



## Chubu Electric Power Group Management Vision

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Leading the Industry in Providing Customers with Services that Exceed Expectations.

Aiming to become

**a Total Energy Service Corporate Group  
that is one step ahead**

March 2018  
Chubu Electric Power Co., Inc.

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## Introduction

# Our Thoughts Regarding the Chubu Electric Power Group Management Vision

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I would like to extend my sincere appreciation for all the courtesies we have received regarding the Chubu Electric Power Group's business.

The environment surrounding the Chubu Electric Power Group is a whirlwind of major changes, including the start of full liberalization of the electricity retailing market in April 2016 and of full liberalization of the gas retailing market in April 2017, as well as the spinning off of power transmission/distribution divisions by April 2020, which is being imposed by the Electricity Business Act. Moreover, trends such as the evolution of digital technology, including IoT and AI, and the spread of EVs are expected to rapidly change the environment surrounding our customers and society, creating a world that was unimaginable before this.

We believe that it is these kinds of changes that contain chances for growth.

The Chubu Electric Power Group Management Vision that we have formulated expresses our firm intention to carry out further innovative changes, and the direction of those changes, in order meet the trust and high expectations of our customers and society and to continue to be chosen by them. We plan to do this by reconsidering "what value the Group should provide to customers and society" as Japan's population declines, its economic growth slows, and various social issues stemming from these factors become more serious. We will go beyond our traditional business domain of the energy business to carve out a new future and achieve further growth by providing "New Community" that connect customers and society.

As a provider of energy that is indispensable for people's lives, the Chubu Electric Power Group will strive to fulfill our unwavering mission of providing environmentally friendly and high-quality energy in a safe, reasonable, and stable form.

At the same time, we will aim to become a total energy service corporate group that is one step ahead and that provides services that exceed the expectations of customers ahead of our competitors by continuously taking on the challenge of creating new value in view of the changes of the times based on the realization of our unwavering mission.

March 2018

President & Director  
Chubu Electric Power Co., Inc.

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# Further Growth of the Chubu Electric Power Group

## We will transform our business structure into a new Chubu Electric Power Group with the aim of simultaneously “realizing our unwavering mission” and “creating new value.”

The business environment surrounding the Chubu Electric Power Group is changing drastically. We believe that it is these kinds of changes that contain chances for growth.

We will alter our business structure greatly in order to achieve further growth by capitalizing on the relationships of trust that we have built with our customers by supporting the community through the establishment and operation of power infrastructure and by utilizing our solid technological skills and strength in making business proposals, which are the foundations of what we do.

### Changing societal structure

- Energy demand will decrease over the long term due to the declining population and the slowdown of Japanese economic growth.
- “Societal issues” that appear with changes in the societal structure are becoming more serious in various ways, necessitating solutions such as flexible ways of working.
- The dilution of community is an especially serious social issue, and our customers and society have growing expectations for the maintenance and improvement of convenience and safety in everyday life.

### Changing business systems

- Progress in deregulation of the energy business is creating chances for many business operators to expand businesses and services.
- Business systems are evolving into three different businesses—power generation, power transmission and distribution, and customer service and sales—and market revitalization tailored to each business is increasing.

### Evolving digital technology

- Advanced digital technologies including IoT, AI, big data, cloud computing, and storage batteries are progressing rapidly and having synergistic effects.
- Completely new business fields are being created, and their impact is drastically changing the scale and shape of industry worldwide.
- The originality and ingenuity of business operators is making it possible to provide completely new services that even customers cannot imagine.

### Rising environmental awareness

- An international framework aimed at reducing greenhouse gases has been formed and initiatives are being promoted.
- Customers’ and society’s interest in achieving a low-carbon society is rising.
- With investors’ and shareholders’ interest in ESG initiatives rising, environmentally aware business management is becoming more important.

*In order to keep growing as “a total energy service corporate group that is one step ahead,” which will continue to contribute to the realization of a low-carbon society, meet the trust and high expectations of its customers and society, and continue to be chosen by them,*

*we must find chances for growth amid a changing business environment and carry out new initiatives that are not on traditional lines of extension.*

- Even as the business environment changes, with maintaining neutrality and fairness, we will achieve advanced energy security through the utilization and flexible application of advanced digital technology.
- We will make a transition to a business model with unbundling of each sector by integrating the thermal power generation business into JERA and spinning off the power transmission/distribution and sales business. Through these respective autonomous initiatives, we will grow into a stronger corporate group and expand revenue in the energy business.
- In addition to the energy business, we will establish “new growth fields” focused on social issues to nurture primary sources of revenue.

