

Growth Businesses ~Renewable Energy Business~



Accelerating efforts to make renewable energy the main power source while advocating the renewable energy 3Cs

Main Group company engaged in the Renewable Energy business

Yutaka Mizumachi

President and Chief Executive Officer,
Kyuden Mirai Energy Co., Inc.

We formulated the 2030 Management Vision last year. As our plan is to make renewable energy a primary power source, we are advocating the renewable energy 3Cs and are working on various fronts, including developing renewable energy, while gaining the understanding of local communities.

[Renewable Energy 3Cs]

- 1) Further expand facilities capacity through proactive efforts to develop new renewable energy sources (kW) = **Creation**
- 2) Continue to make use of facilities by extending the life of or replacing existing facilities using our maintenance and inspection expertise, etc. (timeline) = **Continuation**
- 3) Coordinate supply and demand through such activities as the effective use of surplus electricity and commercialization of renewable energy value (kWh) = **Coordination**

Furthermore, in February 2023, it was decided to integrate the Kyuden Mirai's Renewable Energy Business and Kyushu EP's geothermal and hydroelectric power generation businesses, and that we will play a role in strengthening and expanding the Group's Renewable Energy Business. Through these efforts, our renewable energy output will be one of the greatest in Japan.

This integration offers a good opportunity to further increase the value of renewable energy, and we will link it to achieving the Group's 2030 renewable energy development target of 5,000 MW by working to provide services that meet diverse customer needs, and reinvesting some of the earned funds into developing other renewable energies, such as offshore wind power.

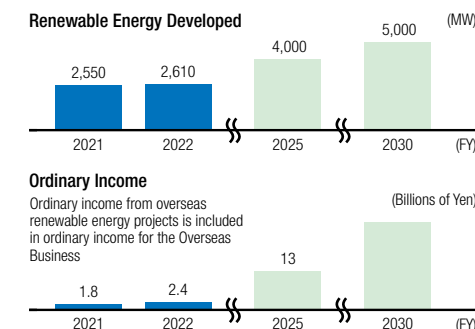
Vision for the Future

We will utilize the technologies and expertise of the Kyuden Group to steadily advance the development of renewable energy in Japan and overseas and reach our management target of 5,000 MW by FY2030 (4,000 MW by FY2025) while also helping to achieve carbon neutrality. In addition, we aim to contribute to the FY2030 target of ¥75 billion in ordinary income from growth businesses by expanding revenue through renewable energy development.

FY2022 Assessment and Progress

- Recorded ordinary income of ¥2.4 billion (+¥0.6 billion YoY) due to an increase in electricity produced as steady progress was made with such efforts as beginning operation of the new Ishikari New Port Biomass Power Plant (51.5 MW) and constructing the Tahara Green Biomass Power Plant (50 MW) and Hibikinada Offshore Wind Farm (220 MW) to develop power sources as society moves to make renewable energy its main energy source

- Reached about 80% of the 2025 renewable energy development target of 4,000 MW based on confirmed projects as of the end of FY2022 that have an output of 3,020 MW (including 2,610 MW already in operation)



Strengths

One-stop Approach for the Development and Operation of the Five Main Renewable Energy Sources

- Kyuden Group works as one to promote the five main renewable energy sources (solar, wind, hydro, geothermal, and biomass) across the full value chain, from initial surveying to development and operation based on the technologies and expertise we have accumulated through years of development experience as well as the relationships of trust we have built with local communities (among major domestic power companies, we are the only one in Japan for geothermal).

