

Tokyo Gas Group FY 2020 - 2022 Medium-term Management Plan

Contents			
1-1.	Introduction		
1-2.	Environmental awareness		
1-3.	Objectives to be achieved for stakeholders		
1-4.	Overview of the Medium-term Management Plan		
2-1.	Key Strategy (1) Evolution of customer solutions		
2-2.	Key Strategy (2) Expansion of LNG business		
2-3.	Key Strategy (3) Acceleration of overseas business		
2-4.	Key Strategy (4) Shaping of Net-Zero CO ₂		
3.	Strengthening of business foundation (1) Implementation of cost structure reform (2) Continuation of DX (3) Establishment of flexible organization towards changes		
4.	Key figures		
5.	Cash flow allocation plan and shareholder return policy		

March 25, 2020

Tokyo Gas Co., Ltd.

[Revised on September 29,2021 (Shareholder return)]

1-1. Introduction

In "Compass 2030" management vision established in November 2019, Tokyo Gas Group specified three goals for 2030: Leadership in the effort to achieve Net-Zero CO₂ emissions, establishment of a value co-creation ecosystem, and transformation of the LNG value chain.

This Medium-term Management Plan (hereinafter referred to as the "Midterm Plan") has been from FY 2020 to FY 2022 to outline the activities to be conducted in order to achieve the vision. Despite the recent difficult circumstances, we will work to make steady progress toward that objective, and to firm up our business foundation for future growth and expansion, based on a recognition of the changes in the business environment in terms of decarbonization, digitalization, diversification of customer, and energy market deregulation.

Will mainly focus on the followings nationally and globally.

- (1) In terms of gas, electricity and services, we will increase competitiveness in the gas segment by means of thorough efficiency measures (cost structure reform: JPY 30 billion reduction compared to 2019). In the electricity segment, we will balance sales promotion with measures to increase efficiency. In the services segment, we will expand them using skills and expertise in the areas of engineering, real estate and liquid gas. The combination of the three efforts will enable us to collaborate with business partners to respond to customer needs over a wider area that is not limited to the Tokyo metropolitan area.
- (2) With regard to liquefied natural gas (LNG), one of the Group's strengths, we will shift from viewing LNG as a raw material of gas and electricity delivered to our clients to viewing it also as "product." Increasing the flexibility and competitiveness of our procurement portfolio, we will work to expand our LNG operations through asset-backed trading, and through terminal operations that are integrated with overseas LNG demand.
- (3) Through the activities above, we will continue promotion and expansion of natural gas to help with current decarbonization efforts. In addition, preparing for the Net-Zero CO₂ emissions society in the future, we will acquire renewable power resources and commence a new energy services that combine natural gas and renewable energies. We will also to innovate new technologies such as hydrogen production.

Through these activities, we will achieve JPY 140 billion in profit in FY 2022 and will continue to provide shareholder returns comprising a total return ratio of approximately 50%.

1-2. Environmental awareness

- During the period of the Midterm Plan, we will see the steady progress in the areas of decarbonization, digitalization, diversification of customer, and energy market deregulation.
- The company will experience increased adverse pressure on the revenue and expenditure balance due to the switching of gas contracts and other factors. In addition, the legal unbundling of the Pipeline Network Division, which accounts for roughly 30% of total assets and employees, is a trigger to transform the entire group structure.

Business environment for Tokyo Gas in 2020-2022

Decarbonization

- In response to the Paris Agreement and the IPCC* 6th Assessment Report, etc. **specific activities will be accelerated**, such as increase of local governments and corporations working on demonstration projects and vision formulation in preparation for joining the RE100 initiative and decarbonization.
- While the increasingly widespread use of renewable energy worldwide and the efforts in Europe and elsewhere to seek nonfossil fuel sources, demand for natural gas will increase, primarily in Asia due to its stable supply, economic efficiency and environment-friendliness.

Digitalization

- With the development of 5G for commercial use, there will be an even greater demand for the convenience **offered by digital operations**, and companies that can respond to this demand will increase their presence and influence.
- Conversely, there will be a reassessment of the value that can be provided only through human intermediation, and competition by means of **the fusion of digital and physical operations** will intensify.

Diversification of customer

- In addition to **smart cities and sustainability**, in urban areas, there will be active efforts **to achieve resilience** in the face of frequent natural disasters.
- With the increase in the number of prosumers * 2, including users of photovoltaic power generation systems with expired FIT, **customers will change** their ways to use energy such as captive consumption with storage batteries.

