

Growth Strategy

—Enhancing the LNG Value Chain



Tokyo Gas has been accelerating efforts to enhance its LNG value chain based on the target corporate profile for the Tokyo Gas Group clearly set out in “Challenge 2020 Vision.” This section focuses on our main achievements since announcing “Challenge 2020 Vision” in November 2011 and strategies going forward.

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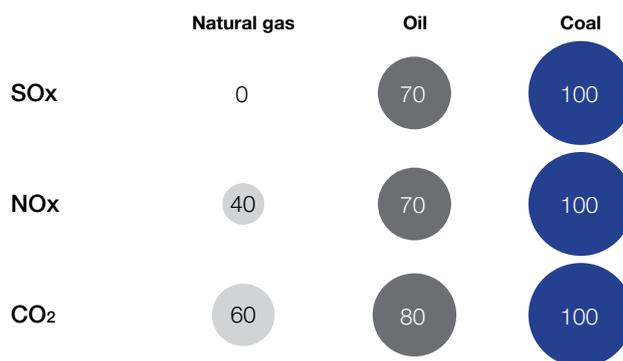
The Potential of Natural Gas

Natural gas produces energy that is much cleaner than other fossil fuels, and thus demand is rising for this resource around the world.

Environmental Benefits of Natural Gas

Natural gas is a combustible gas mixture consisting primarily of hydrocarbon methane (CH₄). Like oil and coal, it is a fossil fuel. However, it is composed of a lower percentage of carbon (C) than these substances. For this reason, it releases relatively small quantities of carbon dioxide (CO₂) during combustion. After being processed to the point that it can be used to generate energy through combustion, natural gas contains almost no nitrogen (N). It is also exceptionally easy to control this fuel. Accordingly, nitrogen oxide (NO_x) emissions during burning are incredibly low. In addition, when liquefied, natural gas contains almost no sulfur or other impurities, meaning that no sulfur oxide (SO_x) is emitted, thus making natural gas a source of energy with an incredibly low environmental impact.

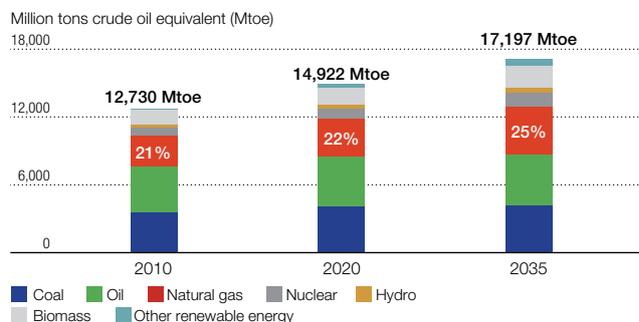
Comparison of Emissions (Coal=100)



Spreading Use of Natural Gas

Demand for natural gas is rising rapidly on a global scale. This trend can be attributed to such factors as increased affordability, a result of the establishment of international pipeline networks, and the spreading usage of unconventional natural gases; strong demand in emerging nations; and attention garnered through the potential for natural gas to be used as an alternative for nuclear power, which has become more significant amidst the acceleration of a global anti-nuclear movement in response to the nuclear accidents in Japan. According to the estimates of the International Energy Agency (IEA), demand for natural gas, which is more environmentally sound than oil and coal and more economically feasible than renewable energies, is expected to rise by 50% or more by 2035. Furthermore, the share of natural gas among primary energies is expected to rise from the current 21% to 25%.

Global Primary Energy Demand Estimates



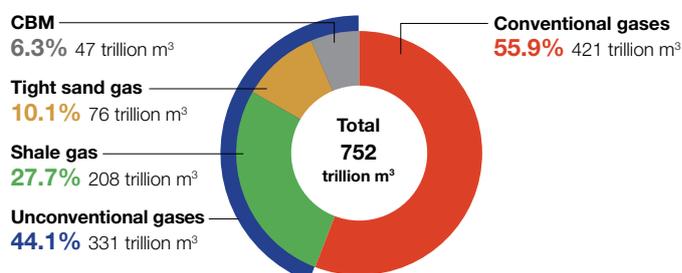
Source: IEA, World Energy Outlook 2012, New Policies Scenarios

