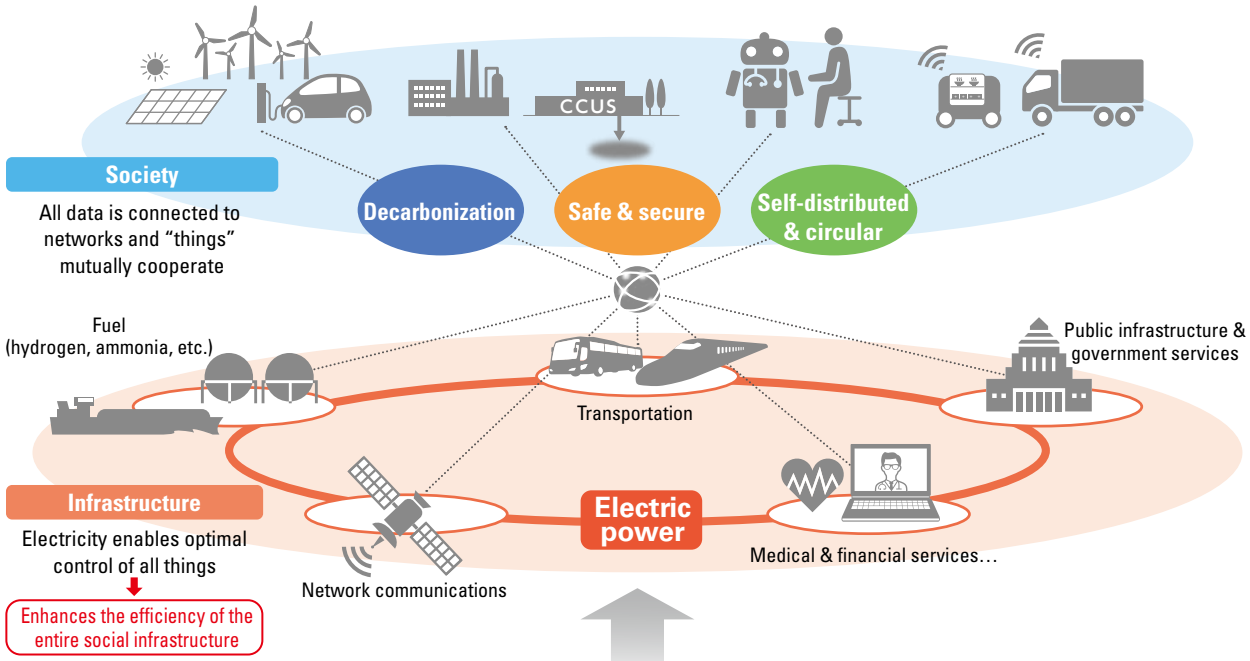
Chubu Electric Power Group Management Vision 2.0 and Medium-term Management Plan

Transformation of society and decarbonization and sophistication of electric power systems toward 2050

The Chubu Electric Power Group assumes that in 2050, society will have evolved into a "decarbonized," "safe and secure" and "self-distributed and circular" society, and everything will be optimally controllable by electric power.

The Group will contribute to the transformation of society through the decarbonization and sophistication of electric power systems as the core infrastructure supporting various types of infrastructure.



Contributions by the Chubu Electric Power Group

- Decarbonization of electric power systems supporting various types of infrastructure; Sophistication of electric power grid
- Pursuit of value creation by integrating each infrastructure or infrastructures and data

Coexistence with residents of the local communities

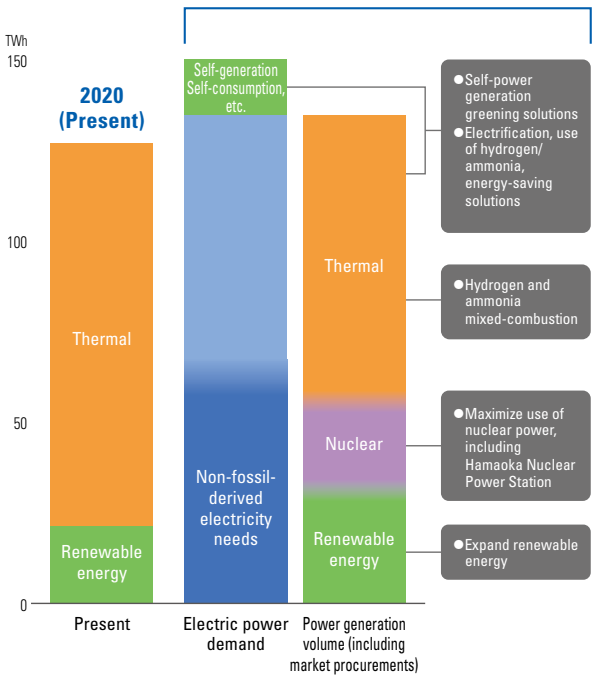
Working to achieve technological innovation and cost reductions in response to a rise in costs resulting from transformation of society and also delivering new value-added services

Providing Energy in 2030

In working toward the realization of a decarbonized society, we assume that in 2030 there will be a further increase in the need for renewable energy-derived electricity and non-fossil fuel value, mainly from corporate customers.

To respond to customer needs, the Chubu Electric Power Group will strive to expand renewable energy, utilize hydrogen and ammonia mixed-combustion in thermal power generation, maximize the use of nuclear power, and provide electrification and energy-saving solutions on the demand side for the decarbonization of the entire social system.

Power generation mix of the Chubu region



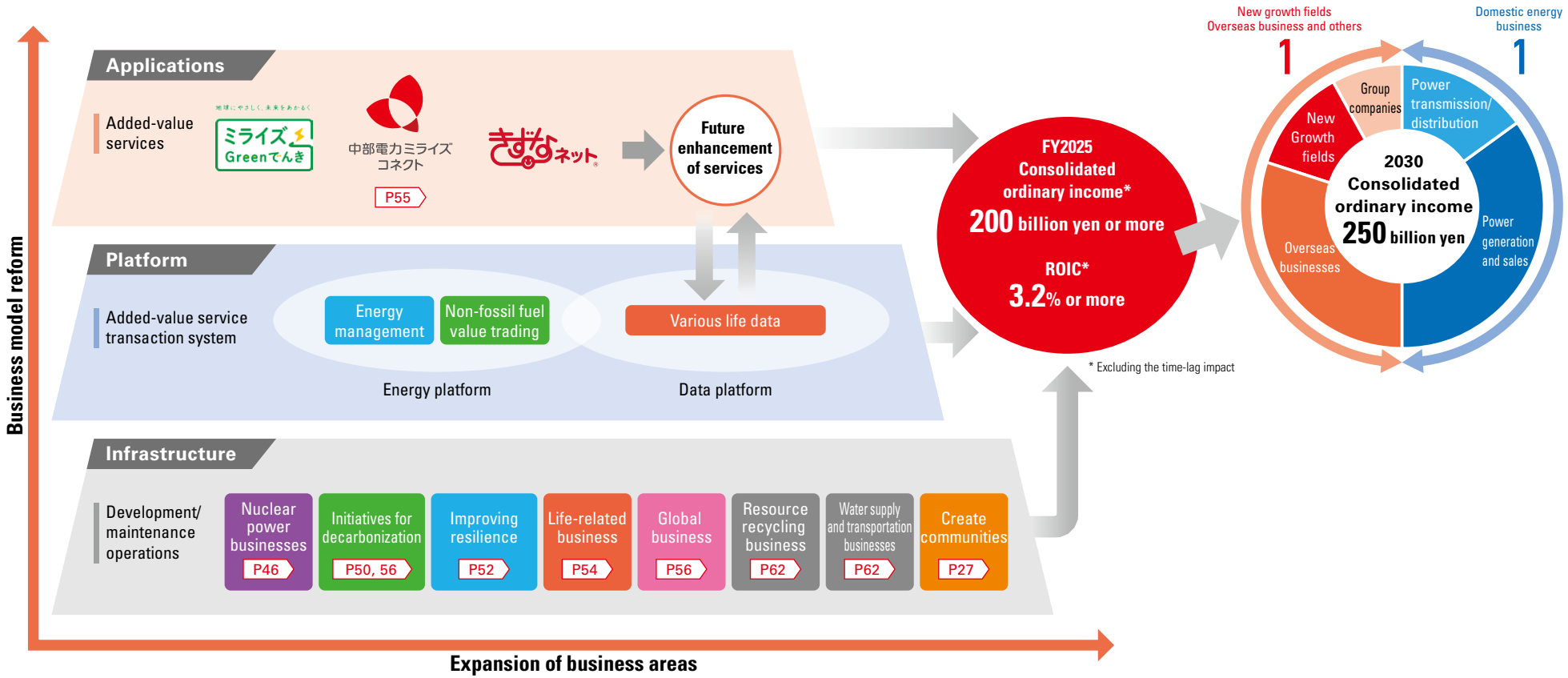
Initiatives for 2030

Toward 2030, we will expand our business areas from the energy business to the real estate business and resource recycling business. While doing so, we will accelerate our efforts in the platform areas mutually connecting these businesses and application areas providing high value-added services, in order to transform our business model.

Even amid the drastically changing business environment, the Chubu Electric Power Group will steadily promote the initiative described in our Management Vision 2.0 with the aim of its quantitative targets for 2030 of achieving consolidated ordinary income of 250 billion yen and realizing a well-balanced profit portfolio.

In addition, we have defined medium-term management targets for FY2025 as a milestone toward achieving targets in our Management Vision 2.0, we aim to achieve the medium-term targets for FY2025 of consolidated ordinary income of 200 billion yen or more and return on invested capital (ROIC)*1 of 3.2% or higher.

*1 ROIC: Return on Invested Capital



Toward Restarting the Hamaoka Nuclear Power Station

In a highly volatile business environment, we believe that leveraging nuclear power plants is essential to achieve both the realization of a decarbonized society and the stable, safe, and cost-effective provision of energy. Furthermore, the Act for Partial Amendment of the Electricity Business Act, etc. for the Establishment of Electricity Supply System toward the Realization of a Decarbonized Society (GX Decarbonization Electricity Act), enacted in May 2023, clearly specifies the utilization of nuclear power generation as a viable option to ensure stable electricity supply, achieve a decarbonized society, and enhance energy supply autonomy.

Ensuring safety as the top priority, we aim for the early restart of the Hamaoka Nuclear Power Station in order to achieve the basic policy of energy, "S+3E*." By doing so, we will contribute to the realization of GX.

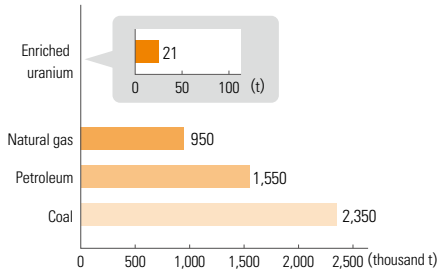
*With **S**afety as a fundamental premise, simultaneously aim for **E**nergy Security, **E**conomic Efficiency, and **E**nvironmental Protection.

Link Hamaoka Nuclear Power Station

	Social Issues	Characteristics of nuclear power generation
S		Safety
3E	Energy Security: Ensuring stable electricity supply Economic Efficiency: Stabilizing electricity prices	Japan has a particularly high dependence on overseas energy resources among advanced countries (approximately 90%), leading to a fragile energy structure. In countries expected to experience continued high economic growth, further increases in energy consumption are anticipated, intensifying competition for limited resources. As a result, rising resource prices may lead to increased costs, potentially translating into higher electricity bills and increased burden on customers.
	Environmental Protection: Realizing a decarbonized society	In the pursuit of achieving carbon neutrality by 2050, reducing CO_2 emissions from thermal power generation—known for its stable and substantial supply capacity—necessitates both the decarbonization of thermal power generation and the partial substitution with other low-carbon energy sources.

