for internal audits. It performs audits on the activities of operating divisions such as quality control for safety at nuclear power plants, basing its perspective internal control system effectiveness (including internal controls over financial reporting) and CSR. The results of each of these initiatives are reported to the president and presented as advice and recommendations to the relevant divisions so that they can continuously make improvements. The internal audit process was verified by an independent organization in fiscal 2015 as part of the company's efforts to improve and maintain the quality of audits.

The scope of internal audits by the includes associated department companies. To help improve internal control systems and practices across the group, the Internal Audit Department also shares information with internal audit divisions of associated companies and provides other support.

#### Appointment and other matters related to directors and corporate auditors

To ensure fair and transparent appointment of our directors and auditors, candidates corporate undergo screening by the Nomination and Remuneration Committee, which is mainly made up of independent outside directors and by all the representative directors previously recommended to and approved by the Board of Directors. To enhance independence of corporate auditors, corporate auditor candidates must pass a screening, conducted by representative directors and participated in by the senior corporate auditor, and must also obtain consent from the Board of Auditors.

Compensation of directors is also discussed first at the Nomination and Remuneration Committee and by all representative directors before the president makes final decisions upon authorization from the Board of Directors. Compensation for corporate auditors is determined by the Board of Auditors after discussions held by all corporate auditors, but cannot exceed the maximum amount set at shareholders' meetings.

#### **Outside directors and** outside corporate auditors

At Chubu Electric Power, two outside directors and three outside corporate auditors currently hold office. All of our outside directors and outside corporate auditors retain a sufficient level of independence that meets the company's standards, and make the best use of their experiences and insight acquired through their respective careers to fulfill their supervisory and audit functions independently of the company's senior management. They are also with the development and operational status of the company's internal control system, and meet all representative directors and auditors regularly to exchange opinions. All of our outside directors and outside corporate auditors are registered independent directors/auditors in all financial instruments exchanges on which the company is listed.

#### Reason for appointment and activity status of outside directors

Name	Reason for appointment	Activity status in fiscal 2016
Naoko Nemoto	Ms. Naoko Nemoto has engaged in corporate ranking, among other duties, for many years, and possesses a wealth of knowledge and experience in the area of finance and economics, not to mention a personality and insight suitable for the post of outside director.	Attendance at the Board of Directors meetings All 10 meetings*
Takayuki Hashimoto	Mr. Takayuki Hashimoto has been involved in the management of IBM Japan for many years and possesses a wealth of knowledge and experience in the area of corporate management, not to mention a personality and insight suitable for the post of outside director.	Attendance at the Board of Directors meetings 9 out of 10 meetings*

<sup>\*</sup> Number of meetings held and attended by Ms. Nemoto and Mr. Hashimoto after being appointed in June 2016.

#### Reason for appointment and activity status of outside auditors

Name	Reason for appointment	Activity status in fiscal 2016
Michinari Hamaguchi	Professor Michinari Hamaguchi has the personality and insight suitable for the post of outside auditor, and is expected to fulfill his auditing function based on his wealth of management experience and acumen acquired during his presidency of Nagoya University.	Attendance at the Board of Directors meetings 12 out of 14 meetings Attendance at the Board of Auditors meetings 13 out of 14 meetings
Nobuaki Katoh	In addition to possessing a personality and insight suitable for the post of outside auditor, Mr. Nobuaki Katoh has also been involved in the management of DENSO Corporation for many years and is expected to fulfill his neutral and objective auditing function from the perspective of a corporate management expert.	Attendance at the Board of Directors meetings 9 out of 10 meetings* Attendance at the Board of Auditors meetings 9 out of 10 meetings*
Fumiko Nagatomi	In addition to possessing a personality and insight suitable for the post of outside auditor, Ms. Fumiko Nagatomi also retains a wealth of knowledge and experience as an attorney at law, and is expected to fulfill her neutral and objective auditing function from the perspective of a legal expert.	Attendance at the Board of Directors meetings All 10 meetings* Attendance at the Board of Auditors meetings All 10 meetings*

<sup>\*</sup> Number of meetings held and attended by Mr. Katoh and Ms. Nagatomi after being appointed in June 2016.

#### Assessing the effectiveness of the Board of Directors

Once a year, Chubu Electric Power surveys all directors and auditors on the makeup, operations, governance and other aspects of the Board of Directors, and has all representative directors, outside directors and auditors discuss and exchange opinions on the survey results.

Based on these results, the Board of Directors analyzes and assesses their own effectiveness in order to confirm that it is effectively steering the company towards sustainable growth and greater corporate value in the medium to long-term.

The makeup and size of the Board

of Directors are determined after considering the quality of the board's discussions, the swiftness of the board's management decision-making, the board's supervisory role over directors, business issues at hand, and balance of knowledge, competence, field of specialty, experience and other attributes of each director.

#### Policy on director and auditor training

Chubu Electric Power provides training in management, accounting and finance, legal affairs and other areas to newly appointed corporate directors and auditors, and periodically organizes events such as presentations given by attorneys, CSR workshops spearheaded by experts, and other learning opportunities.

Newly appointed outside directors and auditors are briefed on management policies, business issues and other aspects unique to Chubu Electric Power. And, after assuming their new positions, they visit the company's more important facilities receive briefings departments on their operations in order to deepen their understanding of Chubu Electric Power's business and operations.

## Messages from outside directors

Back when I was working at the Nagoya branch of the Bank of Japan, my boss told me that "you could understand the Chubu economy by just looking at Chubu Electric Power." A power company maintains and manages an extremely vast number of facilities and supports the regional economy and society by supplying electric power. Now fortunate to serve as an outside director, I have seen for myself the magnitude of responsibility and motivation that comes with a highly profitable electric utility business.

The current business environment surrounding power companies continues to change at a fast pace and is forcing us to look in more directions than ever before. My hope is to apply what I know about finance and overseas economy to making Chubu Electric Power stronger.

Having never worked in the manufacturing industry, it was a new experience for me to learn about the engineering operations of a power company. And, I'm happy to see that more and more women are engaged in an engineering capacity. In fact, at Chubu Electric Power, I have the impression that women not only have their foot in the door when it comes to jobs but they are also stepping up in the kinds of jobs they do.



Naoko Nemoto Director



Meeting with women leaders (February 2017)

As an outside director, I want to apply the experiences I accumulated at IBM Japan Ltd. to create new business by utilizing information technology, innovating business models, strengthening sales power, introducing diversity, fomenting leadership and providing advice on globalization and other matters.

Before my appointment as director, my impression of Chubu Electric Power was that it was a conservative and stubborn-minded company with a board of directors that rubber-stamped what came before them rather than discuss it. But, quite to the contrary, Chubu Electric Power is a very open-minded company where the discussions are animated. I was proved wrong in a good way.

We are living in times of great change where every risk is a chance for success. To the employees at Chubu Electric Power, I say to look ahead for potential changes; preserve what should be preserved but speedily implement what should be changed. Especially to the young ones, since they will be shouldering the future, in order to create new values, my advice is to absorb a broad range of knowledge and experiences rather than getting caught up in a specialty, and attempt extraordinary endeavors without fear of failure.



Takayuki Hashimoto Director



Chubu Electric Power Wiring Olympics (November 2016)

# Risk Management

At Chubu Electric Power, risk management is not treated as an activity separate of business operations but as an integral part thereof. For that reason, risk management is implemented in the crafting stage of corporate and department management plans. Proper risk management is critical to continuous and stable business development.

#### Verification of internal control systems

Every year or whenever necessary, Chubu Electric Power reviews its internal control system against changes in the business environment, in lieu of the underlying principle of Systems for Ensuring Proper Conduct of Business Operations, and reports the systems are maintained and operated findings to the Board of Directors.

On the group level, the Company helps group companies formulate and enforce internal controls by creating a department to oversee their business development. strategy policy proposals and operations management, and having the Internal Audit Division conduct internal audits of their operations and management practices.

The Company also applies its internal control system to its financial reporting required under the Financial Instruments and Exchange Act and has mechanisms in place to visualize, verify and assess important processes related to financial reporting.

#### Management of risks that could have a serious impact on the Company

To ensure effective risk management at the Company as a whole, each internal company, and each of its divisions, Chubu Electric Power has organized a structure, clarified authorities, and established internal regulations as part of its efforts to prevent risks from occurring, implement risk transfer, and minimize the impact of risks after their occurrence.

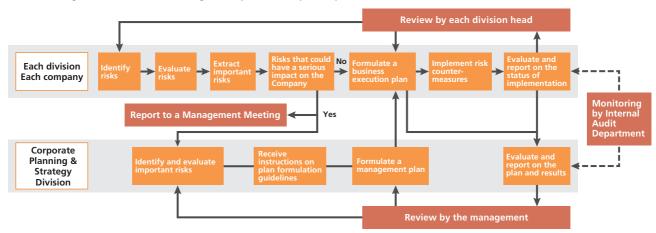
Risks that may have a serious impact on the Company are subject to risk management protocol and other internal regulations. Based on these regulations, the Corporate Planning & Strategy Division, each company, and each division identify and assess the impact of such risks, and report the results at Management Meetings. These reports are then reflected in management plans and business operation plans to incorporate risk countermeasures. See page 87

Risks associated with Group companies are identified and assessed by relevant companies. companies will discuss risks with a potential serious impact on their business with Chubu Electric Power annually, together with their management policies.

#### **Systematic information** management and cyber security

securely manage information (including "My Number" for individuals) and other types of information, Chubu Electric Power has established a department dedicated to information management, formulated various regulations, and provided and awareness-raising programs to employees, among many other low-based initiatives. With regards to information security, a companywide management system has been built to safeguard corporate IT systems against information leaks and cyber-attacks intended to obstruct the stable supply of power, and security measures are regularly crafted and tested under hypothetical threats based on risk assessment thinking. We have also continuously carried out various initiatives for associated companies, including awareness-raising activities and the establishment of the Chubu Electric Power Group IT Promotion Council.

#### Risk management flow in the management plan development process



### Ensure business continuity in the event of a large disaster

### Basic ideas of business continuity at the Chubu Electric Power Group

To achieve its public mission of ensuring a safe and stable supply of energy to its customers, the Chubu Electric Power Group ensures public security and maintains facilities. Even in the event of a large disaster, the group will make the utmost efforts to minimize impacts of the disaster and recover as early as possible in order to continue business.

- 1. The Group designs facilities to be highly disaster-resistant and carries out appropriate maintenance.
- 2. The Group develops a disaster management system to promote early restoration of service and ensure public security, while maintaining and improving response capabilities through drills.
- 3. The Group makes appropriate use of new findings in its constant improvement efforts for a safer and more stable energy supply.

### Maintaining and improving emergency response capabilities

As a group of companies that provides the lifeline service of electricity in the Chubu area, the Chubu Electric Power Group is committed to ensuring business continuity even in the event of a catastrophic disaster. To this end, we have formulated a business continuity plan (BCP), and maintained and improved our emergency response capabilities by using the mechanism of business continuity management (BCM) for continuous improvement.

# Development of a disaster management system

In the event that a natural disaster occurs or is anticipated to occur shortly, an emergency will be declared immediately and an emergency task force will be set up at each workplace.

We also seek close collaboration with national and local governments,

police and fire departments and other agencies on a regular basis in order to be prepared for any disaster, and have established mutual cooperative systems with other power companies.

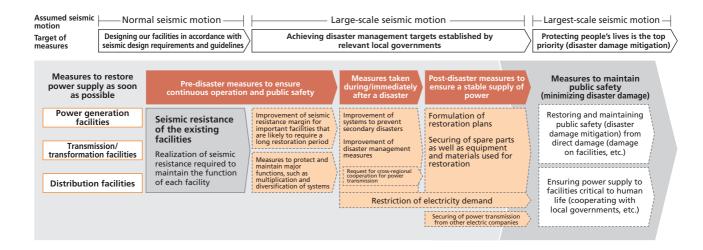
Furthermore, we have a helicopter that can be used to transport materials, equipment and personnel, as well as a means of information communication via satellite communication networks in the event of a disaster. To aid in the supply of emergency power, we also maintain special power-generation and mobile-transformer vehicles at main business locations.

# Disaster management measures for facilities

To ensure a stable supply of power even after a major disaster, Chubu Electric Power decided on necessary measures to be taken in the event of a large-scale (based on seismic motion) earthquake in summer 2015, taking into consideration

the national and local governments' revised and updated damage estimation and emergency response plans for and preparedness plans against the Nankai Trough megaguake. These measures are aimed at restoring power as soon as possible and maintaining public safety in the case of a large-scale earthquake. On the other hand, only maintaining public safety (minimizing damage) from direct damage is prioritized in the case of the most severe types of earthquakes. We are currently moving forward on these measures to reinforce our facilities, with plans to complete the more important projects by the end of fiscal 2020.

Moreover, Chubu Electric Power is coordinating with outside organizations, sharing information with them on a regular basis and strengthening collaboration with them by conducting drills of various nature.



# **Ensuring Compliance Management**

The biggest underlying factor that determines the survival and development of a company is the trust it garners from its customers, hosting communities, shareholders and society at large. Based on the Chubu Electric Power Group CSR Declaration, the Chubu Electric Power Company Group created the Chubu Electric Power Group Basic Compliance Policy on the belief that "without compliance there is no trust, and without trust there is no growth." The Chubu Electric Power Company Group fosters a corporate culture of action with compliance, and aims to be a "good corporate citizen" trusted and supported by society, and is always one step ahead on compliance issues and one step beyond the hopes and expectations society places on the company.

Chubu Electric Power Group Basic Compliance Policy: http://www.chuden.co.jp/corporate/csr/csr\_compliance/gr\_comp\_policy/index.html

### **Compliance promotion** system

Chubu Electric Power continues to promote a variety of compliance awareness activities and build upon a company-wide compliance promotion system through the "Compliance Committee" it launched in December 2002, with the president at the helm.

More specifically, these activities are intended to raise awareness of the importance of compliance educate the workforce on compliance through – for example – level-based seminars and training on the subject.

Additionally, every member of the company is taught to ask oneself four specific questions to ensure that the actions they take fall within compliance requirements.

Awareness activities are also conducted by and within departments to prevent insider trading and harassment, properly manage

information, and guide workforce behavior in the right direction.

### Helplines—points of contact for compliance queries

We operate a helpline for Chubu Electric Power and a joint helpline for associated companies to prevent illegal, unfair, and unethical acts and ensure compliance. Both serve as points of contact for employees, temporary workers, and business with concerns partners compliance issues. The helpline for Chubu Electric Power is established both in and outside the company at the Compliance Promotion Office and at a law office, respectively. To ensure effective operation of the helpline, appropriate measures are taken to protect inquirers and respect their requests regarding the queries.

In fiscal 2016, our helplines received 45 queries in total.

### **Commitment to prevent** bribes being offered to foreign public officials

Chubu Electric Power and associated companies have developed systems to prevent involvement in bribery of officials. The company established rules in February 2013 to prohibit bribery of foreign officials and others, and the Compliance Committee organized the Foreign Official Bribery Prevention Committee in April 2013.

### **Enhancement of Group Compliance**

Under the Chubu Electric Power Group Compliance Council (organized in April 2003), a supervisory body comprised of the presidents of associated companies, the Chubu Electric Power Company Group established a compliance promotion system at each associated company and has been engaged in various activities to raise employees' awareness of the importance of compliance.

Specific support actions include holding discussions between associated companies and Chubu Electric Power Company employees and providing training to employees at major operation sites. In addition to these activities aimed raising employees' compliance awareness, the company is also supporting

all other aspects of compliance promotion at each associated company.



Compliance card

### **■** Compliance Promotion System



## Fair and Equitable Transactions

The Chubu Electric Power Group has established a basic procurement policy in order to promote CSR-conscious procurement and to ensure that the procured products and services are of high quality and at a reasonable cost.

When starting transactions with a new business partner, Chubu Electric Power explains its procurement policy and makes clear that our partners will be required to fulfill their CSR obligations so that both parties can achieve continuous growth in partnership.

Procurement procedures, supplier registration procedures, and other information are made public in an easy-to-understand manner.

Chubu Electric Power Group Basic Compliance Policy: http://www.chuden.co.jp/corporate/csr/csr\_compliance/gr\_comp\_policy/index.html

# **Intellectual Property**

The results that Chubu Electric Power produces in technological research and development are important intellectual properties.

Because of the drastic changes and growing complexity of the surrounding business environment, it is imperative in the power industry to strategically create, use, and protect these important intellectual properties to grow sustainably as a total energy service company group. It is along that train of thought that Chubu Electric Power set forth the below policy on intellectual property and conducts related activities.

### Policy on intellectual property

- Create intellectual properties that improve corporate value
- Safely protect and effectively use intellectual properties
- Respect the intellectual property rights of others

### Intellectual property seminar

Briefings concerning intellectual property are given to key departmental personnel to inspire them to create intellectual property and make them more conscious of preventing infringements on the intellectual property rights of others.

In fiscal 2016, these briefings were conducted in 7 locations of Chubu Electric Power, including the head office and regional offices. Including those who took part via teleconferencing, the briefings reached 602 persons.

# Group-wide efforts to safeguard intellectual property

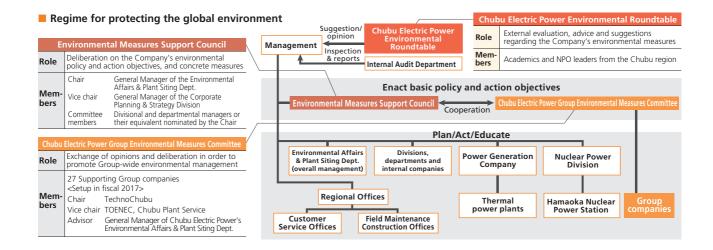
To enhance the Chubu Electric Power Company Group ability as a whole to create, use, and protect intellectual properties, Chubu Electric Power and associated companies hold meetings where information on intellectual property is reported, shared and taught.

The company also assists associated companies with any intellectual property issues they might have.



# Commitment to Environmental Conservation

Chubu Electric Power positions environmental protection as one of the most important responsibilities of the entire Chubu Electric Power Company Group. This is made loud and clear in the group's Basic Environmental Policy where it states "as a member of the energy industry, the Chubu Electric Power Group practices responsible environmental management and contributes to the development of a sustainable society by working to protect the global environment with employees who act on their own initiative." Chubu Electric Power formulates action plans with concrete targets and promotes environmental management on the 4 pillar concepts espoused in the group's Basic Environmental Policy: "building a low-carbon society", "coexisting with nature", "creating a recycling society" and "interacting with local communities and the world at large".



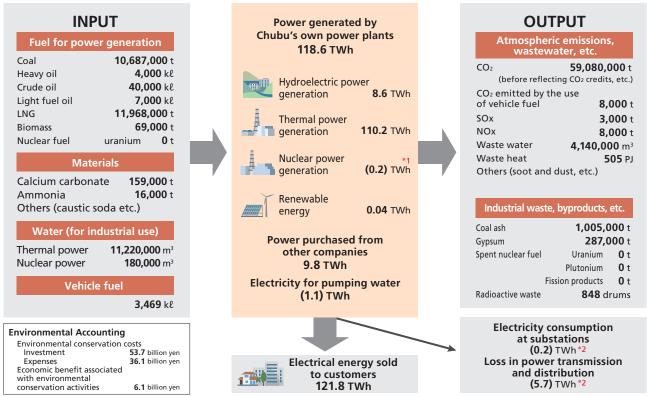
### Main activities in fiscal 2017

 Increase gross thermal efficiency of thermal power plants. **Building a Low-Carbon Society**  Expand the use of renewable energy See pages 44 and 47 • Strictly implement measures to enhance safety at the Hamaoka Nuclear Power Station. Coexisting with nature • Reduce SOx and NOx emissions per unit of generated thermal power. See page 78 • Take measures to protect biodiversity. Creating a recycling society Promote the 3Rs in consideration of the economical benefits of reducing waste destined for outside disposal See page 78 sites  $\bullet$  Implement the ECO Points program across the Chubu Electric Power Group. Interacting with local communities Encourage employees to become Chuden Foresters and Chuden Interpreters, and engage in activities. and the world at large • Enhance education on energy and the environment in collaboration with local communities. Conduct environmental activities actively for local communities.