Rising Volume of Reserves

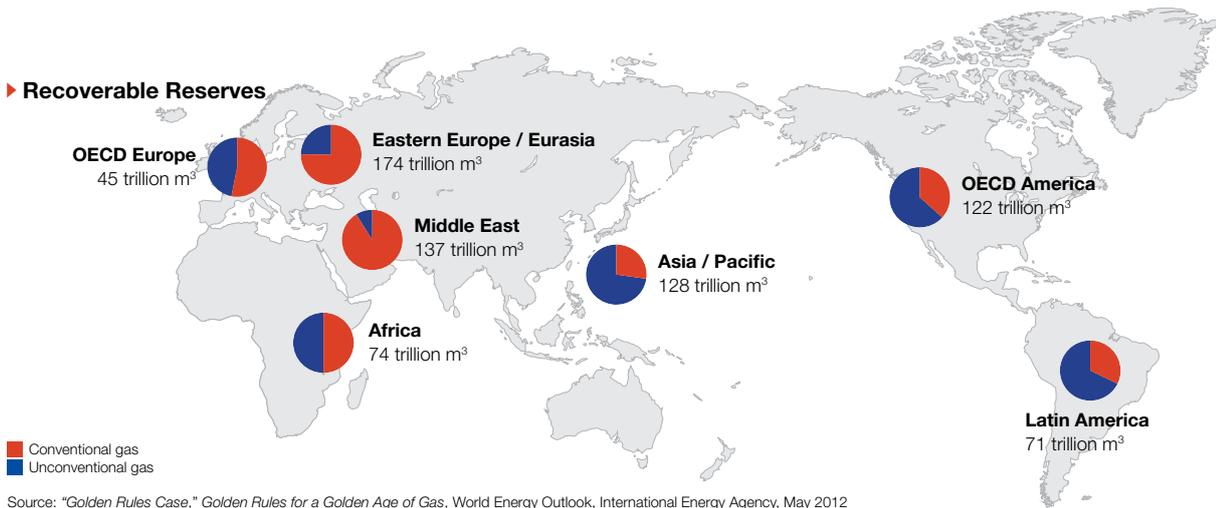
When considering the volumes of reserves that are recoverable with current technologies, which exceeds the current volume in proved reserves, it can be estimated that there exists, primarily in Russia and the Middle East, reserves boasting volumes of conventional natural gases in the range of 421 trillion m³. Furthermore, reserves of unconventional natural gases have recently been discovered at a rapid pace, and volumes of roughly 331 trillion m³ are thought to exist, primarily concentrated along the Pacific Rim. This means that the combined total for the volume of conventional and unconventional gases in the reserves spread across the globe could be as much as 752 trillion m³. Looking at the current production volume of natural gas of 3.2 trillion m³ per

year, it is entirely possible that the remaining natural gas resources may be able to sufficiently supply the world for over 200 years.

Reserves of Conventional and Unconventional Gases



▶ Recoverable Reserves

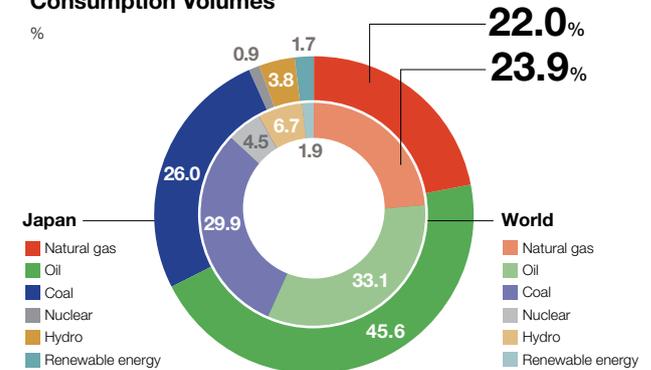


Source: "Golden Rules Case," Golden Rules for a Golden Age of Gas, World Energy Outlook, International Energy Agency, May 2012

Growing Demand in the Japanese Market

The ratio of natural gas usage among other primary energies in Japan is notably lower than the global average of 23.9%. However, following the Great East Japan Earthquake, which occurred on March 11, 2011, use of natural gas for thermal power generation has been increasing in an attempt to develop alternatives to nuclear power. Also, dispersed power sources, such as cogeneration, have been reassessed to be viable sources of power. Consequently, the percent of primary energy consumption attributable to natural gas has risen rapidly from the 17% recorded in 2010 to the present level of approximately 22%, and demand for this resource is expected to rise in the future.