Energy market deregulation

- There will be increased privatization of publicly owned gas operations (Sendai City Gas, etc.), and with the likelihood of increased competition and LNG oversupply, **legal unbundling** may provide an opportunity for industry restructuring.
- The shift to renewable energies and the introduction of distributed energy systems will progress further due to revision of the Electricity Business Act and the establishment of new types of electric power markets.

^{*} Intergovernmental Panel on Climate Change ** Consumers who are also producers (e.g. consumers who own home generators and sell power to the grid)

1-3. Objectives to be achieved for stakeholders

_	
Customers	 We will meet the diverse lifestyle and business needs of individual customers through highly efficient gas business and electric power business that combine centralized and distributed power sources, and services with our strengths. We will provide Tokyo Gas Group energy and solutions throughout a wide area that is not limited to the Tokyo metropolitan area. Without causing any inconvenience to our customers, we will smoothly proceed with the legal unbundling of the Pipeline Network Division in April 2022, and will continue to strive to ensure stable supply and safety.
Society	 We will work to reduce CO₂ emissions globally through promotion, expansion and effective use of natural gas. Through the combination of natural gas and renewable energies in the smart energy network, such as virtual power plants (VPP), we will help to achieve sustainable and highly resilient lifestyles and communities.
Business partners	 By combining the products and digital technologies possessed by business partners with our engineering skills and business relationships, we will work together to co-create and provide new solutions. Through open innovation of hydrogen manufacture, such as CCUS* and other new technologies, together we will play a leading role together with business partners in achieving Net-Zero CO₂ emissions.
Shareholders	 We will strive to achieve cost structure reform through a review of our operations and organization, including the use of digital technologies, and will create resources for future growth and maintain shareholder return comprising a total payout ratio of 60% during the period of the Midterm Plan. In addition to financial information, we will proactively disclose non-financial information relating to Net-Zero CO₂ emissions and other environment, social, and governance (ESG) activities.

1-4. Overview of the Medium-term Management Plan

- In preparation for future growth and expansion, we will establish the following as key strategies: (1) Evolution of customer solutions (2) Expansion of LNG business (3) Acceleration of overseas business (4) Shaping of Net-Zero CO₂.
- We will strive to (1) Implement cost structure reform (2) Continue the digital transformation (DX)* and (3) Build a
 flexible organization towards changes in order to change the revenue and expenditure structure, create resources for
 future growth and also strengthen our business foundation.

3 goals of Compass 2030

Challenge 1

Leadership in the effort to achieve Net Zero CO₂

Challenge 2

Establishment of a value co-creation ecosystem

Challenge 3

Transformation of the LNG value chain

Key strategies

(1) Evolution of customer solutions

Provide energy and services based on a business model that fuses digital and physical operations.

(2) Expansion of LNG business

Use assets to provide LNG with increased value as a product to utility and other customers both at home and abroad.

From the Tokyo metropolitan area to other parts of Japan

(3) Acceleration of overseas operations

Utilize accumulated strengths and achievements to provide customers in other parts of Asia and elsewhere with solutions aimed at achieving effective use of natural gas.

To other countries

(4) Shaping of Net-Zero CO₂

Offer solutions that optimize natural gas and renewable energies, and seek new technologies that hold promise for the future

Strengthening of business foundation

- (1) Implementation of cost structure reform
- (2) Continuation of DX*
- (3) Establishment of a flexible organization towards changes

^{*} DX: Digital transformation. The use of data and digital technologies to transform products, services and business models based on customer and societal needs, and also transform work operations themselves as well as organizations, processes, and corporate culture and climate.

2-1. Key Strategy (1) Evolution of customer solutions

- Through a business model that fuses digital and physical operations, we will provide an improved customer
 experience to meet increasingly diverse customer needs, and achieve increase of the number of customer
 accounts and improvement of profitability.
- To provide gas, electricity and services widely, we will deploy a second brand especially designed for digital
 operations, and build a new business model by collaborating with our business partners.

Main activities in FY 2020-2022

2022 KPI

Restructuring of the retail sector

- Prioritize operations to balance improved customer service with more efficient sales costs.
- •Carefully examine and abolish tariffs and operations in order to create menus that are easy for customers to choose.
- •Reassess and improve the quality of customer contact activities (increasing speed by the use of tech in the operation of reception and task allocation and make preparations for the use of electronic billing).