# **Promoting Environmental Management**

Chubu Electric Power works hard to reduce the environmental load of its business activities by identifying the amount of fuel and materials it inputs into its operations and the amount of CO2, wastewater, and waste it generates from that. Chubu Electric Power also develops self-declared environmental management activities based on ISO14001 (2004).

### Environmental inputs and outputs across our business / environmental accounting



Note: Some numbers may not add up due to rounding.

\*1 Though nuclear power stations have been shut down, electric power from off-site sources is being consumed on the premises, therefore a negative value is shown on the transmission end.

Susumu Hayashi Professor Emeritus, Gifu University

\*2 Indicated values are for the Chubu area

### TOPICS

### The 16th Chubu Electric Power Environmental Roundtable Meeting

Chubu Electric Power holds an "environmental roundtable" meeting to hear advice and proposals of outside experts with regard to the company's environmental policy and measures. The 16th meeting took place at the Hamaoka Nuclear Power Station in February 2017.

### <Important opinions obtained from participants>

Technology

- Energy problems should be addressed from a broad perspective that includes industry rather than just one's immediate surroundings.
- Repeated discussion promotes understanding, though it is difficult to guarantee absolute safety.

Members of the Chubu Electric Power Environmental Roundtable (honorifics omitted, in no particular order) Ichiro Yamamoto Advisor of the President, Professor of Director, Nagoya City Waterside Keiko Kunimura School of Human Care Studies, Nagoya University of Arts and Sciences Research Group Noriyuki Kobayashi Associate Professor, Graduate School of Engineering, Nagoya Former Chairman, Mie Prefecture Tadashi Aburaya Environmental Conservation Agency University President, NPO Partnership Support Center Atsuko Hayakawa NPO Weather Caster Network Masavo Kishida Toshihiro Kitada Specially Appointed Professor and



# **Building a Low-Carbon Society**

### Reduction of CO<sub>2</sub> emissions

Chubu Electric Power is committed to combating global warming by taking a holistic approach, which includes the utilization of nuclear power with the highest priority placed on ensuring the safety of and building trust with local communities, as well as development of high-efficiency thermal power generators and renewable energy sources.

Our CO<sub>2</sub> emission intensity (CO<sub>2</sub> emissions per kWh of electricity produced) in fiscal 2016 was 0.485 kg-CO<sub>2</sub>/kWh (actual emission

Since the suspension of operations at the Hamaoka Nuclear Power Station following the Great East Japan Earthquake in 2011, thermal power generation has increased to replace nuclear power generation, resulting in a significant rise in CO<sub>2</sub> emission intensity. However, CO<sub>2</sub> emission intensity has been brought down year after year thanks to the development of high efficiency thermal power generators, greater use of renewable energy and other factors.

To further reduce the CO<sub>2</sub> emission intensity of the company as a whole, we will continue to use nuclear power, which generates electricity without emitting CO<sub>2</sub> and therefore is an effective way to combat global warming; increase the use renewable energy; install the world's highest efficiency LNG-fired generator at the Nishi-Nagoya Thermal Power Station Unit No. 7 (currently under construction); and install leading-edge power generation facilities at the Taketoyo Thermal Power Station and the Abekawa Hydroelectric Power Station (currently in the planning

Additionally, Chubu Electric Power established the Electric Power Council for a Low Carbon Society (ELCS) along with 41 other electric companies to continue to promote comprehensive measures for reducing CO2 emissions. ELCS aims to achieve the target set by the entire electric power industry, i.e., CO<sub>2</sub> emission intensity of 0.37 kg-CO<sub>2</sub>/kWh by fiscal 2030.

\* The CO<sub>2</sub> emission intensities that reflect credits obtained from the methods stipulated in the Act on Promotion of Global Warming Countermeasures and that are adjusted based on the feed-in tariff scheme for renewable energy are yet to be determined. The data will be announced at the earliest possible opportunity after they have been established

### Calculation of supply-chain emissions

Chubu Electric Power calculates CO<sub>2</sub> emissions throughout its supply chain\*.

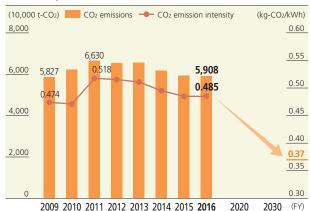
Based on the Mandatory Greenhouse Gas Accounting and Reporting System, the company has calculated CO2 emissions and emission intensity associated with its electricity generation and reported them to the national government.

The company has also calculated indirect emissions arising from the supply chain of its electric power business (scope 3: associated with purchase of capital goods, extraction and transportation of fuels for power generation, investment in overseas power generation projects, etc.), which are not included in the values reported to the national government, according to the "Basic Guidelines on Accounting Greenhouse Gas **Emissions** Throughout the Supply Chain" issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry of Japan.

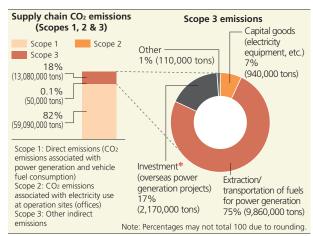
promote measures combating global warming, we will make continued efforts to measure emissions throughout our supply chain.

\* Emissions from Chubu Electric Power only, not including consolidated subsidiaries.

### ■ Trends and outlook of CO<sub>2</sub> emissions and CO<sub>2</sub> emission intensity (actual emission basis)



### ■ Supply chain CO<sub>2</sub> emissions (fiscal 2016)



\* Investments in overseas power generation are normally calculated for the entire calendar ear, but because international business switched over to JERA in July 2016, the shown 2016 data is for January to June only.

# Coexisting with Nature

# Local environmental conservation measures

For conserving the environment of the surrounding areas, Chubu Electric Power implements a variety of measures based on agreements with local governments for environmental preservation and pollution control. We also conduct monitoring surveys of the surrounding areas to verify that there is no ongoing impact on the local environment resulting from our operation.

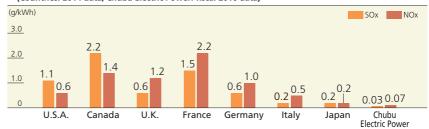
No violation was identified in the Chubu Electric Power Group for compliance with environmental laws and regulations during fiscal 2016.

### Air pollution measures

Chubu Electric Power's emissions of SOx (sulfur oxides) and NOx (nitrogen oxides) per unit of generated thermal power are amongst the lowest in the world due to the company's expanded

use of LNG that does not generate SOx when burned, use of low-sulfur fuel oil, use of burners that reduce NOx generation, use of flue gas desulfurizing/denitrification units, etc.

SOx and NOx emissions per kWh of electricity generated by thermal plants (international comparison) (Countries: 2014 data; Chubu Electric Power: fiscal 2016 data)



Source: Data for overseas: OECD Stat Extracts, IEA ENERGY BALANCES 2016; Data for Japan: Federation of Electric Power Companies of Japan

### **Activities for protecting biodiversity**

Protection of endangered species	For protecting endangered plant species that have been identified on the company's land and areas surrounding our electric power facilities, including sarumenebine (Calanthe tricarinata, a variety of orchid), kyomarushakunage (Rhododendron japonoheptamerum, a rhododendron found only in Japan), and tadesumire (Viola thibaudieri, a type of violet), we have clarified the physiology and ecology of these scarce plants and established technologies for their reproduction.
Eradication of identified invasive alien species	We are promoting efforts to eradicate identified invasive alien species of plants that have infiltrated river management facilities and surrounding areas.
Protection of birds of prey	To protect birds of prey identified on and around the construction site of the Tokuyama Hydroelectric Power Station and transmission lines, we are conducting construction work in a manner that does not affect the life of the birds or their habitat, following instructions from experts mainly from the Japan Falconiformes Center.
Eco Park of the Hekinan Thermal Power Station	The Hekinan Thermal Power Station is located close to the estuary of the Yahagi River in Aichi Prefecture, to which sandpipers and plovers migrate. The Eco Park, created adjacent to the power plant, has a pond for wild birds and a circulating waterway that prevents the entry of predators to the park and contributes to the conservation of the habitats of wild birds in the area.



Identified invasive alien species of plants

# Creating a Recycling Society

In order to achieve our target of reducing our external landfill waste to less than 1%, we are working on 3R initiatives to reduce, reuse and recycle.

Waste generated by the Chubu Electric Power Group amounted to 1,508,000 tons in fiscal 2016, 13,000 tons of which was disposed of in external landfills.

Industrial waste, waste by-products and external landfill waste



# Interacting with Local Communities and the World at Large

### **Human resource development**

The Chubu Electric Power Company Group offers its employees training so that they can serve as "Chuden Foresters" or "Chuden Interpreters". These former are skilled knowledgeable of thinning techniques for planted forests, while these latter are versed in conveying the fun of the great outdoors to others.

So far to date, 250 Chuden Foresters and 135 Chuden Interpreters have successfully completed the program.

They take part in various activities environmental protection including thinning projects 15 times a year in Aichi, Mie, Gifu and Shizuoka in places like the Nagaragawa Community

Forest, and "forest experiences" (7 times a year, 340 participants) in the Nenoue Plateau, and Higashiyama Zoo and Botanical Gardens.

### Social contribution activities

### Forest thinning (Morino Chonaikai Initiative)

Chubu Electric Power serves as the Chubu Region Office for forest activities that preservation self-funded with proceeds earned from paper made from thinning operations.

About 80 companies have been collaborating since 2011 in thinning operations in Komagane City, Nagano Pref. Some 51 hectares of forest (10.5

times the size of the Nagoya Dome) have been thinned since the activity began.

### **Eco Points Program**

The Chubu Electric Power Company Group's "Eco Points Program" rewards group employees and their families with points for personal environmental preservation efforts such as conserving power and eco-friendly driving.

Earned points are then used to fund the social contribution activities of cooperating **NPOs** and other organizations shown in the table below. Employees and their families also partake in the activities.

This Eco Points Program marked its 10th year of activities in 2016.



Employees were encouraged to become Chuden Foresters



Tour of forest thinned by the Morino Chonaikai



Environmental education support for children in the Philippines



Our goal is to develop forests, train people and coexist with the natural environment as a business

### Beneficiaries of the Eco Points Program

	Loggerhead turtle protection in the Nakatajima Dunes in Hamamatsu City
Activities in	Environmental education on preserving the Mitakigawa River eco-system in
Japan	Yokkaichi City
•	• Environmental education for the next generation (Nakatsugawa City, Toyota City)

Activities

 Mangrove planting in Ho Chi Minh City, Vietnam
 Environmental education support for children in the Philippines outside Japan

### TOPICS

### 10th anniversary of the Eco Points Program

Some 20 oak saplings were planted in the Nagaragawa Community Forest in Gifu City to commemorate the 10th anniversary of the Eco Points Program.

The event was attended by 33 people including the director of the Gifu Municipal Department of Agriculture and Forestry, 3 persons from that department's Agriculture, Forestry and Landscaping Section, 23 Chubu Electric Power Company Group employees and their families, and 6 Chuden Foresters.



### **Educational activities**

### Energy and the Environment **Education course**

Chubu Electric Power has joined forces with the Nagoya Open University of the Environment to offer an "Energy and the Environment Education" course to college students and others who will lead the next generation. In fiscal 2016, a total of 61 people took the course.

The course deepens the students' understanding of current environmental and energy issues, and environmental considerations shown by Chubu Electric Power through classroom lessons, opinion exchanges, and tours of power stations and other facilities that are rarely open to viewing.

### **Cooperation with Mie University**

Chubu Electric Power is cooperating with Mie University in the field of energy and environmental education based on a comprehensive agreement.

### Content covered in the fiscal 2016 Energy and the Environment Education course

Day 1 08/31 (Wed.)	Introductory presentation >> Tour of Central Load Dispatching Center >> Tour of Hekinan Thermal Power Station >> Tour of Kinuura Water Treatment Center (Sewerage-to-Fuel Carbonization Plant)
Day 2 09/07 (Wed.)	Tour of Hamaoka Nuclear Power Station >> Tour of Omaezaki Wind Power Station
Day 3 09/14 (Wed.)	Tour of Kawabe Hydroelectric Power Station >> Classroom lesson >> Group work >> Discussion



Courses open to the community at Nagova Open University of the Environment: Energy and the Environment Education course



Results of energy and environmental education (Cooperative effort between Chubu Electric Power and Mie University) being reported

### Cooperative activities with other businesses

The Eco Partnership Club (EPOC) is an environment advocacy organization formed in 2000 around the Chubu Region's industrial sector. There are about 280 companies participating in EPOC. Member companies plan and stage seminars, tours, and other activities conducive towards building a sustainable society and economy on a cooperative platform of industry, government and academia.

Since fiscal 2016, Chubu Electric Power has served as the representative chair of the organization.



Fiscal 2016 EPOC General Assembly



EPOC tour

### Message from General Manager of Environmental Affairs & Plant Siting Department



Masaya Hashimoto General Manager of Environmental Affairs & Plant Siting Department

### Engaged in environmental protection activities together with hosting communities

There is a general consensus that climate change and other environmental problems of global scale can be blamed on everyday socio-economic activity. Needless to say, correcting the problems will require all of mankind to get involved.

At Chubu Electric Power, we are of course taking steps to reduce the environmental load of our business activities, but we also view it as our responsibility to assist our hosting communities and international efforts in their environmental protection initiatives. So, we are engaged in developing human resources who can take the lead in environmental efforts, and social contributions and education activities related to energy and the environment. We have been strongly encouraged by the comments we have received from people who participated in these activities: "I want to apply what I have learned to environmental protection activities" and "This was a valuable experience."

We could never conduct business without the trust of customers and hosting communities. Going forward, we will continue to engage in environmental protection activities together with hosting communities.

# **CSR Performance Indicators**

Alming to Be					Units	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Communication with Stakeholders   For Shareholders and Investors   Institutional prevention / analysis.   Institutional prevention /				failure/outage time per	minutes	46	13	18	4	5
Properties   Support for a Diversification   Properties and study shortened by a personal state   Support for a Diversification   Properties and study shortened by a personal state   Proper			Customer	Calls		1,445	1,914	2,191	2,824	3,364
Institution   Professional Professional Professional Investors   Professional Individual   Facility tour   Tours   15   14   13   13   13   13   13   13   13			Center	Response rate	%	97.2	96.8	95.5	88.9	84.0
Processing of monitorial monito					sessions	3	2	2	2	2
Private investors   Company briefing   Sessions   3   2   0   3   8   13   13   13   13   13   13				Facility tour	tours	6	4	4	6	6
Number of traveling are leave   Fermal   Persons   1   1   1   1   1   1   1   1   1			Private investors	Company briefing	sessions	3	2	0	3	8
Number of workplace experience and study   10urs   306   593   546   552   458				Facility tour	tours	15	14	13	13	13
Number of days taken as paid annual leave per person   14.2   14.4   14.3   15.1   15.0		For Local	Number of travelin	g classes held	classes	408	381	499	437	428
Number of days taken as paid annual leave per person   14.2   14.4   14.3   15.1   15.0   15.0		Communities		ace experience and study	tours	306	593	546	552	458
Support for a Diversified Workforce   Support for a Diversified Work			Hours worked per	employee	hours	2,027	1,989	2,009	2,018	2,015
Support for a present taking workplace   Pemale   Pemal				ken as paid annual leave	days	14.2	14.4	14.3	15.1	15.0
Diversified Workforce   Mumber of persons taking mount in the workplace   Persons taking mount in the workplace   Persons taking mount in the workplace   Persons taking mount in the persons in the person in the persons in the persons in the persons in the persons i		Command form		Male	persons	6	6	9	9	10
Number of persons taking nursing care leave   Female   Persons   1   1   0   3   2		Diversified		Female	persons	172	155	157	173	182
Percentage of employees who are physically/mentally challenged**2   Number of industrial accidents (Chubu Electric Power employees)**3   accidents   85   92   79   95   113				Male	persons	1	1	0	3	2
Physically/mentally challenged*2   76   2.07   2.10   2.26   2.32   2.39	Trompiaco			Female	persons	2	1	3	1	2
Couporate   Corporate Governance   Corporate Governance Structure   Development and operation of internal control   Development and operation operated properly   Developed and operated properly					%	2.07	2.10	2.26	2.32	2.39
Number of industrial accidents   So   41   66   77   58					accidents	85	92	79	95	113
Corporate Governance Structure  Development and operation of internal control  Development and developed and operated properly operated properly operated properly operated properly operated properly  Development and developed and operated operated properly operated properly operated properly operated properly  Development and developed and operated operated properly operated properly operated properly  Development and developed and operated operated properly operated properly operated properly operated properly  Development and operation operated properly  Development and operation operated properly operated properly operated properly  Development and operation operated properly  Developed and developed and developed and developed and operated properly  Development and operated properly  Development and operation operated properly  Development and operation poperated properly  Development and operated properly  Developed and developed and developed and developed and operated properly  Development and operated properly  Develo		Health and Safety			accidents	50	41	66	77	58
Compliance Management   Number of queries received via the Helpline   queries   58   48   53   59   45		Governance		operation of internal	_	developed and operated	developed and operated	developed and operated	developed and operated	developed and operated
Fair and Equitable Transactions   Number of participants in procurement overview briefing   Number of inquiries received from suppliers   Inquiries   89   95   97   57   61	Corporate	Compliance	Number of queries	received via the Helpline	queries	58	48	53	59	45
Transactions   Number of inquiries received from suppliers   inquiries   89   95   97   57   61		Fair and Equitable		ants in procurement	persons	536	546	550	552	539
Intellectual Property   property seminars   persons   229   667   730   742   602			Number of inquirie	s received from suppliers	inquiries	89	95	97	57	61
Ruilding a   Low-Carbon Society   SOx emissions intensity (before reflecting CO <sub>2</sub> credits, etc.)   kg-CO <sub>2</sub> / kWh   0.373   0.509   0.494   0.486   0.485   *4   *4   *4   *4   *4   *4   *4   *		Intellectual		ants in intellectual	persons	229	667	750	742	602
Low-Carbon Society   Commitment to Environmental Conservation   Coexisting with Nature   Creating a Recycling Society   Coexisting with Nature   Creating a Recycling Society   Coexisting CO2 credits, etc.)   RWh   Coexisting with No.373   Coexi		Property	Number of patents	owned	patents	807	712	658	574	571
Coexisting with Nature NOx emissions (Thermal power generation) g/kWh 0.08 0.08 0.08 0.08 0.07  Creating a Recycling Society*5 Amount of waste generated Amount of waste sent to outside disposal 10 thousand 1.7 1.6 2.1 1.0 1.3		Low-Carbon	(before reflecting (	CO2 credits, etc.)						
Note		Coexisting with	SOx emissions (The	rmal power generation)	g/kWh	0.03	0.04	0.03	0.03	0.03
Creating a Recycling Society*5 Amount of waste sent to outside disposal 10 thousand 1.7 1.6 2.1 1.0 1.3			NOx emissions (The	ermal power generation)	g/kWh	0.08	0.08	0.08	0.08	0.07
17 16 71 10 13			Amount of waste of	generated		156.7	160.2	172.4	146.3	150.8
sites tons		Recycling Society*5	Amount of waste s	ent to outside disposal	10 thousand tons	1.7	1.6	2.1	1.0	1.3

<sup>\*1</sup> The number of failure/outage minutes in fiscal 2012 is high due to the large number of typhoons that severely affected the region.
\*2 The figures indicated are those as of June 1 in the next fiscal year.
\*3 The definition of "accidents" at Chubu Electric Power was changed in fiscal 2012 from "when an employee receives continuous medical treatment" to "when an

employee receives medical treatment."
 \*4 The CO<sub>2</sub> emission intensities that reflect credits obtained from the methods stipulated in the Act on Promotion of Global Warming Countermeasures and that are adjusted based on the feed-in tariff scheme for renewable energy are yet to be determined. The data will be announced at the earliest possible opportunity after they have been established.