Technical Capabilities Enabling High Capacity and High Efficiency Renewable Energy Operations

- Able to achieve high efficiency and high utilization by leveraging the abundant knowledge and expertise we have built up over many years of developing and operating power source facilities

Business Environment

Opportunities

- Growing customer needs for low carbon intensity or decarbonized electricity as efforts to achieve carbon neutrality accelerate globally
- National deregulation of geothermal power generation and the establishment of development processes for offshore wind power to expand the adoption of renewable energy
- Diversifying means of renewable energy adoption, such as solar PPAs

Risks

- Changes to renewable energy schemes
- Decline in profitability due to fiercer competition
- Greater development expenses and risks as power generation projects grow larger

Business Strategies

Kyushu EP and Kyuden Mirai Energy will accelerate their efforts to make renewable energy a primary power source while carefully communicating with local communities with an eye toward carbon neutrality by reinforcing the business operation system through consolidation of their renewable energy businesses. Furthermore, we will meet customers' and society's extensive need for renewable energy and make the Renewable Energy Business the Kyuden Group's core business by taking on the challenge of creating new value in the Renewable Energy Business.

· Efforts to make renewable energy a primary power source

We will become not only an integrated company that possesses all five of the main renewable energy sources (solar, wind, biomass, hydro, and geothermal), but also our renewable energy capacity is among the top in Japan. We will leverage the benefits of integration and our extensive development and operation know-how to actively pursue new development in expected future energy growth areas, accelerate development through the expansion of PPA business and business alliances. We will also maintain high efficiency and high utilization of existing power sources and increase the amount of electricity produced.

Regarding power source development, we will promote the development of offshore wind, onshore wind, and solar power, which have strong development potential. Specifically, for offshore wind power, we will actively promote development using the knowledge gained from the offshore wind power project in Hibiki-Nada, which started in March 2023 (output 220 MW, scheduled to start operation in 2025). We will also steadily move ahead with the development of geothermal sources, one of the Group's strengths, and hydro and biomass sources, where we have a rich track record in development.

· Taking on the challenge of new value creation for renewable energy

Utilizing the power storage and regulating functions of pumped-storage and batteries, we will deliver renewable electricity during hours that are highly profitable and pursue value enhancement. At the same time, we will challenge "new renewable energy business" such as tidal power generation, demand and supply management services, and utilizing data accumulated from past development and O&M results.

Efforts to Create Corporate Value

Related pages **P42** **P43** **P46**

Main relevant materiality

1) Maximize short-term opportunities (Increase profit)

- Consolidate renewable energy businesses to strengthen them and improve customer service
- Make efforts to establish diverse business models that take advantage of FIP schemes and PPAs
- Promote the development of renewable energy by utilizing subsidy programs as well as idle assets such as the sites of former power plants
- Look into how to use energy sources once FITs expire
- Maintain high-efficiency and high-availability operations at our renewable energy power plants by leveraging the technical capabilities we have built up over many years of experience in developing and operating energy resources

Leading the Way toward a Decarbonized Society
Implementing Continuous Improvements in Energy Services

2) Expand medium to long-term opportunities (Increase growth rate (future growth expectations))

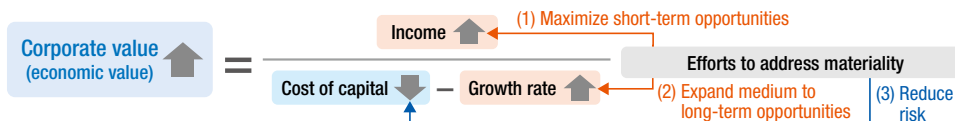
- Steadily promote the development of new geothermal power sites, hydropower projects and replacement facilities, and offshore wind power projects together with Group and partner companies
- Increase the number of renewable energy projects overseas in anticipation of a decline in suitable sites domestically
- Take on the challenge of developing an adjustable power supply (battery storage and hydrogen production) business to help make renewable energy a primary power source

Leading the Way toward a Decarbonized Society
Implementing Continuous Improvements in Energy Services

3) Reduce risk (Lower the cost of capital)

- Reduce the cost of initial surveying and operating costs by leveraging the technical capabilities we have built up over many years of experience in developing and operating energy resources
- Diversify against various risks by developing energy sources through joint projects with business partners who have extensive expertise
- Financing that uses green finance

Leading the Way toward a Decarbonized Society
Implementing Continuous Improvements in Energy Services
Strengthening Governance



Growth Businesses ~Overseas Business~



Sharing the “Kyuden spirit” globally and expanding into new areas and business domains

Ryotaro Yusu

President and Representative Director,
Kyuden International Corporation

Since the late 1990s, we have been pioneering overseas projects with the “Kyuden spirit” and through sweat and tears, our Overseas Business has grown to the point where we operate 22 projects in 15 countries and regions as of March 31, 2023. I would like to express my heartfelt thanks to all the people who have been involved in this work over the years.