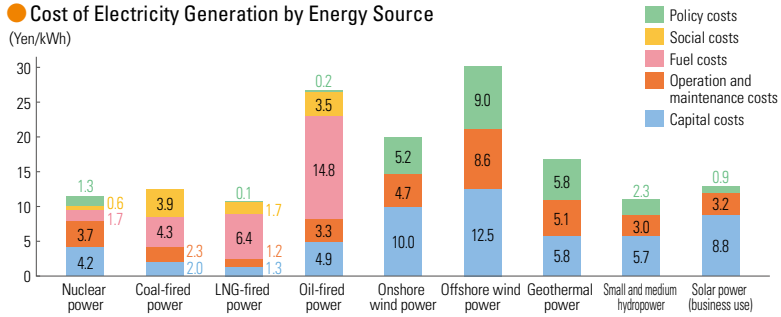
Nuclear power is a quasi-domestic energy source that overwhelmingly produces energy output relative to fuel input. It can maintain electricity generation for several years using solely domestically held fuel. This source boasts exceptional stability and efficiency, largely unaffected by weather conditions during electricity generation and benefiting from sourcing fuel from politically stable regions. With fuel costs constituting a small portion of overall electricity generation costs, nuclear power is robust against fluctuations in resource prices and exchange rates. As a result, nuclear power contributes to delivering cost-effective and stable energy.

Fuel Required to Operate a 1 GW Power Plant for One Year



Source: Agency for Natural Resources and Energy, "Nuclear Power 2010"

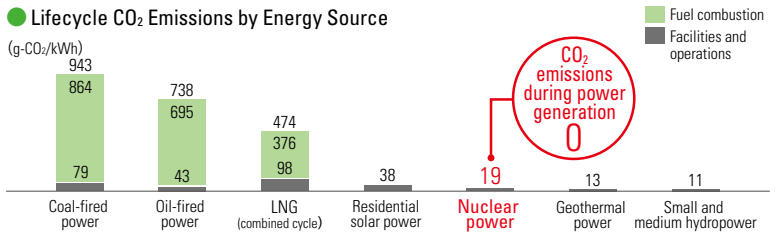
Cost of Electricity Generation by Energy Source



Created based on the summary of power generation cost estimates by power source in 2020 within the Power Generation Cost Verification Working Group's Report on Power Generation Cost Verification to the Basic Policy Subcommittee (September 2021)

Nuclear power generation, which utilizes the heat energy generated by nuclear fission of nuclear fuels such as uranium, does not emit CO_2 during the generation process. It is therefore considered an excellent method of electricity generation from the perspective of mitigating global warming, akin to solar and wind power generation.

Lifecycle CO_2 Emissions by Energy Source



Source: Comprehensive Assessment of Life Cycle CO_2 Emissions from Power Generation Technologies in Japan issued by the Central Research Institute of Electric Power Industry (July 2016)

Progress of Chubu Electric Power Group Medium-term Management Plan

Results and issues for FY2023

In FY2023, although there were one-time profit-boosting factors, **consolidated ordinary income amounted to approximately 371 billion yen**, excluding the time lag impact, owing to such factors as **a decrease in supply and demand adjustment costs** at Chubu Electric Power Grid, **a decline in power supply procurement prices** at Chubu Electric Power Miraiz, and thorough **measures to enhance management efficiency**.

The business environment is expected to remain uncertain due to such factors as **resource price volatility and revisions to systems**. Nonetheless, Chubu Electric Power Group will **respond to these changes in the environment and accelerate its growth initiatives to maximize the value it provides to its stakeholders**. We will **fulfill its "unwavering mission" of providing high-quality energy in a safer, more affordable and more stable manner** in addition to **creating new value** while firmly responding to the **diversifying needs of customers and society that include achieving carbon neutrality, transitioning to a circular economy, and resolving regional issues** as well as address **demands of capital markets such for improving PBR**.

Area	Results and Issues	Direction of Responses
Energy Business Area	**Results** ● **Provide affordable energy** by implementing **measures for reducing the burden of electricity** ● **Realize stable supplies** by **managing optimal facilities tailored to regional characteristics** ● **Contribute to CN** by **expanding zero-emission power sources** ▶ **Progress with new regulatory standard conformity review** for the Hamaoka Nuclear Power Station ▶ **Steadily develop** renewable energy power sources and **execute M&A** **Issues** ● **Power procurement** considering **fuel price volatility and system changes** ● Growing **complexity of electricity flows** due to increase in renewable energy source ● **Steady implementation of initiatives, including globally, toward CN**	■ Offering prices and services closely tailored to customer needs P54 ■ Building optimal facilities tailored to regional characteristics P52 ■ Contributing to the realization of a CN society by developing and expanding decarbonized power sources P38 ■ Initiatives toward restarting the Hamaoka Nuclear Power Station P25,46
New Growth Area	**Results** ● **Diversify business areas by upgrading and expanding service lineup** ● **Promote creation of regionally** based communities, including the development of **"iiNEtown Mizuho"** ● **Collaborative agreements for resource recycling with local governments and companies** **Issues** ● **Quickly secure earnings and provide value to customers and local communities** ● **Build a new business foundation toward becoming a multi-utility**	■ Provide new services that respond to customer needs and regional issues P58 ■ Regional revitalization through the real estate business P27 ■ Contribute to customers and local communities by providing multi-utility services P62
Management Foundation	**Results** ● **Formulate human resource strategies** for the utilization of diverse human resources ● Enhance **management efficiency** through **the advancement of DX** that utilizes AI and other technologies **Issues** ● Responses for realizing **management with an awareness of cost of capital and stock prices** ● **DX and safety** initiatives in collaboration and coordination with business partners ● **Responses with consideration of compliance violation events**	■ Realizing management with an awareness of cost of capital and raising PBR P30 ■ Further raising the value of human capital P32 ■ Compliance and governance-related initiatives P10,84

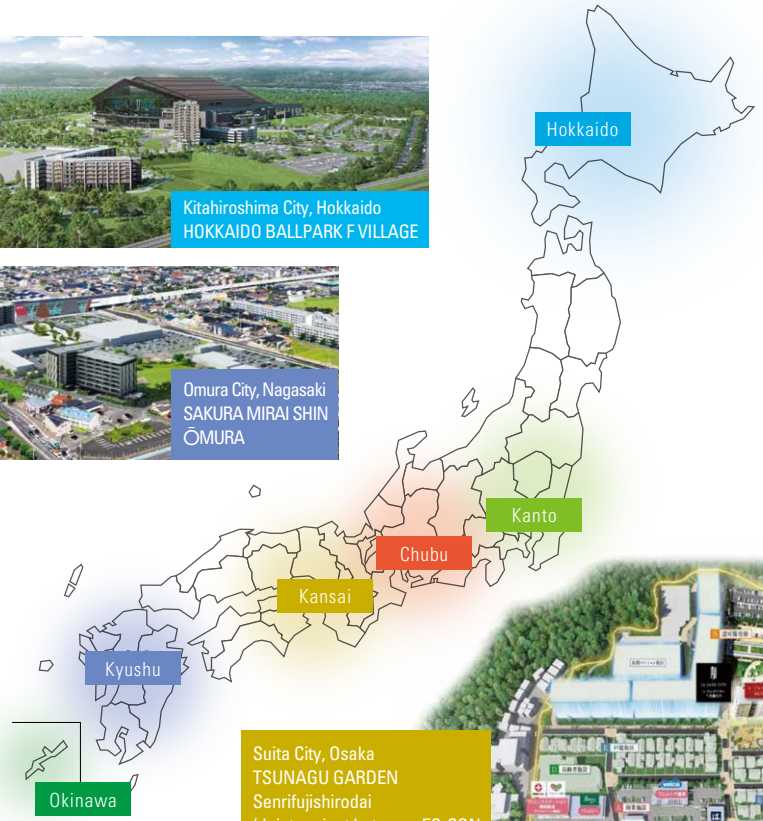
Regional Revitalization through Real Estate Business

Growth through wider regionalization × genre diversification

- **We operate** our real estate business **in six areas nationwide** with the aim of **providing value to customers in all locations**.
- We aim to achieve further growth by promoting **the development of diverse asset types and increasing their value** while **stabilizing our earnings structure.**

Kitahiroshima City, Hokkaido
HOKKAIDO BALLPARK F VILLAGE

Omura City, Nagasaki
SAKURA MIRAI SHIN ŌMURA



Suita City, Osaka
TSUNAGU GARDEN Senrifujishirodai
(Joint project between ES-CON JAPAN and ChudenReal Estate)

Creating locally based communities centered on the Chubu area

- **We contribute to regional revitalization through the creation of multi-generational inclusive communities** that feature "living, business, and relaxation" with enhanced facilities and services essential for daily life.
- **We contribute to the creation of safe and secure communities** such as by developing **facilities shared by the community** based on **the needs of local customers** and **designing facilities with a view toward times of disasters**.

iiNE town Mizuho

Link iiNE MARCHE (Japanese version only)

We are progressing with the development of iiNE town Mizuho, a multipurpose facility based on the concept of "creating a multigenerational community that supports and enriches local life" in Mizuho-ku, Nagoya city (at the site of Chubu Electric Power's former company housing facility).

The iiNE town Mizuho includes a commercial market, restaurants, medical facilities, elderly care facilities, childcare support facilities, and condominiums in order to enhance the facilities and services necessary for daily life. Prior to the opening, the iiNE Marche multipurpose facility opened in April 2024.

CFO Message [Toward Further Increasing Corporate Value]

MESSAGE

Mizutani Hitoshi

Director & Executive Vice President,
General Manager of Corporate Management Division,
Chief Financial Officer (CFO)

We will promote the sustainable growth of the Chubu Electric Power Group through appropriate cash allocation.

In recent years, the Chubu Electric Power Group has accelerated strategic investments to realize a decarbonized society and expand initiatives in New Growth Fields. My role as CFO is to ensure a balance between long-term investments toward the future we envision and securing solid short-term results while also considering the expectations of capital markets. I recognize that the importance of my role is growing and I have a heavy sense of responsibility in fulfilling this.

In particular, Chubu Electric Power's PBR stands below 1.0 and was 0.58 at the end of FY2023. Given this, we have positioned improving PBR as a key mission and disclosed our policy initiatives for doing so in April 2024. We will raise PBR by improving capital efficiency through target management with an awareness of the ROIC-WACC spread as well as by making deeper considerations of the appropriate level of financial leverage and presenting Chubu Electric Power's growth vision in an integrated manner from both financial and non-financial perspectives.

In terms of profitability, in FY2023 we recorded profits that exceeded the profit level set out in our medium-term management targets (FY2025: ordinary income of 180 billion yen, excluding time lag impact). I believe this performance underscores the effectiveness of measures taken to date to thoroughly enhance management efficiency and strengthen market responsiveness across the Group. In light of this situation, we have raised our medium-term management targets and are planning to increase dividends from FY2023 and forecast annual cash dividends of 60 yen per share for FY2024.

Although the business environment that includes fuel prices remains uncertain, we will allocate management resources appropriately so that we can continue to meet your expectations in a stable manner. I ask for your continued support.

Reevaluation of Medium-term Management Targets

Results and Issues for FY2023

Backed by a recovery in profitability in our core domestic energy business, in FY2023 Chubu Electric Power recorded consolidated ordinary income, excluding time lag impact, of approximately 371 billion yen, which significantly surpassed the target of 180 billion yen set in our Medium-term Management Plan. Nonetheless, the increase in FY2023 consolidated ordinary income was also due to temporary profit-boosting factors at Chubu Electric Power Grid, where results are subject to system-related post adjustments. Furthermore, besides ongoing uncertainty in the business environment that includes fuel prices, we face a number of lingering issues such as securing earnings in New Growth Areas and I recognize that we must further accelerate our growth initiatives.