<sup>\*5</sup> The figures above indicate the total value for member companies of the Chubu Electric Power Group Environmental Measures Committee. Starting fiscal 2015, the figures reflect waste emitted from member companies.

# Third-Party Review



Socially responsible in thoughts and actions as seen from the value creation and the path reported in Chubu Electric Power's 2017 CSR Report

### Hidekazu Kurimoto

Professor, Nagoya University
Vice Director, Institute of Liberal Arts and Sciences (ILAS); Doctor of Engineering; Vice Director, Planning & Evaluation Office; also holds an appointment as Professor at the Graduate School of Environmental Studies and the School of Informatics and Sciences
Business Management Councilor, Chubu Productivity Center
Chairman, Steering Committee, Chubu Quality Award Council

A CSR report is a tool that businesses and other corporate organizations use to compile and publicize core issues related to their social responsibilities (ISO/SR26000) and activities they implement based on the presumed perspective of stakeholders. They use it to explain how, as a member of society, they acknowledge and respond to the hopes and expectations society places on them. The underlying purpose is to carry out and evaluate the effectiveness of the fundamental philosophy and principles that guide their sound development and growth, the management policies and business processes that materialize that, and the environmental, social and governance (ESG) efforts that are a part of those processes.

As is elucidated in the editing policy, this report lays emphasis on the path (story) from the management policies that are supported by Chubu Electric Power's philosophy and principles, extending to the business processes that lead to value creation. In addition to prior practices of making each page highly readable and the presented information readily identifiable and easy to follow, Chubu Electric Power has tried to develop the content and layout so that the policy formulation process, business resources and the correlations between stakeholders and value creation are loud and clear. This approach, in my opinion, goes one step further towards improving the "readability" on which the reader's understanding of Chubu Electric Power's CSR activities hinges. The report also focuses on the workforce because their sense of duty and responsibility have been the driving force behind organizational reforms, and looks at and evaluates the actions intended to adapt Chubu Electric Power to a new business environment of liberalized trading in electric power and gas.

In order to balance their responsibility to "accomplish an unchanging mission" with the need to "create new values,' Chubu Electric Power is promoting nuclear power via diverse measures with equipment and stronger on-site response capabilities that minimize the risks associated with potential uncertainties. They are also promoting JERA projects intended to secure a stable supply across the value chain from fuel procurement to power generation in order to realize an energy mix of various power source scenarios. Both of these endeavors serve to meet market demands and are offering promising results.

Two CSR issues of a total energy service company are to gain the approval of one's business partners, workforce and via multifaceted, stakeholders communications, and to create an organizational culture capable of learning. CSR activities proactively question mankind's way of living and function as an important medium for fostering understanding between Chubu Electric Power and everyone else.

Moreover, in order to stay one step ahead of the game, Chubu Electric Power must look ahead to life in the 22nd century and propose viable energy solutions therefor. This means—for example—converting from a "factual premise" that stands on facts in the past to a "value premise" that pictures the way one wants to be in the future, and then plans how to achieve that. Another example may be sharing governance in which the next generation in high-tech is used by the company or group to meet society's needs, or creating a corporate atmosphere that nurtures spontaneity and autonomy in employees, as they are the source of corporate vitality and value creation.

More importantly, by creating self-guided workplace environments, the quality of corporate activities determined by compliance, internal controls, and internal audits can be internally assured and the improvement in that quality should lead to profitability.

### In response to the third party opinions

At Chubu Electric Power, we are very grateful to listen to the opinions of others. In regards to steering business activities in a direction that creates value, we have been highly praised for story-telling and typographical improvements that make our messages easier to understand. We have also been praised for the constructive steps we have taken to adapt to market liberalization and other changes in our business environment, and our creation of new values while remaining committed to our unchanging mission.

Still, for future CSR issues, the importance of continuously communicating with stakeholders and creating an organizational culture that can learn was emphasized by our stakeholders. In addition, we received feedback that stronger coordination within the Chubu Electric Power Company Group and building a corporate atmosphere where employees think and act on their own would help Chubu Electric Power develop into a "total energy service company that is one step ahead of the game"

We take this good advice seriously and will use it for delivering values that meet stakeholder expectations and preserve their trust, and for contributing to a better world through our business activities.



Hitoshi Mizutani Executive Officer General Manager of Group Planning & Strategy Chubu Electric Power Co., Inc.

# Financial / Corporate Data

# Five-Year Operating Statistics The company's fiscal year (FY) is from April 1 to March 31 of the following year.

					(GVVn)
Electrical Energy Sold	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Low voltage	41,616	41,249	39,525	38,219	38,773
High voltage / Extra-high voltage	84,936	85,821	84,550	83,748	83,048
Total Electric Power Sold	126,552	127,070	124,075	121,967	121,821
	_	•	•	•	_

Electric Power Supplied					(GWh)
Internally-generated Power	130,838	128,639	126,175	120,730	118,582
Hydroelectric	7,846	7,828	8,718	9,446	8,573
Thermal	122,936	120,759	117,412	111,219	110,217
Nuclear	_	_	_	_	(251)
Renewable Energy	56	52	45	65	43
Interchanged, Purchased Power (Net)	7,465	10,371	9,050	11,734	9,778
Power Used for Pumped Storage	(1,163)	(986)	(707)	(596)	(1,062)
Total Electric Power Supplied	137,140	138,024	134,518	131,868	127,298

<sup>\*</sup> From FY2016, The figures in the "Internally-generated Power" indicate values at the sending end, which have been obtained by subtracting the electric power necessary for operating the power plants, etc. from the electric power generated by generators at the power plants (generation end).

Generating Capacity					(MW)
Hydroelectric	5,225	5,232	5,320	5,497	5,450
Thermal	25,159	24,506	25,082	24,015	24,034
Nuclear	3,617	3,617	3,617	3,617	3,617
Renewable Energy	31	31	39	39	37
Total Generating Capacity	34,032	33,386	34,058	33,168	33,138

Number of Employees				(numl	per of persons)
Consolidated	30,847	30,888	30,848	30,659	30,635
Non-Consolidated	16,723	16,854	16,949	16,796	16,632

# Five-Year Financial Statistics (Consolidated)

<u>-</u>				1)	Millions of Yen)
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
For the year ended March 31:					
Operating Revenues	2,648,994	2,842,187	3,103,604	2,854,044	2,603,538
Operating Income (Loss)	(14,484)	(60,651)	107,169	284,992	136,444
Ordinary Income (Loss)	(43,542)	(92,627)	60,207	255,610	121,483
Net Income Before Taxes	(32,299)	(80,674)	83,414	254,204	152,157
Net Income (Loss) Attributable to Owners of Parent	(32,161)	(65,328)	38,796	169,745	114,666
Depreciation	276,544	278,705	271,850	257,063	255,692
Capital Investments	332,506	273,039	262,694	293,784	345,689
At the end of the year ended March 31:					
Total Assets	5,882,775	5,782,181	5,631,968	5,538,946	5,412,307
Net Assets	1,491,105	1,437,172	1,507,508	1,637,110	1,724,713
Shareholders' Equity *	1,453,783	1,401,067	1,468,917	1,599,935	1,685,268
Outstanding Interest-Bearing Debt	3,260,525	3,260,075	2,918,929	2,625,482	2,674,772
Per Share of Common Stock (Yen):					
Net Income (Loss)—Basic	(42.45)	(86.23)	51.21	224.15	151.43
Net Assets	1,918.75	1,849.31	1,939.59	2,112.80	2,225.66
Cash Dividends	50	0	10	25	30
Financial Indicators and Cash Flow Data:					
	247	24.2	26.4	20.0	24.4
Shareholders' Equity Ratio	24.7	24.2	26.1	28.9	31.1
Cash Flows from Operating Activities	227,613	203,742	476,845	562,411	335,064
Cash Flows from Investing Activities	(330,603)	(266,620)	(282,781)	(307,995)	(360,232)
Cash Flows from Financing Activities	249,561	(23,905)	(344,088)	(312,120)	21,070
Cash and Cash Equivalents at End of Period	621,937	536,774	390,088	324,391	293,954

<sup>\*</sup> Shareholders' Equity = Total Net Assets - Non-controlling interests

### Management Discussion and Analysis of Operating Results, Financial Standing, and Cash Flows

### **Analysis of Operating Results**

### **Operating Balance**

Chubu Electric's electrical energy sold amounted to 121.8 TWh, almost the same as in the previous fiscal year, mainly due to a sales increase in the Tokyo metropolitan area and an increase in air conditioning demand by lower temperature in this winter, in spite of effect of switches made to other operators due to intensified competition.

On the demand for low voltage increased by 0.6TWh to 38.8TWh, compared with the previous fiscal year, mainly due to a sales increase in the Tokyo metropolitan area and an increase in air conditioning demand by lower temperature in this winter, in spite of customer's power saving effect and effect of switches made to other operators.

On the demand for high voltage and extra-high voltage dropped by 0.8TWh to 83.0TWh, compared with the previous fiscal year, mainly due to a sales increase in the Tokyo metropolitan area and an increase of production in the automobile and semiconductor industry, in spite of effect of switches made to other operators.

### ■ Flectrical Energy Sold

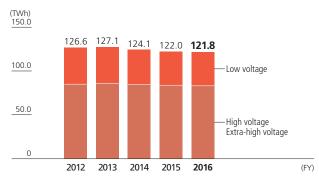
Electrical Energy 30id (TWh, %)						
	FY2016 (A)	FY2015 (B)	Change (A-B)	Change (A-B)/B		
Low voltage	38.8	38.2	0.6	1.5		
High voltage Extra-high voltage	83.0	83.8	(0.8)	(0.8)		
Total	121.8	122.0	(0.2)	(0.1)		

As to electricity power supply, the flow rate fell short of the previous fiscal year; thus hydroelectric power output decreased by 0.5TWh to 8.6TWh over the previous fiscal year, while the operation of all reactors at the Hamaoka Nuclear Power Station was suspended.

On the other hand, interchanged power and purchased power decreased by 1.9TWh to 9.8TWh over the previous fiscal year, mainly due to an increase in electricity sales volume to power exchange.

As a result, thermal power output increased by 3.2TWh to 110.2TWh, compared with the previous fiscal year.

### **■** Electrical Energy Sold



### **■** Electric Power Supplied

(TWh.	%)

	FY2016	Rate of Change
Internally generated		
Hydroelectric power	8.6	(6.2)
<flow rate=""></flow>	<99.8>	
Thermal power	110.2	3.0
Nuclear power	(0.2)	0.3
<utilization rate=""></utilization>	<->	
Renewable energy	0.0	(32.9)
Interchanged, Purchased power	9.8	(16.7)
Power used for pumped storage	(1.1)	78.4
Total	127.3	0.2

<sup>\*</sup> From FY2016, the amount of power at the sending end has been mentioned as the amount of internally generated power. Rate of Change in the amount of power is calculated by converting the figure from the previous fiscal year to the sending end value.

In terms of operating balance, operating revenues decreased by 250.5 billion yen to 2,603.5 billion yen over the previous fiscal year, mainly due to a decrease in electricity sales revenues resulting from a decrease of fuel cost adjustment charge.

Operating expenses decreased by 101.9 billion yen to 2,467.0 billion yen over the previous fiscal year, due mainly to an decrease in fuel costs caused by a fall of fuel price.

As a result, operating income decreased by 148.5 billion yen to 136.4 billion yen, compared with the previous fiscal year.

Operational results by segment (before elimination of inter-segment transactions) are as follows.

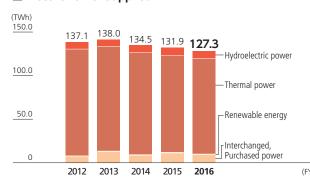
As the company introduced the company system in April 2016, comparisons of the current fiscal year with the previous fiscal year were not made.

Operating revenues of Power Generation amounted to 986.2 billion yen, and operating income was 61.2 billion

Operating revenues of Power Network amounted to 732.9 billion yen, and operating income was 35.0 billion

Operating revenues of Customer Service & Sales amounted to 2,452.6 billion yen, and operating income was 51.1 billion yen.

### Electric Power Supplied



\* From FY2016, the amount of power at the sending end has been mentioned as the mount of internally generated power.

### **Ordinary Income**

Non-operating revenue decreased by 0.8 billion yen to 18.4 billion yen over the previous fiscal year. In combination with sales, the ordinary revenue in total decreased by 251.3 billion yen year on year to 2,621.9 billion yen.

Meanwhile, non-operating expenses decreased by 15.2 billion yen to 33.4 billion yen over the previous fiscal year. Combined with operating expenses, total ordinary expenses decreased by 117.2 billion yen year on year, to 2,500.5 billion yen.

As a result, ordinary income decreased by 134.1 billion yen to 121.4 billion yen, compared with the previous fiscal year.

### Net Income attributable to owners of parent

During the current fiscal year, although the company recorded extraordinary income of 30.2 billion yen as JERA succeed the company's existing fuel business (upstream investments and fuel procurement) and the existing overseas power generation and energy infrastructure businesses, the net income attributable to owners of parent decreased by 55.0 billion yen to 114.6 billion yen, compared with the previous fiscal year.

### Analysis of Financial Standing

### **Assets**

Non-current assets decreased to 4,694.8 billion yen, down 99.7 billion yen from the end of the previous fiscal year, mainly due to the reversal of the reserve fund for reprocessing of irradiated nuclear fuel.

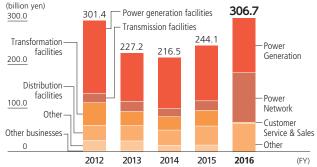
Current assets decreased by 26.9 billion yen to 717.5 billion yen, mainly due to a decrease in short-term investments.

As a result of the above, total assets decreased by 126.6 billion yen to 5,412.3 billion yen, compared with the previous fiscal year end.

### Liabilities

Total liabilities decreased by 214.2 billion yen from the end of the previous fiscal year to 3,687.5 billion yen, mainly due to the reversal of the provision for the reprocessing of irradiated nuclear fuel and the provision for preparation of the reprocessing irradiated nuclear fuel.

### Capital Investments



<sup>\*</sup> From FY 2016, it has been changed to a breakdown by segment.

### **Net Assets**

Total net assets increased by 87.6 billion yen from the end of the previous fiscal year to 1,724.7 billion yen due to the recognition of net income attributable to owners of the parent and other factors, despite the payment of dividends.

As a result, the shareholders' equity ratio was 31.1%.

### **Analysis of Cash Flows**

Cash flow from operating activities decreased by 227.3 billion yen to 335.0 billion yen over the previous fiscal year, because of such factors as a decrease in electricity sales revenues due to a fall in fuel cost adjustment charge.

Cash outflow from investment activities increased by 52.2 billion yen over the previous fiscal year to 360.2 billion yen, mainly because purchase of noncurrent assets increased.

As a consequence of the above, free cash flow worsened by 279.5 billion yen from the previous fiscal year, resulting in an expenditure of 25.1 billion yen.

Cash flow from financing activities increased by 333.1 billion yen from the previous fiscal year due to an increase in demand for funds, resulting in income of 21.0 billion yen.

Consequently, the amount of cash and cash equivalents at end of fiscal year under review decreased by 30.4 billion yen from the end of previous fiscal year.

Furthermore, total outstanding interest-bearing debt at end of fiscal year under review increased by 49.2 billion yen from end of the previous fiscal year to 2,674.7 billion yen.

### **Capital Investments**

Capital investments amounted to ¥345.6 billion in the fiscal year ended March 31, 2017 as a result of our efforts to pursue a maximum level of management efficiency, including procurement cost reduction by increasing competitive tendering when placing orders, while securing a stable supply of electric power and public security.

A breakdown of the capital investments by segment (before elimination of inter-segment transactions) is 125.1 billion yen for Power Generation, 114.6 billion yen for Power Network, 7.2 billion yen for Customer Service & Sales, and 105.1 billion yen for other segments.

# ■ (Reference) (billion yen) Fiscal 2016 Capital Investments (Non-consolidated)

Item	
Power Generation	125.1
Power Network	
Transmission facilities	25.1
Transformation facilities	44.9
Distribution facilities	34.2
Other	10.3
Total	114.6
Customer Service & Sales	0.8
Other	66.0
Grand total	306.7

<sup>\*</sup> The above figures do not include consumption tax.

### **Business and Other Risks**

Of all the variables affecting the Chubu Electric Power Group's performance and financial standing, the primary factors most likely to have a major effect on investors' decisions are listed below.

Forward-looking statements in this report are based on facts and conditions as of the date of this report (on June 29, 2017). Actual results may differ, affected by the government's future energy policy and revision of electricity business system.

### (1) Risks of the economic environment

### <1> Economic and weather conditions

In the electric power business, which is the core business of the Chubu Electric Power Group, the volume of electricity sales fluctuates due to economic and temperature, and consequently, the performance could potentially be affected.

In addition, the amount of yearly precipitation affects the amount of hydro electric power output, which impacts our power-generating costs. Chubu Electric, however, has set aside a reserve for fluctuation in water levels, which allows the company to make a certain adjustment against such impact within balance of the reserve, thus limits the effect on performance.

### <2> Changes in fuel prices, etc.

Although fuel cost such as liquefied ntural gas (LNG), and crude oil may be affected by market price and fluctuations in the currency exchange market, the fluctuations of fuel prices within certain range could potentially be reflected in electricity rates under "Fuel-cost Adjustment System", the impact of these factors on performance should be mitigated.

Meanwhile, the performance could also potentially be affected by the fluctuation in fuel expenses in the cases where: fuel becomes difficult to procure, for example, because of fluctuating supply and demand, supplier facility and/or operational issues, or changes in the political situation.

### <3> Changes in interest rates

The balance of interest-bearing debts at the Chubu Electric Power Group stood at 2,674.7 billion yen at the end of March 2017, an amount equivalent to 49.4% of the group's total assets. Interest payments on this debt are susceptible to market interest rates, and thus, the performance could potentially be affected.

Of these interest-bearing debts, however, 86.4% came from long-term funds (bonds and long-term loans), and most of these funding were procured at fixed interest rates. So the effect of interest rate changes is considered

Part of the corporate pension plan assets, held by the group, could potentially affect the performance as their market value fluctuates in tandem with movements in stock prices and interest rates, among other factors.

### (2) Risks associated with Chubu Electric Group business activities

### <1> Suspension of electricity generating facilities

Chubu Electric has suspended operation of all reactors at the Hamaoka Nuclear Power Station. Based on the new regulatory standards, the company has currently been implementing countermeasures steadily, while undergoing the Nuclear Regulation Authority's review to verify compliance with the new regulatory standards for Reactor No. 3 and No.4. The company will strengthen internal systems to take action in response to reviews being conducted, and allow early confirmation that the power station conforms to the new regulations.

The major safety enhancement measures at Unit 4, related to the tsunami/earthquake countermeasures or severe accident countermeasures that have been planned after the accident at the Fukushima Daiichi Nuclear Power Station, was mostly completed. In the future as well, if the contents of safety enhancement work need to be revised or additions need to be made based on the progress of the examination or based on new knowledge, the revisions or additions should be implemented at the earliest. After Unit 4, efforts will be made to implement the countermeasures in Unit 3 based on the new regulatory standards. In parallel with specifying the method for recovery from the sea-water inflow in Unit 5, countermeasures based on the new regulatory standards will be examined, and preparations will be made for applying for the examination for verification of conformance.

Moreover, on site response focusing on the inside of the power station, such as strengthening the on-site response capabilities through education/training or by streamlining the emergency preparedness system, will be continues, and in addition, efforts will be made to enhance the offsite response in preparation for nuclear disaster in the areas around the power station, by strengthening cooperation with the national and local governments, directed towards enhancing the effectiveness of emergency response including the evacuation of residents.

Since operation is suspended for all reactors at the Hamaoka Nuclear Power Station, the company is providing electricity using thermal power sources as an alternative; this will substantially increase fuel cost which, coupled with other factors, is likely to exert an influence on performance.

Providing the complete power supply system from power generation to distribution, the Chubu Electric Power Group strives to develop and maintain optimum facilities that ensure stable delivery of high quality electricity economically, while working to establish disaster-resistant systems by taking measures against large-scale earthquakes.