# 2

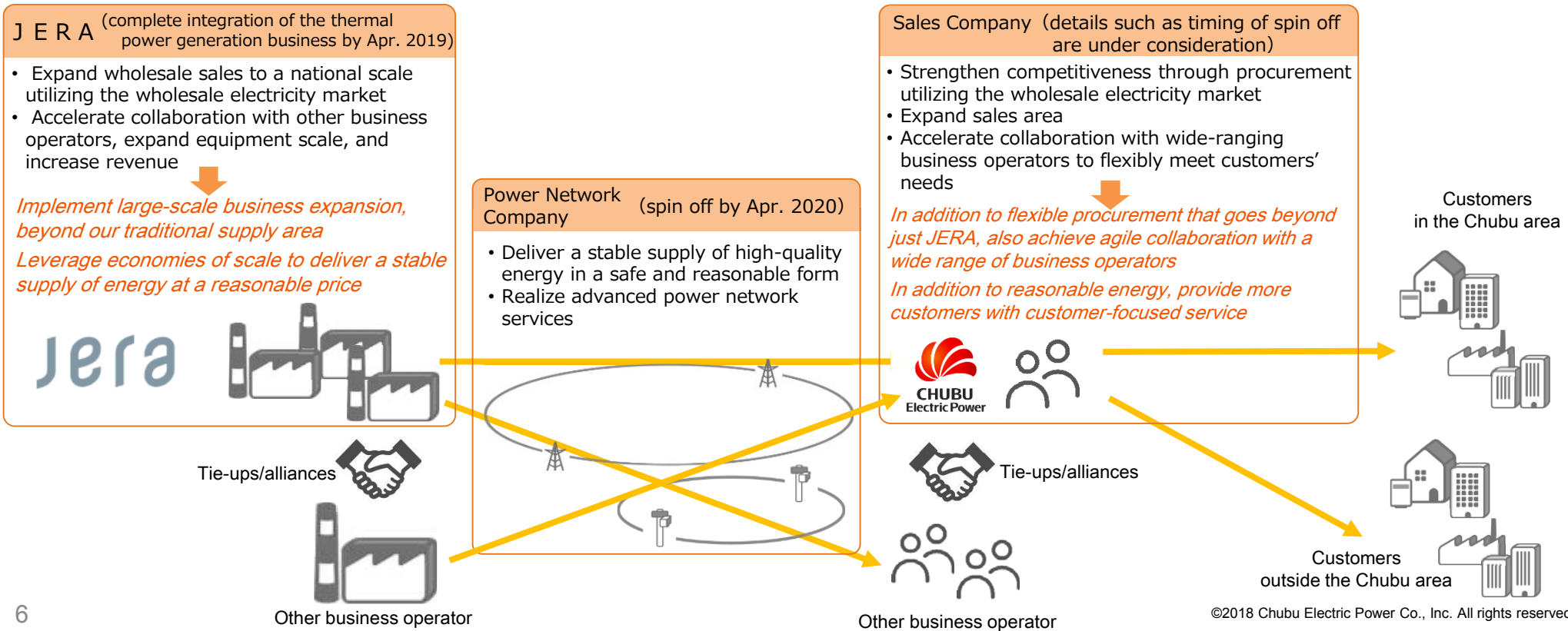
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## Chubu Electric Power Group's Energy Business

2-1 Transition to a Business Model with Unbundling of Each Sector

We will proceed with the transition to a business model with unbundling each sector by integrating the thermal power generation businesses into JERA and spinning off the power transmission/distribution and sales business.

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



## 2-2 Initiatives toward Business Model Establishment

We will establish a business model by unbundling each sector, with each business entity (power generation, power transmission/distribution, and sales) promoting its own strategy and carrying out autonomous business expansion.

In a business model with the unbundling of each sector, each business entity (power generation, power transmission/distribution, and sales) faces its own business activities area, business partners, and customers, and expands revenue by autonomously expanding its business and increasing the quality of its services.

Aiming to increase revenue, we will expand wholesale sales outside the Chubu Electric Power/Tokyo Electric Power Group through JERA, which utilizes the wholesale electricity market, and we will expand procurement outside the Chubu Electric Power Group through the sales company.

