

Management Reform Initiatives of the Tokyo Gas Group in View of the COVID-19 Pandemic

*Some terms and expressions have been changed from the preliminary version posted on November 30, 2020.

November 30, 2020

Tokyo Gas Co., Ltd.

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※The red line in the document is initiatives to be announced for the first time.

The new coronavirus (COVID-19) has caused a major shock to our lives and society.

- The world is experiencing an unprecedented impact due to COVID-19, which is threatening the safety and security of our lives, which we had taken for granted.
- Under these circumstances, the Tokyo Gas Group has been making efforts to provide safety and security to customers under a belief that it must not stop the flow of energy, with maximum consideration for the prevention of infection of its customers and employees.

A rise in awareness toward a sustainable society and decarbonization will bring about a paradigm shift.

- Awareness toward a sustainable society has been rising rapidly as the continuation of our previous lives and social activities becomes difficult. In particular, the global trend toward decarbonization has gained further pace on the back of the green recovery movements, with the Japanese government announcing its goal of achieving Net-Zero CO2 emissions by 2050.
- We have hitherto contributed to the environment and society as an energy provider focusing on LNG. Going forward, we view these changes as a backdrop for our stakeholders to expect even greater contribution and roles of us, as well as an opportunity for us to broaden our business fields and geographic areas to achieve significant growth.

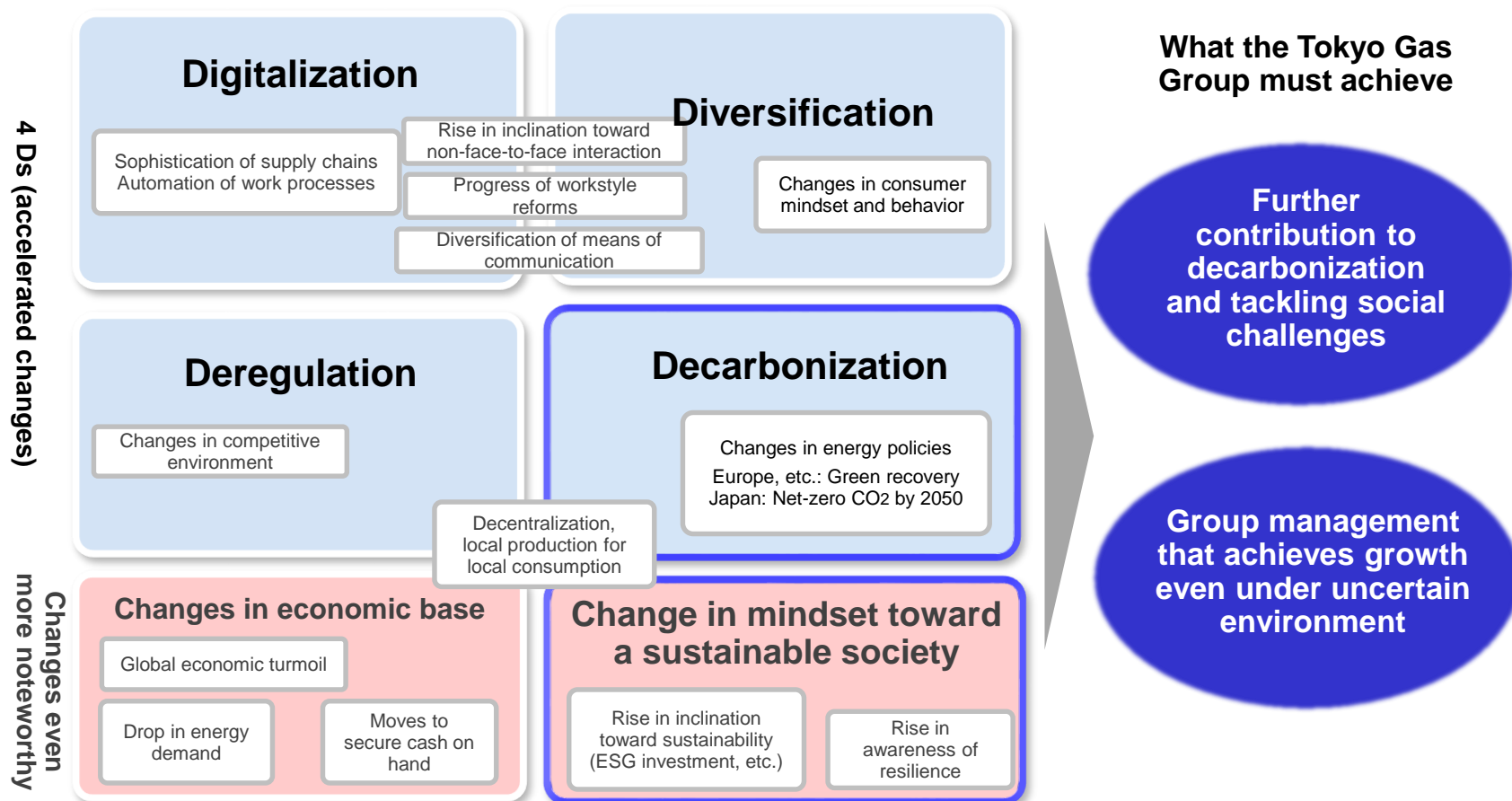
We will undergo a major transformation by placing further emphasis on ESG perspectives.

