



—— Toho Gas Group ——

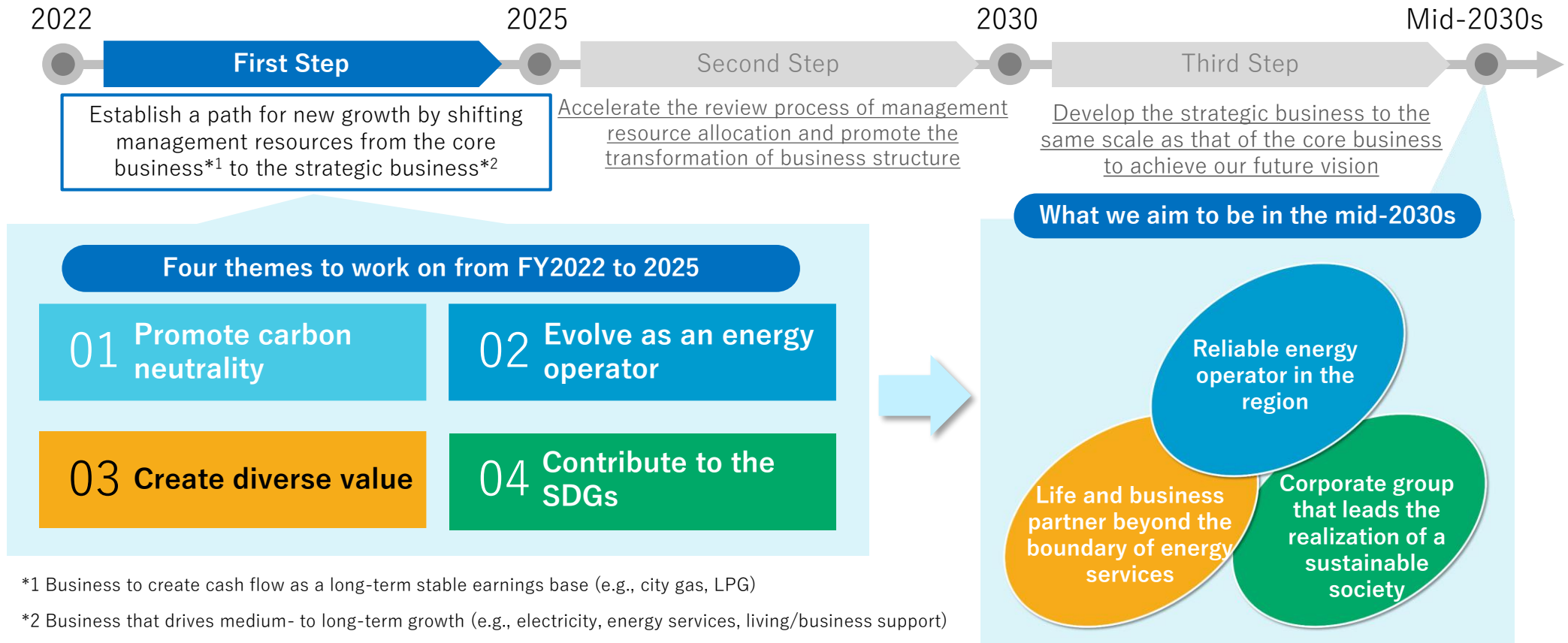
Medium Term Management Plan 2022-2025

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I Positioning Medium-Term Management Plan

The Medium-term Management Plan is positioned as the first step toward the realization of the vision set forth in the Group Vision, and by tackling the four themes, we will solidify the path to new growth.



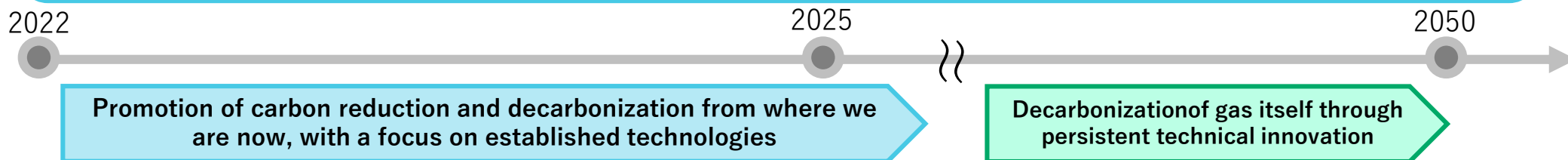


Promote carbon neutrality

01

Overall picture of the themes to work on

In addition to promoting low-carbon/decarbonization efforts for our gas customers' premises, we will work to develop technologies with an eye on future decarbonization of gas itself. We will also work to expand the use of hydrogen, reduce/eliminate carbon in electricity and promote the transition to carbon neutrality.



Concrete activity

Reductions of carbon and decarbonization at customer locations

Establish a foundation to expand the use of hydrogen

Develop technologies to decarbonize gas itself

Low-carbonize/decarbonize electricity

Goals by FY2025

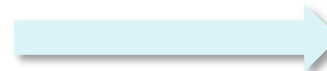
Amount of contribution to CO₂ reduction

1 million tons

Handled amount of renewable energy power sources*

250,000 kW

*The handled amount of renewable energy power sources includes power sources developed and owned domestically and overseas, feed-in tariff (FIT) scheme power sources, and procurement.



2050 Carbon Neutrality Initiative (July 2021)

We are tackling the challenge of achieving carbon neutrality in our entire value chain, including customer locations, in 2050.

[Reference] Goals by FY2030

Amount of contribution to CO₂ reduction

3 million tons

Handled amount of renewable energy power sources*

500,000 kW

We provide one-stop support so that customers can achieve carbon neutrality by shifting fuel to city gas, promoting advanced energy utilization, and introducing carbon-neutral LNG.

Promote fuel conversion and advanced use of energy

- Contribute to low carbonization by switching fuel to city gas
- Promote advanced use of energy using cogeneration and heat storage materials; strengthen sales of ENE-FARM, etc.



Developing Burners



ENE-FARM

Efforts by the procurement side to meet customer needs

- Procure carbon-neutral LNG in a flexible manner
- Investigate and study overseas projects on CO2 absorption and fixation and on procurement of zero emission fuels, etc.