Business entity	Direction toward 2030	
JERA	<p><b>Expand domestic business revenue</b></p> <p><b>Expand overseas revenue</b></p>	<ul style="list-style-type: none"> <li>• JERA will expand the scale of our domestic business by leveraging the entire value chain from upstream investments and fuel procurement through power generation to power and gas wholesale sales obtained by the integration of the thermal power generation businesses with TEPCO Fuel &amp; Power, Inc.*1</li> <li>• JERA will provide a stable supply of energy through competitive fuel procurement and development of power sources, improvement of facility operation efficiency utilizing advanced digital technology, and O&amp;M<sup>2</sup> cost reduction.</li> <li>• JERA will expand our revenue base overseas. We will build a solid position overseas.</li> </ul>
Power Network Company	<p><b><u>Deliver a stable supply of high-quality energy in a safe and reasonable form</u></b></p> <p><b><u>Realize advanced power network services</u></b></p>	<ul style="list-style-type: none"> <li>• Even as the supply demand structure changes, including mass introduction of renewable energy, we will balance global top-class high-quality and supply reliability with low wheeling charges while ensuring neutrality and fairness.</li> <li>• We will realize the formation of an efficient network, including renewable energy use expansion and distributed energy resources, through further improvement in quality and reliability by making maximum use of advanced digital technology and through collaboration with power generation operators such as flexible output control based on system circumstances.</li> </ul>
Sales Company	<p><b>Expand sales area/services</b></p> <p><b>Strengthen procurement power</b></p> <p><b>Establish customer base</b></p>	<ul style="list-style-type: none"> <li>• We will increase the amount of gas and electricity sales outside the Chubu area through initiatives such as utilization of JERA's competitive electricity and gas and collaboration with Osaka Gas in the Tokyo metropolitan area. Even as energy demand weakens and competition intensifies, we will maintain electric power sales at about 130 billion kWh and expand gas sales to 3 million tons.</li> <li>• We will proactively utilize the developing wholesale electricity market to increase our price competitiveness.*1</li> <li>• Through the utilization of advanced digital technology, we will expand our customer base from the "family unit" to the "individual unit," which will help with the provision of new services.</li> </ul>

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

※2 Operation & maintenance



## We will contribute to and work towards the realization of a low-carbon society by pursuing an optimal energy mix.

We will pursue an optimal energy mix from the perspective of “S+3Es,” which aims to achieve Energy security, Economic efficiency, and compliance with the Environment simultaneously, with Safety as the starting point.

Specifically, we will continue to make efforts toward the realization of a low-carbon society by strengthening our initiatives at every level of the energy business, from power generation to power transmission/distribution and sales, including promoting initiatives toward the restart of nuclear power plants and seeking continuous use of such plants, as well as promoting the use of renewable energy and aiming for a non-fossil energy rate of 44% by fiscal 2030, as set forth in the Act on Sophisticated Methods of Energy Supply Structures.

Field	Direction toward 2030
Nuclear power generation	<ul style="list-style-type: none"> <li>We will carry out initiatives aimed at the use of nuclear power generation, including extending the duration of operation (40 years) by introducing the latest knowledge and technology, purchasing electricity from power plants of other operators, maintaining and improving technology, and developing human resources, while placing top priority on on-going efforts such as equipment measures to improve safety and the strengthening of field readiness, as well as improving the trust of the community.</li> </ul>
Renewable energy	<ul style="list-style-type: none"> <li>We will actively promote the development of renewable energy sources, including new efforts such as offshore wind power and geothermal power, in addition to hydraulic power, on-shore wind power, and biomass, which we have been working on, to increase the non-fossil energy rate.</li> </ul>
Thermal power generation	<ul style="list-style-type: none"> <li>We will make use of thermal power generation, which is becoming more important for its adjustable power due to the mass introduction of renewable energy, which is susceptible to weather effects. Our goal will be to ensure a stable supply of electricity while replacing older thermal power plants with the latest thermal power plants that are efficient and have a low environmental load. At the same time, we will try to reduce power generation costs by making efforts to optimize the operation of thermal power plants, including fuel procurement.</li> </ul>
Power transmission/distribution	<ul style="list-style-type: none"> <li>We will support the active use and expansion of renewable energy, including storage batteries and coordination with customers' equipment, from the perspective of providing a stable supply by stabilizing voltage and frequency using advanced digital technology, such as IoT and big data analysis, which enables fine control.</li> </ul>
Sales	<ul style="list-style-type: none"> <li>We will contribute to our customers' energy saving and CO2 reduction activities by actively making proposals for the optimal use of energy.</li> <li>We will take many different measures regarding non-fossil energy (i.e., nuclear power and renewable energy), including procurement from a wide range of business operators, not just our own company, with the aim of achieving a non-fossil energy rate of 44% by fiscal 2030.</li> </ul>