- To lead ourselves in this paradigm shift, we will add depth to business management that further places emphasis on ESG.
- We will position the acceleration of Net-Zero CO2 initiatives, in particular, as a priority issue that not only relates to the environment (E) but also to tackling social challenges (S), such as decarbonization and greater resilience. We intend to return the fruits of this initiative to our stakeholders by contributing to the realization of a decarbonized society and achieving sustainable growth of the Tokyo Gas Group through preferential allocation of resources to achieve Net-Zero CO2 emissions.
- In terms of governance (G), we will carry out a major transformation of the Group's organization structure, starting with a transition to a company with a Nominating Committee, etc., in order to achieve growth of the Group even under an uncertain business environment.

The Tokyo Gas Group is committed to grow together with the society as a whole even in an uncertain future.

- A further emphasis on ESG is nothing but an acceleration of the three challenges highlighted in Compass 2030, the Group's management vision (leadership in the effort to achieve Net-Zero CO2, establishment of a value co-creation ecosystem, and transformation of the LNG value chain).
- The Tokyo Gas Group will be committed to grow together with the society as a whole by accelerating the three challenges and contributing to the realization of a sustainable society.

- The direction of the environmental changes (the four “D”s) that we assumed when formulating Compass 2030 and the 2020–2022 Medium-term Management Plan has not changed, but the pace has accelerated due to the COVID-19 pandemic. In particular, the global **decarbonization trend** is developing at a speed far outpacing our expectations.
- A change that is even more noteworthy is the **rise in awareness toward a sustainable society** on the back of changes in the economic base, etc.
- What the Tokyo Gas Group must achieve in this environment is to **“further contribute to decarbonization and tackling social challenges”** and **“manage the Group so that it can achieve growth even in an uncertain environment.”**



- We will **add depth to business management with a further emphasis on ESG**, while continuing to focus on ensuring stable supply and safety of energy.
- By **“accelerating initiatives to achieve Net-Zero CO₂,” “tackling social challenges through value co-creation” and “carrying out Group formation reforms,”** we will **accelerate the “three challenges”** highlighted in Compass 2030 to achieve our Compass 2030 vision.
- We will continue to constantly expand our initiatives, by trial and error, to seek what the Group can do during the changing times.

Adding depth to business management with a further emphasis on ESG

E Environment

Accelerate Initiatives to Achieve Net-Zero CO₂

- (1) Reduce CO₂ emissions on a global scale
- (2) Develop and commercialize technologies related to the management of hydrogen and CO₂

S Society

Tackle Social Challenges through Value Co-creation

- (1) Create sustainable communities
- (2) Provide services that address various urban lifestyle issues

G Governance

Carry Out Group Formation Reforms

- (1) Carry out management reforms (Improve management quality and transparency)
- (2) Reform the Group's organizational structure (Improve the earning power of each function of the value chain)