Our corporate slogan is “Let's connect.” We will develop businesses that link people with people through smiles, Kyushu with the world through technology, and the present and future through sustainable growth. While valuing the “network of people” that we have built and looking forward to encounters with business partners with whom we can share our passion, we will expand our energy business, which can contribute to both the development of a country and the building of a sustainable society from an ESG perspective.

In 2023, we opened our third overseas office, which is located in the Middle East, in the city Dubai. In addition to steadily expanding the areas we operate in, particularly in Asia, we will also actively take on the challenge of new business fields, such as innovation. Please look forward with us to the future and the “Kyuden spirit” of our overseas business, as we aim to create a “connected” business that will gain support and cooperation from everyone.

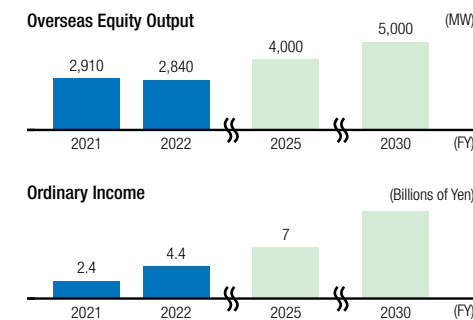
Vision for the Future

We provide energy solutions that meet the needs of various regions outside Japan and the times by making the most of the technologies, expertise, and networks that the Kyuden Group has accumulated in the Electric Power Business and other businesses in Japan and overseas.

In addition to generating profits as the core of the Kyuden Group's growth field and contributing to the achievement of ¥75 billion in ordinary income from growth businesses in FY2030, we aim to expand the Overseas Business while contributing to society and giving consideration to the environment.

FY2022 Assessment and Progress

- Expanded new efforts such as participating in the Group's first power supply projects in off-grid areas in Africa and renewable energy development projects in Southeast Asia (total overseas equity output of approx. 2,840 MW)
- Made steady progress with submarine power transmission project in the Middle East, which we joined in the previous fiscal year, and the development of highly efficient thermal power generation in Central Asia
- Ordinary income of ¥4.4 billion (up ¥2.0 billion YoY)
- Expanded Renewable Energy Business and contributed to reduction in greenhouse gas (GHG) emissions through efforts to lower the carbon intensity of and decarbonize power sources



Strengths

More Than 70 Years of Experience with the Domestic Electricity Business

- Technologies and expertise in the power generation as well as transmission and distribution businesses possessed by the Kyuden Group

More Than 20 years of Experience with the Overseas Business (Have Participated in 22 Overseas Electricity Projects)

- Have expanded overseas, primarily in Asia, which boasts a market with strong growth potential, but also the USA and Middle East, and hold offices overseas in Thailand and the USA

Diversified Business Domains

- Expanded the thermal and renewable energy power generation business, power transmission and distribution business, and overseas consulting using the technology and expertise that the Group has accumulated through its various businesses, including the domestic and overseas electricity businesses

International Contributions through Human Capital Development over More Than Ten Years

- In addition to dispatching a total of about 80 engineers overseas, including those from Group companies, for technical instruction, in FY2022, we accepted about 50 engineers to Japan from several countries, including Kenya and Cuba, and conducted activities such as technical training using our facilities

Trust of and Positive Assessment from Business Partners and Other Entities

- Have built a strong bond of trust with local business partners, governments, and power companies through hands-on activities for businesses