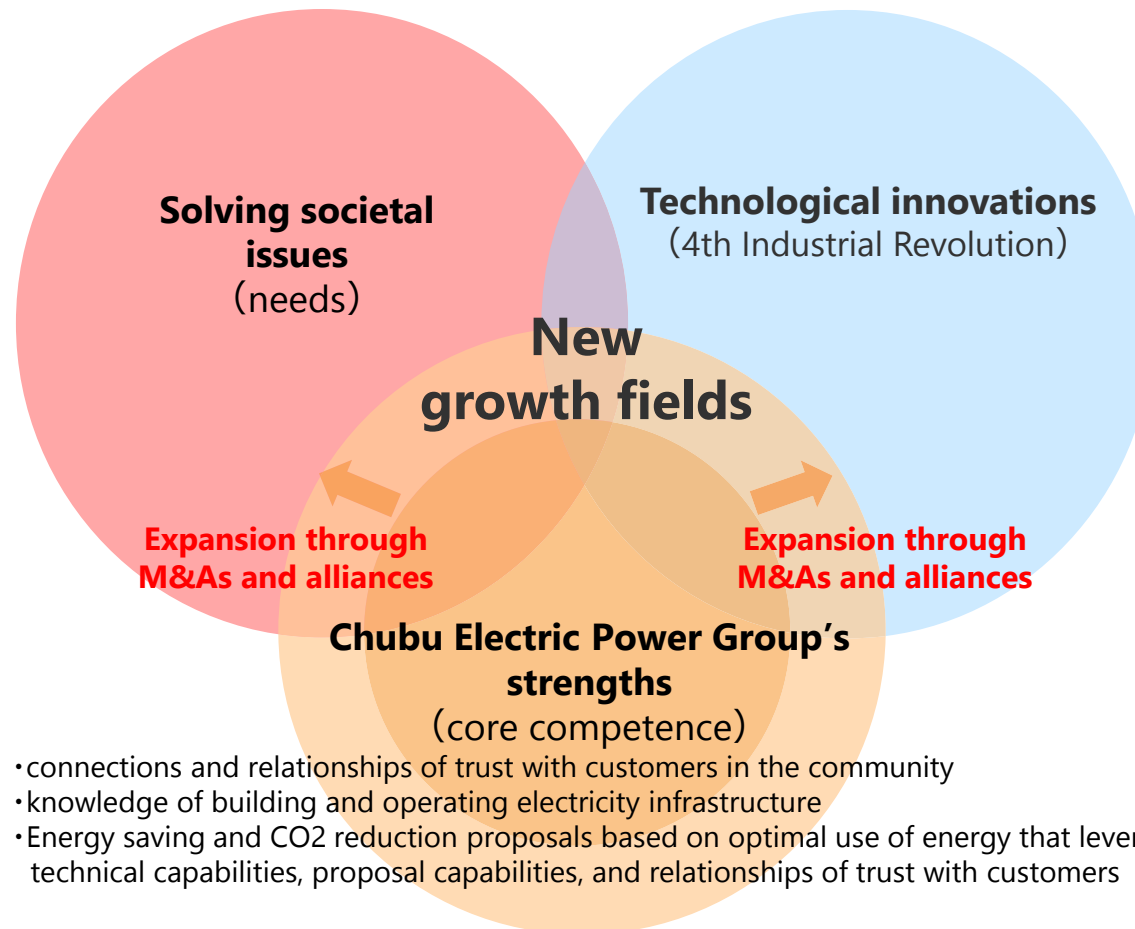
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## Provision of “New Community” ～ Establishment of New Growth Fields ～

We will reconsider the role of the Chubu Electric Power Group from the perspective of solving societal issues, establish new growth fields, and develop them into primary sources of revenue.

We will establish new growth fields from three perspectives, starting with the solving of societal issues (needs), technological innovation (4th Industrial Revolution) and our own strengths (core competence). We will develop these into primary sources of revenue accounting for 10 – 20% of our consolidated ordinary profit.