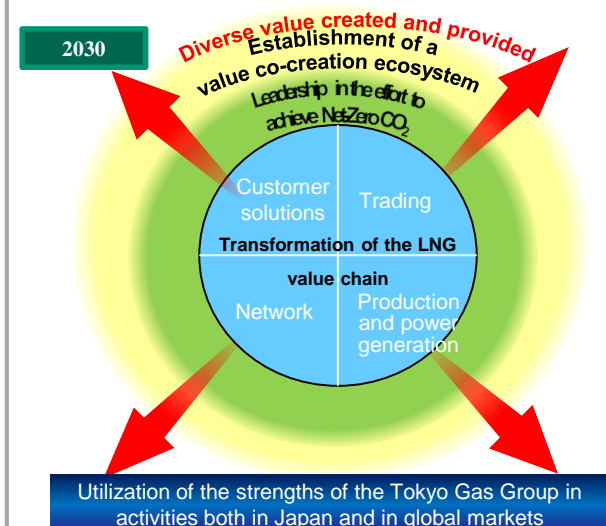
Acceleration and achievement of the three challenges

Three challenges of Compass 2030

Leadership in the effort to achieve Net-Zero CO₂

Establishment of a value co-creation ecosystem

Transformation of the LNG value chain



- We will **increase the introduction of renewable energy power sources by obtaining power sources and technologies in renewable energy** in Japan and abroad.
- Natural gas is a key energy source during the transition to decarbonization, which we expect to further incorporate toward the reduction of CO₂ emissions on a global scale. In addition to **increasing the effective use of natural gas**, we will make efforts to **promote the spread of carbon-neutral energy**.

Increase introduction of renewable energy power sources

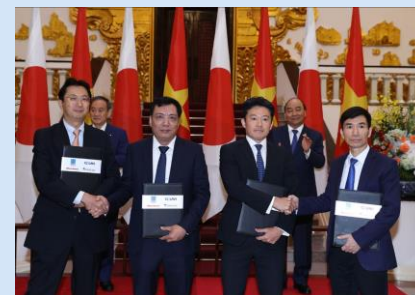
- We have **obtained renewable energy power sources (1.365 million kW) at a speed that outpaces our plan** through large investments in solar power generation in the U.S. and wood pellet biomass power generation in Japan.
- To promote the development of floating offshore wind power in Japan and abroad, we are **obtaining the necessary technologies**, such as by leveraging the floating system technology developed and owned by Principle Power, Inc. of the U.S. (invested in May 2020).
- We will aim to further acquire power sources and **roll out business** while assessing energy policies and economic trends.



Photo courtesy of Principle Power. Artist: DOCK90

Increase effective use of natural gas

- In order to increase the availability of LNG infrastructure in Southeast Asia, we will leverage the Group's strengths and track record to reinforce **cooperation with local partners and promote commercialization**.



MOU signing ceremony with Petrovietnam, Vietnam's largest IPP operator (Oct.)

Promote the spread of carbon-neutral energy

- We plan to establish an organization aimed at further diffusion of carbon-neutral LNG.
- We commenced handling of "effective renewable energy electricity using FIT non-fossil fuel energy certificates." (July 2020)



Hotel New Otani (Tokyo)

Commence supply of carbon-neutral city gas*1 to CGS*2 adopted by the New Otani (Oct.)

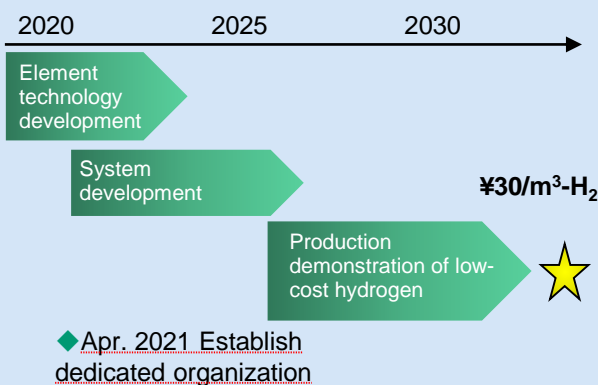
*1 Carbon neutral city gas: City gas derived from LNG deemed not to generate CO₂ on a global scale due to offsetting greenhouse gas produced in the process between drilling and burning with CO₂ absorbed through efforts at another place (carbon offsetting)