Business Environment

Opportunities

- Increasing energy demand in Asia and other emerging countries
- Expansion of business opportunities due to the growing need to decarbonize and decentralize power sources

Risks

- Increased global competition in terms of investing in renewable energy projects
- Unique country risk and market risk of various countries and regions
- Changes in the financing environment for thermal power plant construction due to the shift to ESG investment
- Changes to national policies on carbon neutrality
- Continued impacts of the crisis in Ukraine
- Changes in prices, interest rates, and exchange rates

Business Strategies

In the overseas electricity business, business opportunities related to renewable energy and transmission and distribution are growing in number and diversifying, while gas-fired thermal projects with long-term power purchase agreements (PPAs) decline as the world moves toward decarbonization. Taking into account such market conditions and considering the needs of each region, we will promote decarbonization investments, primarily in renewable energy and transmission and distribution businesses, to contribute to the realization of a low-carbon and sustainable society. We will also promote high-efficiency gas-fired power generation and distributed energy resource operation business that contribute to decarbonization.

· Make efforts to lower carbon intensity

While focusing on solar and wind power, we will also work on geothermal, hydro, and biomass power through such activities as collaboration with development companies, taking into consideration the market environment of the particular country or region. We will also expand the power transmission and distribution business, which contributes to lowering carbon intensity, as one revenue source.

· Expand our business domains

In addition to traditional business domains, we will expand into new domains by investing in startup companies in the domains of power generation from waste, distributed energy resources, and innovation.

· Expand our development areas

We will move forward with business development primarily in Asia, but also extending to the Americas, Middle East, as well as Europe and other regions that are leaders in renewable energy.

As for overseas bases, following bases in Thailand and the USA, we opened a new staffed office in Dubai in FY2023.

Efforts to Create Corporate Value

Related pages **P05** **P46**

Main relevant materiality

1) Maximize short-term opportunities (Increase profit)

- Maintain and improve the profitability of existing projects in cooperation with investee companies
- Maximize income by exchanging assets

Implementing Continuous Improvements in Energy Services

2) Expand medium to long-term opportunities (Increase growth rate (future growth expectations))

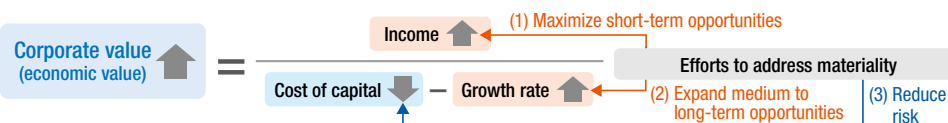
- Actively participate in power transmission and distribution projects
- Expand the Renewable Energy Business through such efforts as collaboration with development companies and strategic partners
- Participate in thermal power generation projects that help lower carbon intensity
- Work on business related to CO₂ free fuel (hydrogen and ammonia) and promote business with an eye toward a society with distributed energy resources
- Develop geothermal power projects by leveraging the expertise of Group companies (West Japan Engineering Consultants, Thermochem, etc.)

Leading the Way toward a Decarbonized Society
Implementing Continuous Improvements in Energy Services

3) Reduce risk (Lower the cost of capital)

- Build a project management system and quickly ascertain risk through monitoring
- Conduct regular risk assessments

Strengthening Governance



Growth Businesses ~ICT Service Business~



Strengthening earnings and leading the DX of local communities using changes in the business environment, including the adoption of digital technology, as a tail wind

Yoshiharu Senda

Executive Director, Technical Solution Headquarters

The environment surrounding the ICT Service Business is undergoing major changes, including the rapid progress of digitalization brought about by the COVID-19 pandemic, high expectations for dramatic improvements in productivity through generative AI, and the promotion of measures such as the Vision for a Digital Garden City Nation*, and the market size is expected to expand further.

Furthermore, ICT infrastructure, such as fiber optic broadband, 5G networks, and data centers, is growing more and more important as digital technology becomes indispensable to solve a growing number of social problems, including energy, carbon neutrality, a shrinking labor force, and the realization of a diverse society.