Support customers to achieve carbon neutrality

- We will provide support for a series of initiatives of our corporate customers so that they can realize carbon neutrality, from consulting to implementation of reduction measures to subsequent operation management and maintenance

Maintain a good condition

Evaluate and revise plans through the review of operation

Maintenance

CA

Understand properly

Grasp CO2 emissions at the customer's site and provide consulting support for reduction

Grasp CO2 emissions

P

Provide renewable electricity and technical support for hydrogen combustion etc.

Equipment remodeling

CA

Reduction

D

Reduce energy consumption by assessing and improving the operation of fuel, steam, air, etc.

Transform energy facilities

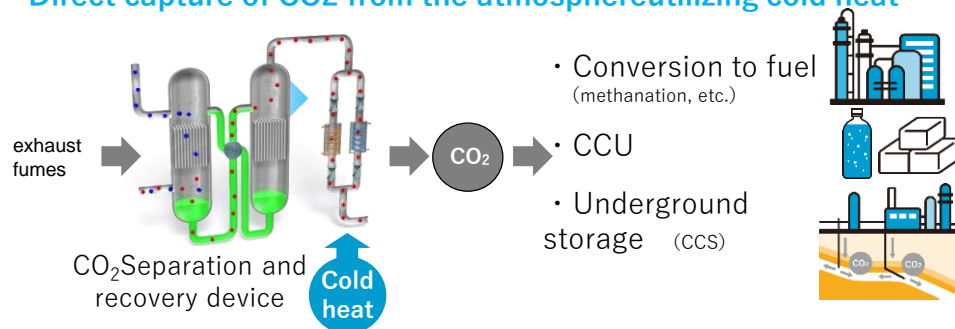
Reduce waste

We will steadily promote the development and demonstration of CO₂ separation/capture and methanation, which are some of the key technologies to achieve carbon neutrality.

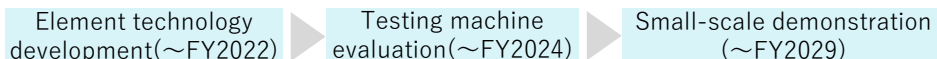
CO₂ separation and capture

- With the aim of separating and capturing CO₂ at our customers' sites, build a system that uses membranes and adsorbents to promote in-house verification
- Toward the future, promote element study and test evaluation with the aim of separating and capturing CO₂ from the atmosphere/exhaust gas by using LNG cold energy

Direct capture of CO₂ from the atmosphere utilizing cold heat



< Schedule* >



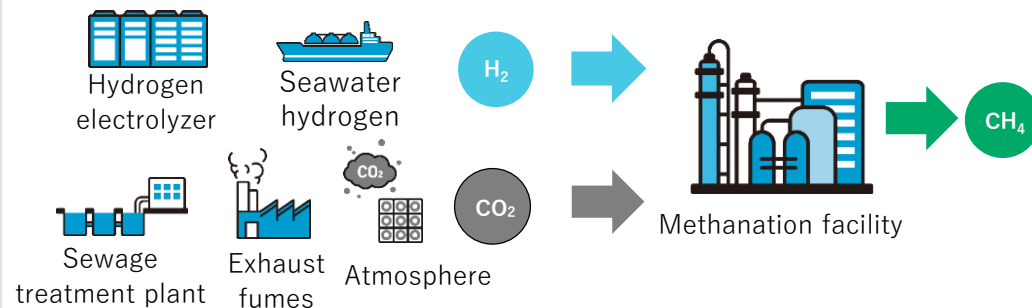
*Contents of joint research with Nagoya University, etc. in NEDO moonshot type R & D project

Methanation

- Start with a small-scale demonstration using biogas-derived CO₂ for the practical application of methanation technology and the mass introduction of synthetic methane
- Use methane synthesized in the demonstration as a raw material for city gas

※Promising means for decarbonization that allows effective use of existing infrastructure and that leads to increased resiliency by reducing social burdens

Methanation



<Responding to issues>

High efficiency / Low cost of equipment operation
Acquisition of environmental value



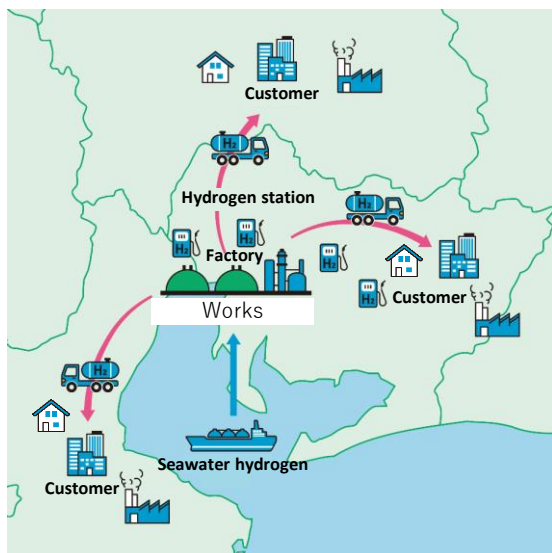
Preparation for large scale

Establish a foundation to expand the use of hydrogen

In addition to embodying the concept of a hydrogen supply base, we will build up a firm position as a hydrogen supplier in the region by advancing efforts to the practical application of hydrogen utilization technology and by responding to increasing hydrogen needs.