However, if supply facilities of the company or other power companies from which we receive power supply are shut down because of a large-scale disaster, an accident or terrorism and an obstacle to fuel procurement, the performance could potentially be affected.

### <2> Nuclear power back-end costs, etc.

The back-end business of nuclear power takes an extremely long time period and has many uncertainties. Rules set by the government have reduced such uncertainties, but the costs of nuclear fuel cycles, including back-end costs, may vary depending on regulatory reform, changes in estimates of future expenses (mandated and voluntary), and the operating status of reprocessing facilities. As a result, the performance could potentially be affected.

### <3> Changes in the competitive environment

Following the full liberalization of the electricity and gas retail markets and with the legal unbundling of the power transmission/distribution sector scheduled for 2020, the environment surrounding the energy business is changing rapidly. In addition, as markets and rules are being developed in stages to further encourage competition, the supply-demand structure may change significantly.

Under such circumstances, the Chubu Electric Power Group will maximize management efficiency and also create competitive tariff menu and new services that surpass the expectations of customers as well as promoting the sales of electricity and gas with focus on the Tokyo metropolitan area. However, the performance could also potentially be affected by intensified competition and changes to supply-demand structure.

Chubu Electric will strengthen its competitiveness by realizing flexible, economic an stable fuel procurement through JERA, and will also expand the scale of business in overseas power generation, energy infrastructure and other fields. Furthermore, with the aim of enhancing Chubu Electric Power Group's corporate value, the company will move ahead with detailed discussions and necessary procedures, toward the integration of the existing thermal power generation business with JERA scheduled in the first half of FY2019.

Since the company formed the alliance with the aim to accelerate its conventional growth strategy, the company believes the alliance will increase growth opportunities. However, the performance could be affected by the specific development of the alliance.

# <4> Regulatory amendments for global environment protection, etc.

With the international framework after 2020 regarding climate change agreed upon and global warming attracting international attention, Chubu Electric is, as a participating company of the "Electric Power Council for a Low Carbon Society (ELCS)", a voluntary framework for conducting acrivities to suppress the emission of greenhouse gas, also required to achieve the goals set by ELCS, as well as to improve the efficiency of thermal power generation and the ratio of non-fossil energy sources in accordance with the Energy Saving Act and the Sophisticated Methods of Energy Supply Structures, which were revised in April 2016,

Given this situation, the Chubu Electric Power Group has established the "Chubu Electric Power Group Basic

Environmental Policy". Under its detailed protocol designated as "Action Plan", the group aims to strive for the optimal energy mix and promote energy conservation, and through environmental management, contributes to the realization of a low carbon society on a global scale. However, the group performance could potentially be affected by the future trend of tightening environmental regulations, among other factors.

### <5> Businesses other than electric power

The Chubu Electric Power Group focuses on electricity, gas and on-site energy supply as its core business areas. The group is engaged in a wide range of businesses, including overseas energy business, taking advantage of our accumulated know-how in domestic businesses, constructions for expanding and securing electricity-related facilities, and manufacturing of materials and equipment for the core businesses of the group. These businesses are subject to changing business environments, including increasing competition with other enterprises, and could potentially affect performance if they fail to produce the results expected by the group.

### (3) Other risks

### <1> Compliance

The Chubu Electric Power Group strives for strict compliance by establishing the "Chubu Electric Power Group Basic Compliance Policy", which relates to compliance with laws, regulations and social rules. If any event against compliance occurs within or in connection with the organization and the reputation of the group is damaged, the performance could be adversely affected.

### <2> Information leaks

The Chubu Electric Power Group comply with the relevant laws, maintains internal systems and establishes rules on information handling to ensure proper management of personal information (including specific personal information) and other critical information. The group has also increased information system security as well as employee training for this purpose.

However, in case information leak occurs and the direct cost of responding to the situation and loss of public trust in the group arises, the performance could potentially be affected.

### **Consolidated Balance Sheets**

Chubu Electric Power Company, Incorporated and Subsidiaries as of March 31, 2017 and 2016

Thousands of U.S. dollars Millions of yen (Note 1) **ASSETS** March 31, 2017 March 31, 2016 March 31, 2017 Property, Plant and Equipment: ¥13,696,076 Property, plant and equipment, at cost ¥13,642,164 \$122,079,294 Construction in progress 398,279 340,221 3,550,040 14,094,355 13,982,385 125,629,334 less: Contributions in aid of construction (190,009) (1,693,636)(183,612)Accumulated depreciation (10,160,262)(10,066,696)(90,562,991)(10,250,308)(10,350,271)(92,256,627)Total Property, Plant and Equipment, Net (Notes 5 and 10) 3,744,084 3,732,077 33,372,707 Nuclear Fuel: Loaded nuclear fuel 40.040 40,040 356,895 Nuclear fuel in processing 136,575 193,839 1,217,354 176,615 1,574,249 Total Nuclear Fuel 233,879 Investments and Other Assets: Long-term investments (Notes 6, 7 and 10) 576,293 430,028 5,136,759 Reserve fund for reprocessing of irradiated nuclear fuel (Note 6) 177,674 Net defined benefit asset (Note 11) 18,903 168,491 26,321 Deferred tax assets (Note 17) 165,856 176,418 1,478,349 Other (Note 10) 14,707 19,554 131,091 Allowance for doubtful accounts (14,752)(1,655)(1,416)Total Investments and Other Assets 774,104 828,579 6,899,938 Current Assets: Cash and deposits (Notes 4, 6 and 10) 133,764 143,946 1,192,299 Trade notes and accounts receivable (Note 6) 238,404 237,143 2,125,002 Allowance for doubtful accounts (1,342)(1,221)(11,962)Short-term investments (Notes 4 and 7) 165,818 190,542 1,478,011 Inventories (Notes 9 and 10) 68,832 74,652 613,531 Deferred tax assets (Note 17) 28,303 252,277 31,155 Other (Note 10) 83,725 68,194 746,278 **Total Current Assets** 717,504 744,411 6,395,436 Total Assets (Notes 10 and 23) ¥5,412,307 ¥5,538,946 \$48,242,330

The accompanying notes to the consolidated financial statements are an integral part of these statements.

Thousands of U.S. dollars (Note 1) Millions of yen

	- IVIIIIon:	s or yerr	(Note 1)
LIABILITIES AND NET ASSETS	March 31, 2017	March 31, 2016	March 31, 2017
Non-current Liabilities :			
Long-term loans payable (Notes 6 and 10)	¥2,053,455	¥1,907,808	\$18,303,370
Provision for reprocessing of irradiated nuclear fuel	_	194,921	_
Provision for preparation of reprocessing irradiated nuclear fuel	_	16,662	_
Provision for loss in conjunction with discontinued	9,575	10,852	85,346
operations of nuclear power plants		<u> </u>	
Net defined benefit liability (Note 11)	187,141	204,413	1,668,072
Asset retirement obligations (Note 13)	206,813	198,908	1,843,417
Other (Notes 10 and 17)	147,093	168,897	1,311,106
Total Non-current Liabilities	2,604,077	2,702,461	23,211,311
Current Liabilities:			
Current portion of non-current liabilities (Notes 6 and 10)	293,826	387,397	2,619,003
Short-term loans payable (Notes 6 and 10)			
	356,464	349,637	3,177,324
Notes and accounts payable - trade (Note 6)	109,328	135,911	974,490
Accrued taxes	36,807	79,862	328,077
Other (Notes 6 and 13)	264,626	223,721	2,358,731
Total Current Liabilities	1,061,051	1,176,528	9,457,625
Reserve for Fluctuation in Water Levels	22,466	22,847	200,250
Total Liabilities	3,687,594	3,901,836	32,869,186
Commitments and Contingent Liabilities (Note 15)			
Net Assets (Note 16)			
Capital stock	430,777	430,777	3,839,709
Capital surplus	70,795	70,786	631,028
Retained earnings	1,136,801	1,044,855	10,132,819
Treasury shares, at cost	(1,207)	(1,121)	(10,758)
Total Shareholders' Equity	1,637,166	1,545,297	14,592,798
Accumulated other comprehensive income:			
Valuation difference on available-for-sale securities	39,486	38,313	351,956
Deferred gains or losses on hedges (Note 14)	(7,818)	(18,808)	(69,685)
Foreign currency translation adjustment	24,683	29,159	220,011
Remeasurements of defined benefit plans	(8,249)	5,974	(73,527)
Total Accumulated Other Comprehensive Income	48,102	54,638	428,755
Non-controlling interests	39,445	37,175	351,591
Total Net Assets	1,724,713	1,637,110	15,373,144
	, ,	· · ·	
Total Liabilities and Net Assets	¥5,412,307	¥5,538,946	\$48,242,330

## Consolidated Statements of Income

Chubu Electric Power Company, Incorporated and Subsidiaries for the years ended March 31, 2017 and 2016

	Million	s of yen	Thousands of U.S. dollars (Note 1)
	March 31, 2017	March 31, 2016	March 31, 2017
Operating Revenues :			
Electricity	¥2,340,793	¥2,570,960	\$20,864,542
Other	262,745	283,084	2,341,965
Total Operating Revenues (Note 23)	2,603,538	2,854,044	23,206,507
Operating Expenses:			
Electricity (Note 18)	2,219,647	2,308,321	19,784,713
Other	247,447	260,731	2,205,607
Total Operating Expenses	2,467,094	2,569,052	21,990,320
Operating Income (Note 23)	136,444	284,992	1,216,187
Other (Income) Expenses :			
Interest expense	28,724	37,752	256,030
Reversal of provision for loss in conjunction with discontinued operations of nuclear power plants (Note 19)	-	(10,812)	-
Gain on change in equity	30,292	_	270,006
Other, net	(74,348)	(8,370)	(662,697)
Total Other Expenses, Net	(15,332)	18,570	(136,661)
Income Before Provision of Reserve for Fluctuation in Water Levels and Income Taxes	151,776	266,422	1,352,848
(Reversal) Provision of Reserve for Fluctuation in Water Levels	(381)	12,218	(3,396)
Income Before Income Taxes	152,157	254,204	1,356,244
Income Taxes:			
Current	20,253	39,052	180,524
Deferred	14,976	43,121	133,488
Total Income Taxes	35,229	82,173	314,012
Net Income	116,928	172,031	1,042,232
Net income attributable to non-controlling interests	2,262	2,286	20,162
Net income attributable to owners of parent	¥114,666	¥169,745	\$1,022,070
	Υe	en	U.S. dollars (Note 1)
	March 31, 2017	March 31, 2016	March 31, 2017
Per Share of Capital Stock:			
Net income - basic	¥151.43	¥224.15	\$1.35
Cash dividends	30.00	25.00	0.27

The accompanying notes to the consolidated financial statements are an integral part of these statements.

# | Financial / Corporate Data

# Consolidated Statements of Comprehensive Income Chubu Electric Power Company, Incorporated and Subsidiaries for the years ended March 31, 2017 and 2016

	Millions	s of yen	Thousands of U.S. dollars (Note 1)
	March 31, 2017	March 31, 2016	March 31, 2017
Net Income	¥116,928	¥172,031	\$1,042,232
Other Comprehensive Income:			
Valuation difference on available-for-sale securities	1,357	(2,028)	12,096
Deferred gains or loss on hedges	2,259	(3,064)	20,135
Foreign currency translation adjustment	(11,586)	(8,997)	(103,271)
Remeasurements of defined benefit plans, net of tax	(13,725)	(14,818)	(122,337)
Share of other comprehensive income of entities accounted for using equity method	15,908	1,806	141,795
Other Comprehensive Income (Note 20)	(5,787)	(27,101)	(51,582)
Comprehensive Income	¥111,141	¥144,930	\$990,650
Comprehensive income attributable to:			
Owners of parent	¥108,130	¥146,291	\$963,811
Non-controlling interests	3,011	(1,361)	26,839

# Consolidated Statements of Changes in Net Assets Chubu Electric Power Company, Incorporated and Subsidiaries for the years ended March 31, 2017 and 2016

			Sha	areholders' equ	ity	· ·		Accumulate	d other com	orehensive income			
	Number of shares of capital stock issued	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	Valuation difference on available- for-sale securities	Deferred gains or loss on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
	_						Millions of	yen					
Balance at April 1, 2015	758,000,000	¥430,777	¥70,777	¥890,258	¥(986)	¥1,390,826	¥40,170	¥(14,216)	¥34,670	¥17,467	¥78,091	¥38,591	¥1,507,508
Dividends of surplus	-	-	-	(15,148)	-	(15,148)	-	-	-	-	-	-	(15,148)
Net income attributable to owners of parent	-	-	-	169,745	-	169,745	-	-	-	-	-	-	169,745
Purchase of treasury shares	-	-	=	=	(141)	(141)	-	=	-	-	=	-	(141)
Disposal of treasury shares	-	-	-	-	6	6	-	-	-	-	-	-	6
Change in equity of parent on transactions with non-controlling interests	-	-	7	-	-	7	-	-	-	-	-	-	7
Capital increase of consolidated subsidiaries	-	-	2	-	-	2	-	-	-	-	-	-	2
Net changes of items other than shareholders' equity	÷	÷	-	=	-	-	(1,857)	(4,592)	(5,511)	(11,493)	(23,453)	(1,416)	(24,869)
Balance at March 31, 2016	758,000,000	¥430,777	¥70,786	¥1,044,855	¥(1,121)	¥1,545,297	¥38,313	¥(18,808)	¥29,159	¥5,974	¥54,638	¥37,175	¥1,637,110

							Millions of y	en					
Balance at April 1, 2016	758,000,000	¥430,777	¥70,786	¥1,044,855	¥(1,121)	¥1,545,297	¥38,313	¥(18,808)	¥29,159	¥5,974	¥54,638	¥37,175	¥1,637,110
Dividends of surplus	-	-	-	(22,720)	-	(22,720)	-	-	-	-	-	-	(22,720)
Net income attributable to owners of parent	-	-	-	114,666	-	114,666	-	-	-	-	-	-	114,666
Purchase of treasury shares	-	-	-	-	(89)	(89)	-	-	-	-	-	-	(89)
Disposal of treasury shares	-	-	-	-	3	3	-	-	-		-	-	3
Change in equity of parent on transactions with non-controlling interests	-	-	9	-	-	9	-	-	-	-	-	-	9
Net changes of items other than shareholders' equity	u u	-	-	-	-	-	1,173	10,990	(4,476)	(14,223)	(6,536)	2,270	(4,266)
Balance at March 31, 2017	758,000,000	¥430,777	¥70,795	¥1,136,801	¥(1,207)	¥1,637,166	¥39,486	¥(7,818)	¥24,683	¥(8,249)	¥48,102	¥39,445	¥1,724,713

					Thousa	nds of U.S. dol	lars (Note 1)					
Balance at April 1, 2016	\$3,839,709	\$630,948	\$9,313,263	\$(9,992)	\$13,773,928	\$341,501	\$(167,644)	\$259,907	\$53,249	\$487,013	\$331,358	\$14,592,299
Dividends of surplus	=	-	(202,514)	-	(202,514)	=	-	-	=	=	-	(202,514)
Net income attributable to owners of parent	-	-	1,022,070	-	1,022,070	-	-	-	-	-	-	1,022,070
Purchase of treasury shares	-	-	-	(793)	(793)	-	-	-	-	-	-	(793)
Disposal of treasury shares	-	-	-	27	27	-	-	-	-	-	-	27
Change in equity of parent on transactions with non-controlling interests	-	80	-	-	80	-		-	-	-		80
Net changes of items other than shareholders' equity	-	-	-	-	-	10,455	97,959	(39,896)	(126,776)	(58,258)	20,233	(38,025)
Balance at March 31, 2017	\$3,839,709	\$631,028	\$10,132,819	\$(10,758)	\$14,592,798	\$351,956	\$(69,685)	\$220,011	\$(73,527)	\$428,755	\$351,591	\$15,373,144

The accompanying notes to the consolidated financial statements are an integral part of these statements.

## **Consolidated Statements of Cash Flows**

Chubu Electric Power Company, Incorporated and Subsidiaries for the years ended March 31, 2017 and 2016

	Millions	s of yen	Thousands of U.S. dollars (Note 1)
	March 31, 2017	March 31, 2016	March 31, 2017
Cash Flows from Operating Activities:			
Income before income taxes	¥152,157	¥254,204	\$1,356,244
Adjustments for:			
Depreciation	255,692	257,063	2,279,098
Decommissioning costs of nuclear power units	4,685	6,199	41,760
Loss on retirement of non-current assets	11,326	12,280	100,954
Decrease in provision for net defined benefit liability and asset	(28,895)	(11,850)	(257,554)
Decrease in provision for reprocessing of irradiated nuclear fuel	(8,507)	(14,825)	(75,827)
Increase in provision for preparation of reprocessing of	222		0.000
irradiated nuclear fuel	333	641	2,968
Decrease in provision for loss in conjunction with			
discontinued operations of nuclear power plants	(1,276)	(10,812)	(11,374)
(Decrease) increase in reserve for fluctuation in water levels	(381)	12,218	(3,396)
Interest and dividend income	(3,338)	(6,359)	(29,753)
Interest expenses	28,724	37,752	256,030
Gain on change in equity	(30,292)	-	(270,006)
Decrease in reserve fund for reprocessing of irradiated nuclear fuel	12,986	15,009	115,750
Payments of contribution for accrued reprocessing of	/·v		,
irradiated nuclear fuel	(17,084)	_	(152,277)
Decrease (increase) in notes and accounts receivable - trade	(1,141)	13,697	(10,170)
Decrease in inventories	5,664	50,529	50,486
Decrease in notes and accounts payable - trade	(25,748)	(36,840)	(229,504)
Other, net	54,438	27,390	485,230
Subtotal	409,343	606,296	3,648,659
Interest and dividend income received	6,596	10,572	58,793
Interest expenses paid	(29,488)	(39,153)	(262,840)
Income taxes paid	(51,387) 335,064	(15,304) 562,411	(458,036) 2,986,576
Cash flows from operating activities	333,004	502,411	2,980,570
Cash Flows from Investing Activities:	(322,308)	(283,648)	(2,872,876)
Purchase of non-current assets	(64,413)	(71,632)	(574,142)
Payments of investment and loans receivable	10,679	39,769	95,187
Collection of investment and loans receivable	10,073	33,703	55,167
Purchase of shares of subsidiaries resulting in change in scope of	_	(4,059)	_
consolidation	15,810	11,575	140,921
Other, net	(360,232)	(307,995)	(3,210,910)
Cash flows from investing activities	(300,232)	(307,333)	(3,210,310)
Cash Flows from Financing Activities:  Proceeds from issuance of bonds	209,275	59,795	1,865,363
Redemption of bonds	(124,500)	(172,050)	(1,109,725)
Proceeds from long-term loans payable	198,400	89,281	1,768,429
Repayments of long-term loans payable	(241,917)	(275,982)	(2,156,315)
Increase in short-term loans payable	386,077	375,470	3,441,278
Decrease in short-term loans payable	(378,770)	(370,167)	(3,376,148)
Purchase of treasury shares	(126)	(146)	(1,123)
Cash dividends paid	(22,685)	(15,147)	(202,202)
Dividends paid to non-controlling interests	(673)	(543)	(5,999)
Other, net	(4,011)	(2,631)	(35,752)
Cash flows from financing activities	21,070	(312,120)	187,806
Effect of exchange rate change on cash and cash equivalents	14	(917)	125
Net decrease in cash and cash equivalents	(4,084)	(58,621)	(36,403)
Cash and cash equivalents at beginning of this period	324,391	390,088	2,891,443
Decrease in cash and cash equivalents resulting from change of			
scope of consolidation	(26,353)	(7,076)	(234,896)
Cash and cash equivalents at end of this period (Note 4)	¥293,954	¥324,391	\$2,620,144

The accompanying notes to the consolidated financial statements are an integral part of these statements.