We along with Group companies will provide high-quality, highly secure ICT infrastructure and ICT services, leveraging the strengths we have cultivated in the electric power business. We also view changing customer and societal needs, as well as rapid digitalization, as significant business opportunities. By combining digital technologies with innovative thinking, we will create new value and services, increase earnings and take the lead in regional and social DX.

* A broad policy program introduced by the Japanese government and the basic concept of the vision is to use technology and digital infrastructure to "create a society where anyone can comfortably and conveniently live anywhere in the country."

Vision for the Future

We aim to post ¥75 billion in ordinary income from growth businesses in FY2030 and contribute to the sustainable development of local communities and society through our businesses by expanding earnings from existing services such as ICT infrastructure, and providing ICT services targeting new business domains that meet the various needs of customers and society

Improve the operating margin of existing services (+50% or more over FY2020 in FY2025)

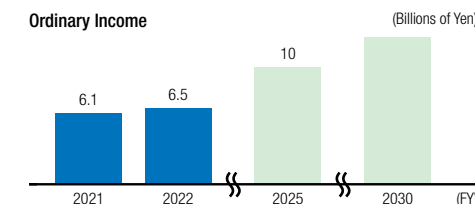
Develop and provide new services

- Advertising (digital ad production and planning, etc.)
- Finance & medicine (fintech, AI-based medical diagnosis etc.)
- Primary industries (IT sensors for agriculture, woodland management using drones, etc.)
- Daily life support (monitoring service, etc.)
- Infrastructure (airport ICT, factory production management system, etc.), etc.

FY2022 Assessment and Progress

· Despite an increase in depreciation expenses in the fiber optic broadband business, we recorded ordinary income of ¥6.5 billion (up ¥0.4 billion YoY) for various reasons including an increase in contracts to develop local government's information systems

· Efforts in new services have made steady progress as can be seen from the increase in the earnings of the joint venture company Machi no Wa Co. Ltd. that works together with other companies to develop regional information platforms and the achievement of eliminating cumulative loss with Kyuden Drone Service.



Strengths

Over 70 Years' Experience and Expertise in Supporting Stable Power Supply
Telecommunications Infrastructure Covering All Areas of Kyushu
One-stop Service from Construction & Installation to Maintenance & Operations

- Optical fiber network communication infrastructure throughout Kyushu (household coverage: 60%-70%; corporate: 100%)
- Offices throughout Kyushu and provision of full support, from installation to maintenance and operation, 24 hours a day, 365 days a year
- Ability to propose and provide integrated ICT solutions
- Broad range of business domains, including new ones (drones, digital advertising, e-sports, etc.)

Business Environment

Opportunities

- Advances in such digital technologies as AI/IoT (generative AI, etc.), mobile technologies (5G/Beyond 5G), and drones
- Work style and operational reforms utilizing digital technologies (DX)
- Promotion of various policies (development and expansion of ICT infrastructure such as FTTH connections, 5G networks, and data centers (DCs) in line with the Vision for a Digital Garden City Nation)
- Growing environmental awareness (carbon neutrality, ESG)
- Construction of factories in Kyushu because of low-cost and stable electricity

Risks

- Increasing frequency and severity of natural disasters, major earthquakes
- Growing security threats due to an increase in cyber-attacks
- Shortage of and increased difficulty in securing IT personnel

Business Strategies

Rapid technological progress is being made in the ICT field, and on top of this, the convergence of different technologies is resulting in innovation that transcends business domains. We have set a Group-wide target of at least ¥15 billion in ordinary income by FY2030 for our ICT service business, one of our growth businesses.

As digitalization progresses throughout society, including the spread of remote work due to the COVID-19 pandemic and the growth of video streaming services, data traffic continues to increase and the importance of telecommunications networks is ever rising. For existing services, such as ICT infrastructure, we will work to further increase earnings by being sure to capture new demand, such as that related to handling the construction of 5G networks, strengthening DC business as cloud services expand, and the expansion of security services for corporate customers.