Building the Chita Midorihama Factory-based
hydrogen supply chain

- Constructed a hydrogen production plant in the factory
- Actively promote alliances with other companies that have insights and expertise, and take initiative in establishing a hydrogen supply chain in the region



Use of hydrogen

- Promote technological development related to hydrogen combustion to expand its applicability in the thermal and other fields and commercialize hydrogen technologies at an early stage through demonstration at customers' sites
- As for mobility applications, develop and operate hydrogen stations by utilizing a cross-industry framework to expand vehicle types and applications

Thermal field

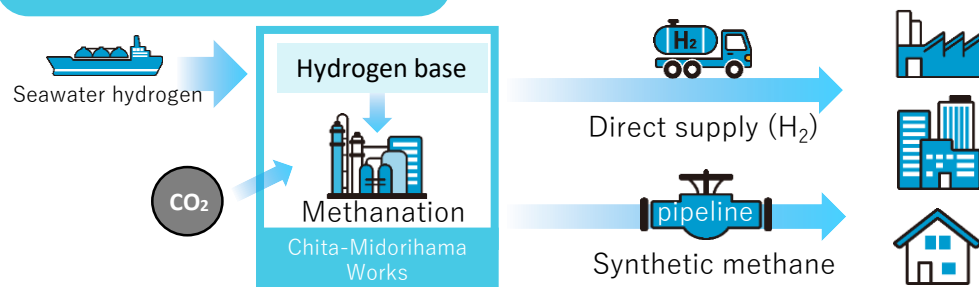
Burner



Cogeneration

MobilityFCV
forklift

Widespread image



We will enhance the development and procurement of renewable energy power sources while diversifying power sources, and we will provide a menu of services that utilize these sources to contribute to our customers' carbon neutrality.

Expansion of renewable energy power supply

- In addition to solar power, biomass, and other renewable energies, we will diversify power sources in the medium-term future, including involvement in offshore wind power, and broaden the development and procurement of renewable energy power sources

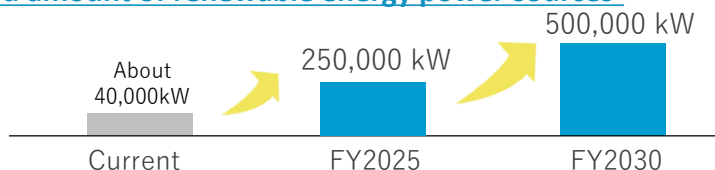
Solar power



Woody biomass power generation



Handled amount of renewable energy power sources*



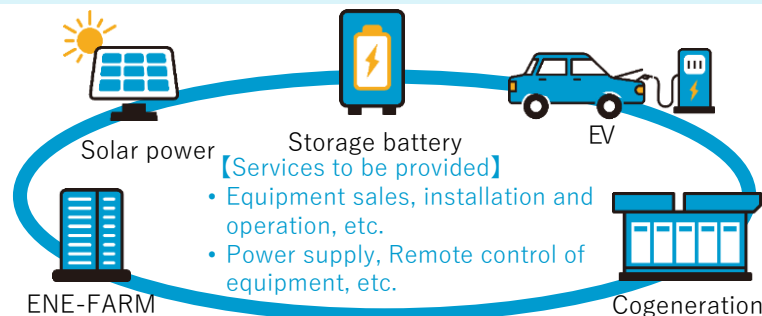
*The handled amount of renewable energy power sources includes power sources developed and owned domestically and overseas, feed-in tariff (FIT) scheme power sources, and procurement.

Utilization of renewable energy power supply

- Combine renewable energy power sources and non-fossil certificates to provide a carbon-neutral electricity service menu
- Propose new regional electric power etc. centering on renewable energy sources

Expansion of electricity services

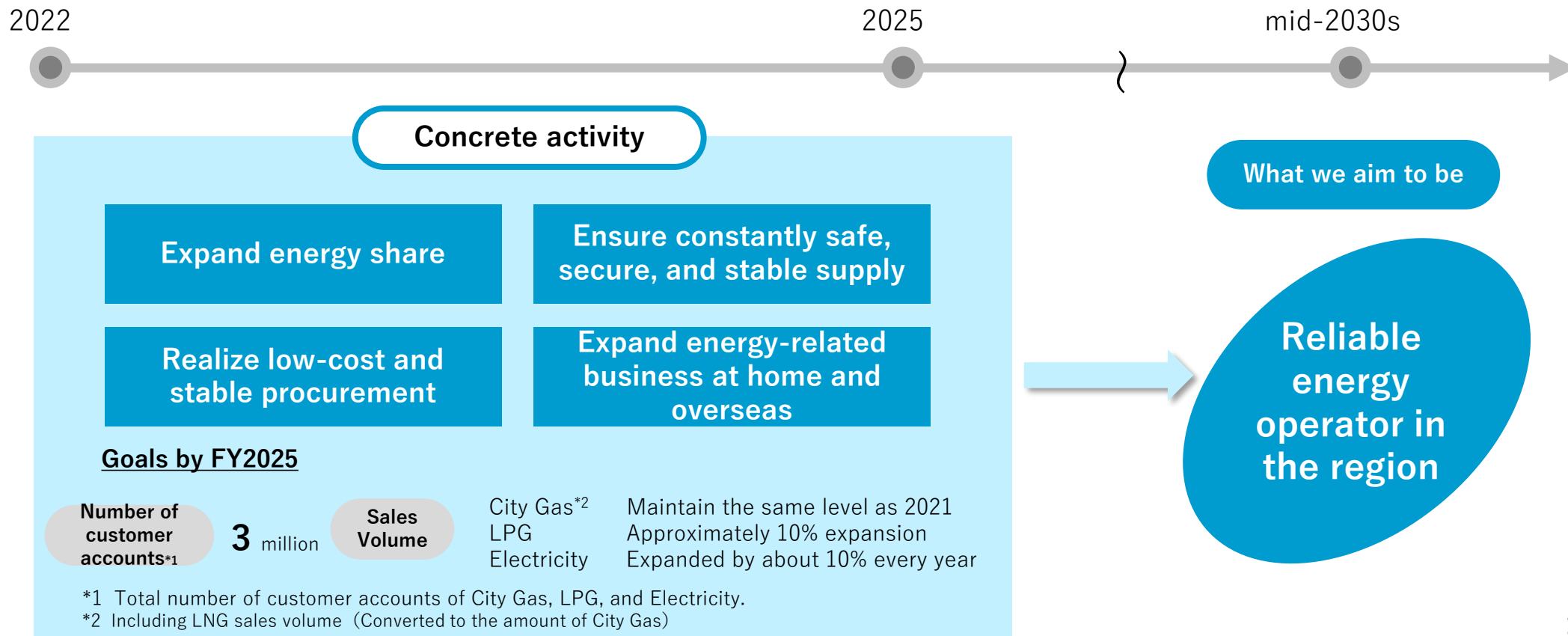
- Strengthen sales of distributed energy resources, such as solar power generation and storage batteries
- Launch demonstration and commercialization of Virtual Power Plants, etc.