Promotion of electric power sales based on a new approach

- Conduct business development that is not limited to the existing areas by employing a second brand.
- Expanding business areas with electricity as a foothold for customers who do not have gas contracts or who have potential service needs.
- •Establish a Hinatao Energy Co., a second brand that is especially designed for internet sales of electricity and gas in order to provide a menu of various services that can meet the wide-ranging needs of primarily digitally oriented customers.

Establishment of a business model utilizing the "last one mile" and the use of digital technology

- Provide a new customer experience by using digital technology and equipment-related strengths.
- •In addition to conventional appliance sales centering on face-to-face contacts, collaborate with e-commerce companies as well to establish installation and maintenance services, etc. for customer appliances and systems ("last one mile") so as to meet customer needs that include electricity and plumbing.
- •Create new solution menus beginning with photovoltaic power generation services for homes and businesses and gas appliances and home equipment services with fixed payment that include installation and maintenance (Sumilena).
- Provide an improved customer experience, by working with business partners as well as using AI to provide each customer with optimized menus of services to match needs of each customer.

No. of customer accounts
(total no. of contracts for gas, electricity and services)
2019 forecast
12.2 million⇒

14.8 million

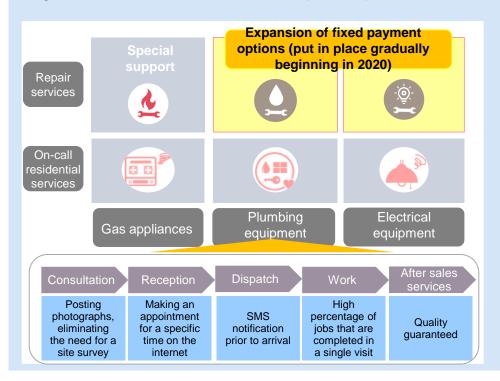
Of that amount, electricity 2.4 million⇒

3.8 million

2-1. Key Strategy (1) Evolution of customer solutions (examples of activities)

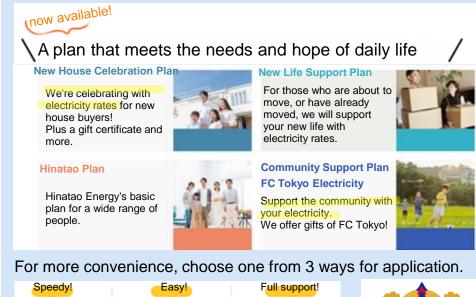
Expand "last one mile" services

- Expand services to include providing solutions for customer problems in daily lives for not only gas appliances but also electrical equipment, plumbing equipment and so on.
 - Example) The following special support for gas appliances will be added in FY 2020. (1) Air conditioner repair options (2) Plumbing and electrical equipment repair options. The menu of services will be steadily expanded in the future as well.
- We will provide services that are carefully designed to maximize customer satisfaction, by means of high productivities achieved by thorough standardization and digitalization of workflows from receipt of inquiries.



Energy second brand by Hinatao Energy

- Hinatao Energy commenced business in March 2020.
- Hinatao Energy will continue to expand the number of options that provide pinpoint solutions for customer needs and lifestyles.
- Web-based communication reduces the time and trouble required for customer procedures and inquiries.



Concierge

Support Course

https://www.hinatao.co.jp/

Smart Phone

Application Course

reading slip

Easy Online

Application Course

FC Tokyo Electricity

2-2. Key Strategy (2) Expansion of LNG business

- We have seen LNG as a raw material for gas and electricity business, but we will reassess LNG as a product that
 provides value to customers. Though establishing a new company, we will grow a LNG trading to a mainstay for
 the Tokyo Gas Group.
- As LNG demand continues to increase worldwide, we will optimize LNG supply and demand by utilizing the Tokyo
 Gas Group assets and deepening cooperation with other companies in order to expand both transaction volumes
 and profits.

Main activities in FY 2020-2022

2022 KPI

Expand LNG trading

■ Use assets and collaborate with other companies to pursue transaction opportunities.

•Cooperation with Centrica, RWE and other business partners will provide flexibility with respect to procurement and sales contracts and expand LNG swap* transactions that utilize ships, LNG terminals, thermal power plants and other assets. * Transactions in which the price differential is determined in accordance with LNG time, heat quantity and location.