### Notes to Consolidated Financial Statements

### 1. Basis of Consolidated Financial Statements

### (a) Basis of presenting the consolidated financial statements

The consolidated financial statements of Chubu Electric Power Company, Incorporated (the "Company") and its subsidiaries (together with the Company, the "Chubu Electric Group") have been prepared as required by the provisions set forth in the Japanese Corporate Law, the Financial Instruments and Exchange Law of Japan, the accounting regulations applicable to the electric power industry and on the basis of accounting principles generally accepted in Japan, which are different in certain respects as to application and disclosure requirements from International Financial Reporting Standards ("IFRS").

These consolidated financial statements are compiled from the original consolidated financial statements in Japanese, prepared by the Company as required by the Financial Instruments and Exchange Law of Japan and submitted to the Director of Kanto Finance Bureau in Japan.

### (b) U.S. dollar amounts

The Company maintains its accounting records in Japanese yen. The U.S. dollar amounts included in the consolidated financial statements and notes thereto present the arithmetic results of translating yen amounts into U.S. dollar amounts on a basis of ¥112.19 to U.S. \$1.00, the prevailing exchange rate at the fiscal year-end. The inclusion of the dollar amounts is solely for convenience of the reader and is not intended to imply that the assets and liabilities originating in Japanese yen have been or could readily be converted, realized or settled in U.S dollars at the above rate or at any other rate.

### 2. Summary of Significant Accounting Policies

### (a) Basis of consolidation

The consolidated financial statements include the accounts of the Company and all of its subsidiaries. Investments in all affiliates are accounted for by the equity method. The difference between the acquisition cost of investments in subsidiaries and affiliates and the underlying equity in their net assets adjusted based on the fair value at the time of acquisition are principally deferred and amortized over certain periods within twenty years on a straight-line basis. All significant intercompany transactions and accounts are eliminated on consolidation.

The number of subsidiaries and affiliates at March 31, 2017 and 2016 was as follows:

	March 31, 2017	March 31, 2016
Subsidiaries:		
Domestic	25	26
Overseas	4	26
Affiliates	24	42

The Company's overseas subsidiaries close their books at December 31, three months earlier than the Company and its domestic subsidiaries. The Company consolidates the financial statements of the overseas subsidiaries as of their fiscal year-end. Significant transactions for the period between the subsidiaries' year-end and the Company's year-end are adjusted for on consolidation. The financial statements of significant overseas subsidiaries are prepared in accordance with either IFRS or U.S. generally accepted accounting principles, with adjustments for the specified five items as required by "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements" and "Practical Solution on Unification of Accounting Policies Applied to Affiliates Accounted for by the Equity Method" issued by the Accounting Standards Board of Japan ("ASBJ").

### (b) Property, plant and equipment and depreciation

Property, plant and equipment are stated at cost. Depreciation of property, plant and equipment is computed by the declining balance method over the estimated useful life of the asset. Contributions in aid of construction are deducted from the depreciable costs of the assets.

### (c) Nuclear fuel and amortization

Nuclear fuel is stated at cost, less amortization. The amortization of loaded nuclear fuel is computed based on the quantity of energy produced for the generation of electricity in accordance with the provisions prescribed by the regulatory authorities.

### (d) Investments and marketable securities

The Chubu Electric Group classifies certain investments in debt and equity securities as "trading," "held-to-maturity" or "available-for-sale," the classification of which determines the respective accounting methods to be used to account for the investments as stipulated by the accounting standard for financial instruments. The Chubu Electric Group had no trading securities in the fiscal years under review. Held-to-maturity securities are stated at amortized cost. Available-for-sale securities with market quotations are stated at fair value, and net unrealized gains and losses on these securities are reported as accumulated other comprehensive income, net of applicable income taxes. Available-for sale securities without available market quotations are carried at cost determined by the moving average method. Adjustments in the carrying values of individual securities are charged to loss through write-downs when a decline in fair value is deemed other than temporary. The cost of securities is computed by the moving average method.

### (e) Derivatives and hedge accounting

Derivatives are valued at fair value if hedge accounting is not appropriate or when there is no hedging designation, and the gains and losses on the derivatives are recognized in current earnings. Certain transactions classified as hedging transactions are accounted for under a deferral method by which unrealized gains and losses on the hedging instruments are carried as accumulated other comprehensive income on the balance sheet and the net changes are recognized as other comprehensive income on the consolidated statements of comprehensive income until the losses and gains on the hedged items are realized. Foreign exchange forward contracts are accounted for by translating foreign currency denominated assets and liabilities at contract rates as an interim measure if certain hedging criteria are met. According to the special treatment permitted by the accounting standard for financial instruments in Japan, interest rate swaps are not valued at fair value. Rather, the net amount received or paid is added to or deducted from the interest expense on the hedged items if certain conditions are met. The Chubu Electric Group enters into derivative transactions only with respect to assets and liabilities generated through the Chubu Electric Group's operations and to hedge exposure to fluctuations in exchange rates and interest rates.

### (f) Inventories

Inventories consist of fuel, materials, supplies and construction work-in-process. Fuel is stated at the lower of cost, determined principally by the periodic average method.

### (g) Allowance for doubtful accounts

An allowance for doubtful accounts has been provided for at the aggregate amount of estimated credit loss for doubtful or troubled receivables based on a financial review of certain individual accounts and a general reserve for other receivables based on the historical loss experience for a certain past period.

# (h) Provision for loss in conjunction with discontinued operations of nuclear power plants

In the years ended March 31, 2017 and 2016, a provision was made based on a reasonable estimate of possible future expenses and losses related to the decommissioning of electric generating facilities that followed the termination of operations at Hamaoka Reactors No. 1 and No. 2.

### (i) Reserve for fluctuation in water levels

In order to prepare for losses due to drought, the Company has recognized the maximum amount of allowance specified in Article 36 of the Electricity Business Act (No. 170, 1964) before revision, to which Article 1 of the Act for Amending Part of the Electricity Business Act (No. 72, 2014) is applied, as effective by replacing the terms of Paragraph 3, Article 16 of the Supplementary Provisions of the Act.

### (j) Employee retirement benefits

To cover the payment of retirement benefits to employees, the difference between the amount of retirement benefit obligations and the value of plan assets has been recognized as a liability for retirement benefits (an asset for retirement benefits if the value of plan assets exceeds the amount of retirement benefit obligations).

### (a) Method of allocation of estimated retirement benefits

To calculate retirement benefit obligations, the benefit formula basis is used to allocate estimated retirement benefits.

# (b) Actuarial gains and losses and prior service cost amortized in expenses

Prior service cost is amortized using the straight-line method over certain periods (15 years for subsidiaries) which are within the average of the estimated remaining service years of the employees as of the year in which such cost arises. Actuarial gains and losses

are amortized using the straight-line method (some subsidiaries use the declining balance method) over certain periods (3 years for the Company and 3 to 15 years for subsidiaries) which are within the average of the estimated remaining service years of the employees as of the year after such gains and losses arise (the year in which such gains and losses arise for some subsidiaries).

### (k) Cash and cash equivalents

The Company considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents.

### (I) Research and development costs

Research and development costs included in operating expenses for the years ended March 31, 2017 and 2016 amounted to ¥9,903 million (\$88,270 thousand) and ¥9,460 million, respectively.

### (m) Income taxes

Income taxes are accounted for by the asset-liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to the differences between the carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using the enacted tax rates expected to be applied to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the promulgation date of the relevant law.

### (n) Translation of foreign currency accounts

Receivables, payables and securities, other than stocks of subsidiaries and certain other securities, are translated into Japanese yen at the prevailing exchange rate at the fiscal year-end. Transactions in foreign currencies are translated based on the prevailing exchange rate on the transaction date. Resulting foreign exchange translation gains and losses are included in the consolidated statements of income.

For financial statement items of the overseas subsidiaries and affiliates, all asset and liability accounts are translated into Japanese yen by applying the exchange rate in effect at the respective fiscal year-end. All income and expense accounts are translated at the average rate of exchange prevailing during the year. Translation differences are reported in the consolidated balance sheets as foreign currency translation adjustments in accumulated other comprehensive income after allocating the portion attributable to minority interests, and the net change is recognized as other comprehensive income on the consolidated statement of comprehensive income.

### (o) Per share information

Basic net income per share is computed by dividing income available to common shareholders by the weighted average number of shares outstanding during the year. Cash dividends per share shown for each fiscal year in the consolidated statements of income represent dividends declared as applicable to the respective year.

### 3. Additional information

On October 1, 2016, "Act for Partial Amendment to the Act for Deposit and Management of the Reserve Funds for Reprocessing of Spent Fuel from Nuclear Power Generation" (Act No. 40 of May 18, 2016) and "Ordinance for Partial Revision of the Ordinance on Accounting at Electricity Utilities and Other Provisions" (Ordinance of the Ministry of Economy, Trade and Industry No. 94 of September 30, 2016) came into effect, and "Ordinance on Accounting at Electric Utilities" (Ordinance of the Ministry of International trade and Industry No. 57 of June 15, 1965) were revised.

Prior to the changes, in order to set aside the expenses necessary for the reprocessing of irradiated nuclear fuel, the amount recognized as accrued at the end of this consolidated fiscal year had been allocated as a provision for the reprocessing of irradiated nuclear fuel and as a provision for preparation of the reprocessing irradiated nuclear fuel based on the estimated expenses necessary to reprocess irradiated nuclear fuel. However, from the said date of enforcement, it has been decided that an amount commensurate with the volume of irradiated nuclear fuel generated with the operations of the specific utility power generation reactor will be paid into the Nuclear Reprocessing Organization of Japan as a contribution and allocated as an electric utility operating expenses.

To date, a reserve fund for reprocessing of irradiated nuclear fuel in amount of 164,688 million yen (\$1,467,938 thousand), a provision for the reprocessing of irradiated nuclear fuel in the amount of 186,414 million yen (\$1,661,592 thousand), and a provision for the preparation of the reprocessing irradiated nuclear fuel in the amount of 16,995 million yen (\$151,484 thousand), have been used up.

### 4. Cash and Cash Equivalents

For the consolidated statements of cash flows, reconciliation between cash and cash equivalents and cash balances on the consolidated balance sheets were as follows:

	Millions	s of yen	Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Cash and deposits	¥133,764	¥143,946	\$1,192,299
Time deposits with an original maturity of more than three months included in cash and deposits	(810)	(9,072)	(7,220)
Short-term investments	165,818	190,542	1,478,010
Short-term investments with an original maturity of over three months	(4,818)	(1,025)	(42,945)
Cash and cash equivalents	¥293,954	¥324,391	\$2,620,144

### 5. Property, Plant and Equipment

The major classifications of property, plant and equipment at March 31, 2017 and 2016 were as follows:

	Millions	s of yen	Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Hydroelectric power production facilities	¥ 318,640	¥ 329,468	\$ 2,840,182
Thermal power production facilities	579,275	597,555	5,163,339
Nuclear power production facilities	156,626	170,495	1,396,078
Transmission facilities	703,633	740,571	6,271,798
Transformation facilities	412,222	403,352	3,674,320
Distribution facilities	784,691	779,900	6,994,304
General facilities	110,092	111,411	981,300
Other electricity related to property, plant and equipment	15,224	11,687	135,698
Other property, plant and equipment	265,402	247,417	2,365,648
Construction in progress	398,279	340,221	3,550,040
Total	¥3,744,084	¥3,732,077	\$33,372,707

Calculated according to the accounting principles and practices generally accepted in Japan, accumulated gains on the receipt of contributions in aid of real property construction deducted from the original acquisition costs amounted to ¥190,009 million (\$1,693,636 thousand) and ¥183,612 million at March 31, 2017 and 2016, respectively.

### 6. Financial Instruments

### (a) Items related to financial instruments

### (1) Policy initiatives for financial instruments

The Chubu Electric Group raises funds for the equipment necessary to run its core electric power business through bond issues, bank loans and other means. Short-term working capital is secured principally through short-term borrowing and fund management is restricted to low-risk assets such as certificates of deposit. Derivative transactions are used to manage risk arising from the Chubu Electric Group's operations and are not used for speculative purposes.

### (2) Breakdown of financial instruments and associated risks

Marketable securities include certificates of deposit and shares of domestic companies contributing to business operations or regional development, bond holdings of subsidiaries and other instruments estimated to raise our Group's corporate value from a mid-and long-term viewpoint. These securities, bonds, etc., are exposed to

risks arising from changes in market prices.

Trade notes and accounts receivable are exposed to customer credit risks.

Most of the Chubu Electric Group's interest-bearing debt balance consists of bonds and long-term funds holdings from long-term borrowings. However, operational results may be minimally affected because most funds are raised at fixed interest rates.

Trade notes and accounts payable for operating debts are almost all due within one year.

Derivative transactions consist of currency swaps and interest rate swaps for financial liabilities connected to raising funds in order to avoid losses from future volatility in currency markets and interest rates on financial liabilities. Hedging methods and hedging objectives in hedge accounting, hedging policies, effective valuation methods for hedges and other related items are described in Note 2 (e), Summary of Significant Accounting Policies - Derivatives and hedge accounting.

# (3) Risk management system for financial instruments 1) Credit risk management

For trade accounts receivable arising from electricity bills, due dates and account balances are managed for each customer based on terms and conditions for electricity supply. For derivative transactions, financial institutions and other enterprises with high credit ratings are selected and credit standing is assessed even after transaction contracts are completed.

### 2) Market risk management

For marketable securities, the fair value of the securities and the financial and operating conditions of the issuers are regularly assessed. Derivative transactions are enacted and managed based

on the Company's internal rules established for authorizing trades, managing and reporting. A trade management department independently handles transactions and approves contract amounts (notional and other value) for each transaction by classification. For a subsidiary engaged in fuel trading, a management committee of the Company monitors approved transactions to ensure they are enacted according to agreed upon parameters.

### 3) Volatility risk management in financing

Financing plans are formulated and daily receipts and payments are validated for managing risk.

# (4) Supplementary explanation of fair value for financial instruments

The fair value of financial instruments is based on market prices or reasonable alternative assessments if there is no market price. Since some variable factors are used in assessing value, the amounts calculated can change based on different assumptions that are applied. Derivative contract amounts noted below in "(b) Fair value of financial instruments" do not denote the market risk from the derivatives themselves. In addition, fair value and valuation gains and losses are reasonably quoted amounts based on market indicators for valuations and other measures. They are not necessarily amounts that would be received or paid in the future.

### (b) Fair value of financial instruments

Differences between the valuation amounts of financial instruments as they appear on the consolidated balance sheets and their fair values as of March 31, 2017 and 2016 are shown below. Items with fair values that were extremely difficult to determine were not included (See Note 2).

		Millions of yen	
As of March 31, 2017	Carrying value	Fair value	Difference
Assets:			
(1) Marketable securities	¥ 253,610	¥ 250,285	¥ (3,325)
(2) Fund for reprocessing of irradiated nuclear fuel	_	_	_
(3) Cash and deposits	133,764	133,764	_
(4) Trade notes and accounts receivable	238,404	238,404	-
iabilities:			
(5) Bonds *1	¥ 639,258	¥ 653,120	¥13,862
(6) Long-term borrowings *1	1,672,047	1,747,313	75,266
(7) Short-term borrowings	356,464	356,464	_
(8) Trade notes and accounts payable	109,328	109,328	_
(9) Derivative transactions *2	(3,930)	(3,930)	-
As of March 31, 2016		Millions of yen	
Assets:			
(1) Marketable securities	¥ 290,918	¥ 290,826	¥ (92)
(2) Fund for reprocessing of irradiated nuclear fuel	177,674	177,674	_
(3) Cash and deposits	143,946	143,946	-
(4) Trade notes and accounts receivable	237,143	237,143	_
iabilities:			
(5) Bonds *1	¥ 553,753	¥ 575,750	¥21,997
(6) Long-term borrowings *1	1,715,364	1,766,475	51,111
(7) Short-term borrowings	349,637	349,637	_
(8) Trade notes and accounts payable	135,911	135,911	_
(9) Derivative transactions *2	(6,822)	(6,822)	_

	Т	Thousands of U.S. dollars			
As of March 31, 2017	Carrying value	Fair value	Difference		
Assets:					
(1) Marketable securities	\$ 2,260,540	\$ 2,230,903	\$ (29,637)		
(2) Fund for reprocessing of irradiated nuclear fuel	_	_	_		
(3) Cash and deposits	1,192,299	1,192,299	-		
(4) Trade notes and accounts receivable	2,125,002	2,125,002	-		
Liabilities:					
(5) Bonds *1	\$ 5,697,994	\$ 5,821,553	\$123,559		
(6) Long-term borrowings *1	14,903,708	15,574,588	670,880		
(7) Short-term borrowings	3,177,324	3,177,324	_		
(8) Trade notes and accounts payable	974,490	974,490	_		
(9) Derivative transactions *2	(35,030)	(35,030)	_		

<sup>\*1 (5)</sup> Bonds and (6) Long-term borrowings include scheduled redemptions within one year.

(Note 1) Methods for calculating the fair value of financial instruments, marketable securities and derivative transactions. The fair value of "(2) Fund for reprocessing of irradiated nuclear fuel" was calculated using the method from the year ended March 31, 2016.

### (1) Marketable securities

The value of equity securities is determined from stock market prices and bonds from their market prices or prices quoted by financial institutions. The fair value of marketable securities settled in the short-term such as certificates of deposit are presented by their book values because their market prices are almost equal to them. See Note 7, Marketable Securities and Investments Securities, for purposes of retaining holdings.

### (2) Fund for reprocessing of irradiated nuclear fuel

Assets are allocated as stipulated under the Law on the Creation and Management of Reserve Funds for the Reprocessing of Spent Fuel at Nuclear Power Stations (Article 48, May 20, 2005). Redemptions must meet requirements under the Ministry of Economy, Trade and Industry's plans for redeeming funds for reprocessing irradiated nuclear fuel. Since the carrying value is based on the current value of assets that are scheduled to be redeemed in the future according to plans at the end of the year for years ended March 31, 2017 and 2016, the fair value is derived from the carrying value.

### (3) Cash and deposits and (4) Trade notes and accounts receivable

For cash and deposits, trade notes and accounts receivable, the carrying value is used for fair value because the accounts will be settled in the near future, meaning the fair value is largely equivalent to the carrying value.

### (5) Bonds

Bonds with market prices are valued by the market price, and bonds without market prices are valued based on terms projected as if they were being newly issued. Some bonds are subject to foreign exchange forward contracts in the allocation process. These are valued based on the same terms and conditions applied to derivative transactions.

### (6) Long-term borrowings

The value of long-term borrowings is calculated using terms as if the borrowings were new loans. Some borrowings are subject to special foreign exchange forward contracts or interest rate swaps in the allocation process. These are valued based on the same terms and conditions applied to derivative transactions.

### (7) Short-term borrowings and (8) Trade notes and accounts payable

For short-term borrowings and trade notes and accounts payable, the carrying value is used for these amounts because the accounts will be settled in the near future, meaning the fair value is largely equivalent to the carrying value.

### (9) Derivative transactions

Refer to Note 14, Derivatives.

### (Note 2) Financial instruments for which assessing fair value is extremely difficult to determine.

	Millions of yen		Thousands of U.S. dollars	
	March 31, 2017	March 31, 2016	March 31, 2017	
Unlisted stocks, etc.	¥445,036	¥307,290	\$3,966,806	

These financial instruments do not have market prices, and estimating their future cash flows would require considerable costs. Consequently, these securities are not included in "(1) Marketable securities" above.

<sup>\*2</sup> The amounts denote net liabilities and obligations resulting from derivative transactions.

### (Note 3) Anticipated redemption schedule for monetary instruments and securities with maturity dates subsequent to the fiscal year-end.