Evolve as an energy operator 02



We will continue to take all possible measures to ensure safe, secure, and stable supply and strive to increase our energy market share by utilizing diverse kinds of energy.
We will also work to further extend new energy-related business at home and overseas.



As a total energy provider, we deliver variety of energy services, including city gas, LPG, electricity and hydrogen, to more customers in an optimal manner to support their life and business.

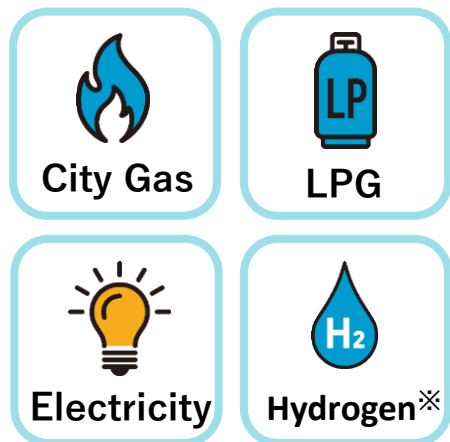
Responding to diverse customer needs

- Carbon-neutral energy supply
- Responding to diverse customer needs
- Improve menu options to meet diverse customer needs and promote solution proposals

Strengthening sales proposals, alliances

- Deepen relationships with customers through our community-based service shop “ENEDO,” which serves as a real contact point
- Utilize/strengthen alliances with other companies; broad-based development

Diverse energy



※ Supply will start in stages from the latter half of the scheduled period

Diverse menus and services

City gas ,and electricity menu

City Gas/Green Eco “Gas-Teki Points”
A point service that virtually eliminates CO2 emissions from city gas used at home

Bonus Electricity Plan
An electricity plan that gives customers a Paypay bonus (cash back value) of up to 8% according to their monthly electricity bill



Safety Inspection (free of charge)

- Implement “Safety Inspection (free of charge)” for safe and comfortable use of gas and water supply equipment



Sales proposal

Activities that make use of real contacts

- Provide customers with products and services that contribute to their “safety” and “affluent life” and deepen relationships with them
- Promote electricity-related proposals at contact points

Propose integrated utility services

- Optimize energy use by providing one-stop services that cover the installation and operation of commercial cogeneration, air conditioning systems, etc.

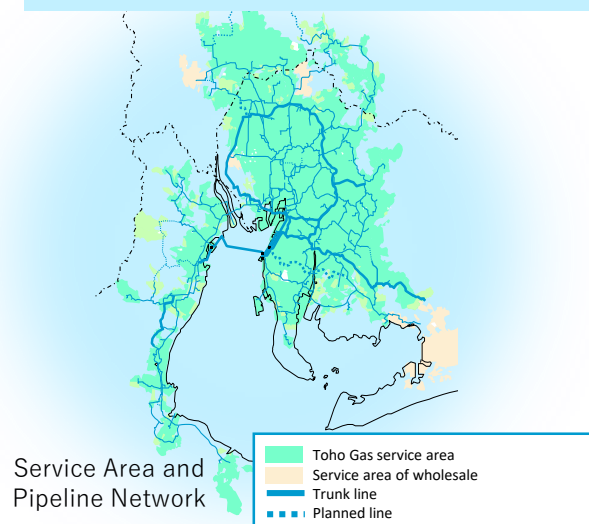
Wide-area deployment of LPG and electricity

- Utilize alliances for broad-based development
- Promote proposals to bundle LPG and electricity

We will ensure constantly safe, secure and stable energy supply while steadily promoting the development of city gas infrastructure to achieve low carbonization from the ground up.

Develop infrastructure for the spread and expansion of city gas

- Expand service areas through city planning and demand development
- Promote the development of supply infrastructure to improve the capacity of gas transportation to wider areas

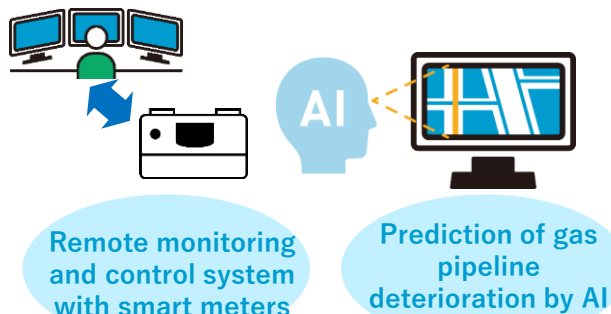


Ensure safe, secure and stable city gas supply

- Promote various measures to ensure safe, secure and stable supply

Stable supply and security measures

- Improve supply stability by looped pipelines, etc.
- Promote anti-aging measures to achieve advanced gas safety, etc.
- Reinforce 24/7/365 emergency security system
- Utilize digital technologies, such as smart meters, that achieve both the upgrading and efficiency of construction and maintenance work



Examples of using digital technology

Disaster measures

- Improve the rate of earthquake-resistant pipelines and promote disaster countermeasures at production facilities
- Reduce the scope of supply suspension by promoting the introduction of low-voltage cutoff system
- Introduce an early recovery method for outage areas using remote monitoring data on pipeline pressure



Disaster countermeasures at city gas works (reinforce LNG receiving piping)



Improve the rate of earthquake-resistant pipelines by replacing them with earthquake-proof polyethylene pipes

To mitigate the effects of the changing international situation and rapidly changing market conditions, we will promote the diversification of suppliers in order to secure stable and inexpensive procurement.