Reevaluation of Medium-term Management Targets

By expanding measures to thoroughly enhance management efficiency and strengthen market responsiveness across the Group, we have increased the probability of securing profits exceeding 180 billion yen from this fiscal year onwards. Additionally, we will continue working to expand and upgrade services that are chosen by customers and to reduce costs, while also striving to increase profits through strategic investments. Accordingly, we have decided to raise the targets for ordinary income and ROIC set as medium-term management targets. We aim to further improve profits and capital efficiency while making appropriate cash flow allocations.

		FY2022 results	FY2023 results	Management indicators: Current target FY2025	Management indicators: Reevaluation of target FY2025
Growth potential	Consolidated ordinary income*1	Approx. ¥156 billion	Approx. ¥371 billion	Management Targets ¥180 billion or more	Management Targets ¥200 billion or more
Growth potential	CF from operating activities (cumulative from FY2022 to FY2025)	¥295.7 billion	Approx. ¥640 billion	Approx. ¥900 billion	Approx. ¥1,100 billion
Growth potential	Strategic investment (cumulative from FY2022 to FY2025)	Approx. ¥40 billion	Approx. ¥190 billion	Approx. ¥450 billion (Review of breakdown)	
Efficiency	ROIC*1	2.9%	5.5%	Management Targets 3.0% or more	Management Targets 3.2% or more
Efficiency	ROE*1	6.3%	11.6%	Around 7%	
Financial health	Shareholders' equity ratio	31.9%	36.4%	30% or more	

Ordinary income by segment (billion yen)

Segment	FY2023 Segment results	Current target FY2025	Reevaluation of target FY2025
Chubu Electric Power Miraiz	191	20-30	40-50
Chubu Electric Power Grid	95.6	20-30	
JERA	54	70-80	
Others	30.9	50-60	
Total	Approx. 371	180	200

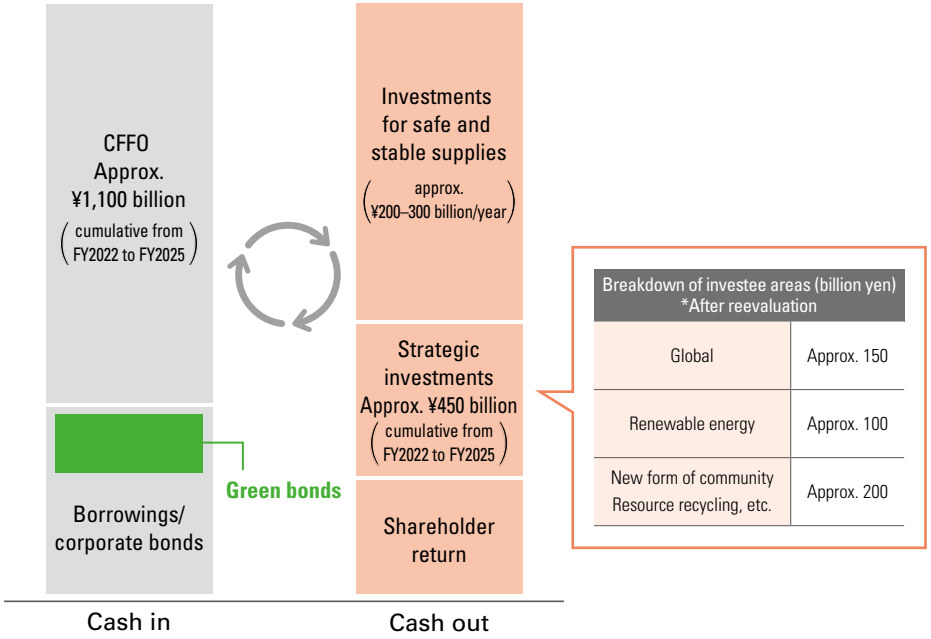
*1: Excluding the time-lag impact

Basic approach to Investment and Capital Policy and Shareholder Returns

[Investment policy]

Chubu Electric Power will use operating cash flow as a source of funds for investments needed for assuring a safe and stable supply of electricity and for strategic investments for business growth and development with the aim of realizing sustainable growth as we work to raise corporate value.

For investments needed for assuring a safe and stable supply of electricity, we will invest around 200 billion yen to 300 billion yen annually for increasing resilience and sophistication while thoroughly enhancing efficiency. By doing so, we will strive to achieve our Management Vision of consolidated ordinary income of 250 billion yen or more in 2030 and realize a business portfolio whereby the proportion of profits generated in the domestic energy business and New Growth Areas is balanced at 1.1. We plan to make strategic investments totaling around 450 billion yen from FY2022 to FY2025. We are currently reviewing the breakdown of our target investment fields in light of the recent investment environment.



Breakdown of investee areas (billion yen) *After reevaluation	
Global	Approx. 150
Renewable energy	Approx. 100
New form of community Resource recycling, etc.	Approx. 200

[Shareholder return policy]

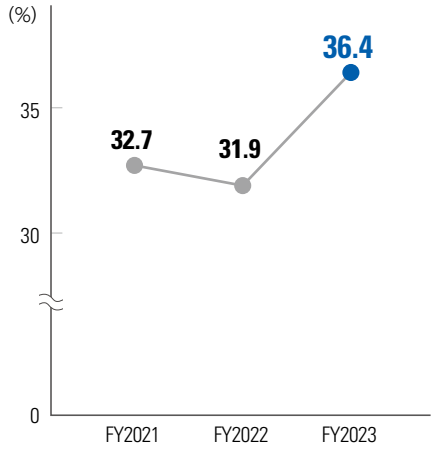
Chubu Electric Power regards returning profits to shareholders as a key mission. Based on its policy of maintaining stable dividends, we make efforts to ensure shareholder returns taking into consideration profit growth. Based on such factors as our shareholder return policy, medium-term financial condition, and capital market expectations, we increased the dividend per share to 55 yen in FY2023, and plan to increase it to 60 yen in FY2024.

[Maintaining financial soundness]

FY2022 to FY2025 will be a period in which Chubu Electric Power expands its investments, which includes the allocation of funds to growth areas, utilizing capital accumulated through profits generated by enhancing management efficiency and other means as a source of funds. In this phase of expanded investment, there will be fiscal years when free cash flow is negative. Nonetheless, Chubu Electric Power will maintain a consolidated shareholders' equity ratio of 30% or higher as it works to ensure financial soundness.

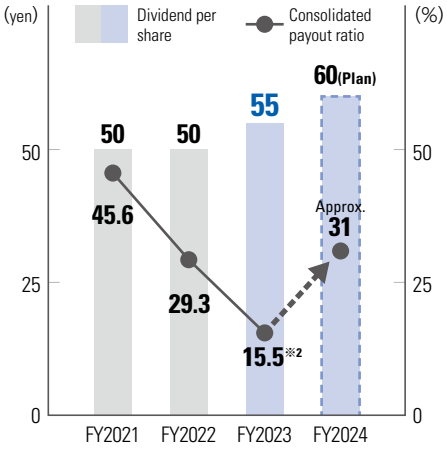
Shareholders' equity ratio

Maintain at 30% or more



Dividend per share/Consolidated Payout Ratio

Planned 60 yen/share (+10 yen compared to FY2022)



※1 After time lag adjustment
※2 The payout ratio for FY2023 is at a low level due to temporary profit-boosting factors and other factors.

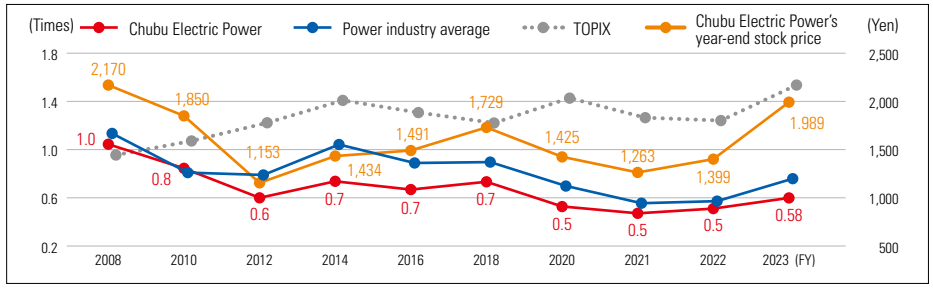
Realizing Management with an Awareness of Cost of Capital and Stock Price (toward Improving PBR)

Chubu Electric Power is working on measures based on an analysis of current conditions to improve PBR and has positioned "deepening ROIC management" as a key initiative. As a result of thoroughly enhancing management efficiency measures and strengthening market responsiveness across the Group, and as the probability of achieving a certain level of profits from this fiscal year onwards has increased, we have raised the ROIC target level set in our medium-term management targets from 3% to 3.2%, taking into account cost of capital levels. We will continue to undertake management with an awareness of cost of capital and stock price and strive to meet the expectations of our shareholders and investors by actively engaging in dialogue with them, disclosing appropriate information, and enhancing shareholder return measures.

Current situation analysis

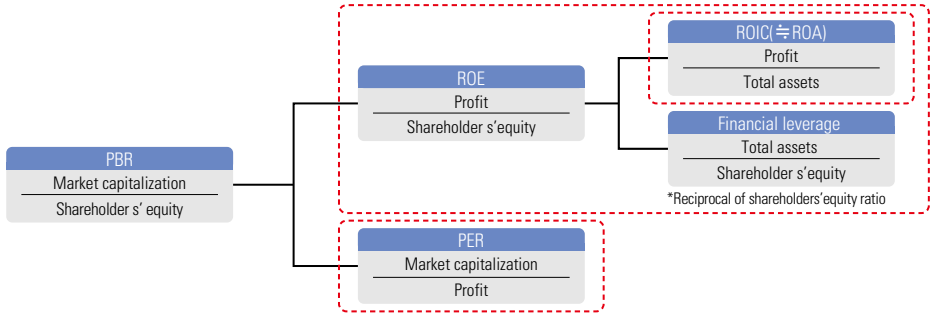
[Trends in Chubu Electric Power's PBR]

Chubu Electric Power's PBR has declined owing to the deterioration of business results due to factors such as the shutdown of the Hamaoka Nuclear Power Station following the Great East Japan Earthquake. In FY2023, although profit levels recovered and our stock price rose, PBR remained below 1.0 at 0.58.



[Analysis method]

We analyzed the reasons why Chubu Electric Power's PBR has remained low by broadly breaking down PBR into ROE (return on equity) and PER (price earnings ratio) and then breaking down ROE into ROIC (≒ROA) and financial leverage.



[Analysis results]

We identified the respective main factors behind low ROE and PER, such as stakeholder concerns and risk perceptions based on the characteristics of the electric power business and the high volatility of the business environment.

ROE

ROIC (≒ROA)

- Low profitability of the power transmission and distribution business compared with other businesses

*However, ROIC exceeded the cost of capital (WACC)

Financial leverage

- Relatively low financial leverage in the power sector (due to maintaining credit ratings and ensuring financial soundness such as risk capital, etc.)