		Million	s of yen	
	Within	Over 1 year	Over 5 years	Over
As of March 31, 2017:	1 year	through 5 years	through 10 years	10 years
Securities: Held-to-maturity debt securities: National and local government bonds, etc.	¥ 1,600	¥ 200	¥ –	¥ –
Corporate bonds	1,600	1,700	-	-
Other	1,400	400	200	_
Available-for-sale securities with maturity dates:				
Debt securities: National and local government bonds, etc.	_	-	-	_
Corporate bonds	-	314	-	250
Other	_	_	-	_
Other	161,000	_	_	_
Fund for reprocessing of irradiated nuclear fuel *	_	_	_	_
Cash and deposits	133,764	_	_	_
Trade notes and accounts receivable	238,390	15	_	_
Total	¥537,754	¥2,629	¥200	¥250
As of March 31, 2016:		Million	s of yen	
Securities: Held-to-maturity debt securities: National and local government bonds, etc.	¥ 200	¥1,800	¥ –	¥ _
Corporate bonds	. 200	3,300	· _	
Other	400	1.799	200	_
Available-for-sale securities with maturity dates:	400	1,733	200	
Debt securities: National and local government bonds, etc.				
Corporate bonds	_	320	_	257
Other	200	320	_	237
Other	189,000	_	_	_
Fund for reprocessing of irradiated nuclear fuel *		_	_	_
	25,354	_	_	_
Cash and deposits	143,946	177	_	_
Trade notes and accounts receivable	236,966	177	¥200	-
Total	¥596,066	¥7,396	¥200	¥257
As of March 31, 2017:			of U.S. dollars	
Securities: Held-to-maturity debt securities: National and local government bonds, etc.	\$ 14,262	\$ 1,782	\$ -	\$ -
Corporate bonds	14,262	15,153	-	-
Other	12,479	3,565	1,783	-
Available-for-sale securities with maturity dates:				
Debt securities: National and local government bonds, etc.	_	-	-	_
Corporate bonds	_	2,799	_	2,228
Other	_	-	-	-
Other	1,435,065	_	_	_
Fund for reprocessing of irradiated nuclear fuel *	-	_	_	_
Cash and deposits	1,192,299	_	_	_
Trade notes and accounts receivable	2,124,877	134	_	_
Total	\$4,793,244	\$23,433	\$1,783	\$2,228

<sup>\*</sup> Anticipated redemption of the funds for the reprocessing of irradiated nuclear fuel over more than one year for the year ended March 31, 2016 is not disclosed due to contract requirements and other considerations.

### (Note 4) Anticipated redemption schedule for bonds, long-term borrowings and other interest-bearing debt subsequent to the fiscal year-end.

	Millions of yen					
	Within	Over 1 year	Over 2 years	Over 3 years	Over 4 years	Over
As of March 31, 2017:	1 year	through 2 years	through 3 years	through 4 years	through 5 years	5 years
Bonds	¥ 40,000	¥ 60,000	¥100,000	¥ 60,000	¥ –	¥ 379,260
Long-term borrowings	217,852	174,323	177,971	234,372	186,020	681,511
Short-term borrowings	356,464	-	_	-	_	_
Total	¥614,316	¥234,323	¥277,971	¥294,372	¥186,020	¥1,060,771
As of March 31, 2016:			Millions	s of yen		
Bonds	¥124,500	¥ 40,000	¥ 60,000	¥100,000	¥ 60,000	¥ 169,260
Long-term borrowings	236,813	216,875	173,346	176,995	232,185	679,151
Short-term borrowings	349,637	-	_	-	_	_
Total	¥710,950	¥256,875	¥233,346	¥276,995	¥292,185	¥ 848,411
As of March 31, 2017	Thousands of U.S. dollars					
Bonds	\$ 356,538	\$ 534,807	\$ 891,345	\$ 534,807	\$ -	\$3,380,515
Long-term borrowings	1,941,813	1,553,819	1,586,336	2,089,063	1,658,080	6,074,615
Short-term borrowings	3,177,324	-	_	-	_	_
Total	\$5,475,675	\$2,088,626	\$2,477,681	\$2,623,870	\$1,658,080	\$9,455,130

### 7. Marketable Securities and Investments Securities

Held-to-maturity debt securities at March 31, 2017 and 2016 were as follows:

		Millions of yen	
As of March 31, 2017	Carrying value	Fair value	Difference
Securities whose fair value exceeds carrying value:			
National and local government bonds, etc.	¥1,800	¥1,821	¥ 21
Corporate bonds	3,300	3,374	74
Other	1,800	1,845	45
Subtotal	6,900	7,040	140
Securities whose carrying value exceeds fair value:			
National and local government bonds, etc.	_	-	_
Corporate bonds	_	_	_
Other	200	196	(4)
Subtotal	200	196	(4)
Total	¥7,100	¥7,236	¥136
As of March 31, 2016		Millions of yen	
Securities whose fair value exceeds carrying value:		oris or yell	
National and local government bonds, etc.	¥2,000	¥2,051	¥ 51
Corporate bonds	3,300	3,419	119
Other	2.199	2.278	79
Subtotal	7,499	7,748	249
Securities whose carrying value exceeds fair value:	.,.33	7,7 .0	2.3
National and local government bonds, etc.	_	_	_
Corporate bonds	_	_	_
Other	200	196	(4)
Subtotal	200	196	(4)
Total	¥7,699	¥7,944	¥245
As of March 31, 2017	Т	housands of U.S. dolla	rs
Securities whose fair value exceeds carrying value:		Trousarius or o.s. dona	
National and local government bonds, etc.	\$16,045	\$16,232	\$ 187
Corporate bonds	29,414	30,074	660
Other	16.044	16,445	401
Subtotal	61,503	62,751	1,248
Securities whose carrying value exceeds fair value:	,	,	,
National and local government bonds, etc.	_	_	_
Corporate bonds	_	_	_
Other	1,783	1,747	(36)
Subtotal	1,783	1,747	(36)
Total	\$63,286	\$64,498	\$1,212

Available-for-sale securities at March 31, 2017 and 2016 were as follows:

		Millions of yen	
As of March 31, 2017	Carrying value	Acquisition cost	Difference
Securities whose carrying value exceeds acquisition cost:			
Stocks	¥ 74,541	¥ 17,030	¥57,511
Bonds			
National and local government bonds, etc.	_	-	-
Corporate bonds	565	500	65
Other	_	-	-
Other	_	_	_
Subtotal	75,106	17,530	57,576
Securities whose acquisition cost exceeds carrying value:			
Stocks	777	821	(44)
Bonds			
National and local government bonds, etc.	_	-	-
Corporate bonds	_	_	_
Other	_	_	_
Other	161,000	161,000	_
Subtotal	161,777	161,821	(44)
Total	¥236,883	¥179,351	¥57,532

		Millions of yen	
As of March 31, 2016	Carrying value	Acquisition cost	Difference
Securities whose carrying value exceeds acquisition cost:		'	
Stocks	¥ 74,602	¥ 18,829	¥55,773
Bonds			
National and local government bonds, etc.	_	_	_
Corporate bonds	577	500	77
Other	201	200	1
Other	_	_	-
Subtotal	75,380	19,529	55,851
Securities whose acquisition cost exceeds carrying value:			
Stocks	1,327	1,793	(466)
Bonds			
National and local government bonds, etc.	_	_	_
Corporate bonds	_	_	_
Other	_	_	_
Other	189,517	189,517	_
Subtotal	190,844	191,310	(466)
Total	¥266,224	¥210,839	¥55,385

As of March 31, 2017	Thousands of U.S. dollars			
Securities whose carrying value exceeds acquisition cost:				
Stocks	\$ 664,418	\$ 151,796	\$512,622	
Bonds				
National and local government bonds, etc.	-	_	_	
Corporate bonds	5,036	4,457	579	
Other	_	-	-	
Other	-	-	-	
Subtotal	669,454	156,253	513,201	
Securities whose acquisition cost exceeds carrying value:				
Stocks	6,926	7,318	(392)	
Bonds				
National and local government bonds, etc.	-	-	-	
Corporate bonds	-	-	-	
Other	-	-	-	
Other	1,435,065	1,435,065	-	
Subtotal	1,441,991	1,442,383	(392)	
Total	\$2,111,445	\$1,598,636	\$512,809	

Available-for sale securities that were sold during the year ended March 31, 2017 and 2016 were as follows.

			Millions of yen	
As of March 31, 2017	Sales valu	ie	Total profit on sales	Total loss on sales
Stocks	¥3,06	57	¥608	¥ –
Bonds				
National and local government bonds, etc.		-	-	-
Corporate bonds		_	_	_
Other		_	_	_
Other	33	39	7	_
Total	¥3,40	)6	¥615	¥ –
As of March 31, 2016			Millions of yen	
Stocks	¥3	37	¥11	¥ 1
Bonds				
National and local government bonds, etc.		_	_	_
Corporate bonds		_	_	_
Other		_	_	_
Other	13	30	30	14
Total	¥16	57	¥41	¥15
As of March 31, 2017			Thousands of U.S. dollar	rs .
Stocks	\$27,33	37	\$5,419	\$ -
Bonds				
National and local government bonds, etc.		_	_	_
Corporate bonds		-	-	_
Other		_	_	_
Other	3,02	22	63	_
Total	\$30,35	59	\$5,482	\$ -

### 8. Investment in capital of associated companies (especially amount of investment to jointly controlled entities)

At March 31, 2017 and 2016, investment in capital of associated companies (especially amount of investment to jointly controlled entities) consisted of the following:

	Million	Thousands of U.S. dollars	
	March 31, 2017	March 31, 2016	March 31, 2017
Investment in capital of associated companies	¥357,571	¥212,864	\$3,187,191
<amount controlled="" entities="" investment="" jointly="" of="" to=""></amount>	<310,079>	<68,106>	<2,763,874>

### 9. Inventories

Inventories at March 31, 2017 and 2016 consisted of the following:

	Millions	Thousands of U.S. dollars	
	March 31, 2017	March 31, 2016	March 31, 2017
Merchandise and finished products	¥ 572	¥ 568	\$ 5,099
Work-in-process	5,439	4,515	48,480
Raw materials and supplies	62,821	69,569	559,952
Total	¥68,832	¥74,652	\$613,531

The ending balance of inventories is an amount after decreasing the value due to a fall in profitability. This valuation loss on inventories, which amounted to ¥16,288 million (\$145,182 thousand) and ¥32,968 million at March 31, 2017 and 2016 respectively, is included in operating expenses.

### 10. Long-term Debt and Short-term Debt

At March 31, 2017 and 2016, long-term debt consisted of the following:

	Millions	Thousands of U.S. dollars	
	March 31, 2017	March 31, 2016	March 31, 2017
Bonds:			
Domestic issue:			
0.100% to 4.000%, maturing serially through 2037	¥ 639,258	¥ 553,753	\$ 5,697,995
Loans from the Development Bank of Japan, other banks and insurance companies,			
maturing serially through 2037	1,672,047	1,715,365	14,903,708
Lease obligations	37,732	29,311	336,322
Subtotal	2,349,037	2,298,429	20,938,025
Less current portion of long-term debt	(262,408)	(364,885)	(2,338,961)
Total	¥2,086,629	¥1,933,544	\$18,599,064

At March 31, 2017 and 2016, all assets of the Company were subject to certain statutory preferential rights as collateral for loans from the Development Bank of Japan in the amount of ¥381,635 million (\$3,401,685 thousand) and ¥386,257 million, respectively,

and for bonds (including those assigned under debt assumption agreements) of ¥980,710 million (\$8,741,510 thousand) and ¥973,710 million, respectively.

At March 31, 2017 and 2016, property, plant and equipment of a certain subsidiary pledged as collateral for some long-term debt amounted to ¥554 million (\$4,938 thousand) and ¥546 million, respectively.

At March 31, 2017 and 2016, assets which were pledged as collateral for long-term loans from financial institutions to investees of certain subsidiaries consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Property, plant and equipment	¥ -	¥ 4,378	\$ -
Construction in progress	-	10,542	-
Long-term investments	63	12,142	562
Long-term investments in subsidiaries and associates	1,388	44,750	12,372
Cash and deposits	-	6,140	-
Inventories	-	121	-
Other current assets	-	181	-

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Short-term borrowings	¥356,464	¥349,637	\$3,177,324

Short-term borrowings consisted mainly of bank loans bearing an average interest rate of 0.193% per annum at March 31, 2017.

### 11. Employee Retirement Benefits

The Chubu Electric Group has defined benefit pension plans, lump-sum retirement benefit plans and defined contribution retirement plans. The Company also may pay premium severance benefits to its retiring employees.

Employee retirement benefits at March 31, 2017 and 2016 were as follows:

### **Defined benefit plans**

### (a) Movement in retirement benefit obligations except for plans applying the simplified method

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Balance at the beginning of current period	¥586,807	¥581,492	\$5,230,475
Service cost	17,576	18,350	156,663
Interest cost	4,712	5,400	42,000
Actuarial loss	6,055	13,619	53,971
Benefits paid	(48,197)	(35,151)	(429,602)
Other	(20)	3,097	(178)
Balance at the end of current period	¥566,933	¥586,807	\$5,053,329

### (b) Movement in plan assets except for plans applying the simplified method

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Balance at the beginning of current period	¥413,567	¥417,389	\$3,686,309
Expected return on plan assets	8,272	8,539	73,732
Actuarial loss	(4,657)	(218)	(41,510)
Contributions paid by the employer	9,668	9,530	86,176
Benefits paid	(23,214)	(21,672)	(206,917)
Other	(1)	(1)	(9)
Balance at the end of current period	¥403,635	¥413,567	\$3,597,781

### (c) Movement in liability for retirement benefits of defined benefit plans applying the simplified method

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Balance at the beginning of current period	¥4,852	¥4,348	\$43,248
Retirement benefit costs	833	746	7,425
Benefits paid	(669)	(721)	(5,963)
Contributions paid by the employer	(52)	(49)	(464)
Other	(23)	528	(205)
Balance at the end of current period	¥4,941	¥4,852	\$44,041

### (d) Reconciliation from retirement benefit obligations and plan assets to liability (asset) for retirement benefits including plans applying the simplified method

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Funded retirement benefit obligations	¥ 413,263	¥ 418,412	\$ 3,683,599
Plan assets	(404,988)	(414,946)	(3,609,840)
	8,275	3,466	73,759
Unfunded retirement benefit obligations	159,963	174,625	1,425,822
Total net liability for retirement benefits	168,238	178,091	1,499,581
Liability for retirement benefits	187,141	204,413	1,668,072
Asset for retirement benefits	(18,903)	(26,322)	(168,491)
Total net liability for retirement benefits	¥ 168,238	¥ 178,091	\$ 1,499,581

### (e) Retirement benefit costs

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Service cost	¥17,576	¥18,350	\$156,663
Interest cost	4,712	5,400	42,000
Expected return on plan assets	(8,272)	(8,540)	(73,732)
Net actuarial gain and loss amortization	(8,330)	(7,084)	(74,249)
Prior service costs amortization	(35)	(35)	(312)
Retirement benefit costs based on the simplified method	834	746	7,434
Other	4,761	8,145	42,437
Total retirement benefit costs	¥11,246	¥16,982	\$100,241

### (f) Adjustments for retirement benefits

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Prior service costs amortization	¥ (35)	¥ (35)	\$ (312)
Net actuarial gain and loss amortization	(19,039)	(20,920)	(169,703)
Total balance	¥(19,074)	¥(20,955)	\$(170,015)

### (g) Accumulated adjustments for retirement benefits

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Past service costs that are yet to be recognized	¥ (105)	¥ (140)	\$ (936)
Actuarial gains and losses that are yet to be recognized	17,226	(1,813)	153,543
Total balance	¥17,121	¥(1,953)	\$152,607

### (h) Plan assets

### (1) Plan assets comprise:

	March 31, 2017	March 31, 2016
Bonds	46%	56%
General accounts of life insurance companies	29%	28%
Stock	12%	13%
Other	13%	3%
Total	100%	100%

### (2) Long-term expected rate of return

Asset allocation, historical returns, operating policy, marketing trends and other have been considered in determining the long-term expected rate of return.

### (i) Actuarial assumptions

The principle actuarial assumptions at March 31, 2017 and 2016 were as follows:

		March 31, 2017	March 31, 2016
Discount rate	(Company)	0.9%	0.9%
	(Subsidiaries)	0.1-0.8%	0.1-0.8%
Long-term expected rate of return	(Company)	2.0%	2.0%
-	(Subsidiaries)	2.0%	1.9-2.5%

### **Defined contribution plans**

Contributions to defined contribution plans required by the Company and its subsidiaries amounted to ¥2,664 million (\$23,745 thousand) and ¥3,038 million at March 31, 2017 and 2016, respectively.

### 12. Lease Transactions

### (a) Lessee

Future lease payments under non-cancelable operating leases at March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Within 1 year	¥ 34	¥ 13	\$ 303
Over 1 year	121	88	1,079
Total	¥155	¥101	\$1,382

### (b) Lessor

Future lease commitments to be received under non-cancelable operating leases at March 31, 2017 and 2016 were as follows:

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Within 1 year	¥246	¥ 285	\$2,193
Over 1 year	585	832	5,214
Total	¥831	¥1,117	\$7,407

### 13. Asset Retirement Obligations

### (a) Overview of Asset Retirement Obligations

Asset retirement obligations are recorded mainly in conjunction with measures to decommission specified nuclear power plants under the "Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors" (Act No. 166 of June 10, 1957). The asset retirement cost corresponding to the asset retirement obligations in relation to the decommissioning of specified nuclear power plants is recorded in tangible fixed assets based on the estimated total cost of decommissioning the nuclear power plants and is expensed based on the straight-line method over the period (the operational period plus the safe storage period) in accordance with "Ministerial Ordinance for the Setting of Reserve for the Decommissioning of Nuclear Power Plants" (Ordinance No. 30 of the Ministry of International Trade and Industry, May 25, 1989).

### (b) Method for calculating monetary amounts of asset retirement obligations

With regard to the decommissioning of specified nuclear power plants, the monetary amount of asset retirement obligations is calculated based on a discount rate of 2.3% and the relevant period (the operational period plus the safe storage period) as prescribed by "Ministerial Ordinance for the Setting of Reserves for the Decommissioning of Nuclear Power Plants" (Ordinance No. 30 of the Ministry of International Trade and Industry, May 25, 1989). If the monetary amount of asset retirement obligations calculated in accordance with the "Ministerial Ordinance for the Setting of Reserves for the Decommissioning of Nuclear Power Plants" (Ordinance No. 30 of the Ministry of International Trade and Industry, May 25, 1989) exceeds the monetary amount calculated by the previous method, we will record the monetary amount calculated according to the Ministerial Ordinance as obligations.