LNG

Build a procurement portfolio that is highly adaptive to environmental changes

- Decentralize procurement areas and diversify contract typesLNG
- Launch procurement from the LNG Canada Project



Flexible response to changing environments

- To further improve flexibility and achieve lower procurement prices, examine measures and establish systems by making use of the Group's assets and expertise

LPG

- Flexible procurement by using the Meiko LPG Terminal
- Streamline delivery management through the use of digital technology



Meiko LPG Terminal

Power procurement

- Procure stable power by utilizing the Yokkaichi Power Station and collaborating with multiple partners
- To stabilize procurement and income/expenditure fluctuations, promote efforts to secure power sources and improve the ratio of in-house power sources (e.g., examining large-scale power sources, utilizing VPP and storage batteries)



Yokkaichi Power Station

With the knowledge and expertise cultivated through our business operation, we will scale up energy-related business, such as gas sales/LNG-related business and renewable energy business, at home and overseas.

Participate in investments in domestic and overseas energy projects

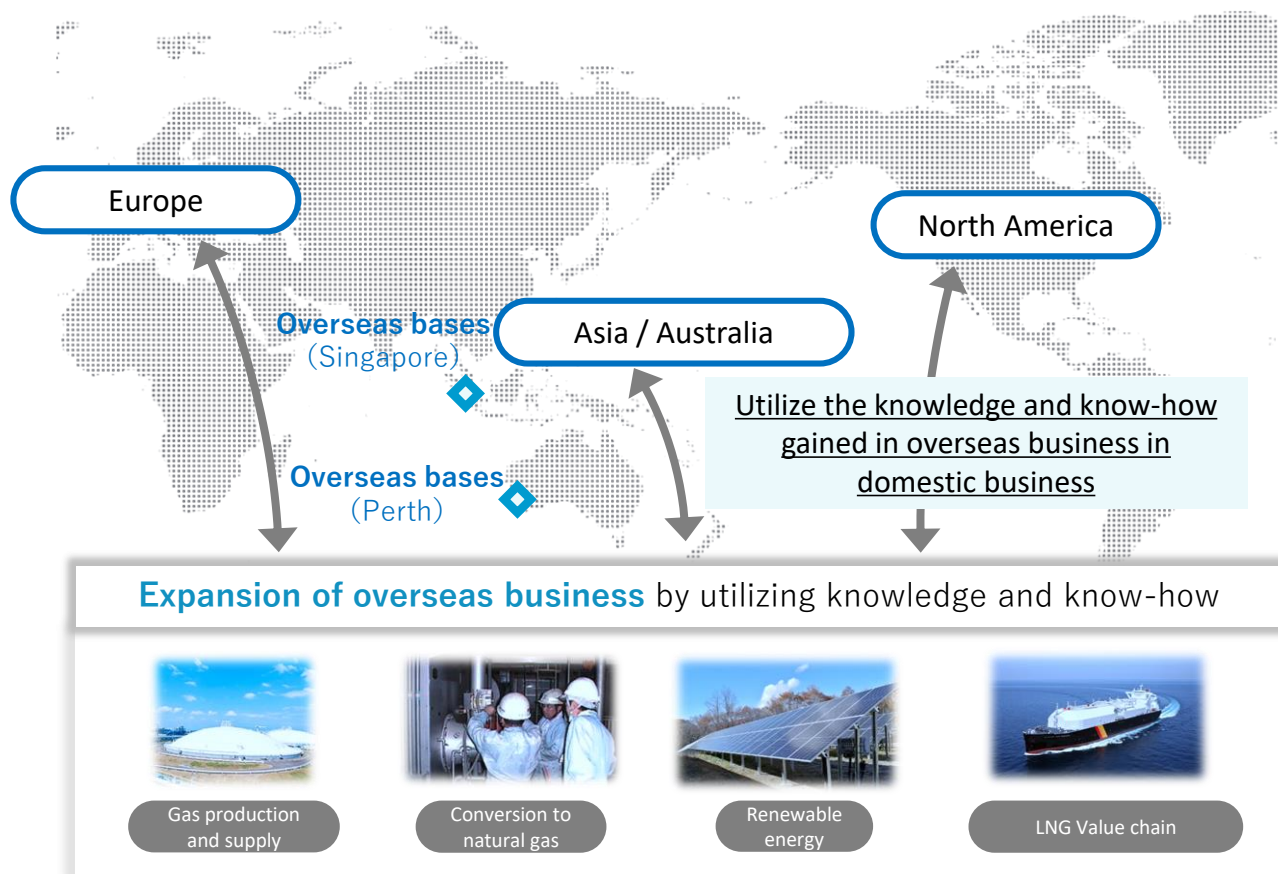
- Participation in domestic and overseas renewable energy business Fuel conversion from coal, petroleum, etc. to city gas in collaboration with local gas companies
- Strengthen information gathering and project discovery capabilities by enhancing overseas base factors

Involvement in the LNG value chain, etc.

- Launch the LNG Canada Project (midstream project) in addition to the Ichthys Project (upstream) and LNG transport vessels