*2 CGS: Cogeneration system

- We will take leadership in initiatives to achieve Net-Zero CO₂ by seeking even more early development of **technologies for decarbonization of gaseous energy** such as by establishing a dedicated organization in Apr. 2021 to reduce hydrogen production costs and enhance the development of technologies for managing CO₂ (CCUS*1)

Reduce hydrogen production costs

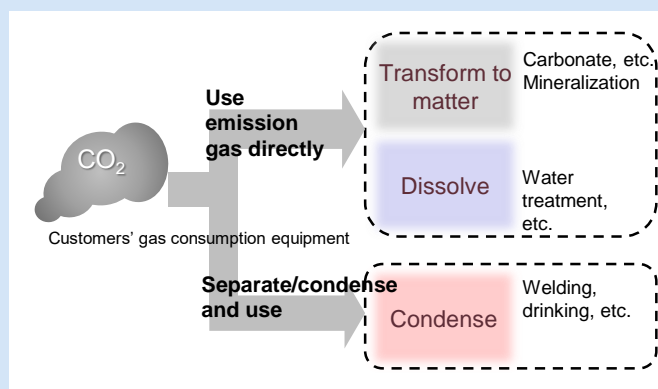
- Going forward, we will focus on developing hydrogen technologies that can also be applied to methanation. **We will accelerate low-cost development of water electrolyzers** leveraging technologies and knowhow gained in the development of fuel cells.
- We will aim to start demonstrations by the mid-2020s toward the government's goal (¥30/m³-H₂@2030).



Develop the technologies for managing CO₂

■ CCUS at customers

- We will accelerate the **development** and commercialization of **technologies** that collect and utilize CO₂ emitted by customers.
- We will aim for commercialization by FY2023 through joint demonstrations with customers.



■ Microbubble

- We co-developed **with RITE *2 a microbubble technology**, which turns CO₂ into microbubbles, enabling to be stored underground efficiently.
- We have carried out demonstrations at EOR (enhanced oil recovery) sites in Japan and abroad.



[Source] RITE lecture materials

*1 CCUS: Carbon dioxide Capture, Utilization and Storage *2 Research Institute of Innovative Technology for the Earth (RITE)

- We will **expand services and solutions that offer sustainability and resilience value**, in view of not only the ensuring of a stable supply of energy but also of frequent natural disasters and the COVID-19 pandemic.
- We will contribute to local communities by addressing the need for local production for local consumption and decentralization through the optimal use of heat and electricity.

Create communities with heightened resilience and environmental performance

- We will contribute to a dramatic improvement of disaster prevention capabilities of cities and the creation of eco-friendly and comfortable communities in a wide area through the **expansion of a distributed energy system and smart city**, which enables more accurate management of heat and electricity using ICT.

(Specific examples)

- We founded Ekimachi Energy Create Co., Ltd. (April, 2020) with the JR East Group to create a community that incorporates advanced environmental and energy technologies in the Shinagawa Development Project. (Left)
- Together with Mitsui Fudosan, we installed an energy plant in Yaesu 2-Chome that supplies electricity* and heat to surrounding areas. (Right)



Perspective drawing of Shinagawa development project (Courtesy of JR East)



Perspective drawing of Yaesu 2-Chome North District (Courtesy of Mitsui Fudosan)

* Our third initiative with Mitsui Fudosan after the Nihonbashi and Toyosu areas as a specified power transmission and distribution operator, which transmits and distributes electric power to outside development districts

Overseas development

- We will also contribute to providing solutions to overseas regional challenges through redevelopment projects with heightened sustainability and resilience leveraging the Group's knowhow.

(Specific examples)

- Tokyo Gas Engineering Solutions Corporation plans to launch a district cooling and power distribution business to supply the One Bangkok redevelopment project in Thailand through Bangkok Smart Energy Co., Ltd., in which it has a stake.