*Secured highest shareholders' ratio in the power sector

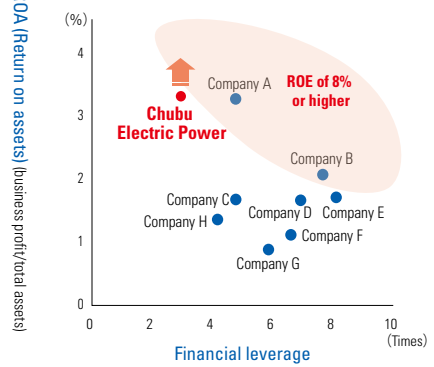
PER

Factors believed linked to concerns and risk awareness among shareholders and investors

- Concerns over profitability arising from competition policies in the electric power industry
- Uncertainty in the nuclear power industry
- Social demand for decarbonization
- Possibility of establishing a profit base through strategic investment
- Concern over a decline in public trust concerning compliance incidents
- Demands for enhanced disclosure of ESG information

ROE levels for Chubu Electric Power and other electric power companies*(Chubu Electric Power estimate)

(Average for FY2019-FY2023)*Excludes time lag



Direction of Responses to Improve PBR and Initiatives

Raise ROE: Strengthening of ROIC management

● **We aim to achieve capital efficiency that exceeds cost of capital through autonomous management of each business and optimal allocation and monitoring of resources.**

Elements	Perspective	Direction of Responses	Current concrete initiatives
ROIC WACC × Financial leverage	■ **Improve profit margin** ■ **Improve asset efficiency** ■ **Optimize financial leverage**	✓ Secure stable earnings by **promoting cost reductions and setting appropriate sales prices** ✓ **Raise asset utilization rate and reduce unnecessary assets** ✓ **Optimize management resource allocation** ✓ **Capital structure** based on **ratings, risk volume, and capital efficiency**	● **Review standard rate menu** at Chubu Electric Power Miraiz ● **Increase hydropower generation** (**raise utilization rate**, etc.) ● **Reduce cross-shareholdings** ● **Review investment plans in accordance with the investment environment** (selective investment in global business, etc.) ● Continuously consider medium-to-long-term **optimal capital structure**

Raise PER

● **We will strive to ensure that our policies and initiatives are understood and appreciated through active dialogue and disclosure with our shareholders and investors.**

Elements	Perspective	Direction of Responses	Current concrete initiatives
Improve predictability for shareholders and investors[*1] *1 Also contribute to reducing WACC	■ **Dialogue and disclosure with capital markets** ■ **Reduce performance volatility**	✓ **Dialogue with investors and enhance disclosure** ✓ Stabilize income and expenditures through **sophistication of risk management**	● Dialogue with **institutional investors and analysts** (2023 results) ▶ Financial results and management plan briefings (4 times) ▶ Meetings with IR department (150 times) ▶ Meetings with the president, CFO, outside directors (49 times) ● **Risk hedging in power supply procurement** (options/swap transactions, etc.)
Shareholder return	■ **Steady returns in accordance with shareholder return policy**	✓ **Stable dividends and payout ratio of 30%**	● Announcement of **increased dividends** (2024 forecast: **60 yen/share**)
Promote ESG management	■ Improve corporate value and reduce management risk by **promoting ESG management**	✓ **Steady initiatives for each ESG item and disclosure of non-financial information**	● Transition to **a company with an Audit and Supervisory Committee** ● Incorporating items[*2] for **responding to climate change** into **executive compensation**

*2 Degree of attainment of "2025 targets registered with GX League" for CO_2 emissions

Comprehensive deployment of human resources strategy, DX strategy, and Kaizen activities

After making sure that our Kaizen activities pursue what is essential in our operations and are geared to streamline our processes, we will utilize digital technologies to increase the levels of our operational sophistication and efficiency, beginning with the visualization of financial data and business operations. We will reskill the resulting extra human resources by offering opportunities for voluntary learning and diverse career development under our human resource strategy, and while doing so, will continue to take up the challenge of expanding into growth areas. Our goal is to simultaneously fulfill our unwavering mission and create new value.

Hiramatsu Taketo

Senior Managing Executive Officer, General Manager of Safety & Health Promotion Office and Business Service Division

MESSAGE

Implementing initiatives that promote the growth and active roles of each individual

The Chubu Electric Power Group is promoting initiatives in the areas of "safety and health," "DE&I," and "workstyle" based on the belief that creating environments where diverse human resources can play active roles is an essential investment for corporate growth and employee motivation. Moreover, we are creating environments where diverse human resources can consider their own careers and autonomously take on challenges. To do so, we are promoting various measures, such as introducing an in-house recruitment system, in-house dual employment, and upgrading and expanding the qualification acquisition support system, based on three "Cs" standing for the keywords of "Chance," "Challenge," and "Change." One such measures is an online learning service utilized by approximately 90% of employees, which gives me a true sense that employee awareness is changing. Going forward, employees and the Company will work in unison to create structures and environments where each individual human resource can fully demonstrate his or her abilities at each life event and career stage.

Human Resources Strategy

Link Human Resources Strategy (Japanese version only)

To simultaneously "fulfill our unwavering mission" of providing high-quality, safe, affordable and stable energy and "create new value" by providing new services in response to changes in the business environment, our Management Vision 2.0 states that "the growth and active roles of each individual employee are essential and represents the very essence of corporate value." We aim to be a comprehensive energy corporate group that is one step ahead in providing customers with services that exceed expectations and are committed to creating an environment that will make us the company of choice as a field where diverse human resources can play active roles over the long term.

Two pillars of our initiatives for enabling each and every employee to demonstrate his or her capabilities

Creating an environment where diverse human resources can take active roles

All employees take action toward realizing safety

Safety information is shared among all employees

To stay healthy throughout one's lifetime

Maintain and improve health with wearable devices

Support life-work balance

Expand and upgrade paternity leave and flextime systems

Providing opportunities and supporting employees who meet the challenge of self-transformation

\\ Promote with three keywords //

An environment where people can learn and grow on their own — Chance

Internal recruitment and learning support systems, create an environment to realize the Vision

Foster a culture compatible with the Vision — Challenge

Engagement survey

Diverse human resources taking active roles — Change

Active roles for diverse human resources
Upgrade and expand recruitment systems that includes hiring specialist employees

Overall image of human resources strategy

Link human resources strategy (Japanese version only)

Human Capital

●Human resources with the mindsets and abilities to take on challenges
●Human resources capable of social implementation of innovation
●Human resources capable of pursuing the evolution of "the provision of energy"

INPUT

Pillars of our human resources strategy

Creating an environment where diverse human resources can take active roles

Providing opportunities and supporting employees who meet the challenge of self-transformation

ACTION

Pillars of our human resources strategy	Initiatives	KPI/KGI		FY2023 results
Culture of safety	We will establish safe work environments based on our unwavering conviction that all injuries are preventable. P63	●Fatal industrial accidents*1	0	1
Health Management	We will establish an environment where employees can work healthily and energetically based on the belief that they should remain healthy throughout their lives. P64	●Presenteeism*2 (degree of health and vigor) ●Absenteeism*2 (Injury and illness absence rate)	97.5% or higher (FY2024) Less than 8.4‰ (FY2024)	95.2% 10.3‰
DE&I	We will establish an environment where diverse human resources can play active roles in a healthy, safe, and secure manner and foster a culture of mutual recognition and trust. P65	●Number of female managers ●Percentage of male employees taking childcare leave*3 ●Disabled persons employment ratio	3 times the number of 2014 (FY2025) 100% (FY2025) Compliance with the legal employment rate (2.5%)	2.8 times (as of July 2024) 104.1% 2.85% (as of June 2024)
Workstyles	Establish an environment where employees can fully utilize their abilities according to life cycle events. P65	●Permeation of flexible workstyles (utilization rate for telework, My Flex System*4 usage rate = system usage of one or more times per person)	100% (FY2025) (Applicable to employees eligible for flextime)	99.5%
Chance | Create a chance |	Provide opportunities for employees to grow and take active roles in line with changes in the business environment and management strategies P66	●Number of My Career recruitments ●Usage rate of online learning services (Usage rate = 2 courses or more/person)	posts (FY2025) 300 100%(FY2025)	169 posts 89.3%
Challenge | Boldly take up challenges |	Establishing environments where employees can take on new challenges P67	●Engagement survey overall score rating*5	[A] Third from the top out of 11 levels (2025)	BBB Fourth from the top out of 11 levels
Change | Achieve transformation |	Aim to reform existing operations and expand business areas by utilizing diverse human resources P67	●Percentage of mid-career recruitment in the number of hires	20% (FY2025)	25% 137 persons

Demonstrate own unique abilities in accordance with every life event and career stage

Realize growth and active roles that transcend the trajectory of predecessors

OUTCOME

Vision

A comprehensive energy company group that is one step ahead

in providing customers with services that exceed their expectations

Fulfilling our unwavering mission

of providing high-quality safe, affordable, and stable energy

Simultaneous attainment

Creating new value

that provides new services that respond to changes in the business environment

*1 Includes accidents involving executive officers, directly employed employees, temporary staff, and contractors/subcontractors. *2 Presenteeism is the degree to which one is able to work in a perfect state both physically and mentally (assessed by using the WLQ-J questionnaire.) Absenteeism is the degree to which one is absent from work due to illness or injury (calculated using days lost due to injuries and illnesses.) *3 Percentage of male employees taking childcare leave and short-term leave for childcare as stipulated in the Ordinance for Enforcement of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members *4: A workstyle in which the daily flexible settlement time is negative. Utilize extra time generated to enrich lives *5: Measured b engagement survey provided by Link and Motivation Inc.

Nabeta Kazuhiro
Director & Executive Vice President
General Manager of Corporate Planning & Strategy Division and Chief Information Officer (CIO)

MESSAGE

From digital implementation to digital creation – We will accelerate the promotion of DX toward achieving Management Vision 2.0.

The Chubu Electric Power Group has positioned the period up to FY2023 as a phase to implement digital technologies and has made steady efforts to transform its organizational culture and awareness, along with creating an environment and reskilling employees as needed to utilize digital technologies in daily operations. As a result, we have successfully increased the levels of sophistication and efficiency of the electric power business while flexibly responding to social and environmental changes, launched new life services through the use of data from the electric power business and provided digitalization-related support to local communities and companies for local revitalization.

As a next step, we have positioned the next two years until FY2025 as a creative phase of digital technologies. We will increase the value added to our services by fully capitalizing on the updated digital environment and organizational culture and employees' honed digital skills. This, in turn, allows us to provide value to stakeholders and enhance our corporate value.

Promotion of Digital Transformation (DX)

Link DX initiatives of the Chubu Electric Power Group (Japanese version only)

Playing a part in the electricity infrastructure, the Chubu Electric Power Group will promote the development of regional economies and contribute to the sustainable growth of society through its DX.

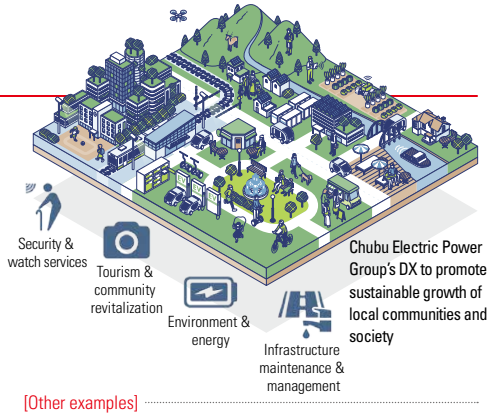
Transformation of customer services

In order to continue sustainable growth together with local communities and society as a company rooted in the Chubu region, we will create a "new form of community" that will not just provide energy services but also realize safe, secure and convenient lives.

For local governments, we will provide the information infrastructure that underpins a business ecosystem encompassing local companies and support community development through various measures such as pedestrian and traffic analysis using AI cameras, advanced energy management and a service to detect frailty* of local residents.

The Group will steadily support local governments in formulating their respective DX vision and creating and executing related action plans to facilitate the growth of local economies.

※Physical condition in between being healthy and requiring nursing care



[Other examples]

Link Regional microgrid (Japanese version only)

Link Smart meter: utilization of water supply data (Japanese version only)

Operational reforms

We are promoting greater sophistication and efficiency of our operations by proactively utilizing AI technology.