# We will provide diverse “New Community” in society through two approaches that use advanced digital technology.

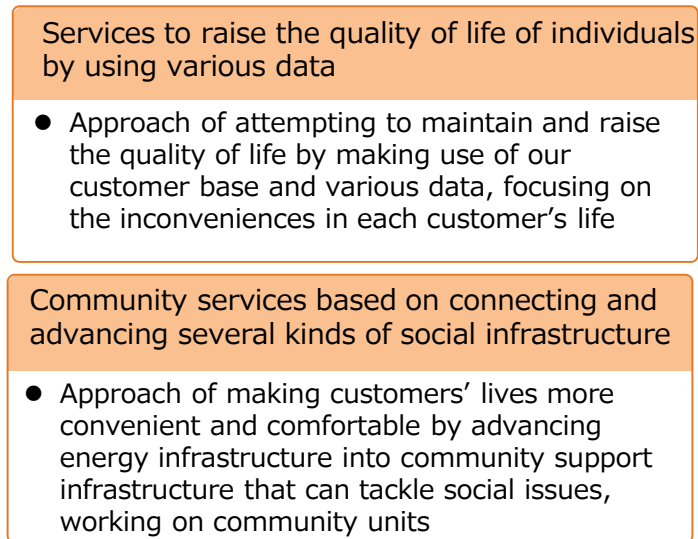
We will form a broad social infrastructure through the energy business and will contribute to community development by maintaining that infrastructure.

We will provide new solutions to the contemporary community, which is seeing dilution, and contribute to solving various social issues faced by communities. We will do this by integrating cutting-edge AI and IoT technology, which can connect the needs of various customers across locations, into our strengths cultivated in the energy business.