In addition to existing services, we will also step up our efforts in new, higher-layer areas, including applications and content, to reach our targets, and aim to expand our range of services and thereby increase revenue. On top of expanding our sales channels by leveraging the respective strengths of the ICT Service Business and Group companies, we will work to find new partners through M&As and open innovation, produce technologies in-house in collaboration with other companies, and create new businesses out of them. Moreover, we will bolster our new services by delving deep into customer needs from their perspective, such as promoting DX among local governments and engaging in comprehensive industry-academia collaboration.

Efforts to Create Corporate Value

Related pages **P04** **P62** **P71** **P88**

1) Maximize short-term opportunities (Increase profit)

- Strengthen existing services to respond to digitalization across society, including fiber optic broadband internet service BBIQ and our data center business
- Strengthen DX proposals for corporate/municipal customers and expand security-related services
- Introduce regional information platforms throughout Japan and develop new services
- Undertake commissioned information system development that complies with legal revisions and local government system standardization

Co-creating a Smart and Vibrant Society

2) Expand medium to long-term opportunities (Increase growth rate (future growth expectations))

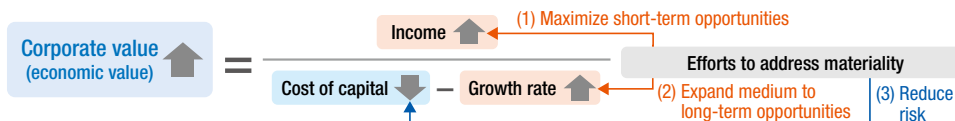
- Establish a new business model for the drone service business
- Gain experience in the digital advertising business and enter the mass media domain, including TV
- Conduct open innovation to create new businesses and aggressively invest in e-sports and AI
- Provide energy storage systems suitable for the proliferation of renewable energy to achieve CN
- Propose production management system for factories

Leading the Way toward a Decarbonized Society
Implementing Continuous Improvements in Energy Services
Co-creating a Smart and Vibrant Society

3) Reduce risk (Lower the cost of capital)

- Construct a business portfolio that takes into consideration return on invested capital (ROIC)
- Strengthen our IT governance function and system development framework in cooperation with Group companies
- Actively recruit IT personnel and establish an education system within the Group
- Strengthen information security measures across our entire supply chain, including external business partners

Strengthening Governance
Promoting Growth, Success, and Diversity of Human Capital



Main relevant materiality

Growth Businesses ~Urban Development Business~



Invigorate society and ensure growth of the Group through high value added businesses

Masanori Kozuma

Director, Urban Development Business Division

We aim to generate growth for the Kyuden Group and invigorate local communities and society through our urban development projects both in Japan, particularly in Kyushu and overseas. To do that, we must increase our earning power.

Optimizing assets and the business portfolio is indispensable for growing the business. In addition to leveraging energy and digital technology, it is also important to develop high value added businesses by strengthening branding.

Developing human capital and the organization is the most important to achieve that. We will not only strengthen the specialized skills and practical capabilities of each employee, but also focus on creating a lively workplace climate in which employees can feel both personal and organizational growth, as well as their contribution to society.

We will also continue to be thoroughly market-oriented, ascertain customer problems and needs and changes in society and the market, and quickly respond.

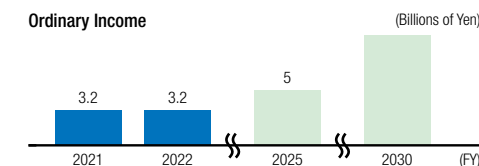
Finally, aligning with my own perspective on work, we will continue to take on the challenge of creating businesses that bring happiness to people by drawing out the knowledge that we and trusted partners possess.

Vision for the Future

- We will increase earnings both in Japan and overseas by expanding the Urban Development Business in Kyuden Group's own unique way that makes use of energy and digital technology.
- Through our business, we will contribute to the sustainable development of local communities and society, which includes increasing the number of visitors to Kyushu, creating activity and employment, promoting decarbonization, adopting smart technology in society, and offering safe and peaceful lifestyles.