Strengthen operational structure

■ Optimize supply and demand to expand LNG transaction volumes and increase profits.

- •Formulate and promote a comprehensive strategy for accommodating LNG supply and demand, and upgrade operational functions for gas and power source procurement, LNG transactions and so on (by establishing a new Asset Optimization & Trading division).
- •Establish a new company for LNG trading to ensure agile transactions.

Conduct procurement to help expand LNG business

■ Achieve a flexible and competitive LNG procurement portfolio.

•Meet the diverse needs of domestic gas and electric power customers (mainly industrial users and power generation use), and domestic and foreign utilities.

Natural gas transaction volume 2019 forecast 16.7 million tons

⇒17 million tons

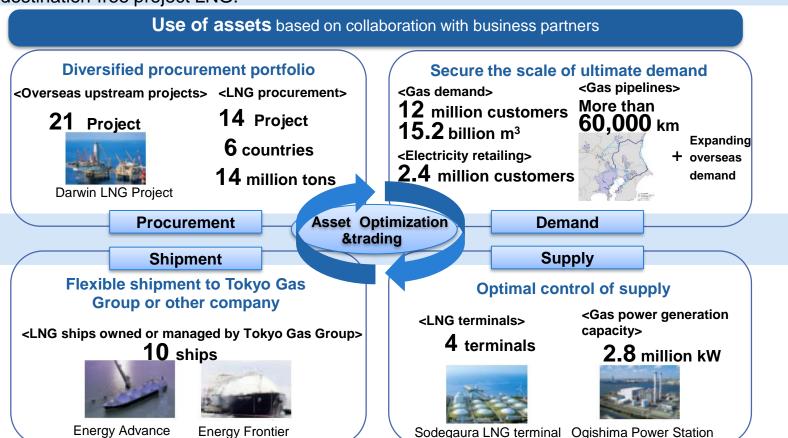
(including overseas business)

2-2. Key Strategy (2) Expansion of LNG business (examples of activities)

Expand asset-backed trading

LNG

- Working with business partners, we will use digital technologies to achieve an optimal combination of the strengths
 of existing assets in the LNG value chain such as LNG transactions, LNG ships, receiving terminals and so on in
 order to expand LNG transaction volumes.
- In addition, we will expand demand by providing shipping and other operations that constitute our strengths as an added value for LNG transactions.
- •We will also reduce costs by increasing LNG transport efficiency through location swap, using the Tokyo Gas Group fleets and destination-free project LNG.



Establishment of network with business partners

(Centrica, RWE, Kansai Electric Power, Kyushu Electric Power, etc.)

Note: Figures are for FY 2019 Forecast.

2-3. Key Strategy (3) Acceleration of overseas business

- Using our accumulated LNG strengths and achievements, we will focus on LNG infrastructure business
 development in Asia where the demand for natural gas is increasing. We will also work to expand the scale of
 renewable power generation and increase the value of natural resource development business.
- We intend to conduct "growth engine type investment" where we invest in business corporations and get involved in the management. We will use the management resources of invested-in companies to quickly expand business and increase value.

Main activities in FY 2020-2022

2022 KPI

Development of LNG infrastructure business

[Asia]

Expansion of scale of renewable energy power generation

[North America and Europe]

- Secure LNG demand and develop new LNG terminals in an integrated manner.
- Participate in LNG infrastructure study to discover and develop new projects in each country from the master plan stage.
- •Conduct integrated development of LNG terminals and gas power generation business (LNG to Power), utilizing the strengths and achievements of LNG user's know-how cultivated in the course of conducting domestic gas operations.

■ Expand scale by using business expertise.

- •Acquire development and business management knowledge through collaboration with Engie in Mexico and deploy this knowledge in North America and Europe.
- Participate in the management of renewable energy development operators, with involvement from the initial stages of development, in order to improve profitability.

Overseas segment profit 2019 forecast JPY 12.5 billion

⇒ JPY 16 billion

Increase the value of upstream business

[North America]

■ Increase profits by using the resources of invested-in companies.

• Participate in the management of shale gas business corporations and take a leading role through refinancing and the expansion of interests to increase asset efficiency.