## Societal issues caused by community dilution

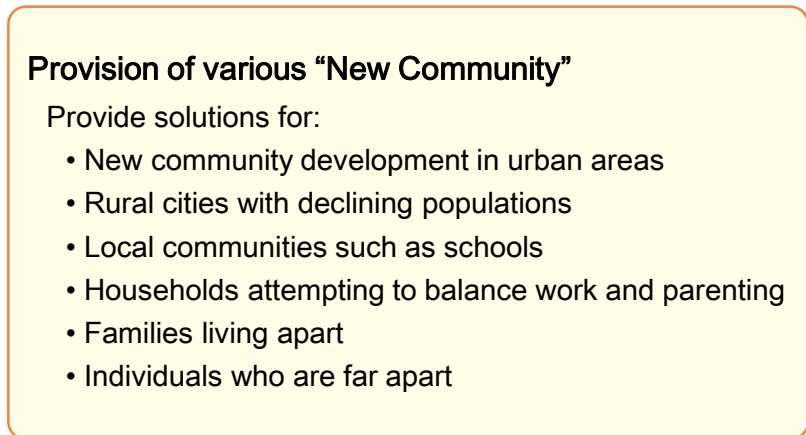


## 2 approaches



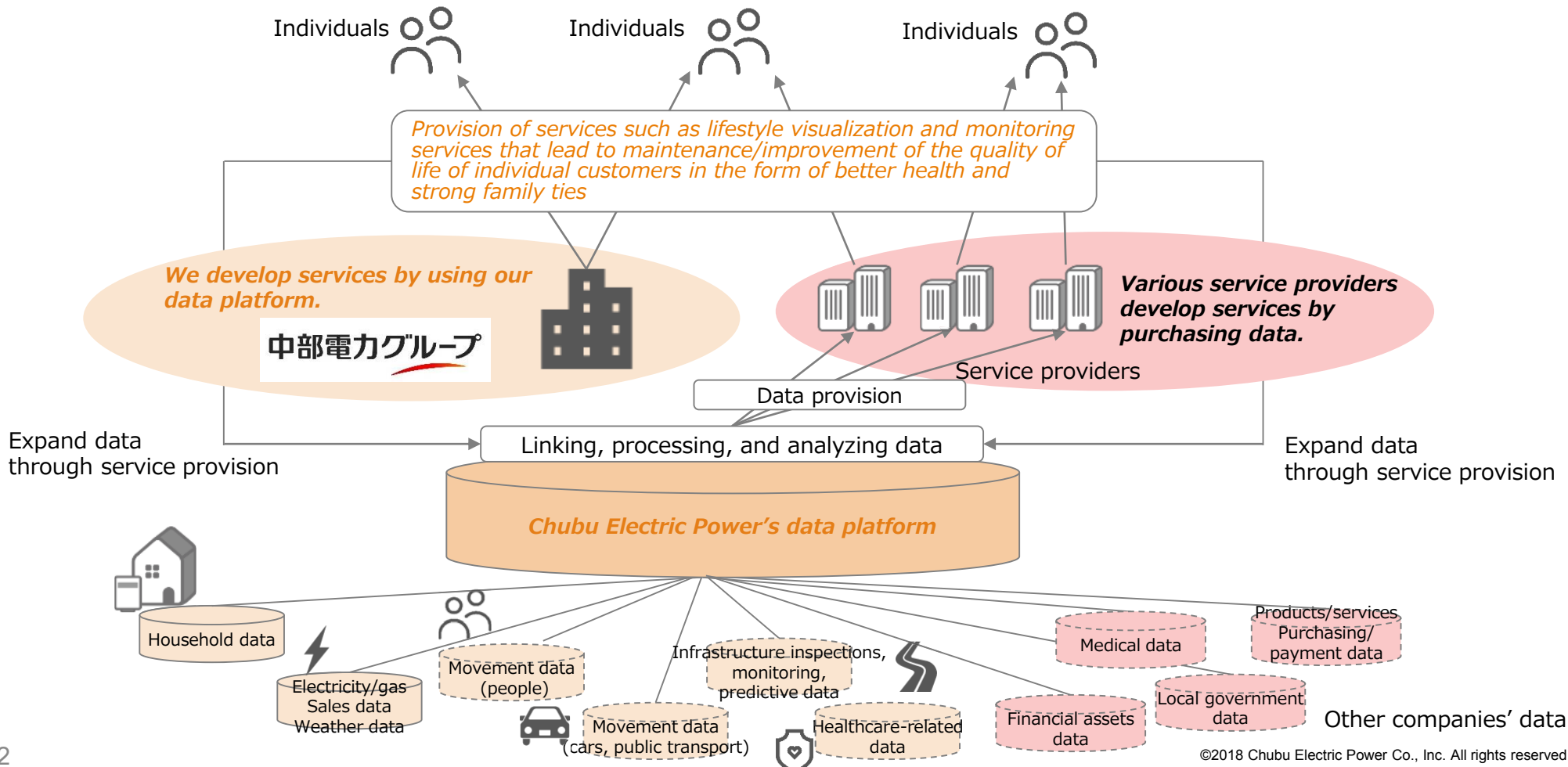
Combine 2 approaches in various ways

## Establish new growth fields



We will establish information related to lifestyle as a data platform and make efforts to maintain/improve the quality of life of each and every customer from various angles.

We will leverage connections with customers cultivated through the energy business to establish information on social life as a data platform. With each business entity working together, we will make efforts to maintain/improve the quality of life of each and every customer through providing new services focused on customers' lives.