As an example, we have been using AI to create optimum power generation plans for hydroelectric power plants and have achieved increases both in power and revenues as well as greater operational efficiency.

Additionally, we have already distributed to all employees the generative AI specifically designed for the Chubu Electric Power Group. We now use it to make proposals on facility operations and provide advice for decision-making based on our internal data, including accumulated know-how. With a view to preparing ourselves for the era of labor shortages and transforming into a company working with AI, we will conduct activities to instill AI in the Group and aim for a total of at least one million uses of AI in FY2024.

[Other examples]

Link Using AI to create hydroelectric power generation plans (Japanese version only)

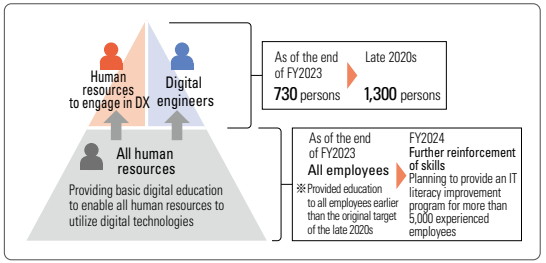
Link Stabilizing power system via online means (Japanese version only)

Supporting the growth and active roles of each and every one of our human resources

Link Nurturing human resources to engage in DX (Japanese version only)

To enable all employees of the Chubu Electric Power Group to autonomously practice and promote DX, we have completed the education for increasing DX and IT literacy earlier than planned, and as a next step, will provide a curriculum to hone their skills further.

For securing human resources to more strongly promote DX, we are also nurturing human resources to engage in DX and digital engineers. The former will make plans toward operational and customer service transformations and promote associated projects. The latter will design and implement operations using their high levels of expertise in the fields of advanced data analysis and the creation of the AI environment. We effectively assign these human resources, and they are driving transformation in each business.



Oka Toshihiko
Executive Officer
Kaizen Promotion Office
Supervisor of Chief Kaizen Officer (CKO)

MESSAGE

Kaizen activities are one key pillar of management indispensable for achieving Management Vision 2.0.

"Kaizen activities based on the concept of the Toyota Production System" are now in the sixth year of implementation at Chubu Electric Power Group. We will advance toward an autonomous promotion system centered on management, with the President himself taking the lead in permeating these activities, and aim to firmly entrench Kaizen activities within our corporate culture.

Furthermore, we will improve the outcomes of our Kaizen activities by moving quickly to formulate into rules those measures we have considered until now and firmly position standard processes (post-Kaizen work procedures) in workplaces. To date, the entire Chubu Electric Power Group has worked on approximately 5,900 business improvement items and these efforts have yielded cumulative cost reductions of around 26 billion yen. We have already shifted about 850 people to new growth areas and for bolstering and sophisticating existing operations, which has enabled us to further extract "human resources" and "time" that create new value and profits. In the future as well, we will further invigorate our Kaizen activities, which are currently in a period of expansion and transformation, by deploying even greater management leadership while undertaking these activities toward autonomous promotion.

Promotion of Kaizen activities

Current situation

Introduction/ Deployment phase
Participation of all employees
- Permeate understanding of Kaizen (First let's all try together.)
- Leader-driven

Expansion/ Transformation phase
Pursue and utiliza results
- Further demonstrate leadership by management
- Pursue and utilize results (people, goods, money)
- Cultivate leaders who will lead Kaizen activities

From FY2023

Strong leadership by management

Improve profitability
Cumulative total Approx. 26 billion yen

Pursue further achievements & Utilize creation results
Shift personnel to new areas and expand investments

Vision

Cultivate human resources capable of thinking and acting on their own

Build a flexible and strong management foundation capable of responding to environmental changes

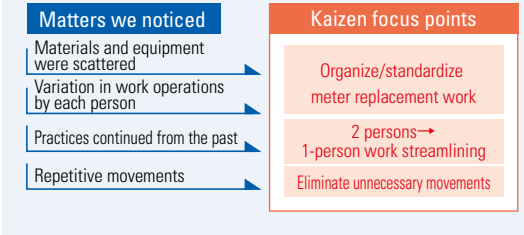
Firmly position Kaizen as the corporate culture of the Chubu Electric Power Group

President/Executive officer project

As a project to communicate to employees the degree of seriousness of Kaizen activities and the thoughts of management, an exchange of opinions was carried out with the president, who was making an on-site observation of the Renewable Energy Company's Aichi Hydraulic Center, regarding Kaizen activities and initiatives for increasing power.

Kaizen activity example (Chubu Electric Power Grid)

By observing work processes down to time-increments of seconds and improving and streamlining the replacement work for installation of large-capacity smart meters, we were able to both attain cost reductions (cost savings of 70 million yen/year) and ensure that work was completed on schedule.



Link Promotion of Kaizen activities (Japanese version only)

Noda Hidetomo
Senior Managing Executive Officer, General Manager of Research & Development Division, Chief Technology Officer (CTO) and Chief Standardization Officer (CSO)

MESSAGE

Promoting technology research and development in a manner to help achieve Vision 2.0 and seeking the social implementation of innovative technologies

In addition to resolving technical issues faced by business companies and business divisions, which will contribute to a stable supply of electricity, we are promoting technology research and development in seven priority areas for realizing the decarbonization of social systems as stipulated in our Management Vision 2.0 (Vision 2.0) and are working to create intellectual properties for enhancing our corporate value. We are also seeking the social implementation of innovative technologies by combining the engineering and industrial perspectives with the perspective of academia, such as universities and research institutes, and the perspective of social needs.

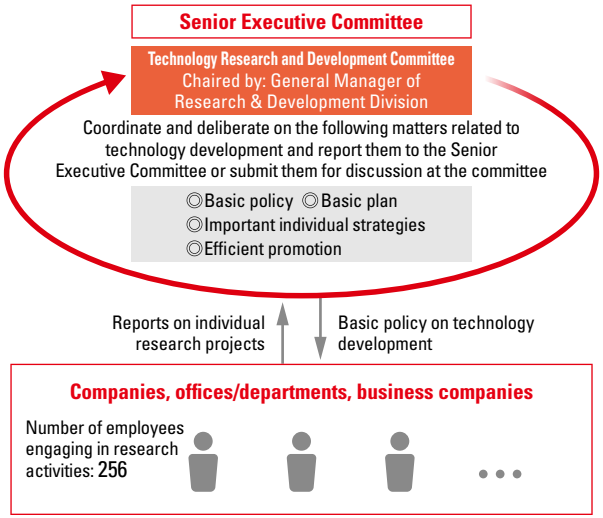
Meanwhile, as Chief Standardization Officer (CSO), I have prescribed the Basic Policy for standardization activities as "standardization of Chubu Electric Power Group's operations, standardization of energy business-related-equipment and technologies, and standardization for creating markets for new services." In implementing this policy, I will work to improve the productivity of operations across the entire Group as well as invigorate standardization activities toward the social implementation of innovative technologies.

Technology Research and Development and Intellectual Property

Link Technology research and development (Japanese version only)

Structure to promote technology research and development

We have established the Technology Research and Development Committee under the Senior Executive Committee. In this structure, matters that have been deliberated on at the Technology Research and Development Committee are either reported to the Senior Executive Committee or submitted for discussion at the committee.



Investment in and contribution through technology research and development

The entire Chubu Electric Power Group invested approximately 9.5 billion yen in research and development in FY2023 with the intention to contribute to the realization of Vision 2.0.

More specifically, as an initiative toward the realization of a carbon-free society, we are promoting technology research and development for the production of carbon-free hydrogen (turquoise hydrogen) through thermal decomposition and for a small-scale offshore verification test of a next-generation (floating axis) wind turbine.

Standardization initiatives

I have positioned standardization activities as an important initiative in striving for the social implementation of the outcomes of our technology development. To help permeate standardization activities at the three Chubu Electric Power companies and other Group companies, we convened a standardization seminar for which we also invited the Central Japan Economic Federation.

Technology research and development: seven priority areas and major initiatives

In addition to resolving on-site issues, we are promoting technology research and development in seven priority areas to realize Vision 2.0 in collaboration with industry, academia, government, and Group companies, and are seeking the social implementation of innovative technologies.

Decarbonization | Environment

Expand the use of renewable energy
- Develop technology for low-cost floating offshore wind power generation
- Small-scale offshore verification test into next-generation (floating-axis) wind turbine

Build hydrogen and ammonia supply chains
- Build a supply chain
- Conduct basic research on ammonia co-firing

Maximize the use of nuclear power
- Conduct research for further improving safety

Safety and security | Society

Expand contact points with customers and provide value
- Promote electrification, introduce alternative technologies for heating combustion
- Expand the area of community-based services

Provide value through an energy platform
- Build a grid test site, perform verification

Provide value through a data platform
- Collect data using IoT sensors, big data analysis

Self-distributed and circular | Economy

Promote resource recycling
- Local resource circulation using sorghum
- Develop recycling technology for rare materials

Resolution of technical issues in business companies and business divisions

Policy on intellectual property

Creating intellectual properties that help enhance corporate value
We operate an incentive program to encourage the creation of intellectual properties for reinforcing our business foundation and expanding business areas. We also make efforts to increase employees' motivation for invention and creation through internal briefing sessions and employee education.

Appropriately protecting and effectively utilizing intellectual properties
We work to appropriately protect the intellectual properties thus created by acquiring patents and other rights and managing them as know-how. We also work to release the intellectual properties we own for external use.

Respecting intellectual properties of third parties
We conduct a survey on intellectual property rights held by third parties as an effort to prevent infringement of these rights. We are also active in utilizing intellectual properties of third parties, which are useful to our businesses, through licensing and other means.

Promoting intellectual property activities

Link Intellectual property activities (including the number of patent applications data) (Japanese version only)

Make sure to acquire rights by identifying inventions	・Strengthen efforts to identify inventions useful to business activities
	・Provide education to prevent infringement of intellectual property rights held by third parties
Contribute to an expansion of the new growth area	・Conduct activities to propose solutions utilizing intellectual properties and business information
	・Develop an intellectual property strategy for applicable technologies in the seven priority areas of technology research and development
Enhance corporate value through social implementation	・Increase opportunities to provide information on patents held by us (through our website, Group Reports, etc.)
	・Participate in patent matching events hosted by public and other institutions

Intellectual property activities that contribute to improving corporate value

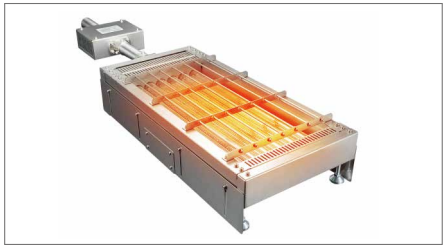
In working toward the social implementation of Chubu Electric Power's patents, we are striving to raise our corporate value through social contribution activities such as introducing the role of intellectual property in the energy business by giving on-site IP lectures to the next generation while disseminating information about our patents at patent matching events hosted by the Chubu Bureau of Economy, Trade and Industry.

An on-site IP lecture by a Company employee at Gifu Prefectural Ginan Technical High School (Gifu city)

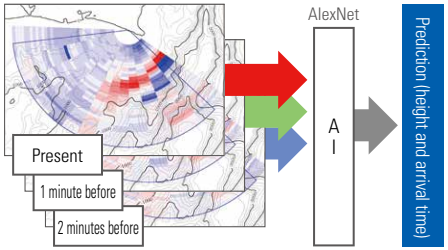
Patents acquired in FY2023

In FY2023, Chubu Electric Power, Chubu Electric Power Grid and Chubu Electric Power Miraiz acquired 31 patents, and 40 patent applications on a date of publication basis.

Low-pressure casting device and heater unit for low-pressure casting device (Patent No. 7313007)


This device uses infrared light during the casting process that preheats the mold and this enables highly efficient and uniform heating.