2-3. Key Strategy (3) Acceleration of overseas business (examples of activities)

Develop new LNG terminals

- Collaborate with Petrovietnam Power Corporation (PVPower), the largest IPP operator in Vietnam, to promote the development of LNG to Power projects.
- ·Work with First Gen, the largest natural gas customer in the Philippines and a power generation company of the Lopez Group, to construct and operate LNG receiving terminals.

Signing of a letter of intent to develop LNG to Power projects (January 2020)

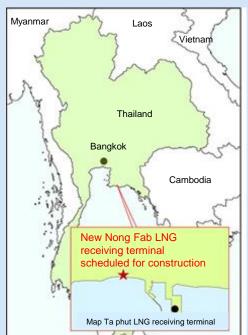






Deploy LNG engineering that utilizes user's know-how

- Tokyo Gas Engineering Solutions is highly recognized for its good amount of experiences and advanced technological capabilities. The company has been contracted for projects in 18 countries.
- In addition to feasibility studies, basic design, project management and consulting with regard to LNG terminals, the company will aim at receiving the order of projects for engineering, procurement, and construction (EPC), primarily in Asia.







Signed a deal to provide PMC services for the construction of an LNG receiving terminal at Nong Fab in Thailand (January 2018)

2-4. Key Strategy (4) Shaping of Net-Zero CO₂

- To achieve Net-Zero CO₂ emissions, we will expand the scale of virtual power plants (VPP) in order to develop a power business that integrates both renewable energies and natural gas.
- We will also make use of investment in domestic and foreign companies that possess new technologies in order to explore technologies that can aid in decarbonization and pursue innovation of these technologies.

Main activities in FY 2020-2022

2022 KPI

Develop solutions that combine renewable energies and natural gas

- Balance the effective use of natural gas with expand of renewable energies and VPP.
- Utilize digital technologies to combine thermal power, renewable energy and other centralized power sources with photovoltaic power, storage battery, chp and other distributed power sources to consolidate diverse customer resources and expand the scale of VPP.
- Participate in photovoltaic power, biomass and wind power projects from the initial stages of development and insource operation and maintenance to expand scale while increasing business profits.
- Pursue development of offshore wind farms in Kashima and other promotion zones and take on the challenge of floating structures that have great development potential.
- •Make effective use of natural gas through advancing smart energy systems and energy services that have a proven track record at Nihonbashi Muromachi and Kiyohara Industrial Park and so on.

■ Acquire technologies for CO₂ emissions reduction, capture and use, and zero emissions.

- Promote technical development by using technologies and expertise accumulated through fuel cell development and the like.
- Develop commercially viable fuel cells with the world's highest power generation efficiency (65%).
- Conduct demonstration tests and begin services regarding CO₂ capture and use systems in redevelopment areas and at factories.
- Develop the core element technologies for hydrogen production systems.
- Pursue innovation through collaboration that includes investment in companies that possess renewable energy, CCUS and other new technologies.

Contribution to CO₂ emissions reductions FY2019 forecast 5 million tons

⇒6.5 million tons
(as compared to FY 2013
levels, including contribution
at customer site)

Renewable energy transaction volume FY2019 forecast 590,000 kW

⇒2 million kW

(domestic and international, including purchases)

Natural gas transaction volume (reposted)

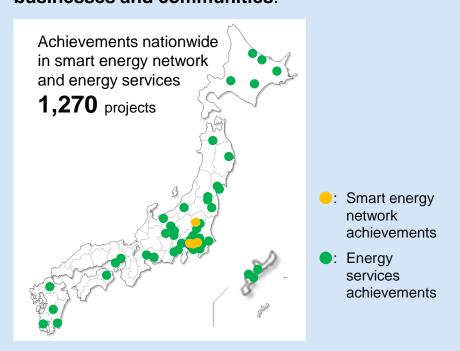
17 million tons

Developing and commercialization of new technologies by utilizing open innovation

2-4. Key Strategy (4) Shaping of Net-Zero CO₂ (examples of activities) Deploy smart energy network and energy services