LNG Canada

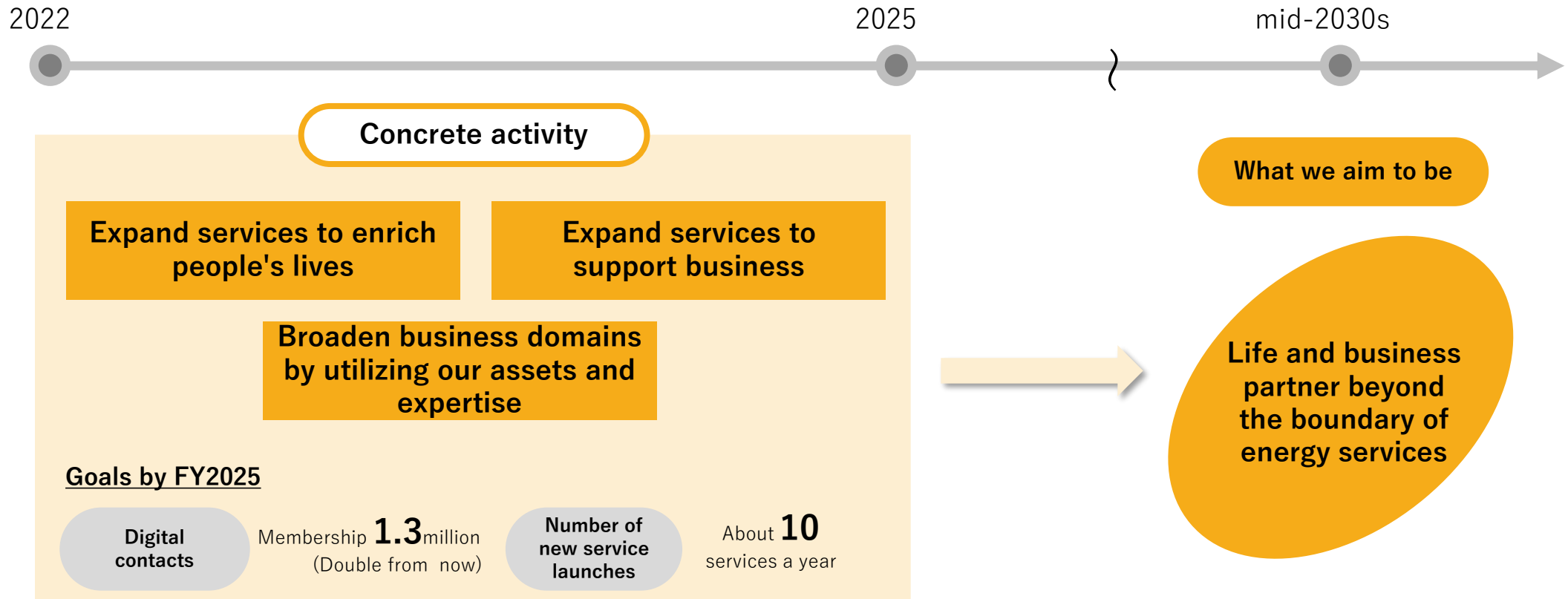
- Participation in investment in middle-class usiness.
- We can expect stable profits and contribute to the accumulation of knowledge.





Create diverse value **03**

We will expand our services to meet diversifying customer needs and solve their problems and also broaden our business domains by utilizing our assets and expertise.



Enhance customer contact points by improving the contents and convenience of our digital platforms.

Expansion of contact points with customers

- Expand the number of contact points by expanding the content and convenience of digital platforms



A platform that provides various services with the aim of making daily life more convenient, comfortable, and profitable



A membership site to answer inquiries about gas and electricity usage and bills and to post useful information for customers' living

Digital contacts

Membership **1.3** million
(Double from now)

- Open a virtual showroom where visitors can easily experience a showroom tour at home



Expansion of service menu

- Enhance services through initiatives such as co-creation with customers or start-ups

- ✓ Services tailored to your lifestyle and life stage
- ✓ Services that enrich the everyday life of our customers

Number of new service launches

About **10**
services a year

Service examples

Housing

- Communication business
- Housekeeping agency
- Remodeling business



スマート
エパル



Food

- Delivery of ingredients, drinking water, etc.
- Online cooking class
- Co-creation service with restaurants



Health, Long-term care

- Long-term care service
- Meal management service
- Sports and culture



We will enhance our support for customers' business by expanding service menu options that help solve increasingly complex and sophisticated business issues.

Expand products and services

- Expand the menu of products and services that contribute to improving customers' business profitability and operation through "TOHOBIZNEX," our total business support site
- In the energy service area, broaden the scope of services for appliances in addition to cogeneration and gas air conditioning
- Co-creation with other industries to further expand service areas

Business issues we offer support

Service examples

- Set a target for CO2 reduction and implement measures
- Energy saving and cost saving
- Curb initial investment cost when installing equipment
- Attract customers and improve sales
- Business efficiency
- Safe and secure
- Securing human resources
- Promotion of digitalization

Carbon neutral support

- Propose a carbon neutral PDCA (Plan Do, Check, Act) package

- ✓ Supporting the realization of customer's carbon neutrality

Energy service

- Energy saving diagnosis
- Comprehensive utility service*

- ✓ Expand the range of one-stop services

business support

- Support for attracting customer
- Business support
- Safety confirmation support
- Human resources matching support
- Support for efficiency improvement through digitalization



- ✓ Expand the service menu options of "TOHOBIZNEX" through co-creation with other industries



*Provide one-stop services for design, construction, maintenance, and operational improvement of energy-related facilities

We will expand our business domain by leveraging the Group's assets and expertise, which are our group's strengths, and actively engage in co-creation with other businesses.

Utilization of owned real estate

- Effectively utilize real estate, such as former sales offices and supply stations, for regional development

Effective utilization image of sales base

Relocation and efficiency improvement of sales bases

Idle asset



Rental apartments

External sales of production technology and shared technology

- Expand expertise and commercial materials cultivated through the production and supply of city gas to other fields/industries

Gas manufacturing technology

* Operation and maintenance

Design and construction management

O&M*

Technology development

Overseas LNG terminal

City gas company

Hydrogen-related / renewable energy power supply equipment

Gas supply technology

New construction methods related to pipeline work

Maintenance / maintenance know-how

City gas company

Other industries such as water services

Business development in new areas

- Explore and demonstrate new areas that contribute to solving social issues and promoting regional development while utilizing company-owned assets and expertise
- Create value through co-creation and collaboration with other industries and start-ups

Co-creation and collaboration initiatives under demonstration

Land-based salmon farming

- Make use of LNG cold energy from city gas plants
- Provide stable foodstuff throughout the year; contribute to the protection of marine resources