TSUNAMI HEIGHT AND TSUNAMI ARRIVAL TIME PREDICTION SYSTEM (Patent No. 7265915)



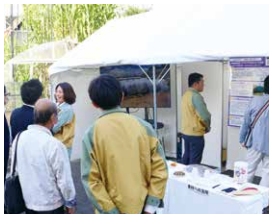
This technology can reduce the time needed for tsunami analysis calculations and reduce the occurrence of errors by predicting tsunamis based on minute-by-minute changes in images.

Patents acquired in FY2023

Link Techno Fairs (Japanese version only)

We hold Techno Fairs to enable numerous people to view our wide-ranging technological research and development initiatives.

- This event was held at the Research & Development Division in October 2023 and was attended by approximately 2,000 visitors.
- We showcased 67 exhibits, mainly the latest research outcomes in the seven priority areas of technology research and development.



Example awards given to our technology research and development efforts

Award name	Subject of award
7th Infrastructure Maintenance Award Excellence Award	Enhances maintenance efficiency by utilizing a condition monitoring and maintenance system for substation equipment
71st Electrical Science and Engineering Encouragement Award	Development of load management method that uses smart meter measurement values
72nd-Term Scientific Lecture, The Society of Materials Science, Japan (JSMS) JSMS Award for Best Presentation	Nondestructive Creep Damage Evaluation for Ni-base Superalloys of Controlled Solidification by the X-ray Laue Method

Practicing corporate management giving consideration to climate change and natural capital

The Chubu Electric Power Group aims for sustainable growth as a total energy service corporate group that is one step ahead by providing safe and stable energy of high quality with consideration for the environment as well as a new form of community through the establishment of community support infrastructures.

To achieve these goals, the Chubu Electric Power Group has formulated its Basic Environmental Policy and has been practicing corporate management that gives consideration to such factors as climate change and natural capital.

Chubu Electric Power Group Basic Environmental Policy (Extract)

Realization of a carbon-free society

We Will Aim to Realize a Carbon-Free Society

* For contributions to the realization of a carbon-free society, see page 40.

Coexistence with nature

We Will Strive to Coexist with Nature

- To protect our rich natural environment, we will take into account ecosystem biodiversity and water resources sustainability as we conduct our business activities.

Realization of a recycling -oriented society

We Will Aim to Create a Recycling Society

- We will work to reduce our consumption of resources and strive to minimize disposal volume by reducing waste as well as reusing and recycling resources.

Increased environmental awareness

We Will Endeavor to Raise Environmental Awareness

- We will enhance communication about the environment and energy with members of the community.
- We will train personnel so that they take the initiative to act in an environmentally-conscious manner and contribute to society.

Disclosure based on the TCFD and TNFD recommendations

TCFD TNFD Governance / Risk management

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

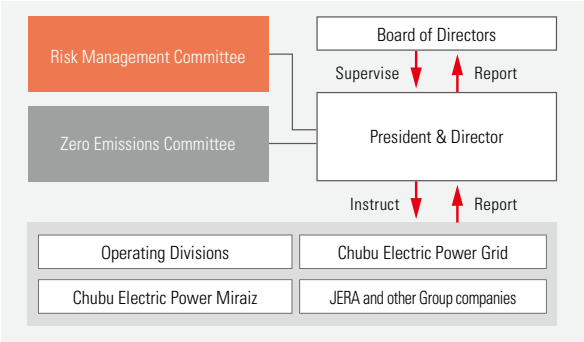
Chubu Electric Power endorsed the recommendations in the final report of the TCFD in May 2019.

NEW

TNFD Taskforce on Nature-related Financial Disclosures

Chubu Electric Power endorsed the philosophy of the TNFD and joined the TNFD forum in June 2024.

- The Board of Directors deliberates on key management matters related to climate change and the environment in general, including the progress in renewable energy development and other efforts to realize a decarbonized society, makes related decisions and receives reports from each director on the status of execution of his or her duties. By doing so, the Board monitors the execution of duties by directors. (See P79 for the skills matrix in the composition of the Board of Directors)
- We use performance-based stock compensation for directors' remuneration and use the volume of CO_2 emissions as one of these performance indicators. (See P80 for details regarding executive remuneration.)
- The Zero Emissions Committee established in March 2021 is a body placed under the direct control of the President & Director. It defines super long-term as well as medium- to long-term climate change-related goals of Chubu Electric Power and Group companies, including JERA, and formulates and evaluates action plans for achieving these goals.
- We conduct the planning and monitoring of each business as outlined on P81.
- In formulating a management plan, risk owners identify and assess key risks associated with climate change and nature in general and report them to the risk management department, where they are assessed in a comprehensive manner. These key risks are also discussed at the Risk Management Committee chaired by the President & Director and reflected in management plans. Appropriate measures are being implemented after passing the corresponding resolutions at the Board of Directors.



Major topics and the number of climate change-related discussions held by the Board of Directors and Zero Emissions Committee (May 2023 to June 2024)

	Major topics	
Board of Directors: 8 times (including the Board of Directors' opinion exchange meetings) *Meetings for exchange of opinions are held on a regular basis among all directors and all corporate auditors	● Expected achievement of 2030 target ● Outline of the roadmap toward decarbonization ● Desirable power generation portfolio ● Inclusion of climate change measures in director remuneration	P41 Initiatives for achieving the CO_2 emissions reduction targets P42 Roadmap for net zero CO_2 emissions P80 Director remuneration
Zero Emissions Committee: 2 times	● Group-wide decarbonization strategy ● Emissions Trading Scheme (GX-ETS) ● Identification of decarbonization-related issues and setting of targets	P40 Zero Emissions Challenge 2050

TCFD Strategy Scenario selection/Business impact assessment

●By referring to published data including the International Energy Agency (IEA), we have selected: a **1.5˚C scenario** and other scenarios for assessing **risks and opportunities associated with the transition to a carbon-free society**; and a **4˚C scenario** for assessing **risks associated with physical changes, such as abnormal weather**.

Scenarios selected	1.5˚C scenario	4˚C scenario
Reference	◎IEA's **Net Zero Emissions by 2050 Scenario (NZE)** and **Announced Pledges Scenario (APS)** for the World Energy Outlook 2022 (WEO-2022) and the Japanese government's **Sixth Strategic Energy Plan**, others	◎Sixth Assessment Report "**SSP5-8.5 Scenario**" of the Intergovernmental Panel on Climate Change (IPCC)

	Changes in the external environment	Impact on the Group	Assessment	Period affected*1			Financial impact (annual impact: billion yen)	
				Short	Medium	Long	Impact*2	Lower profit / Profit / Investment
Transition risk scenario Responses to risks and opportunities associated with the transition to a carbon-free society	**[Policy]** •Increase emission reduction targets •Support policies for GX investments •Review nuclear power policy •Enhance regulatory measures such as carbon pricing	Operational cost increases through decarbonization investments, fossil fuel levies, and emission trading systems (paid auctions), etc. Changes in value of thermal power assets	Risks → Opportunities		●	●	**Large (2030)**	◎With the progress towards decarbonization, there is an anticipated risk of a significant cost increase in thermal power generation due to the gradual rise in carbon prices. We will assess the trends in carbon pricing and advance the temporal optimization of various decarbonization measures. (For every reduction of 10 million tons of CO_2 emissions, there is an estimated reduction in impact of approximately 160 billion yen*3.)
	[Technology] Evolution of carbon-free/ low-carbon technologies Implementation of creative technologies through innovation •Renewable energy •Low carbonization of thermal power generation (Hydrogen, ammonia, etc.) •Safer nuclear power generation •Energy management (e.g., storage batteries)	Effect of power procurement cost reductions due to the operation of the Hamaoka Nuclear Power Station Continued suspension of operation of nuclear power plants	Risks → Opportunities	●	●	●	**About 260 (period not determined)**	◎Commencement of operation at the Hamaoka Nuclear Power Station has not been determined, as we are undergoing a review to confirm conformance with new regulatory standards. Assuming the restart of the power station now, it would save annual power procurement costs by about 260 billion yen*4
		Increase in profits resulting from investment for large-scale introduction of renewable energy	Opportunities ↗		●	●	**Small (2030)**	◎We will invest about 400 billion yen from FY2021 to FY2030 for the development of renewable energy in Japan.
							About 20 (2030)	◎We will invest about 400 billion yen from FY2021 to FY2030 in the global business (including renewable energy) and anticipate a profit contribution of about 20 billion in FY2030 from the investment.
	[Market] Customers becoming more environment-oriented and introduction of carbon-free technologies	Rising needs for the use of carbon-free energy and expanding demand for electrification	Opportunities ↗		●	●	**Medium (2030)**	◎Utilizing subsidies from GX transition bonds, efforts will be made to contribute to profits through resource recycling businesses and new growth areas such as Chubu Electric Power Miraiz's value-added services (energy-saving, etc.).
Physical risk scenario	**[Storm]** Increased frequency of extreme typhoons and similar disasters Intensifying flood and landslide disasters	Increase in costs for facility upgrades Increase in recovery costs	Risks ↘	●	●	●	**About 5-Medium (short to long term)**	◎We provide as a reference the actual damage caused by large typhoons (No. 21 and No. 24) in FY2018 (the largest damage incurred in the past five years).

*1 Short-term (1 year), medium-term (5 years), long-term (6 years~)　*2 "Large": 50 billion yen per year, "Medium": between 10 billion yen and 50 billion yen per year, "Small": below 10 billion yen per year
*3 **Regarding carbon pricing, considering multiple scenarios, short to medium-term calculations are based on non-FIT non-fossil certificate cap (1.3 yen/kWh), and medium to long-term calculations refer to IEA WEO scenarios (APS, NZE scenarios 2030 $135~$140/t-CO_2)**.
*4 Estimated assuming the restart of the Hamaoka Nuclear Power Station's Units 3, 4 and 5 and based on the fuel prices and exchange rates in FY2023. The procurement cost saving effect indicates the saving effect of power supply procurement costs at Chubu Electric Power Miraiz, and does not include an increase in profit resulting from CO_2 reduction.

TCFD Metrics & Targets — Zero Emissions Challenge 2050

Together with communities and our customers, we aim to simultaneously achieve "decarbonization" and "safety, stability and efficiency" through the innovation of the energy infrastructure.

2030

- We will reduce CO_2 emissions from electricity sold to customers by **50% or more compared with FY2013**.
- We aim for 100% electrification*1, 2 of company*3-owned and operated vehicles.

2050

- We will take on the challenge of attaining **net zero CO_2 emissions** for our entire business to contribute to **the realization of a carbon-free society**.

GX League

Chubu Electric Power is participating in the "GX League," an initiative established in accordance with the "GX League Basic Concept" published by the Ministry of Economy, Trade and Industry.