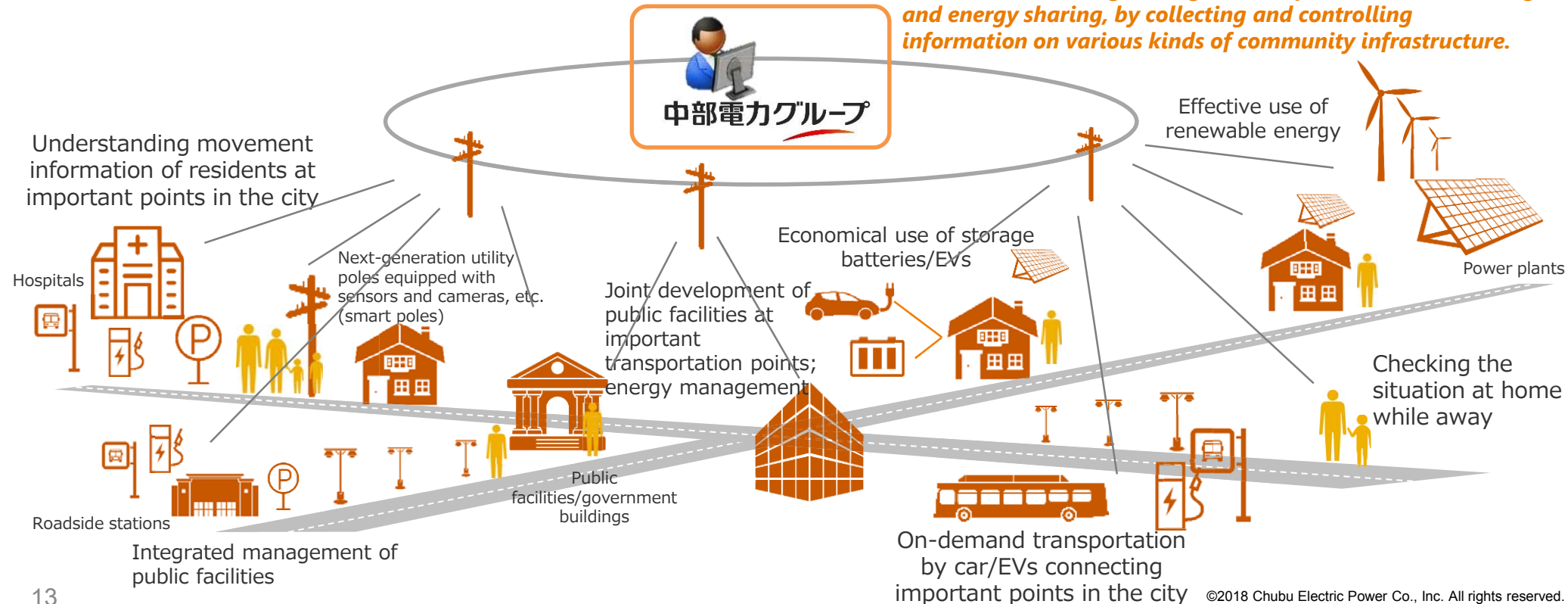


By connecting various kinds of social infrastructure to energy infrastructure, we will transform it into a next-generation social infrastructure and strive to improve convenience for local customers.

We will use each business entity's knowhow on operating the broad social infrastructure that we have cultivated through the energy business, and will use cutting-edge AI and IoT technology to advance energy infrastructures that were previously used only for one-way supply, into next-generation social infrastructure (community support infrastructure) that is connected to other kinds of social infrastructure and customers' equipment.

This will enable us to meet a wide variety of needs, and we will be able to make customers' lives more convenient and comfortable by coordinating with various local governments, including in the Chubu region, to provide greater efficiency and energy-sharing systems, which were difficult to achieve before now.

*We will provide services that lead to solutions to community issues, such as strengthening disaster prevention, monitoring, and energy sharing, by collecting and controlling information on various kinds of community infrastructure.*




## We will combine our 2 approaches in various ways to provide “New Community” and solve social issues faced by communities.

By combining “services to raise the quality of life of individuals by using various data” and “community services based on connecting and advancing multiple social infrastructures” in various ways, we will provide various local governments and individual customers, including in the Chubu region, with “New Community,” which will become solutions to the contemporary community, which is seeing dilution.

We will resolve various social issues stemming from the dilution of community by rebuilding the contemporary community through the provision of solutions.