### (c) Net increase (decrease) in asset retirement obligations for the fiscal year

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Balance at beginning of year	¥198,908	¥194,087	\$1,772,956
Reductions due to execution of asset retirement obligations	(1,305)	(2,201)	(11,632)
Other	9,210	7,022	82,093
Balance at end of year	¥206,813	¥198,908	\$1,843,417

### 14. Derivatives

The Chubu Electric Group enters into derivative financial instruments, including interest rate swaps, foreign exchange forward contracts, currency swaps, commodity future contracts, commodity swaps, commodity options and commodity forward contracts. The Chubu Electric Group's derivative financial instruments outstanding at March 31, 2017 and 2016 were as follows:

### (a) Derivatives for which hedge accounting is not applied

		Millions of yen			
	Co	ntract amount		Unrealized	
As of March 31, 2017	Total	More than 1 year	r Fair value	gains and losses	
Commodity swaps and options contracts:					
Receive floating, pay fixed	j	¥− ¥−	¥–	¥-	
Commodity forward contracts:					
Long position			_	-	
Short position			_	-	
Total	)	¥− ¥−	¥–	¥–	
As of March 31, 2016		Millions of yen			
Commodity swaps and options contracts:			-		
Receive floating, pay fixed	¥21	9 ¥ –	¥(39)	¥(39)	
Commodity forward contracts:					
Long position	20	)3 –	(18)	(18)	
Short position	20		18	18	
Total	¥	- ¥ -	¥(39)	¥(39)	
As of March 31, 2017		Thousands of U.S. dollars			
Commodity swaps and options contracts:					
Receive floating, pay fixed		5- \$-	\$-	\$-	
Commodity forward contracts:					
Long position			_	-	
Short position			_	-	
Total		5- \$-	\$-	\$-	

### (b) Derivatives for which hedge accounting is applied

(b) Derivatives for which her	ige accounting is applied				
	3 11				
		Con	Fair value		
As of March 31, 2017		Total More than 1 year		Tall value	
	Hedged items				
General treatment:					
Foreign exchange forward contracts:	Construction in progress				
Long position	(forecasted transactions)	¥ -	¥ –	¥ –	
Interest rate swaps:					
Receive floating, pay fixed	Bonds and long-term borrowings	324,500	288,500	(6,179)	
Receive fixed, pay floating	Bonds and long-term borrowings	50,000	50,000	2,249	
Commodity swaps:					
Receive floating, pay fixed	Other operating expenses	_	_	_	
Allocation of gain/loss on foreign exch	ange forward contracts and others:				
Currency swaps:	Bonds	20,000	20,000	*	
Foreign exchange forward contracts:					
Long position	Accounts payable - other	_	_	_	
Special treatment of interest rate swap	S:				
Interest rate swaps:					
Receive floating, pay fixed	Long-term borrowings	78,153	16,415	*	
Total	-	¥ -	¥ –	¥ (3,930)	

			Millions of yen			
		Contra	act amount	Fair value		
As of March 31, 2016		Total	More than 1 year	raii value		
	Hedged items					
General treatment:						
Foreign exchange forward contracts:	Construction in progress					
Long position	(forecasted transactions)	¥ 1,917	¥ –	¥ (0)		
Interest rate swaps:						
Receive floating, pay fixed	Bonds and long-term borrowings	360,500	324,500	(9,452)		
Receive fixed, pay floating	Bonds and long-term borrowings	50,000	50,000	3,662		
Commodity swaps:						
Receive floating, pay fixed	Other operating expenses	2,742	_	(993)		
Allocation of gain/loss on foreign exch	ange forward contracts and others:					
Currency swaps:	Bonds	20,000	20,000	*		
Foreign exchange forward contracts:						
Long position	Accounts payable - other	370	-	*		
Special treatment of interest rate swap	S:					
Interest rate swaps:						
Receive floating, pay fixed	Long-term borrowings	73,476	73,353	*		
Total		¥ –	¥ –	¥(6,783)		

As of March 31, 2017		Thousands of U.S. dollars		
General treatment:				
Foreign exchange forward contracts:	Construction in progress			
Long position	(forecasted transactions)	\$ -	\$ -	\$ -
Interest rate swaps:				
Receive floating, pay fixed	Bonds and long-term borrowings	2,892,415	2,571,530	(55,076)
Receive fixed, pay floating	Bonds and long-term borrowings	445,673	445,673	20,046
Commodity swaps:				
Receive floating, pay fixed	Other operating expenses	_	-	_
Allocation of gain/loss on foreign exch	ange forward contracts and others:			
Currency swaps:	Bonds	178,269	178,269	*
Foreign exchange forward contracts:				
Long position	Accounts payable - other	_	-	-
Special treatment of interest rate swap	os:			
Interest rate swaps:				
Receive floating, pay fixed	Long-term borrowings	696,613	146,314	*
Total		\$ -	\$ -	\$ (35,030)

<sup>\*</sup> For the allocation method of currency swaps and special treatment of interest rate swaps, the fair value was included in fair value of the respective hedged items. (Note) The fair value of derivative transactions is measured at quoted prices obtained from the financial institutions.

# 15. Contingent Liabilities

As of March 31, 2017 and 2016, contingent liabilities were as follows:

	Millions	Thousands of U.S. dollars	
	March 31, 2017	March 31, 2016	March 31, 2017
Guarantees of bonds and loans of companies and others:			
Japan Nuclear Fuel Limited	¥117,227	¥121,386	\$1,044,897
Guarantees of housing and other loans for employees	62,298	70,619	555,290
The Japan Atomic Power Company	38,095	38,095	339,558
Other companies	49,577	35,182	441,902
Guarantees related to other contracts	16,415	11,322	146,314
The amount borne by other joint and several obligors out of joint and several obligations against	-	1,546	-
the fulfillment of payment obligations associated with connection and supply contracts			
Recourse under debt assumption agreements	341,450	419,950	3,043,498
Notes receivable discounted and notes receivable endorsed	-	127	_

# 16. Net Assets

The authorized number of shares of common stock without par value is 1,190 million. At both March 31, 2017 and 2016, the number of shares of common stock issued was 758,000,000. At March 31, 2017 and 2016, the number of shares of treasury stock held by the Chubu Electric Group was 799,852 and 743,530, respectively.

Under Japanese laws and regulations, the entire amount paid for new shares is required to be designated as common stock. However, a company may, by a resolution of the Board of Directors, designate an amount not exceeding one half of the price of the new shares as additional paid-in capital, which is included in capital surplus.

Under the Law, in cases in which a dividend distribution of surplus is made, the smaller of an amount equal to 10% of the dividend or the excess, if any, of 25% of common stock over the total of additional paid-in capital and legal earnings reserve must be set aside as additional paid-in capital or legal earnings reserve. Legal earnings reserve is included in retained earnings in the consolidated

#### Financial / Corporate Data

balance sheets.

Additional paid-in capital and legal earnings reserve may not be distributed as dividends. Under the Law, all additional paid-in capital and all legal earnings reserve may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends.

The maximum amount that the Company can distribute as dividends is calculated based on the nonconsolidated financial statements of the Company in accordance with Japanese laws and regulations.

At the annual shareholders' meeting held on June 28, 2017, the shareholders approved cash dividends amounting to ¥11,359 million (\$101,248 thousand) or ¥15 per share. The appropriation was not recorded in the consolidated financial statements as of March 31, 2017. Such appropriations are recognized in the period in which they are approved by the shareholders.

#### 17. Income Taxes

#### (a) The tax effects of temporary differences that give rise to deferred tax assets and liabilities at March 31, 2017 and 2016 were as follows:

	Millions	Thousands of U.S. dollars	
	March 31, 2017	March 31, 2016	March 31, 2017
Deferred tax assets:			
Liability for retirement benefits	¥ 50,401	¥ 58,080	\$ 449,247
Depreciation	34,916	35,823	311,222
Asset retirement obligations	33,656	32,317	299,991
Depreciation of easement rights	28,209	25,891	251,440
Intercompany unrealized profits	18,801	18,386	167,582
Maintenance	14,612	16,551	130,243
Impairment loss on fixed assets	13,449	14,043	119,877
Reprocessing of irradiated nuclear fuel	12,542	10,715	111,792
Other	66,166	88,462	589,767
Total gross deferred tax assets	272,752	300,268	2,431,161
Less valuation allowance	(47,293)	(46,948)	(421,544)
Total deferred tax assets	225,459	253,320	2,009,617
Deferred tax liabilities:			
Net unrealized gains on available-for-sale securities	14,573	13,808	129,896
Asset retirement costs corresponding to asset retirement obligations	7,665	7,788	68,321
Other	11,483	27,269	102,353
Total deferred tax liabilities	33,721	48,865	300,570
Net deferred tax assets	¥191,738	¥204,455	\$1,709,047

At March 31, 2017 and 2016, deferred tax assets and liabilities were as follows:

	Millions	Thousands of U.S. dollars	
	March 31, 2017	March 31, 2016	March 31, 2017
Deferred tax assets:			
Noncurrent	¥165,856	¥176,418	\$1,478,349
Current	28,303	31,155	252,277
Deferred tax liability:			
Noncurrent	2,405	3,119	21,437
Current	15	_	134

## (b) A reconciliation of the difference between the statutory income tax rate and the effective income tax rate for the years ended March 31, 2017 and 2016 is set forth below.

	March 31, 2017	March 31, 2016
Statutory income tax rate	27.8%	28.4%
Increase (decrease) due to:		
Share of profit and loss of entities accounted for using equity method	(6.7%)	(0.0%)
Less valuation allowance	1.1%	1.4%
Other	1.0%	2.5%
Effective income tax rate	23.2%	32.3%

# 18. Operating Expenses

Operating expenses in the electricity business for the years ended March 31, 2017 and 2016 were as follows:

	Millions	Thousands of U.S. dollars		
	March 31, 2017	March 31, 2017		
Salaries	¥ 132,764	¥ 132,946	\$ 1,183,385	
Retirement benefits	7,805	13,687	69,569	
Fuel	614,569	805,625	5,477,930	
Maintenance	204,677	204,677 200,962		
Subcontracting fees	125,610	97,141	1,119,619	
Depreciation	236,290	239,356	2,106,159	
Power purchased from other suppliers	335,370	292,493	2,989,304	
Levy under act on purchase of renewable energy sourced electricity	233,443	161,043	2,080,783	
Other	341,250	374,124	3,041,715	
Subtotal	2,231,778	2,317,377	19,892,842	
Adjustment	(12,131)	(9,055)	(108,129)	
Total	¥2,219,647	¥2,308,322	\$19,784,713	

# 19. Reversal of Reserve for Loss in Conjunction with Discontinued Operations of Nuclear Power Plants

A reasonable estimate was made as a reserve for possible future expenses and losses related to the decommissioning of electric generating facilities that followed the termination of operations at Hamaoka Reactors No. 1 and 2. In the year ended March 31, 2016, the difference between the estimate and reserve for loss in conjunction with discontinued operations of nuclear power plants was appropriated to the extraordinary income of ¥10,812 million as progress was made in the decommissioning plan.

# 20. Accounting Standards for Presentation of Comprehensive Income

Amounts reclassified as net loss is the current period that were recognized in other comprehensive income in the current or previous periods and the tax effects for each component of other comprehensive income were as follows:

	Million:	Thousands of U.S. dollars	
	March 31, 2017	March 31, 2016	March 31, 2017
Net unrealized gains on available-for-sale securities:			
Increase (decrease) during the year	¥ 2,368	¥ (2,991)	\$ 21,107
Reclassification adjustments	(247)	(34)	(2,202)
Subtotal, before tax	2,121	(3,025)	18,905
Tax (expense) benefit	(764)	997	(6,809)
Subtotal, net of tax	1,357	(2,028)	12,096
Net deferred gain (loss) on hedging instruments:			
Increase (decrease) during the year	880	(5,497)	7,843
Reclassification adjustments	2,243	1,293	19,993
Subtotal, before tax	3,123	(4,204)	27,836
Tax benefit	(864)	1,140	(7,701)
Subtotal, net of tax	2,259	(3,064)	20,135
Foreign currency translation adjustments:			
Decrease during the year	(13,899)	(3,302)	(123,888)
Reclassification adjustments	2,313	(5,695)	20,617
Subtotal, net of tax	(11,586)	(8,997)	(103,271)
Adjustments for retirement benefits			
Decrease during the year	(10,715)	(13,068)	(95,508)
Reclassification adjustments	(8,359)	(7,888)	(74,507)
Subtotal, before tax	(19,074)	(20,956)	(170,015)
Tax benefit	5,349	6,138	47,678
Subtotal, net of tax	(13,725)	(14,818)	(122,337)
Share of other comprehensive income of affiliates accounted for using equity method:			
Decrease during the year	(3,784)	(1,410)	(33,728)
Reclassification adjustments	19,223	2,991	171,343
Acquisition cost adjustment of assets	469	225	4,180
Subtotal, net of tax	15,908	1,806	141,795
Total other comprehensive income	¥ (5,787)	¥(27,101)	\$(51,582)

# 21. Related Party Transactions

Significant transactions of the Company and its subsidiaries with unconsolidated subsidiaries and affiliates for the years ended March 31, 2017 and 2016 were as follows:

JERA Co., Inc. (an affiliate)

JERA Co., Inc. operates in the fuel business and power generation infrastructure businesses both in Japan and abroad. The Company has a 50% share of the voting rights in JERA Co., Inc. Its involvement with JERA Co., Inc. includes fuel purchases and interlocking directors. Fuel purchases are determined after due consideration of market conditions and negotiations.

	Millions	Thousands of U.S. dollars	
	March 31, 2017	March 31, 2016	March 31, 2017
The Company's transactions during the year:			
Transaction amount	¥422,194	¥-	\$3,763,205
Balances at the fiscal year-end:			
Other current liabilities	¥ 34,623	¥–	\$ 308,610

#### 22. Business Combinations

#### (a) Formation of a jointly controlled entity

At the Board of Directors' meeting held on May 23, 2016, the Company resolved that it would enter into an absorption-type company split agreement with JERA Co., Inc. (hereinafter, "JERA") to the effect that JERA would succeed the Company's existing fuel business (upstream investments and fuel procurement), the existing overseas power generation and energy infrastructure businesses, and the replacement and construction business of thermal power plants (hereinafter, "the Businesses") conducted by Hitachinaka Generation Co., Inc. by way of company split. The Company concluded the agreement on the same day. Based on the agreement, JERA succeeded the businesses of the Company on July 1, 2016.

Concurrently, JERA concluded a separate absorption-type company split agreement with TEPCO Fuel & Power, Inc. (hereinafter, "TEPCO F&P") so that JERA would succeed the existing fuel business (upstream investments and fuel procurement) and the existing overseas IPP business (thermal power plants) of TEPCO F&P and the replacement and construction business of thermal power plants conducted by Hitachinaka Generation Co., Inc.

#### (1) Outline of transactions

- 1) Name of the target business and details of the relevant business Existing fuel business (upstream investments and fuel procurement), the existing overseas power generation and energy infrastructure businesses and the replacement and construction business of thermal power plants conducted by Hitachinaka Generation Co., Inc.
- 2) Date of business combination July 1, 2016
- 3) Legal form of business combination Absorption-type company split to be implemented by the Company as a split company and JERA as a successor company.
- 4) Company name after business combination JERA Co., Inc.
- 5) Other matters concerning the outline of transactions On February 9, 2015, the Company reached an agreement with Tokyo Electric Power Company, Incorporated (hereinafter, "TEPCO" ) concerning the implementation of a comprehensive  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left$ alliance and entered into a joint venture agreement to establish a

new company in which both companies' fuel procurement, other fuel-related businesses, such as upstream investments and trading, as well as new development and replacement businesses related to domestic and overseas power plants would be integrated. In addition, on December 22, 2015, the Company reached a related agreement of the businesses with TEPCO (hereinafter, "Related Agreement") which determined terms and conditions and procedural matters concerning the existing fuel business (upstream investments and fuel procurement), the existing overseas power generation and energy infrastructure businesses and the replacement and construction business of thermal power plants conducted by Hitachinaka Generation Co., Inc. Based on the agreement, it was decided that JERA, which was established on April 30, 2015, would succeed the businesses.

6) Reason for judging it a formation of a jointly controlled entity In establishing this jointly controlled entity, the Company and TEPCO concluded a joint venture agreement under which both companies would jointly control JERA and other related agreements and have decided to pay for the business combination entirely with shares with voting rights. There exist no other circumstances indicating controlling relationships. Accordingly, in our opinion, this business combination was formed as a jointly controlled entity.

#### (2) Outline of Accounting Treatment Applied

Following the "Accounting Standard for Business Combinations" (ASBJ Statement No. 21, issued on September 13, 2013), "Accounting Standard for Consolidated Financial Statements" (ASBJ Statement No. 22, issued on September 13, 2013) and "Accounting Standard for Business Divestitures" (ASBJ Statement No. 7, issued on September 13, 2013), this business combination was accounted for as a formation of a jointly controlled entity.

# (b) Significant subsequent events regarding business combinations (formation of a jointly controlled

Conclusion of a joint venture agreement concerning the integration of existing thermal power generation business at the Board of Directors' meeting held on June 8, 2017, the Company resolved that it would enter into a joint venture agreement with TEPCO Fuel & Power, Inc. (a wholly owned subsidiary of Tokyo Electric Power Company Holdings, Inc. ("TEPCO F&P")) concerning the integration of fuel acceptance, storage and gas transmission businesses and the existing thermal power generation business ("the Businesses") into JERA Co., Inc. and signed the joint venture agreement on the same

Going forward, both companies will proceed with detailed discussions and necessary procedures aiming for business integration in the first half of fiscal year 2019 on equal footing and in the spirit of compromise. Following the "Accounting Standard for Business Combinations" (ASBJ Statement No. 21, issued on September 13, 2013), "Accounting Standard for Consolidated Financial Statements" (ASBJ Statement No. 22, issued on September 13, 2013) and "Accounting Standard for Business Divestitures" (ASBJ Statement No. 7, issued on September 13, 2013), this business combination will be accounted for as formation of a jointly controlled entity.

# 23. Segment Information

The reporting segments are constituent business units of the Chubu Electric Power Group for which separate financial information is obtained and examined regularly by the Board of Directors of the Company to evaluate business performance. The Group's core operations are based on the twin pillars of the Electric Power business and the Energy business, which mainly entails the supply of gas and on-site energy. Our business activities also include the application of our know-how (developed in the domestic sector) to energy projects overseas, construction for the development and maintenance of electric utilities related facilities, and the manufacturing of materials and machinery for these facilities. Additionally, amid drastic changes in the business environment, the company system was introduced and three companies—"Power Generation", "Power Network" and "Customer Service & Sales"—

were formed in April 2016 for the purpose of building an autonomous business structure that enables swift and flexible response in the power generation, power transmission/distribution and retail business fields.

Accordingly, "Power Generation", "Power Network" and "Customer Service & Sales" have become three reporting segments, starting from the business year ended March 31, 2017.