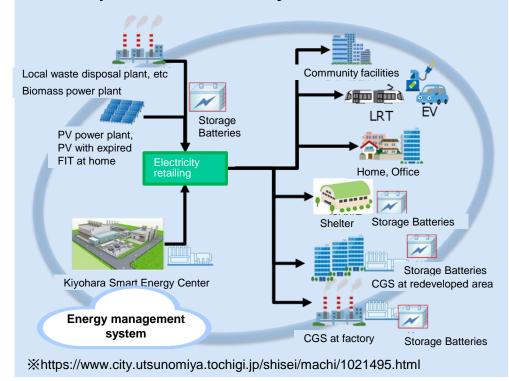
nationwide

- We will propose to supply local governments and companies which have branches nationwide with energy service in redevelopment areas and fuel conversion, etc. at factories, not only in the Tokyo metropolitan area but in various other areas as well.
- We will combine photovoltaic power generation, EV, storage batteries, carbon offset power and so on with cogeneration systems as well as making use of IoT for optimal control and operation of facilities in order to help create more sustainable and resilient businesses and communities.



Energy management in preparation for creation of **Utsunomiya Smart City**

 In preparation for the Smart City concept* being promoted in Utsunomiya City, with the operation of the Kiyohara Smart Energy Center by Tokyo Gas Engineering Solutions, we will aim to realize energy management which includes supplying low CO2 electric power that will have been combined with the renewable energy from a local waste disposal plant and conducting optimal power interchange using storage batteries and the like, as well as optimal use of the power distribution system.



3. Strengthening of business foundation (1) Implementation of cost structure reform (2) Continuation of DX (3) Establishment of a flexible organization towards changes

- Implement cost structure reform to generate growth resources that can be allocated to key strategies.
- Continue to implement digital transformation (DX) in order to increase operational efficiency, improve the customer experience and increase resilience.
- Take action with regard to the legal unbundling of the Pipeline Network Division and other changes within and outside
 the Group, and reassess organization, governance and personnel to increase the engagement of the Group overall.

Main activities in FY 2020-2022

2022 KPI (compared to 2019)

Implementation of cost structure reform

■ Conduct a drastic review of operations and mechanisms.

- •Reduce the workload by simplifying increasingly complex gas fees and IT systems.
- •Review (with no exceptions) in-house criteria and operations based on appropriate quality.
- •Reduce costs by means of procurement reform achieved through value engineering* and crystallization of business operations.
- *A systematic method for maximizing the value per cost of products and services (in terms of function, performance, degree of satisfaction, etc.).

Continuation of DX

■ Increase operational efficiency, improve the customer experience and increase resilience.

- Increase operational efficiency through prediction and optimization based on AI and data.
- Increase customer convenience by making services available online, and by offering optimized proposals and so on, based on understanding of the customer.
- Make use of digital technologies to build a system that achieves a balance between ensuring safety/stable supply and achieving low costs.
- Increase meter reading efficiency and build a system that is capable of rapid restoration in preparation for the comprehensive introduction of smart meters.

Establishment of a flexible organization towards changes

■ Take steps regarding legal unbundling and review the organization, governance and personnel.

- Implement thorough preparations for legal unbundling (introduce a pipeline network company in 2020 and establish a new company in 2022).
- Reassess Group governance in the light of heightened expectations for the role of subordinates (in addition to the new pipeline company, a new business company owned by Tokyo Gas Liv Solutions and a new trading company will be established).
- Welcome and train diverse personnel, and create the mechanisms and corporate culture needed to take on challenges.

Cost structure reform

JPY **30** billion reduction

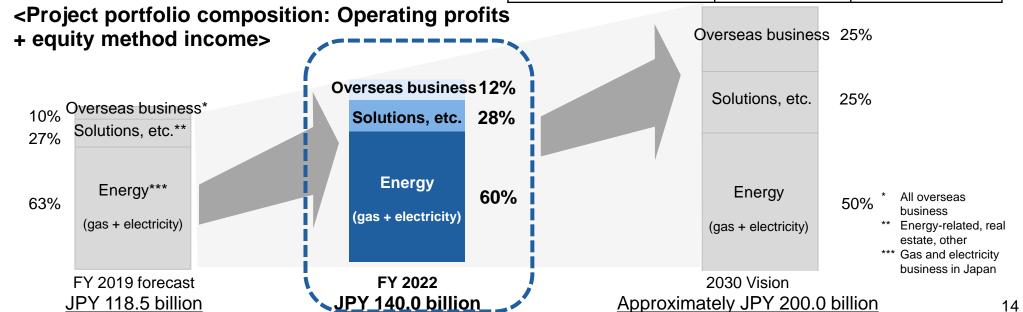
4. Key figures

 We will achieve operating profits + equity method income of JPY 140.0 billion in FY 2022 through a balance between cost structure reform (primarily in the gas business), the expansion of electricity, solutions, etc., and investment in growth.