### Provision of various “New Community”

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



*Resolution of various social issues faced by the community*

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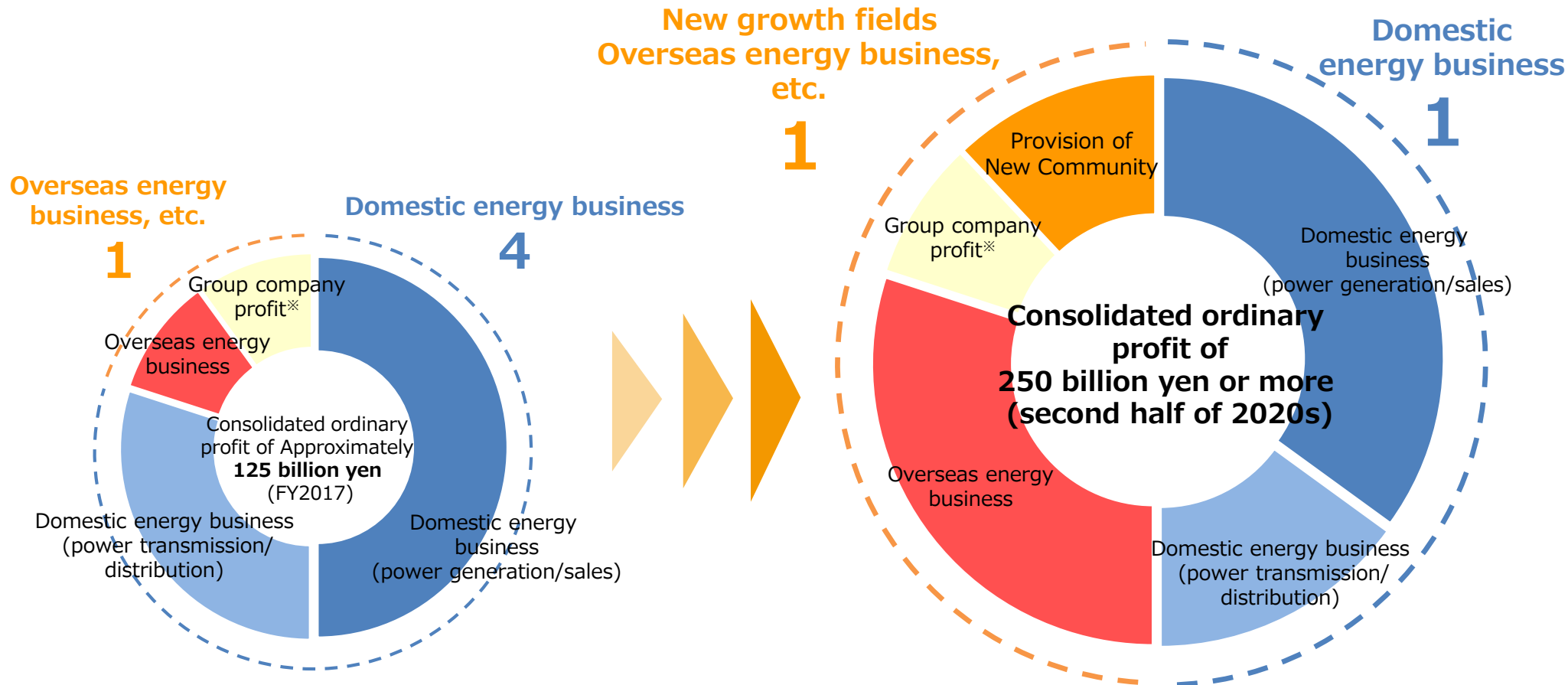
## Quantitative Vision for Chubu Electric Power Group



We aim to expand our revenue base and achieve further growth by strengthening the energy business and establishing new growth fields.

In order to actively pursue profit growth, even in a rapidly changing business environment, we aim to become a corporate group with consolidated ordinary profit of 250 billion yen or more by building a balanced business portfolio through:

- Expansion of the energy business through transformation to a business model with unbundling each sector; and
- Driving ahead with reforms to our revenue structure by establishing new growth fields.



## In each field, we aim to further expand our business scale and improve the level of our services

Business entity		Current situation	Second half of 2020s
J E R A	Fuel	<ul style="list-style-type: none"> <li>•Upstream development : 5 projects</li> <li>•Scale : LNG : 35 million tons coal : 34 million tons</li> <li>•LNG carriers : 16</li> </ul>	<p>Leveraging world-class procurement scale, JERA will form an optimal portfolio of fuel procurement and upstream development.</p> <ul style="list-style-type: none"> <li>•Upstream development : About 10 projects</li> <li>•Scale (incl. trading) : LNG : 30 – 40 million tons/year coal : 30 – 55 million tons/year</li> <li>•LNG carriers : Approx. 30</li> </ul>
	Domestic	One location (650,000 kW) under construction	Utilizing existing infrastructure, we will carry out new construction and replacements on a scale of 10 million kW
	Overseas	Total cumulative investment: 2.6 billion USD; developed output: 8 million kW	Utilizing knowhow in the domestic power generation business, we will achieve 20 million kW in developed output, including renewable energy projects.
Power Network Company		<p>Domestic top-class level in total wheeling unit price*</p> <p>* Total wheeling unit price: Unit price derived by dividing total wheeling costs by total demand</p>	<p>Aim for domestic top-level (=global top-level) in the number and time of blackouts per customer account</p> <p>Aim for domestic top-level total wheeling unit price in each voltage class</p>
Sales Company	Electric power	Sales approx. 130 billion kWh of electric power per year	Even as energy demand weakens and competition intensifies, we will maintain electric power sales at about 130 billion kWh per year by increasing the sale of electric power outside the Chubu region, mainly in the Tokyo metropolitan area.
	Gas	Sales approx. 1 million tons of gas and LNG per year	We will increase the sale of gas and LNG to 3 million tons per year.

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