Highly efficient agriculture

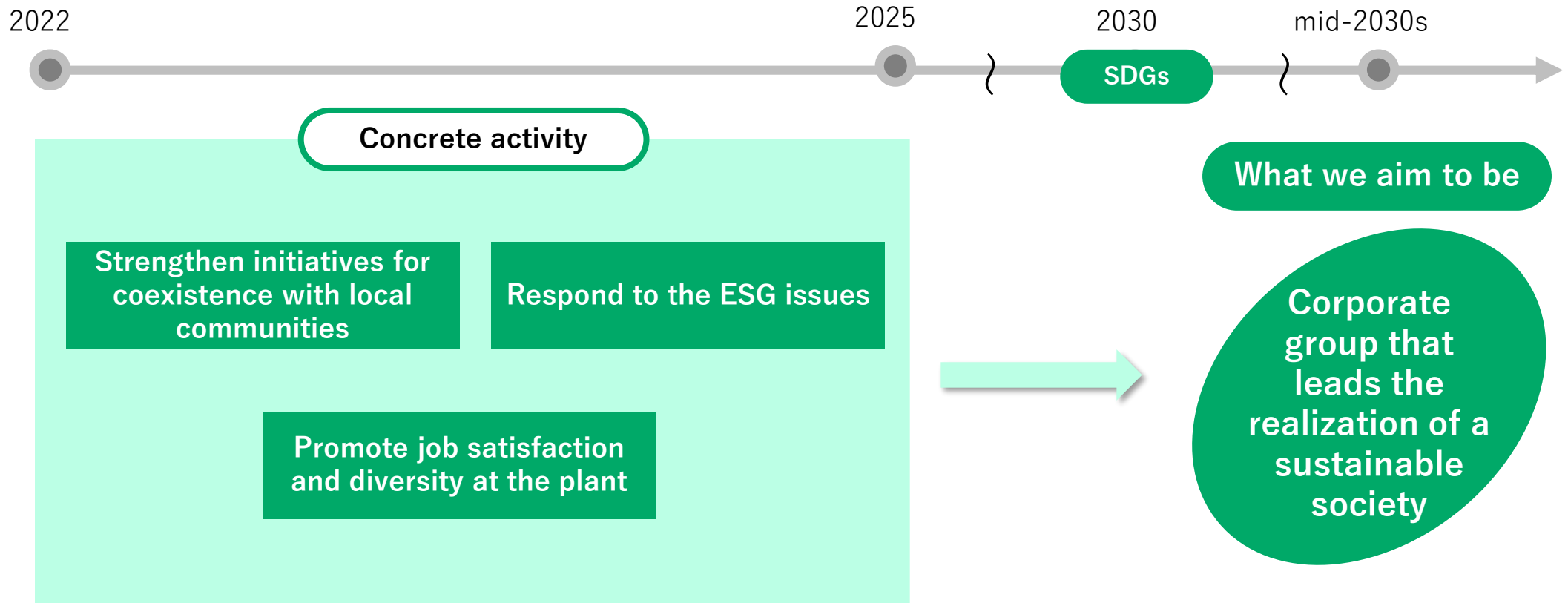
- Started studying high-efficiency agriculture
- Utilizing artificial soil technology that can contribute to the fixation of carbon dioxide

Contribute to the SDGs 04



Overall picture of the themes to work on

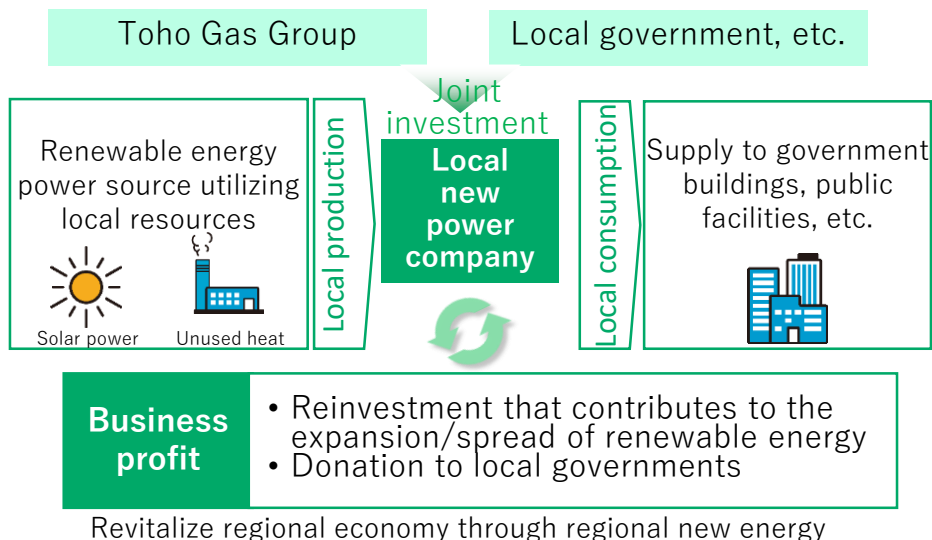
As a community-based company, we will continue to contribute to the achievement of the SDGs together with our stakeholders.



We will work more closely with local governments and other organizations to strengthen efforts for coexistence with local communities to solve social issues and improve resilience.

Promote solutions for social issues by collaborating with local governments

- Contribute to the development of attractive communities by deepening cooperation with local governments in various fields, including carbon-neutral support and the introduction of district heating and cooling
- Revitalize regional economy through regional new energy

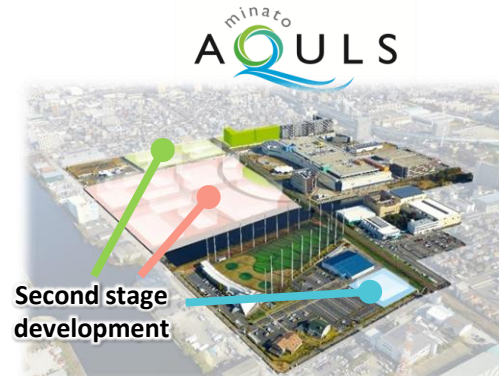


Improve local resilience

- Improve region-wide disaster prevention capabilities by enhancing industry-government-academia collaboration
- Conduct joint disaster prevention drills and fortify collaborative structures with local governments in case of a disaster
- Improve resilience of other gas operators through deterioration diagnosis of facilities and technical support for construction/maintenance of other infrastructure
- Promote the introduction of distributed power sources

Minato AQULS (Second stage development)

- Promote the revitalization of the region and development of sustainable and robust communities
- In a tie up with Nagoya City, introduce various technologies to achieve carbon neutrality at an early stage and improve the quality of life



We will steadily address the ESG issues toward the realization of sustainability.