FY2022 Assessment and Progress

- Posted ordinary income of ¥3.2 billion (unchanged YoY) for various reasons, including an increase in real estate leasing earnings
- Promoted investments in promising assets and areas such as the logistics facilities development business in the Kyushu region and overseas urban development business in addition to expanding our office leasing and condominium businesses



Strengths

Relationships That Extend over a Broad Area

- Possess extensive relationships with companies, local governments, universities, economic organizations, and similar organizations, particularly those in Kyushu
- Boast a customer base that extends throughout Kyushu

Specialized Skills Related to Energy and ICT and the Collective Strength of the Kyuden Group

- Possess human capital with specialized skills related to promoting renewable energy and electrification, building smart infrastructure, and similar issues
- Can provide diverse products and services by marshaling the knowledge and expertise accumulated through the business activities of the Kyuden Group over the past seventy years

Main Projects



Project to utilize the former Fukuoka City fruit and vegetable market site (LaLaport Fukuoka)
(Began operation in April 2022)



Kumamoto Airport privatized operations business (new passenger terminal building)
(Opened for public use in March 2023)



Development of ESG-friendly rental housing in southern USA
(Joined in May 2022)



Fukuoka Kasuya-machi Logistics Center project
(Plan to begin operation in August 2024)

Business Environment

Opportunities

- Growing need for environmentally friendly and efficient energy as the world shifts to decarbonization
- Population concentration in major cities and rebirth of regional cities
- Diverse needs for homes and lifestyles and acceleration of services that leverage digital technology
- Diversification of work styles, flexible work styles, and use of diverse human capital

Risks

- Shrinking and aging population in Japan and decline of local communities
- Progressing global warming and risk of natural disasters
- Rising material prices

Business Strategies

Build a profitable, stable portfolio

- We will categorize businesses into one of three types depending on profitability (long-term businesses, quick turnover projects, and services) and build a portfolio that balances profitability and stability and complements the various distinguishing characteristics of the three types.
 - Long-term businesses provide a stable earnings base, and we will conduct development projects primarily in Kyushu.
 - Quick turnover projects contribute to faster growth, and we will strengthen and expand the overseas urban development business and condominium business, the core of these businesses.
 - For services, we will quickly launch an asset management business, establish a self-sustaining investment cycle based on such products as setting up a privately placed REIT fund, and acquire management fees.

Expand businesses which provide high added value that only the Kyuden Group can offer by making use of energy and digital technology

- We will move forward with development that contributes to a decarbonized society, such as improving energy efficiency and lowering the carbon intensity of energy used.
- We will promote area management and urban development that leverage diverse smart services.
- We will ascertain changes over time and boldly take on challenges in new fields.

Build a robust organization

- In addition to securing diverse human capital, we will increase the specialized skills of each employee through our businesses and build a community of Urban Development Business professionals.
- With a transformation-oriented mindset, including the use of digital technology, we will develop businesses that function quickly.
- We will create fulfilling workplaces in which employees can experience both personal and organizational growth, as well as their contributions to society.

Efforts to Create Corporate Value

Related pages **P04** **P62**

1) Maximize short-term opportunities (Increase profit)

- Strengthen and expand the overseas Urban Development Business and condominium business

Co-creating a Smart and Vibrant Society

2) Expand medium to long-term opportunities (Increase growth rate (future growth expectations))

- High value added urban development through decarbonization and DX
- Establish asset management business
- Build a robust organization and develop professional human capital

Leading the Way toward a Decarbonized Society
Co-creating a Smart and Vibrant Society
Promoting Growth, Success, and Diversity of Human Capital

3) Reduce risk (Lower the cost of capital)

- Diversification of assets and areas from the perspective of spreading business risks
- Establish a cycle of asset sell-off and reinvestment through the promotion of asset management business

Co-creating a Smart and Vibrant Society
Strengthening Governance