Perspective drawing of One Bangkok, Thailand

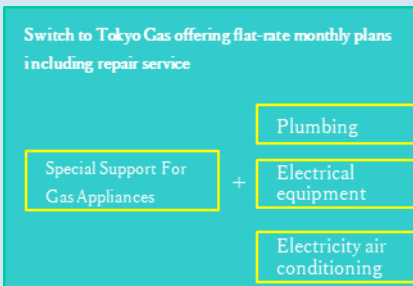
5 S: Society Tackle Social Challenges through Value Co-creation (2) Provide solutions for Various Urban Lifestyle Issues

- We will address various urban lifestyle issues, such as the aging and declining population, the increase in single-person households, and too much density of buildings.
- We will further enhance the value of services unique to Tokyo Gas that can only be provided by man, because of the very fact that digitalization is accelerating, as well as utilize digital tools to reduce customers' hassle and save time with the aim of **being relied upon as a company that provides solutions for customers' problems in daily lives.**
- We will expand services that facilitates the introduction of renewable energy, such as solar power energy services, to offer environmental value to urban daily life and business.

Provide solutions for problems in customers' daily lives

■ Improve value of services provided manually

- We have expanded the range of services to plumbing, in which customers often experience problems, in addition to gas equipment. We plan to expand services to housekeeping and housework support.



Launched optional services for electricity equipment and plumbing in "Special Support For Gas Appliances" (Oct. 2020)

■ Improve convenience by leveraging digital tools

- We will improve customer satisfaction by accumulating and analyzing customer data to improve work quality, reduce customers' hassle and save time.
- (Specific examples) *Trials in FY2020
- For requests of repairs, we analyze and forecast the necessary work from the information received to improve the completion rate in one visit.
 - We obtain and aggregate the results of service users' recommendation assessment (scale of 1 to 11) on a timely basis and utilize them to improve workers' skills and service specifications.

Diversify energy services and expand service areas

■ Expand solar power energy services

- We will offer services that facilitate introduction of renewable energy to a broad range of customers, including factory, detached house, condominium and building customers through a third-party ownership model* for solar power generation.
- Factory customers: Solar Advance (Tokyo Gas Engineering Solutions)
 - Detached house customers: Always Solar (Tokyo Gas)
 - Condominium & building customers: Hinatao Solar (Hinatao Energy)



Launched Hinatao Solar, a service for condominiums and buildings (Oct. 2020).

*The Tokyo Gas Group installs solar power generation equipment on the roof of customers' buildings or in their premises and supplies the generated electricity to those customers

- Based on the spirit of “challenge and innovation,” which we have long fostered, we will aspire for corporate governance that leads the energy industry and **carry out management reforms**.
- We will transition from a company with an Audit & Supervisory Board to a company with a Nominating Committee, etc.,** in June 2021 to reinforce the supervisory functions of the Board of Directors, such as by making key policy decisions and enhancing monitoring, and expediting executive decision-making.

Corporate governance reforms that lead the industry

- We will switch to a company with a Nominating Committee, etc.,^{*1} the first in the city gas industry.^{*2}
- We will reinforce the supervisory functions of the Board of Directors. (The Board will oversee the entire management and concentrate on making key policy decisions and monitoring.) We will significantly expand the range of delegation to executive officers to expedite decision-making.
- Management transparency will be further improved due to the establishment of a Nominating & Compensation Committee.

*1 67 companies listed on the Tokyo Stock Exchange are this type of company (as of Aug. 2020)

*2 According to Tokyo Gas's research (of general gas pipeline service providers)

<Image of a company with a Nominating Committee, etc.,>



Expanded range of delegation

Enhanced monitoring

Execution

History of enhancement of Tokyo Gas's corporate governance

- 2002 Introduced executive officer system, reduced number of directors
Began invitation of outside directors
- 2005 Established **Advisory Committee**
(Established voluntary committees on nomination and compensation to improve transparency)
- 2016 Formulated the **Basic Policy on Corporate Governance**
Began evaluation of effectiveness of Board of Directors
- 2017 Revised the Board of Directors Regulations
(Preference for a **monitoring model**)
- 2021 Transition to a **company with a Nominating Committee, etc.,**
(Establish a nominating, compensation and audit committee, the majority of members of which comprises outside directors)

<Reference> How the ratio of outside directors has increased

Jun. 2018: 3 out of 8 = 38%

Jun. 2019: 4 out of 9 = 44%

Jun. 2021: 50% or more (provisional)

- We will drastically change our “form” and “content” to expedite decision-making and improve the earning power of each function of the value chain, to achieve our Compass 2030 vision. We will develop a mechanism that enables the **autonomous growth** of business subsidiaries and internal companies in charge of businesses, leading to maximization of Group value.
- Viewing the establishment of a new pipeline network company in Apr. 2022 as an opportunity, we will **transition to a holding company system**, which consists of business subsidiaries and internal companies (quasi branch companies), and reform the Group's organizational structure.