▶ Domestic and Global Primary Energy Consumption Volumes



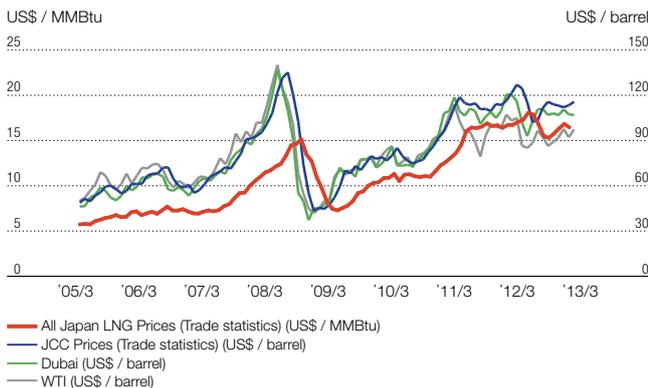
Source: BP Statistical Review of World Energy, June 2013

Differing Prices between Regions

Japan suffers from a lack of gas resources. It also is without an international pipeline network, forcing it to rely on LNG imports utilizing tankers. Regardless of these factors, the price of LNG in Japan was nearly the same as the price in Europe or the United States up until a few years ago. The price of LNG in Europe and the United States has remained at approximately the same level since then due to such factors as the global economic recession that followed the Lehman Shock of September 2008 and the

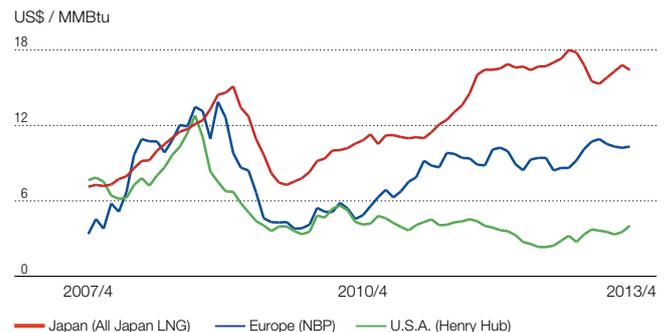
increased supply in the United States following the shale gas revolution. In Japan, meanwhile, the rising price of crude oil has caused a subsequent rise in the price of LNG due to the link between the prices of these two resources and demand for natural gas as a replacement for nuclear power has grown. In this manner, the price of LNG in Japan has increased, further widening the gap between prices in Japan and those in Europe and the United States.

▶ Prices of Crude Oil and LNG



Source: Compiled by Tokyo Gas from various materials

▶ Gas Prices by Region



Source: Compiled by Tokyo Gas from various materials

Understanding Tokyo Gas through Comparison

Developing businesses from upstream activities to sales in areas where major potential demand is expected

▶ Business Structure

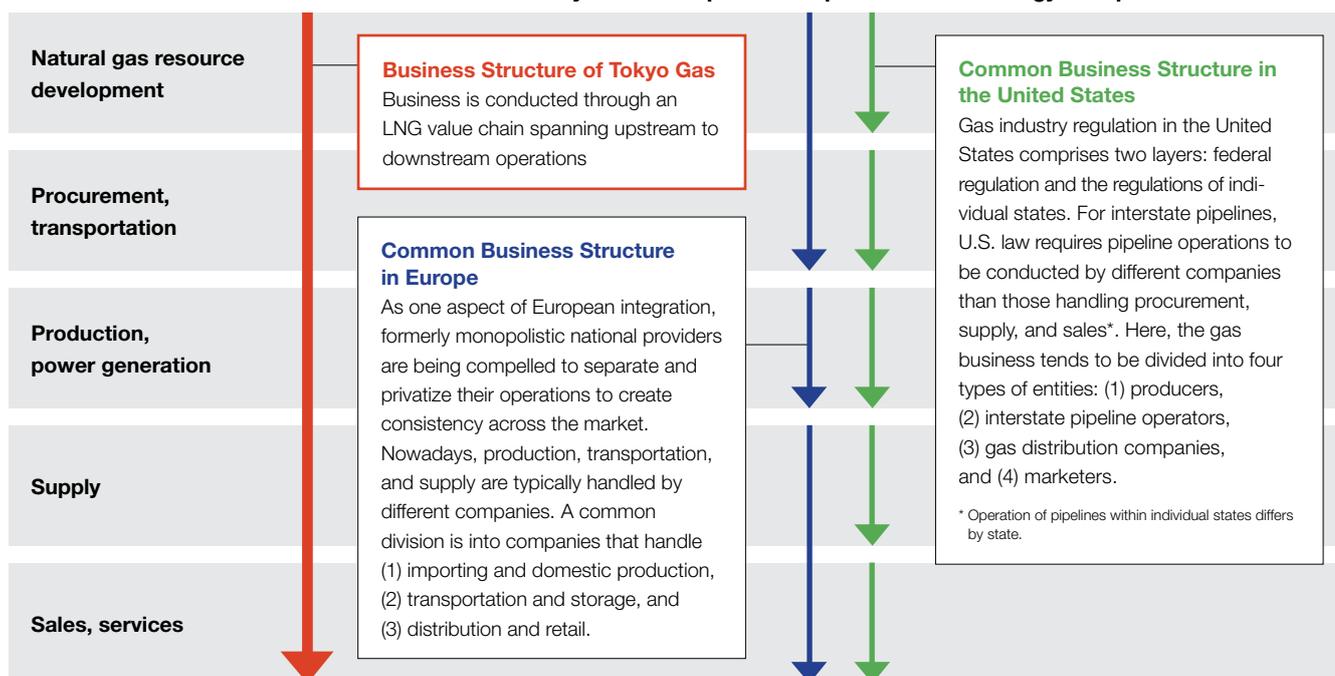
Activities Spanning Resource Development to Sales