Targets for FY2025 when GX League registration is expected*4

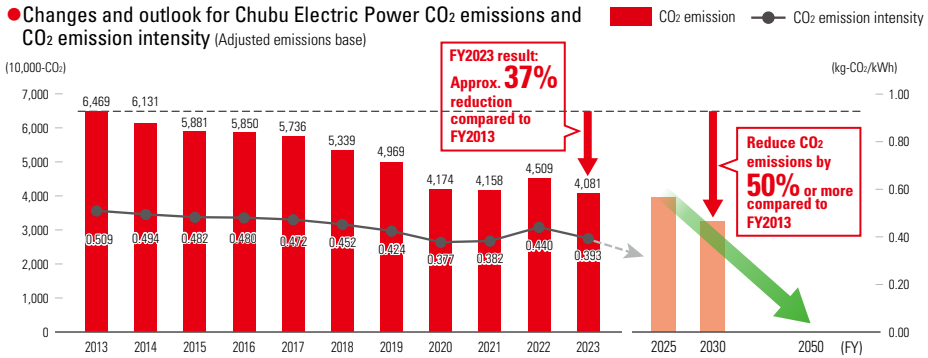
◎Domestic direct emissions: **50 thousand t-CO_2**
◎Domestic indirect emissions: **130 thousand t-CO_2**
◎CO_2 emissions from electricity sold to customers: **39.8 million t-CO_2**

*1 Electric vehicles (EV), plug-in hybrid vehicles (PHV), fuel cell vehicles (FCV), etc.
*2 Excludes special vehicles such as emergency and construction -use vehicles not suitable for electrification
*3 Chubu Electric Power, Chubu Electric Power Grid, Chubu Electric Power Miraiz
*4 Target values of Chubu Electric Power, Chubu Electric Power Grid and Chubu Electric Power Miraiz
Note: Target values may be adjusted in case of changes in system design or other factors.

Metrics & Targets	FY2023 Result
CO_2 emissions from electricity sold to customers: 39.8 million t-CO_2	40.81 million t-CO_2
Domestic direct emissions: 50 thousand t-CO_2	44 million t-CO_2
Domestic indirect emissions: 130 thousand t-CO_2	153 million t-CO_2
Number of electric vehicles introduced	282

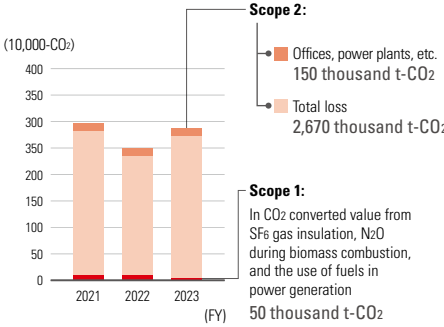
CO_2 emissions and emission intensity pertaining to electrical energy sold by the Company

●Changes and outlook for Chubu Electric Power CO_2 emissions and CO_2 emission intensity (Adjusted emissions base)



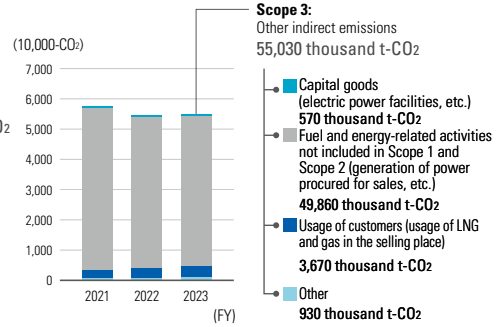
Total greenhouse gas (GHG) emissions* from the entire supply chain

●Scopes 1, 2



●Scopes 3

*Scheduled to be updated in September 2024



* GHG emissions represent CO_2 converted total value of CO_2, CH_4, N_2O, HFC and SF_6.
Represents a total of the three companies of Chubu Electric Power, Chubu Electric Power Grid and Chubu Electric Power Miraiz.

Initiatives for achieving the CO_2 emissions reduction target

Initiatives for achieving the 2030 target of reducing CO_2 emissions derived from electrical energy sold

Initiatives in terms of power source development

- Nuclear power generation: Restarting Hamaoka Nuclear Power Station Units 3, 4 and 5 (Restart schedule not yet determined)
  [Maximum reduction] Approx. 8-9 million t-CO_2/year
- JERA: Shutting down inefficient coal power plants
  [Maximum reduction] Approx. 4-5 million t-CO_2/year
  *Preliminary calculation assuming replacement of inefficient coal power with other sources
- JERA: Ammonia substitution at coal power plants
  [Maximum reduction] Approx. 1-2 million t-CO_2/year
  *Preliminary calculation assuming 20% ammonia substitution at one or two 1 million kW-class coal power plants
- Developing renewable energy: Developing approx. 3,200 MW
- Promoting effective use, such as increasing the capacity factor of the existing renewable energy facilities

Initiatives in terms of retail at Chubu Electric Power Miraiz

- Providing diverse decarbonization solutions through the participatory MINNA-DE Decarbonization Project

みんなで脱炭素 PROJECT

[Energy saving]

- Improving production processes and saving energy at factories and business offices (support for introduction of heat pumps and other latest equipment, consultation services, etc.)

[Energy creation]

- On-site and off-site solar power purchase agreements (PPAs) services, etc.

[Greening]

- Sale of CO_2-free electricity
  2023 result: 5.9 TWh
  ⇒Increasing sale of CO_2-free electricity toward 2030 while capturing the growing decarbonization needs among customers

Building a procurement portfolio encompassing power sources of other companies

Achieving the 2030 target of reducing CO_2 emissions derived from electrical energy sold (50% reduction from FY2013)

*Estimate of CO_2 emissions during power generation

Promoting green/transition financing

Link Green/transition financing

As an effort to support the realization of a decarbonized society, Chubu Electric Power has established the Chubu Electric Power Green/Transition Finance Framework and has been promoting fund procurement through continuous green/transition financing under the Zero Emissions Challenge 2050 initiative.

To date, we have procured funds through the issuance of green bonds, in which funds will be invested in renewable energy development and other similar projects, and transition loans, funds of which will be used for investment mainly in power distribution advancements for further renewable energy introduction.

In executing green/transition financing, we have received an evaluation of our eligibility for various green/transition finance-related standards by DNV BUSINESS ASSURANCE JAPAN K.K., a third-party evaluation firm.

First Green Bonds (Issued on July 15, 2021)

Item		Amount	Installed capacity	Reduction of CO_2 emissions*1
Procurement amount		9.9 billion yen	—	—
Appropriated amount (of which refinanced)		9.9 billion yen (5.9 billion yen)	—	—
Breakdown	Hydro (4 locations)	4.3 billion yen	13 MW	87,791 (t-CO_2/year)
	Biomass (1 location)	5.4 billion yen	49 MW	
	Wind (1 location)	0.1 billion yen	7 MW	
Unappropriated balance		—	—	—

Second Green Bonds (Issued on May 26, 2022)

Item		Amount	Installed capacity	Reduction of CO_2 emissions*1
Procurement amount		19.9 billion yen	—	—
Appropriated amount (of which refinanced)		19.9 billion yen (7.7 billion yen)	—	—
Breakdown	Hydro (2 locations)	3.6 billion yen	13 MW	443,547 (t-CO_2/year)
	Biomass (8 locations)	13.6 billion yen	466 MW	
	Wind (2 locations)	2.6 billion yen	146 MW	
Unappropriated balance		—	—	—

*1 Calculated by: FY2023 annual power generation volume (MWh) x CO_2 emission coefficient (t-CO_2/MWh)
For projects included both in the first and second green bonds, their respective reduction volumes were calculated based on the percentage of the amount of funds appropriated to each.

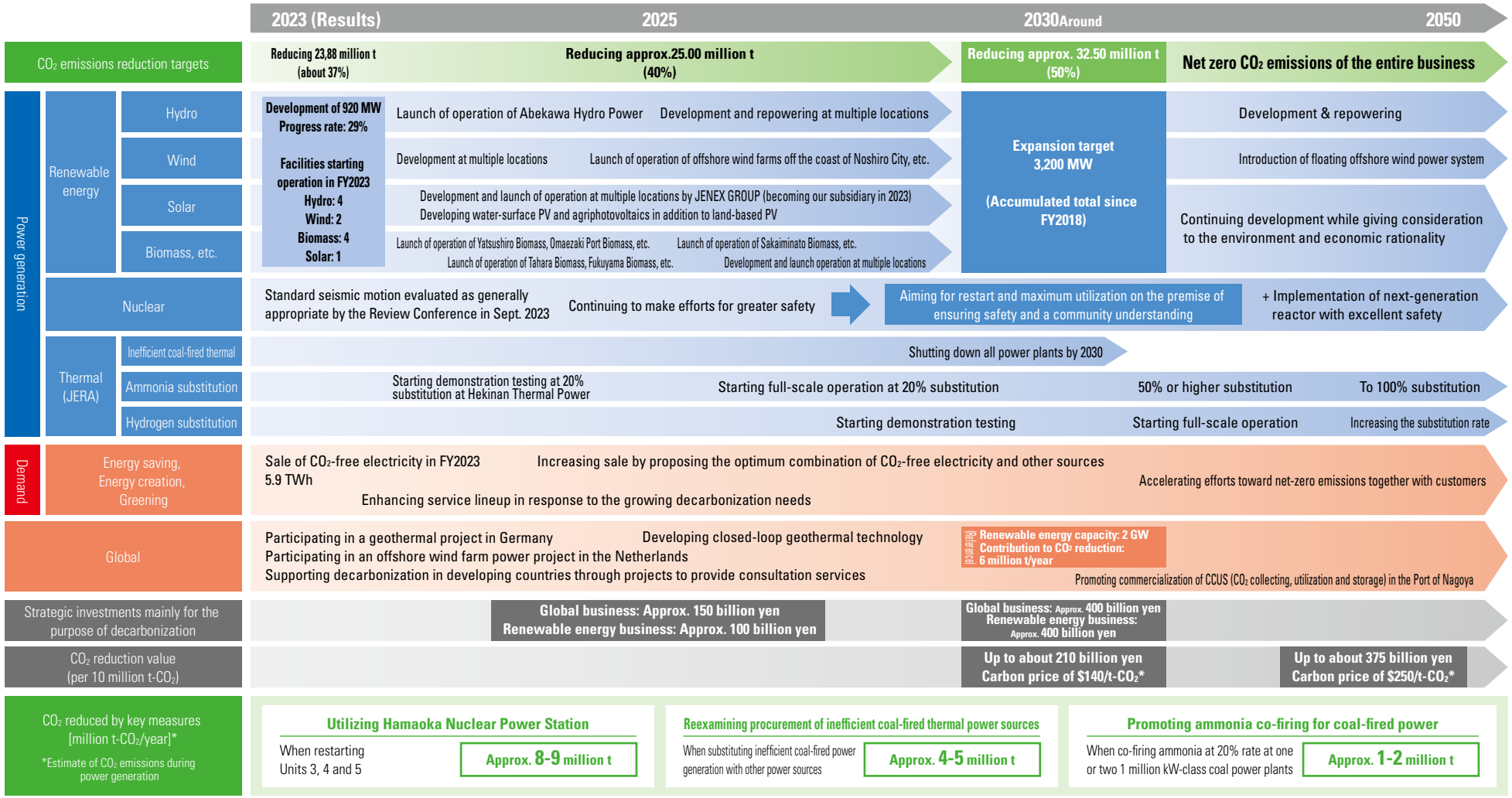
First Transition Loan (Raised on November 30, 2023)

Fund usage	Project overview	Reference
Investment in power distribution advancements	Introducing and utilizing next-generation equipment to conduct the detailed monitoring of power flow, which is becoming increasingly complex due to large-scale interconnection of distributed energy resources (DER), and to enable remote and timely voltage regulation in order to respond to large-scale interconnection of renewable energy sources	Number of subscriptions to renewable energy*2 Capacity connected: 16,516 MW

*2 Number of subscriptions within the service areas of Chubu Electric Power Grid as of the end of FY2023

Roadmap for net zero CO_2 emissions

We will continue to engage in our ongoing efforts toward ensuring a stable supply of electricity and achieving decarbonization. The efforts include the restart of the Hamaoka Nuclear Power Station, expanding the use of renewable energy and pursuing zero-emission power sources, such as the establishment of hydrogen and ammonia supply chains.



*Preliminary calculation at the rate of $1 = ¥150 and using as a reference the World Energy Outlook 2023 published by the International Energy Agency (IEA)

TNFD Strategy Scoping/evaluation of impacts and dependencies

We also publish the TNFD Report separately from the Group Reports. Please refer to our TNFD Report for analysis details.