Power Generation: Provision of electric power from thermal and renewable energies

Power Network: Provision of electric power network services Customer Service & Sales: Operation of comprehensive energy services focused on gas and power

Information by segment for the years ended March 31, 2017 and 2016 was as follows:

	Millions of yen							
	Power		Customer Service	Subtotal	Other	Total	Adjustment	Consolidated
Year ended March 31, 2017	Generation	Network	& Sales	34510141	0 11.01		riajastinent	Corisonaatea
Operating revenues:	V 20.470	V F0.710	V2 244 141	V2 424 220	V 170 200	V2 C02 F20	V	V2 C02 E20
External customers	¥ 29,478	,	¥2,344,141		¥ 179,209	¥2,603,538		¥2,603,538
Intersegment	956,800	682,191	108,465	1,747,456	530,960	2,278,416	(2,278,416)	2 602 520
Total	986,278 ¥ 61.295	732,901	2,452,606	4,171,785	710,169	4,881,954	(2,278,416)	2,603,538
Operating income (loss)	¥ 61,295	¥ 35,095	¥ 51,111	¥ 147,501	¥ (8,514)	¥ 138,987	¥ (2,543)	¥ 136,444
Total assets	¥1,134,454	¥2,168,496	¥ 213,355	¥3,516,305	¥2,160,185	¥5,676,490	¥ (264,183)	¥5,412,307
Depreciation and amortization	85,692	128,640	6,022	220,354	39,300	259,654	(3,962)	255,692
Increase in tangible and intangible fixed assets	125,143	114,677	7,268	247,088	105,128	352,216	(6,527)	345,689
Therease in tangible and intangible fixed assets	125,145	11-1,077	7,200	247,000	105,120	332,210	(0,321)	3-3,003
	Millions of yen							
Year ended March 31, 2017	Electric Power	Energy		Subtotal	Other	Total	Adjustment	Consolidated
Operating revenues:								
External customers	¥2,340,792	¥59,962		¥2,400,754	¥202,784	¥2,603,538	¥ -	¥2,603,538
Intersegment	2,806	3,949		6,755	302,673	309,428	(309,428)	_
Total	2,343,598	63,911		2,407,509	505,457	2,912,966	¥(309,428)	2,603,538
Operating income	¥ 111,820	¥ 7,587		¥ 119,407	¥ 19,581	¥ 138,988	(2,544)	¥ 136,444
Total assets	¥4,604,636	¥83,387		¥4,688,023	¥988,627	¥5,676,650	. , ,	¥5,412,307
Depreciation and amortization	236,377	5,717		242,094	17,560	259,654	(3,962)	255,692
Increase in tangible and intangible fixed assets	306,058	6,466		312,524	39,692	352,216	(6,527)	345,689
				Millions	of ven			
Year ended March 31, 2016	Electric Power	Energy		Subtotal	Other	Total	Adjustment	Consolidated
Operating revenues:								
External customers	¥2,570,960	¥ 87,363		¥2,658,323	¥195,721	¥2,854,044	¥ –	¥2,854,044
Intersegment	1,494	2,866		4,360	313,343	317,703	(317,703)	_
Total	2,572,454	90,229		2,662,683	509,064	3,171,747	(317,703)	2,854,044
Operating income	¥ 255,077	¥ 12,937		¥ 268,014	¥ 17,825	¥ 285,839	¥ (847)	¥ 284,992
T-+-1+-	V4 70F 122	V 0C 000		V4 001 311	V040 146	VE 024 257	\//202.411\	VE E20.046
Total assets	¥4,795,122	¥ 86,089		¥4,881,211	¥940,146	¥5,821,357		¥5,538,946
Depreciation and amortization	239,449	5,422		244,871	16,166	261,037	(3,974)	257,063
Increase in tangible and intangible fixed assets	244,072	7,956		252,028	41,756	293,784	(5,412)	288,372

	Thousands of U.S. dollars							
Year ended March 31, 2017	Power Generation	Power Network	Customer Service & Sales	Subtotal	Other	Total	Adjustment	Consolidated
Operating revenues:								
External customers	\$ 262,751	\$ 452,001	\$20,894,384	\$21,609,136	\$ 1,597,371	\$23,206,507	\$ -	\$23,206,507
Intersegment	8,528,389	6,080,676	966,798	15,575,863	4,732,685	20,308,548	(20,308,548)	_
Total	8,791,140	6,532,677	21,861,182	37,184,999	6,330,056	43,515,055	(20,308,548)	23,206,507
Operating income (loss)	\$ 546,350	\$ 312,818	\$ 455,575	\$ 1,314,743	\$ (75,889)	\$ 1,238,854	\$ (22,667)	\$ 1,216,187
Total assets	\$10,111,899	\$19,328,782	\$ 1,901,729	\$31,342,410	\$19,254,702	\$50,597,112	\$ (2,354,782)	\$48,242,330
Depreciation and amortization	763,811	1,146,626	53,677	1,964,114	350,299	2,314,413	(35,315)	2,279,098
Increase in tangible and intangible fixed assets	1,115,456	1,022,168	64,783	2,202,407	937,053	3,139,460	(58,178)	3,081,282
	Millions of ven							

	Millions of yen						
Year ended March 31, 2017	Electric Power	Energy	Subtotal	Other	Total	Adjustment	Consolidated
Operating revenues:							
External customers	\$20,864,534	\$534,468	\$21,399,002	\$1,807,505	\$23,206,507	\$ -	\$23,206,507
Intersegment	25,011	35,199	60,210	2,697,861	2,758,071	(2,758,071)	_
Total	20,889,545	569,667	21,459,212	4,505,366	25,964,578	(2,758,071)	23,206,507
Operating income	\$ 996,702	\$ 67,627	\$ 1,064,329	\$ 174,534	\$ 1,238,863	\$ (22,676)	\$ 1,216,187
Total assets	\$41,043,194	\$743,266	\$41,786,460	\$8,812,078	\$50,598,538	\$(2,356,208)	\$48,242,330
Depreciation and amortization	2,106,935	50,958	2,157,893	156,520	2,314,413	(35,315)	2,279,098
Increase in tangible and intangible fixed assets	2,728,033	57,634	2,785,667	353,793	3,139,460	(58,178)	3,081,282

#### (a) Method for calculating operating revenues, income, assets and other amounts for each reporting segment

The accounting treatment and methods used for the reporting segments are consistent with the accounting treatment and methods described in Note 2, Summary of Significant Accounting Policies. Segment income for each reporting segment is presented on an operating income basis. Intersegment internal sales and transfers are, in principle, calculated in accordance with internal transaction prices that are based on costs.

#### (b) Information about products and services

The Company has omitted a disclosure of information for sales of a single product/service category to external customers which accounted for more than 90% of all sales in the consolidated statements of income.

# (c) Information by geographic regions

#### (1) Operating revenues

The Company has omitted a disclosure of information for operating revenues because operating revenues to external customers in Japan accounted for more than 90% of the operating revenues reported in the consolidated statements of income.

#### (2) Property, plant and equipment

The Company has omitted a disclosure of information for property, plant and equipment because property, plant and equipment in Japan accounted for more than 90% of the property, plant and equipment reported in the consolidated balance sheets.

#### (d) Information about major customers

The Company has not disclosed information about major customers because no customer contributed 10% or more to operating revenues in the consolidated statements of income.

#### (e) Impairment loss on fixed assets and amortization of goodwill and the unamortized balance

The Company has omitted information by segment on impairment loss on fixed assets, amortization of goodwill and the unamortized balance due to the negligible importance of this information.

#### (f) Gain arising from negative goodwill

Not applicable

#### (g) Changes in reporting segments

Amid drastic changes in the business environment, the company system was introduced and three companies—"Power Generation", "Power Network" and "Customer Service & Sales" were formed in April 2016 for the purpose of building an autonomous business structure that enables swift and flexible response in the power generation, power transmission/distribution and retail business fields.

Accordingly, "Power Generation", "Power Network" and "Customer Service & Sales" have become three reporting segments, starting from the business year ended March 31, 2017. Power Generation:Provision of electric power from thermal and renewable energies

Power Network: Provision of electric power network services Customer Service & Sales: Operation of comprehensive energy services focused on gas and power

Additionally, the method used to calculate the amount of sales and profit/loss by business segment has been changed. Intersegment internal sales and transfers are, in principle, calculated in accordance with internal transaction prices that are based on costs

Since we introduced the company system in April 2016, it is difficult to retroactively restructure segment information for the fiscal year ended March 31, 2016 in the segment classifications for the fiscal year ended March 31, 2017. Consequentry, as seen below, data for the fiscal year ended March 31, 2017 has been prepared based on the classification method used for the fiscal year ended March 31, 2016.

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# Independent Auditor's Report



#### **Independent Auditor's Report**

To the Board of Directors of Chubu Electric Power Company, Incorporated:

We have audited the accompanying consolidated financial statements of Chubu Electric Power Company, Incorporated (the "Company") and its consolidated subsidiaries, which comprise the consolidated balance sheet as at March 31, 2017, and the consolidated statements of income, statements of comprehensive income, statement of changes in net assets and statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatements, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgement, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the objective of the financial statement audit is not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company and its consolidated subsidiaries as at March 31, 2017, and their financial performance and cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

#### **Convenience Translation**

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2017 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 to the consolidated financial statements.

KPMG AZSA LLC

June 28, 2017 Nagoya, Japan

KPMG AZSA LLC, a limited liability audit corporation incorporated under the Japanese Certified Public Accountants Law and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative (FMMG International)", a Swiss entity

# Non-consolidated Balance Sheets

Chubu Electric Power Company, Incorporated as of March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars
ASSETS	March 31, 2017	March 31, 2016	March 31, 2017
Property, Plant and Equipment :			
Property, plant and equipment, at cost	¥13,256,824	¥13,221,704	\$118,164,043
Construction in progress	389,188	285,904	3,469,008
	13,646,012	13,507,608	121,633,051
Less:			
Contributions in aid of construction	(176,614)	(170,414)	(1,574,240)
Accumulated depreciation	(9,914,406)	(9,821,806)	(88,371,566)
	(10,091,020)	(9,992,219)	(89,945,806)
Total Property, Plant and Equipment, Net	3,554,992	3,515,389	31,687,245
Nuclear Fuel:			
Loaded nuclear fuel	40,040	40,040	356,895
Nuclear fuel in processing	136,575	193,839	1,217,354
Total Nuclear Fuel	176,615	233,879	1,574,249
Investments and Other Assets:			
	E22 0E1	426 707	4 670 211
Long-term investments	523,951	436,707	4,670,211
Reserve fund for reprocessing of irradiated nuclear fuel  Deferred tax assets	132,578	177,674	1 101 720
Other	,	144,352	1,181,728
Allowance for doubtful accounts	34,811	21,968	310,286
Total Investments and Other Assets	(1,085) 690,255	(870) 779,830	(9,671) 6,152,554
Total Investments and Other Assets	090,233	779,630	0,132,334
Current Assets :			
Cash and deposits	86,130	70,210	767,715
Accounts receivable	178,777	173,490	1,593,520
Allowance for doubtful accounts	(1,268)	(900)	(11,302)
Inventories	59,227	65,656	527,917
Deferred tax assets	22,345	24,999	199,171
Other	189,475	203,028	1,688,876
Total Current Assets	534,686	536,483	4,765,897
Total Assets	¥4,956,548	¥5,065,582	\$44,179,945

	Millions of yen		Thousands of U.S. dollars
LIABILITIES AND NET ASSETS	March 31, 2017	March 31, 2016	March 31, 2017
Non-current Liabilities:			
Long-term loans payable	¥2,003,342	¥1,859,225	\$17,856,690
Provision for retirement benefits	127,948	143,796	1,140,458
Provision for reprocessing of irradiated nuclear fuel	_	194,921	_
Provision for preparation of reprocessing irradiated nuclear fuel	_	16,662	_
Provision for loss in conjunction with discontinued	9,575	10,852	85,346
operations of nuclear power plants	9,575	10,832	65,540
Asset retirement obligations	203,164	196,645	1,810,892
Other	124,663	103,827	1,111,178
Total Non-current Liabilities	2,468,692	2,525,928	22,004,564
Current Liabilities:			
Current portion of non-current liabilities	281,697	377,653	2,510,892
Short-term loans payable	341,800	341,800	3,046,617
Notes and account payable - trade	52,205	71,337	465,327
Other	369,096	357,743	3,289,919
Total Current Liabilities	1,044,798	1,148,533	9,312,755
Reserve for Fluctuation in Water Levels	22,466	22,847	200,250
Total Liabilities	3,535,956	3,697,309	31,517,569
Net Assets:			
Capital stock	430,777	430,777	3,839,709
Capital surplus	70,690	70,690	630,092
Retained earnings	886,226	836,931	7,899,331
Treasury shares, at cost	(1,150)	(1,065)	(10,250)
Total Shareholders' Equity	1,386,543	1,337,334	12,358,882
Valuation and translation adjustments	34,049	30,939	303,494
Total Net Assets	1,420,592	1,368,273	12,662,376
Total Liabilities and Net Assets	¥4,956,548	¥5,065,582	\$44,179,945

# Non-consolidated Statements of Income Chubu Electric Power Company, Incorporated for the years ended March 31, 2017 and 2016

	Millions of yen		Thousands of U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Operating Revenues	¥2,389,719	¥2,648,338	\$21,300,642
Operating Expenses:			
Fuel	614,569	805,625	5,477,930
Salaries and employee benefits	176,206	181,578	1,570,604
Purchased Power	346,877	315,501	3,091,871
Maintenance	204,677	200,962	1,824,378
Depreciation	236,289	239,356	2,106,150
Taxes other than income taxes	120,645	122,154	1,075,363
Other	573,211	517,922	5,109,288
Total Operating Expenses	2,272,474	2,383,099	20,255,584
Operating Income	117,245	265,239	1,045,058
Other (Income) Expenses : Interest expense	27,635	36,947	246,323
Reversal of provision for loss in conjunction with discontinued operations of nuclear power plants	_	(10,812)	_
Other, net	(9,512)	(5,401)	(84,784)
Total Other Expenses, Net	18,123	20,735	161,539
Income before Provision of Reserve for Fluctuation in Water Levels and Income Taxes	99,122	244,504	883,519
Provision of Reserve for Fluctuation in Water Levels	(381)	12,218	(3,396)
Income Before Income Taxes	99,503	232,286	886,915
Income Taxes:			
Current	14,470	32,290	128,978
Deferred	13,019	42,788	116,044
Total Income Taxes	27,489	75,078	245,022
Net Income	¥72,014	¥157,209	\$641,893
	Yen		U.S. dollars

	Yen		U.S. dollars
	March 31, 2017	March 31, 2016	March 31, 2017
Per Share of Capital Stock:			
Net income - basic	¥95.09	¥207.57	\$0.85
Cash dividends	30.00	25.00	0.27

# Corporate Data (As of March 31, 2017)

# **Corporate Profile**

Corporate name: Chubu Elecric Power Co., Inc.

**Headquarters:** 1 Higashi-shincho, Higashi-ku, Nagoya,

Aichi 461-8680, Japan Tel: +81-52-951-8211 (Main)

Representative: Satoru Katsuno, President & Director

Date of establishment: May 1st, 1951 Capital: ¥430,777,362,600

Number of employees: 16,749 **Number of shares** 758,000,000

issued:

Number of 266,174

shareholders:

Independent auditor: KPMG AZSA LLC

Tokyo Stock Exchange, Inc. Stock markets traded: Nagoya Stock Exchange, Inc.

(Securities ID code: 9502)

Administrator of shareholder registry: Mitsubishi UFJ Trust and Banking

Corporation

4-5 Marunouchi 1-chome,

Chiyoda-ku, Tokyo 100-8212, Japan

#### **Main Business Locations**

**Headquarters:** 1 Higashi-shincho, Higashi-ku,

Nagoya, Aichi

Nagoya Regional Office: 2-12-14 Chiyoda, Naka-ku,

Nagoya, Aichi

Shizuoka Regional Office: 2-4-1 Hontoori, Aoi-ku, Shizuoka

Mie Regional Office: 2-21 Marunouchi, Tsu, Mie

Gifu Regional Office: 2-5 Mieji-cho, Gifu

Nagano Regional Office: 18 Yanagimachi, Nagano

Okazaki Regional Office: 7 Daidou Higashi, Tosaki-cho,

Okazaki, Aichi

2-2-1 Uchisaiwai-cho, Chiyoda-ku, Tokyo Office:

#### **Overseas Offices**

#### **Washington Office**

900 17th Street N.W., Suite 1220, Washington, D.C. 20006, U.S.A.

Tel: +1-202-775-1960

#### **London Office**

2nd Floor, 210 High Holborn, London WC1V 7EP, U.K. Tel: +44-20-7409-0142

#### **Doha Office**

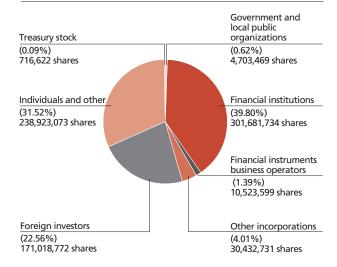
4th Floor, Salam Tower, Al Corniche P.O. Box 22470, Doha-QATAR

Tel: +974-4483-6680

# Number of Shares

Total number of authorized shares ....... 1,190 million shares Total number of shares issued ...... 758 million shares

# Composition of Shareholders



# **Principal Shareholders**

Name	Number of shares owned (thousands)	Ownership percentage of total shares issued (%)
Japan Trustee Services Bank, Ltd.	82,742	10.92
The Master Trust Bank of Japan, Ltd.	51,385	6.78
Meiji Yasuda Life Insurance Company	39,462	5.21
Nippon Life Insurance Company	27,552	3.63
Chubu Electric Employees' Shareholders Association	18,759	2.47
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	15,304	2.02
Sumitomo Mitsui Banking Corporation	14,943	1.97
Kochi Shinkin Bank	10,695	1.41
Mizuho Bank, Ltd.	10,564	1.39
STATE STREET BANK WEST CLIENT - TREATY 505234 (Standing proxy: Settlement & Clearing Services Dept., Mizuho Bank)	9,886	1.30
Total	281,296	37.11

Note: The number of shares held by Japan Trustee Services Bank, Ltd. and The Master Trust Bank of Japan, Ltd. (82,742,000 shares and 51,385,000 shares, respectively) is related to their trust services

# Chubu Electric Power Group's Business

• 29 consolidated subsidiaries © 24 affiliates accounted for under the equity method Total 53 (As of April 1, 2017)

# **Fuel and Power** Generation Business 1 in total

© JERA Co., Inc.

# **Energy Business**

- C ENERGY CO., INC.
- O Minami Enshu Pipeline Co., Ltd.
- O Nakao Geothermal Power Company, Incorporated
- O Aichi Clean Energy Co., Ltd.

# IT/Telecommunications 5 in total

- Chuden CTI Co., Ltd.
- O Chubu Telecommunications Co., Inc.
- O Community Network Center Inc.
- Omaezaki Cable Television
- © CHUBU CABLE NETWORK COMPANY, INCORPORATED

#### Construction

9 in total

- Chubu Plant Service Co., Ltd.
- C-TECH CORPORATION
- TOENEC CORPORATION
- TOENEC Service Co., Ltd.
- TOENEC CONSTRUCTION (SHANGHAI) CO., LTD.
- TOENEC (THAILAND) CO., LTD.
- TOENEC PHILIPPINES INCORPORATED
- Asahi Synchrotech Co., Ltd.
- PT. ASAHI SYNCHROTECH INDONESIA

# Manufacturing

6 in total

- CHUBU SEIKI Co., Ltd.
- © TOKAI CONCRETE INDUSTRIES Co., Ltd.
- O AICHI KINZOKU KOGYO Co., Ltd.
- O AICHI ELECTRIC Co., Ltd.
- O Chubu Liquid Oxygen Co., Ltd.
- O Chita Tansan Co., Ltd.

# **Transportation**

2 in total

• Chuden Transportation Service Co., Ltd. © SHIN-NIHON HELICOPTER Co., Ltd.

#### Real Estate

1 in total

Chuden Real Estate Co., Ltd.

#### Services and Others 25 in total

- Chuden Auto Lease Co., Ltd.
- Chubu Cryogenics Co., Ltd.
- Chuden Wing Co., Ltd.
- CHUDEN BUSINESS SUPPORT Co., Ltd.
- Chuden Haiden Support Co., Ltd.
- Chita L.N.G. Co., Ltd.
- Techno Chubu Co., Ltd.
- Chuden Disaster Prevention Co., Ltd.
- CHUDENKOGYO Co., Ltd.
- Chita Berth Co., Inc.
- AOYAMA-KOGEN WIND FARM CO., LTD.
- FILLTECH CORPORATION
- Saku Ohisama Solar Power Limited **Business Partnership**
- Diamond Power Corporation
- Chubu Eco Solution LLC.
- O Nagoya City Energy Co., Ltd.
- © e-Kurashi Co. Ltd.
- O Aichi Kinuura Bio K.K.
- O Hamamatsu D.H.C. Co., Ltd.
- O Nagoya Energy Service Co., Ltd.
- © Centrair Energy Supply Co., Ltd.
- © KASUMI BERTH CO., INC.
- Ogaki School Lunch Support Co., Inc.
- O PFI Toyokawa Hoisaijyo Co., Ltd.
- © Tahara Solar Co., Ltd.

# Chubu Electric Power actively publishes information through the following websites and magazine.

- Chubu Electric Power's website: http://www.chuden.co.jp/english/
- Special website:

  "The Hamaoka Nuclear Power Station, today and tomorrow" http://hamaoka.chuden.jp/english/
- E-magazine "Denki No Ashita" http://dna.chuden.jp/

- Chubu Electric Power's official Twitter account Account name: @Official\_Chuden
  - \* Please note that we do not follow or Tweet to particular account names.
- Information magazine "Ba" http://ba.chuden.jp/

If you have any comments or inquiries, please contact: http://www.chuden.co.jp/english/contactus/

# The sentiment contained in this year's cover

This year's cover features the Japanese character for "create," depicted in bold calligraphic strokes. "Let's create a new Chubu Electric Power Group that evolves with strength and agility in this new era" is the sentiment contained therein.

Starting something new on one's own requires a great deal of hard work.

But the aggregate power generated when each and every person performs their role to their best level is a power that enables infinite creation.

We chose this design to reflect the solidarity of our people and our enthusiasm for creating new value.

#### Calligrapher: Hiroshi Tsuzuki

Born in 1979 with congenital upper limb deficiency, Hiroshi Tsuzuki joined the Chubu Electric Power subsidiary Chuden Wing Co., Ltd. in 2003. He is currently in charge of design at Chuden Wing. The special feature of his design work is the calligraphic characters that he paints using his feet and then uploads to his computer and touches up. He will represent Japan at the International Abilympics 2016 in France, in the English language DTP\* category.

\* Desktop publishing, which is the computer-based editing, design and printing of publishing material.





# Chubu Electric Power Co., Inc.

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