Reform the Group's organizational structure

- At the occasion of the establishment of a new pipeline network company in Apr. 2022, we will **transition to a holding company system, which consists of business subsidiaries and internal companies (quasi branch companies)**.
- Leveraging the Group's unique connection of the LNG value chain, we will establish a mechanism that enables **autonomous growth of business subsidiaries and internal companies**.
- In Apr. 2021, we will establish an organization dedicated to promoting this reform.

<Mechanism that enables autonomous growth>

Delegation of authority to business subsidiaries and internal companies

We will achieve **agile decision-making that swiftly addresses changes in the market and customer needs** by **delegating authority according to the business characteristics** of business subsidiaries and internal companies.

A system focused on results

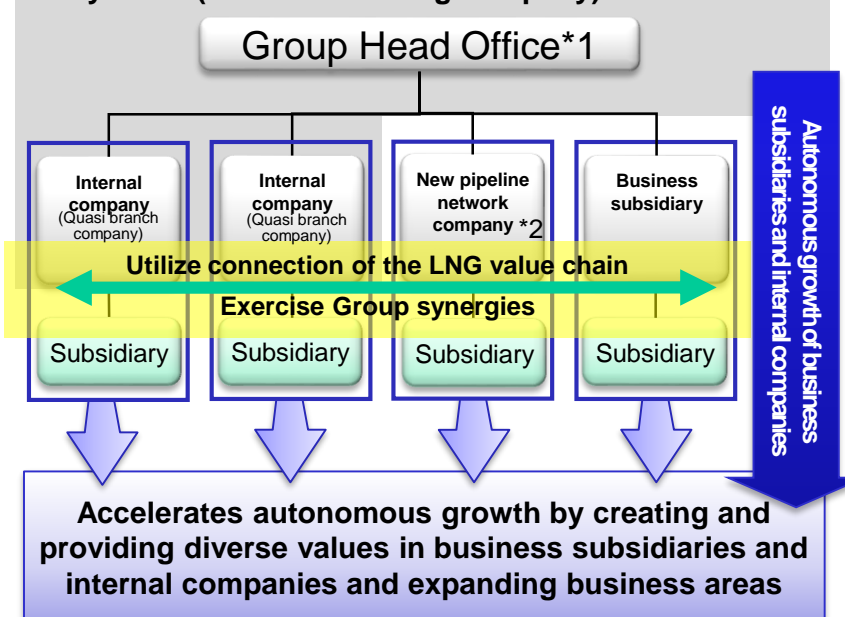
We will transform into an organization that focuses on **earning power and achievements** more than before by further reflecting the achievements of business subsidiaries and internal in the evaluation of top management.

Appointment of personnel based on the characteristics of business

We will **appoint and develop** personnel who will drive the growth of each business and the Group (management personnel, specialized personnel, etc.), including those from outside the Group.

Image of a holding company system

Tokyo Gas (business holding company)



*1 The group governance system will be developed by clarifying the roles (formulating Group's management strategies, allocating managerial resources, managing risks, etc.) of the Group Head Office

*2 Complies with conduct control of the Gas Business Act

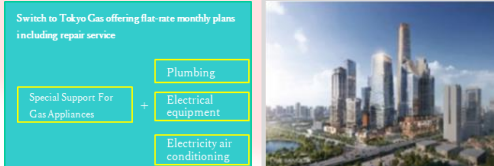
7 Toward the Achievement of Compass 2030

- The Tokyo Gas Group has been gaining steady results by carrying out its key strategies and strengthening its business foundation as defined in the 2020–2022 Medium-term Management Plan, all the while continuing to ensure stable supply and safety of energy even under the COVID-19 pandemic.
- It will achieve Compass 2030 by contributing to the creation of a sustainable society through the deepening of business management with a further emphasis on ESG. We will position the acceleration of Net-Zero CO₂ initiatives, in particular, as a priority issue that not only relates to the environment (E) but also to tackling social challenges (S), such as decarbonization.
- Based on these recognition, we will consider reviewing our shareholder return policy in order to allocate resources preferentially to areas related to Net-Zero CO₂, contribute to a decarbonized society and achieve sustainable development of the Group, while maintaining financial soundness.