Initiatives in the field of environment, society and governance

Environment (E)

- Implement climate change countermeasures, resource environment protection, and biodiversity conservation; contribute toward realizing a sustainable society
- Achieve zero emissions of industrial waste at city gas plants
- Recycle the waste from gas pipe works; curb the use of natural mountain sand and crushed stones
- Promote the 3Rs (Reduce, Reuse, Recycle) through business activities
- Implement biodiversity conservation activities

Governance (G)

- Strengthen corporate governance to continue to be a company trusted by stakeholders
- Correspondence to Corporate Governance Code
- Promote risk management and enhance information security
- Strengthening compliance

Society (S)

- Maintain and strengthen relationships with stakeholders and contribute to regional development together with partner companies and other concerned parties
- Act for achieving the SDGs in collaboration with local communities; provide SDGs-related education for the next generation
- Ongoing dialogue with stakeholders
- Promote CSR procurement



Biodiversity lessons for the next generation



Crime Prevention Patrol Support Vehicle

We will work to improve job satisfaction and ensure a comfortable working environment and diversity in order to increase employee engagement and to achieve individual and organizational growth.

Human resource Management

- Promote challenges for employees through training, placement, evaluation, etc. for their further growth
- Expand opportunities where employees can take on challenges (active rotation/promotion, dispatch/personnel exchange, in-house recruitment, etc.)
- Enhance the “structure” to support challenges (goal setting/evaluation, IT literacy support, selective training, etc.)

Diversity and inclusion

- Secure diverse human resources and support their activities toward revitalizing the organization, strengthening competitiveness, and creating innovation
- More recruitment of women and those who are in mid-career
- Support seniors in their long-term career
- Employ people with disabilities; expand job opportunities
- Activate communication; support for the demonstration of ability

Flexible working style

- Establish an environment where employees can choose a productive working style so that they can achieve a fulfilling work-life balance
- Expand support measures for employees balancing work with childcare or family care responsibilities
- Efficient use of remote work
- Improve operational efficiency with digital technology

Safety and health management

- Encourage physical and mental health promotion and create a safe, secure and comfortable workplace so that employees can play an active role for a long time
- Promote health management (disease prevention, mental health measures, etc.)
- Improve anti-harassment measures and ensure a comfortable work environment
- Promote safety and health activities

III Management index

Policy

- Accelerate investment for sustainable growth while maintaining the ability to generate operating cash flow
- Even in an investment expansion phase, balance between efficiency and soundness to manage the entire system

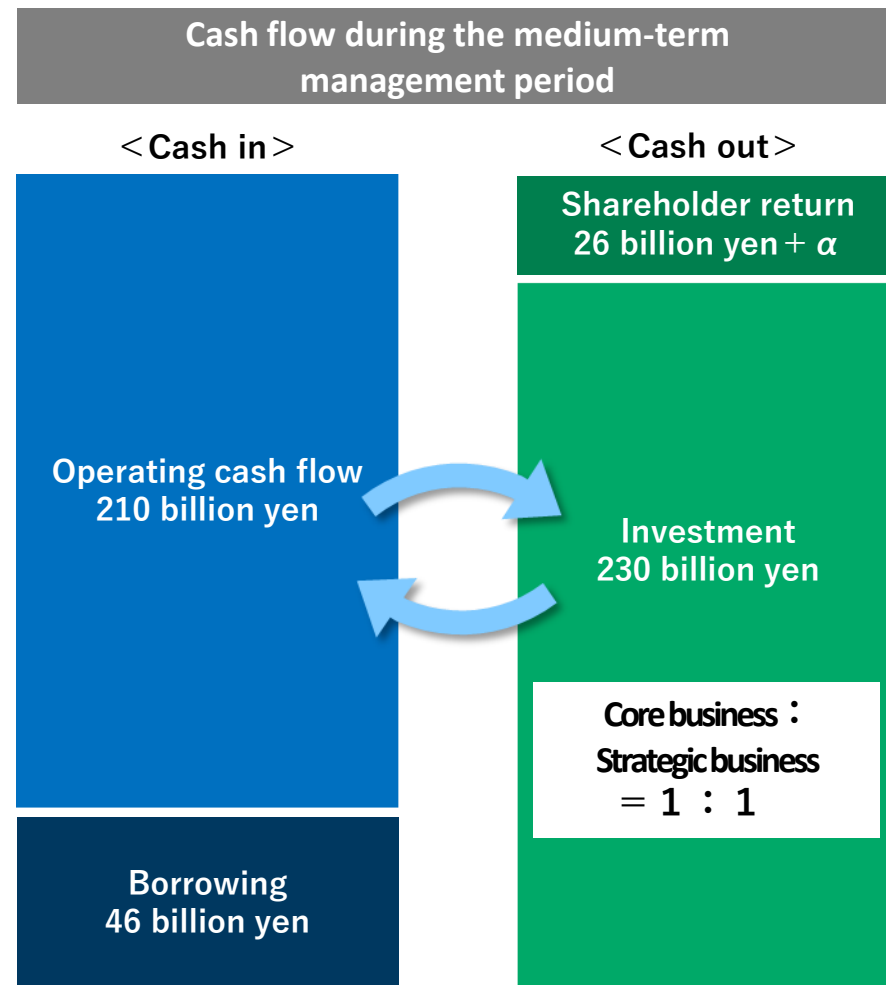
Management Index		Management Goal
Profitability	Operating cash flow	210 billion yen and over (Cumulative total from FY2022 to FY2025)
Efficiency	R O A	About 3%^{*1} > WACC ^{*2} (FY 2025)
Soundness	Debt to Equity ratio	About 0.6 (FY 2025)

*1 Consolidated ordinary income for FY2025 is approximately 25 billion yen

*2 WACC = Cost of capital: Mid 2%

Shareholder return policy

Based on stable dividends, we will combine flexible acquisition and cancellation of treasury stocks and deliver shareholder returns approximately 40 to 50% of the current net income over the medium to long term





Earning forecasts and other forward-looking statements in this document are management's current views and beliefs in accordance with data currently available, and are subject to a number of risks, uncertainties and other factors that may cause actual results to differ materially from those projected.