Link TNFD Report

[Scope of disclosures]

We have conducted analysis on the electricity business, a major business in our business portfolio, of Chubu Electric Power, Chubu Electric Power Grid and Chubu Electric Power Miraiz. More specifically, the analysis covered the three businesses of nuclear power generation, renewable energy and power transmission and transformation, disclosures of which are recommended in the electric utilities sector. Our analysis on biomass power generation included fuel procurement, while that on nuclear power generation assumed the current non-operating state of our facilities and did not include evaluation of fuel procurement. We intend to expand the scope of our disclosures gradually in the future.

[Evaluation of impacts and dependencies on nature]

Based on our business environment and risks, we have evaluated the impacts and dependencies on nature of the subject businesses, using the ENCORE analysis tool recommended by the TNFD. Among the businesses analyzed, we have concluded that the renewable energy business in particular has high dependencies on natural capital.

Type of power generation	Process	Impacts*1										
		Land use change			Direct extraction		Climate change	Pollution				Other
		Land	Freshwater	Ocean	Water	Non-water	GHGs	Air	Water	Soil	Waste	Noise/light pollution
Nuclear	Power generation	–	Low	Low	Low	–	Very Low	Low	Low	Low	Low	Very Low
Hydro (general)	Power generation	Low	Low	–	Low	–	Very Low	–	Low	Low	–	–
Hydro (pumped storage)	Power generation	Very Low	Very Low	–	Very Low	–	Very Low	–	Very Low	Very Low	–	–
Solar	Power generation	Low	–	–	–	–	–	–	Low	Low	–	–
Wind	Power generation	Low	Low	–	–	–	–	–	Low	Low	–	Low
Biomass	Fuel procurement	Low	–	–	–	–	Low	–	Low	Low	–	–
	Power generation	–	–	–	Very Low	–	Very Low	Low	Low	Low	Low	–
Power transmission and transformation		Low	–	–	–	–	Very Low	–	Low	–	–	–

Type of power generation	Process	Dependencies*2									
		Provisioning services			Regulating services					Maintenance services	
		Surface water	Ground water	Fibers and other materials	Bio-remediation	Climate regulation	Filtration	Flood protection	Erosion control	Water flow maintenance	Water quality
Nuclear	Power generation	Low	–	–	Very Low	Very Low	Low	Very Low	Low	Low	Low
Hydro (general)	Power generation	Very High	–	–	Very Low	Very Low	Very Low	High	High	Very High	Low
Hydro (pumped storage)	Power generation	Very Low	–	–	Very Low	Very Low	Very Low	High	High	Very Low	Low
Solar	Power generation	–	–	–	–	Very Low	–	Low	Low	–	–
Wind	Power generation	–	–	–	–	Very Low	–	Low	Very Low	–	–
Biomass	Fuel procurement	Very Low	–	–	–	–	–	Middle	Low	Middle	–
	Power generation	Middle	–	High	Very Low	Very Low	Very Low	Low	Low	Middle	Low
Power transmission and transformation		–	–	–	–	Very Low	–	Middle	Middle	–	–

*1 Impact assessment: This assessment is performed by comprehensively considering whether or not the business area is a protected area or a Key Biodiversity Area (KBA) and the impact of the business on ecosystems as well as mitigation measures.
*2 Dependency assessment: The assessment is performed by comprehensively considering whether or not business continuity is possible if each ecosystem service deteriorates (decreases) as well as the impact on income and expenditures, and other matters.

TNFD Risk and impact management Business impact assessment (risks and opportunities)

The Chubu Electric Power Group has recognized that the following nature-related risks and opportunities have high impacts and frequencies.

[Risks] (Our TNFD Reports disclose these risks along with countermeasures.)

Category	Subcategory	Business segment	Risk summary	Financial impact	Impact*	Frequency
Physical risks	Acute	Hydro	●Intensifying flood disasters causing damage, destruction or immersion of facilities (embankments, the body of a dam, dam's sluice-side console panels, power generators, power distribution boards, etc.)	●Lower operating revenues due to a decline in sales of electric power ●Incurring costs of repairs, damage compensation, etc.	Small to large	Medium to high
		Renewables (excluding hydro)	●Large-scale natural disasters causing destruction of power generation facilities (windmills, solar panels, biomass facilities, etc.)		Medium	Medium
		Power transmission and transformation	●Large-scale natural disasters causing damage, destruction or immersion of power transmission and transformation facilities (pylons, power cables, power transformation equipment, power distribution boards, etc.)		Large	Medium
		Hydro	●Restricting power generation operations when a shortage of water is expected	●Lower operating revenues due to a decline in power generation volume	Medium	Medium
	Chronic	Hydro	[Risks shown below, associated with an increase in dam sediments] ●Decline in power generation volume due to loss of water storage capability ●Power generation hindered by sedimentation in front of a water intake, etc.	●Lower operating revenues due to a decline in power generation volume ●Increase in cost of sales due to costs of counter-measures	Large	Medium
Transition risks	Reputational	Renewables in general	●Opposition movement against development due to associated environmental destruction and disaster occurrence	●Loss of business opportunities ●Increase in costs due to costs to restore to original condition and for disaster recovery	Medium	Medium
	Market	Biomass	●Tight supply of biomass fuels due to such factors as an increase in biomass power generation projects worldwide and acquisition of relevant certification becoming mandatory	●Increase in procurement costs due to a rise in market prices	Medium	Medium

*Impact criteria: Determined while taking into account the monetary impacts when the risks occur as well as impacts on nature, among other factors

[Opportunities]

Category	Subcategory	Business segment	Opportunity summary
Business performance	Markets & reputational	All renewables	●Rising needs for the use of carbon-free energy and expanding demand for electrification ●Electric power needs with a focus on protecting ecosystems
		Biomass	●Growing needs for using energy from biomass power generation plants, which give consideration to materials they purchase (certified products, locally-produced biomass, etc.)
		Hydro	●User-engaging renewable energy expansion models to update the existing hydroelectric power plants
	Products and services	New businesses	[New businesses for reducing water usage in the entire society] ●Automated meter reading service for water usage via an electricity smart meter communication network; business to utilize the collected data ●Development and sales of highly efficient wastewater cleaning equipment using fine bubbles
Sustainability performance	Ecosystem protection, restoration and regeneration	Entire Group	●Business activities protecting rare plant species and raptorial birds ●Development of conservation technology for endangered species ●Development of technologies to remove invasive alien species ●Research on greenery projects that utilize native species ●Conducting activities to nurture forestry volunteers ●Conducting joint research with Nagoya University to visualize forests' watershed protection capabilities
		Hydro	●Implementing eco-friendly measures at dams
		Nuclear	●Activities to improve marine ecosystems

TNFD Metrics and targets Disclosing metrics and setting targets

We have set natural capital-related targets from the three perspectives of biodiversity, water resources and recycling-oriented society. Going ahead, we will consider setting additional, more focused targets toward the realization of a nature-positive society.

[Disclosure metrics recommended by the TNFD]

FY2023 results/As of the end of FY2023

No.	Driver of nature change	Metric	Disclosure
C1.0	Land/ freshwater/ ocean-use change	Total spatial footprint	**[Chubu Electric Power]** Hydro: 56,332,000 m^2; Nuclear: 1,794,000 m^2; New energy and others: 182,000 m^2; and Operation-related facilities: 955,000 m^2 **[Chubu Electric Power Grid]** Power transmission facilities: 8,629,000 m^2; Power transformation facilities: 7,792,000 m^2; Power distribution facilities: 3,000 m^2; and Operation-related facilities: 22,000 m^2
C1.1		Extent of land/freshwater/ocean-use change	Total water withdrawal: 50,824 million m^3
C2.0	Pollution/ pollution removal	Pollutants released to soil split by type	None
C2.1		Wastewater discharged	Wastewater from biomass and nuclear: 70,000 m^3
C2.2		Waste generation and disposal	Industrial waste generated: 50,000 t
C2.3		Plastic pollution	Waste plastics included in industrial waste: 2,000 t
C2.4		Non-GHG air pollutants	SOx emissions: 2 t; NOx emissions: 84 t
C3.0	Resource use/ replenishment	Water withdrawal and consumption from areas of water scarcity	None
C3.1		Quantity of high-risk natural commodities sourced from land/ ocean/freshwater	Operation data of Yokkaichi Biomass Power Plant: Wood pellets of approx. 150,000 t; Palm tree coconut shells of approx. 60,000 t
C4.0	Invasive alien species and other	Measures against unintentional introduction of invasive alien species (IAS)	We implement necessary quarantine measures for fuels used in biomass power generation, which are procured from overseas.
C5.0	State of nature	Ecosystem condition, Species extinction risk	(Disclosure to be enhanced in the future)
C7.0	Risk	Value of assets, liabilities, revenue and expenses that are assessed as vulnerable to nature-related transition risks	We have concluded that we have no assets that are assessed as particularly vulnerable to transition risks in the businesses analyzed.
C7.1		Value of assets, liabilities, revenue and expenses that are assessed as vulnerable to nature-related physical risks	We have recognized that hydroelectric power plants are more vulnerable to flood risks than other assets due to their locations. Book value of hydroelectric power plants: 271.1 billion yen (excluding land)
C7.2		Description and value of significant fines, etc. in the year due to negative nature-related impacts	None

*We will enhance disclosures for opportunity-related C7.3 and C7.4 indicators in the future.

Biodiversity

We are committed to the conservation of biodiversity through consideration of ecosystems in our business activities and efforts in technological development and research.

Goal Ensure ongoing efforts to conserve ecosystems

- **Environmental assessment:** When executing a project, we investigate, estimate and assess its impact on the environment in accordance with relevant laws and regulations and implement appropriate environmental conservation measures while listening to the opinions of local community members.
- **Protection of rare plant species and raptorial birds:** During construction projects involving power transmission lines, power generation plants and substations, we implement strategies to prevent the loss of rare plant species. This includes relocating plants and reducing the construction footprint. Furthermore, we modify construction procedures and helicopter flight paths to protect raptorial birds. Upon project completion, our efforts extend to rejuvenating the natural environment in the vicinity, with the goal of minimizing the impact on ecosystems.
- **Development of conservation technology for endangered species:** We have taken measures to protect endangered species such as the Aconitum kiyomiense, a flowering plant found on our company-owned lands and in the vicinity of power facilities. Our efforts include gaining insights into their physiology and ecology, developing propagation techniques and implementing active conservation measures.
- **Control of invasive alien species:** We have established a chemical spraying program to gradually reduce and eradicate the specific invasive alien species known as burr cucumber. Additionally, we participate annually in the removal of invasive Phyllostachys edulis bamboo at green spaces owned by the city of Nagoya.


Kiyomi-torikabuto(Aconitum kiyomiense)

Water resources

We are committed to the sustainable management and efficient utilization of water resources.

Goal Minimize water usage in our offices

- **Water conservation in offices and increased employee awareness of water conservation:** We work to raise water-saving awareness of employees and reduce water use by proactively introducing water-saving sanitary equipment as a measure to save water and by calculating and visualizing the amount of water used by each employee.

Goal Minimize environmental impact through responsible water resource utilization

- **Forest preservation activities including the protection of watershed protection forest:** We are engaged in activities to preserve Uchigatani Forest and other forests.
- **Appropriate use of water in dam operations:** We conduct dam discharge to keep the required river flow volume in order to protect animals and plants as well as fisheries and landscapes and ensure the cleanness of river water.

Recycling-oriented society

We promote resource conservation, waste reduction and the reuse/recycling of resources to minimize disposal.

Goal Achieve a recycling rate of over 95% for industrial and other waste

- **Recycling rate of industrial and other waste: 98.3% (FY2023 result)**