Steady execution of the 2020–2022 Medium-term Management Plan

■ Evolution of customer solutions



■ Expansion of LNG business



■ Acceleration of overseas businesses



■ Specific initiatives to achieve Net-Zero CO₂



Photo courtesy of Principle Power. Artist: DOCK90

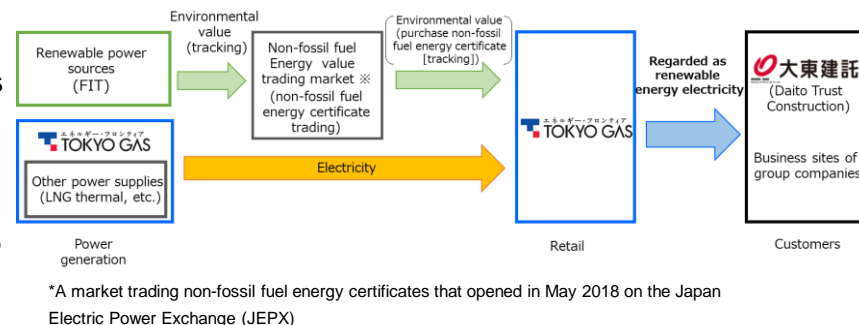
Reference 1: Progress of the 2020–2022 Medium-term Management Plan①

■ Investment in Principle Power of U.S. <May 2020>

Tokyo Gas invested in Principle Power, which developed and owns a floating system technology that has significant stability in various maritime conditions and is expected to be widely adopted by floating offshore wind projects around the world. Tokyo Gas will actively engage in the development of floating offshore wind projects inside and outside of Japan by utilizing the technology.

■ Launch of handling of Tokyo Gas's first effective renewable energy electricity using FIT non-fossil fuel energy certificates <July 2020>

Tokyo Gas began the handling of effective renewable energy electricity using FIT non-fossil fuel energy certificates with tracking, its first in electricity retail, and enters into an agreement with Daito Trust Construction Co., Ltd.



■ Acquisition of wood pellet biomass power generation business in Takaoka, Toyama and Ichihara, Chiba <Aug. 2020>

Tokyo Gas acquired Fushiki Manyofuto Biomass Power GK and Ichihara Yawatafuto Biomass Power GK (approx. 126 MW).

■ Consent to joint consideration of “FOURE Concept” <Oct. 2020>

With the aim of developing renewable energy and the regions together, Tokyo Gas consented to the “FOURE (Reciprocal and Regional Revitalization with Renewable Energy) Concept” with Osaka Gas Co., Ltd., Looop Inc. and Renewable Japan Co., Ltd.



Fushiki Manyofuto Biomass Power Plant

■ First issuance of green bonds by Tokyo Gas <Oct. 2020>

The green bonds, with a maturity of 10 years and total issuance of ¥10 billion, will be issued in December 2020.

The capital to be procured from this issuance are planned to be allocated to a renewable energy project in which the Tokyo Gas Group participates.

■ Investment in joint venture for offshore wind project in Chiba Prefecture <Nov. 2020>

Tokyo Gas joins Chiba Offshore Wind Inc. (shareholders: Northland Power Inc., Shizen Energy Inc.). Under the cooperation of the three shareholder companies, the joint venture will work on development projects with the aim of achieving promising area designation.

Specific initiatives
to achieve Net-
Zero CO2

Reference 1: Progress of the 2020–2022 Medium-term Management Plan②

Evolution of customer solutions

■ Establishment of Ekimachi Energy Create Co., Ltd. <Apr. 2020>

We founded the company with the JR East Group to create a community that incorporates advanced environmental and energy technologies in the Shinagawa Development Project.

■ Launch of a monthly fixed payment service for customers' daily lives by Sumilena, a venture firm established by Tokyo Gas <Jun. 2020>

Tokyo Gas offers a monthly fixed payment service that enables customers to use the latest housing equipment without spending a large amount of money.