KGI	FY 2019 forecast	FY 2022	
Operating profits + equity method income	JPY 118.5 billion	JPY 140.0 billion	
Financial indicators	FY 2019 forecast	FY 2022	
ROA	3.1%	Approx. 4%	
ROE	6.6%	Approx. 8%	
D/E ratio	0.78	Approx. 0.9	

Note: Forecasts at time of 3Q results

KPI	FY 2019 forecast	FY 2022
No. of customer accounts (as of the end of FY)	12.20 million	14.80 million
Natural gas transaction volume	16.70 million tons	17.00 million tons
Segment profit from Overseas Business	JPY 12.5 billion	JPY 16.0 billion
Contribution to CO ₂ emission reductions (as compared to FY 2013 levels)	5.0 million tons	6.50 million tons
Renewable energy transaction volume(as of the end of FY)	590,000 kw	2.00 million kw
Cost structure reform (compared to FY2019)	-	JPY 30.0 billion cut



5. Cash flow allocation plan and shareholder return policy

 Using as a primary resource cash flow extended by cost structure reform and increase in sales, we will invest in future growth while maintaining the balance of asset efficiency, fiscal health and shareholder return.

■ Cash flow allocation (total for three years)/

<u>Cash in</u>	Cash out
Consolidated operating cash flow JPY 900.0 billion	Capital investment JPY 600.0 billion
	Loans and investment JPY 400.0 billion
Outside borrowing, etc. JPY 250.0 billion	Shareholder return JPY 150.0 billion

Breakdown of capital investment and loans and investment

- Overseas business (renewable energy, upstream and LNG infrastructure): JPY 200.0 billion
 Includes JPY 110.0 billion of renewable energy (Total renewable energy including domestic comes to JPY 140.0 billion)
- Solutions, etc.: JPY 200.0 billion

Real estate: JPY 80.0 billion

Energy services and district heating and cooling: JPY 70.0 billion

New services: JPY 50.0 billion

• Energy: JPY 380.0 billion

Gas: manufacture and supply equipment JPY 320.0 billion

Electricity: renewable energy related investment JPY 30.0 billion thermal power and other existing equipment JPY 30.0

billion

Common: JPY 220.0 billion

DX (new services, customer information system): JPY 120.0 billion M&A: expansion of scale of electricity and gas businesses, upgrading of service lineup, acquisition of technology related to Net-Zero CO₂ emissions: JPY 100.0 billion

■ Shareholder return

Revised in red on Sep 29th,2021

- Distributable income will be applied to the improvement of customer services and to the achievement of a sustainable society, and also distributed to shareholders in a timely and appropriate manner.
- Acquisition of treasury stock for retirement will be considered as one way of providing shareholder return in addition to
 dividends, and targets for total return ratio (ratio of dividends on current consolidated net income and acquisition of own
 shares) will be approximately 50% in each fiscal year up through FY 2022.
- With regard to dividends, we will continue to provide stable dividends and will gradually increase dividends in accordance with growth while comprehensively taking into consideration the profit level over the medium- to long-term.

Supplementary reference: Profit planning by segment

(billion yen)

Segment	FY 2022 targets	Main activities	Reference: FY 2019 forecast * At time of 3Q results
Gas	108.0	Factor in increased depreciation costs and intensified competition while carrying out drastic cost structure reform and boosting LNG sales (trading).	109.1
Electricity	20.0	Achieve a balance between reducing marketing costs and increasing the number of accounts.	10.0
Overseas	16.0	Growth of upstream, midstream and downstream projects, primarily in North America.	12.5
Energy-related	16.0	Promote cost structure reform including making services for-profit.	14.5
Real estate	15.0	Take into account the full-fledged start of the Tamachi Project.	11.1
Other	10.0	 Promote cost structure reform and create profitability of M&A. 	6.3
Adjusted figures	-45.0		-45.0
Total for segment	140.0		118.5

^{*} FY 2019 3Q results frame: Oil price \$68.42/bbl、Exchange rate ¥109.00/\$ FY 2022 anticipated frame: Oil price \$60/bbl、Exchange rate ¥110/\$

TOKYO GAS GROUP