■ Number of electricity retail customers exceeds 2.5 million <Sep. 2020>

■ Expansion of services of the special support for gas appliances--Launch of plumbing and electrical equipment repair services <Oct. 2020>

The services of the special support for gas appliances were expanded to provide solutions for customers' problems in daily life. We expanded "last one mile" services that address problems in plumbing and electrical equipment.

■ Launch of solar power energy services

• In addition to solar power generation services for detached houses, Tokyo Gas launched Hinatao Solar, a solar power energy service for condominiums and buildings. <Oct. 2020>

• In partnership with GOOD ON ROOFS, Tokyo Gas participates in SDGs activities, such as contributing to customers' communities and supporting developing countries, and launches a service that provides solar power generation with no initial investment <Nov.2020>.



■ Commencement of sale of "Moraeru Denki," a new electricity rate plan for which subscribers will receive an Amazon gift card every month <Oct. 2020>

Tokyo Gas began its first sale of low-pressure electric power outside the Kanto area to expand its areas of electric power sale.

■ Expansion of surplus solar power buyback service <Oct. 2020>

Tokyo Gas commenced a plan that increases buyback prices for customers who purchased storage batteries designated by Tokyo Gas and a plan that pays the amount equivalent to the buyback price with Amazon gift cards.

Reference 1: Progress of the 2020–2022 Medium-term Management Plan③

Acceleration of overseas businesses

■ Acquisition of a large-scale solar power project in the U.S. <Jul. 2020>

Tokyo Gas decided to acquire a solar power project (0.63MW) developed by Hecate Energy LLC in Texas, USA. It will participate in the project immediately prior to its construction and will take the initiative from the development to business operation after the project is brought online.

■ Acquisition of U.S. tight sand gas assets and majority interest in Castleton Resources (“CR”) <Jul. 2020>

CR, an upstream gas company in Texas in which Tokyo Gas America Ltd. has a stake, has decided to acquire gas assets in Louisiana. Tokyo Gas took a majority interest in CR.

(CR was renamed TG Natural Resources in Nov. 2020.)



■ Signing of a joint cooperation agreement with First Gen Corporation to pursue construction and operation of interim offshore LNG terminal in the Philippines <Oct. 2020>

Tokyo Gas signed an agreement to promote the construction of a floating storage and regasification unit in Batangas City, Southern Luzon Island, with the aim of introducing LNG to the Philippines as early as in the second half of 2022.

■ Signing of MOU on LNG to Power project in Socialist Republic of Vietnam<Oct. 2020>

Tokyo Gas signed an MOU on the development of an LNG to Power project in Quang Ninh Province in northern Vietnam with Petrovietnam, COLAVI and Marubeni.

■ Stake in Super Energi Group of Indonesia <Nov. 2020>

Tokyo Gas took a stake in the group, which refines petroleum associated gas and gas derived from small-scale gas fields and provides them as compressed natural gas to its industrial customers. We will contribute to reducing CO2 emissions by promoting the switch to natural gas.

■ Establishment of new LNG trading company <Sep. 2020>

Tokyo Gas established TG Global Trading Co., Ltd., a wholly owned subsidiary engaged in the trading of LNG. The company aims to expand the LNG trading business by maximizing and optimizing assets (storage tanks, LNG vessels and LNG sales and purchase agreements) owned by the Tokyo Gas Group.

Expansion of LNG business

Reference 2: Initiatives during the COVID-19 pandemic

Initiatives for maintaining stable supply of energy

- Ensuring stable supply and safety of energy while thoroughly enforcing measures to prevent infections in workspaces to minimize contact between employees
 - Receiving raw materials from LNG vessels through non-contact handling
 - Dispersed allocation of personnel responding to gas leakage reports
 - Utilization of video conference when switching shifts



Implementation of measures to prevent spread of infections



Switching of shifts using video conference



Non-contact handling at Negishi Terminal

Contribution to the local community as a corporate citizen

- Extended gas and electricity bill payment due dates
- Cooperated in emergency aid fund raising
 - <Specific examples>
 - “Emergency aid fund raising to support children and families facing school closures” in “junijuni sponsored by TOKYO GAS”
 - “COVID-19 emergency aid” fund raising using Paccho points
- Provided N95 masks to healthcare workers (15,000 masks)
- Donated food to an NPO



Donating food to an NPO