Different from energy companies in Europe and the United States, the Tokyo Gas Group conducts a chain of business operations extending from resource procurement and transportation to customer sales and service.

In Japan, the Gas Business Act assigns supply districts to

providers of city gas. At the same time, the law obliges providers to supply gas safely throughout their districts. Although this arrangement creates a monopoly on supplying users who consume less than 100,000 m³ of gas per year (46MJ/m³), gas rates are regulated.

▶ Differences in Business Structure between the Tokyo Gas Group and European and U.S. Energy Companies



column

Electric Power System Reforms and the Gas Business

There are presently discussions ongoing in Japan about reforms to the electric power system in order to ensure stable supply; to limit electricity rates as much as possible; and to increase options for customers and opportunities for energy companies. On April 2, 2013, the Cabinet approved the "Policy on Electricity System Reform," which consists of measures to enhance nationwide system operation; to fully liberalize the retail market and power generation; and to ensure the neutrality of the transmission and distribution sector through legal unbundling.

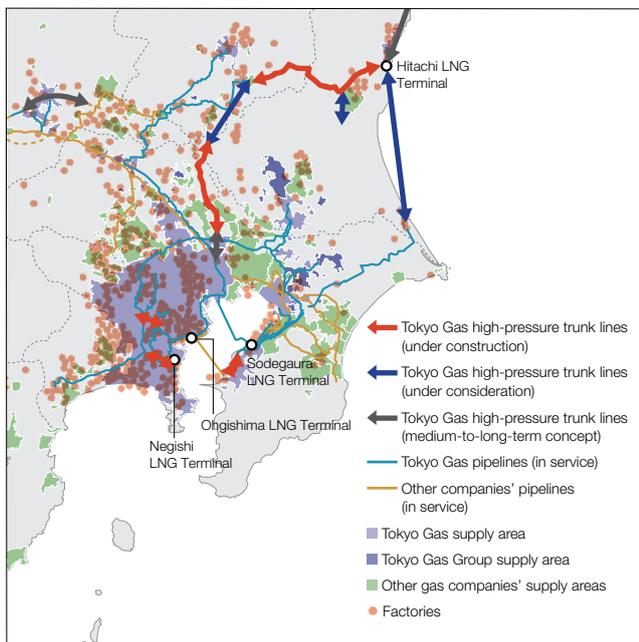
Gas businesses are subject to the same system as electricity business with rate systems for regulated areas, while gas resource costs are decided based on the comprehensive cost principle and changes in resource costs under the gas rate adjustment system are reflected in rates. Through these systems, gas businesses enjoy healthy growth, while at the same time there has been an increase in gas rate transparency, and the results of efforts to make business more efficient have become clearer. The government intends to perform a complete review of gas business systems based on the progress of electricity power system reforms.

Business Area's Potential

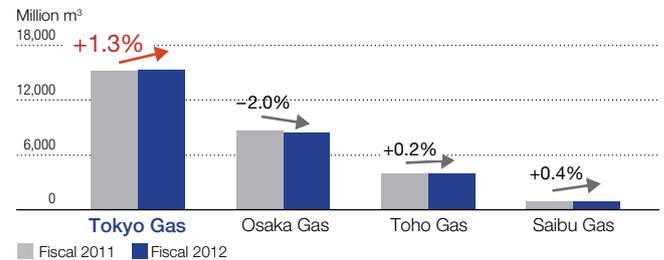
Major Potential Demand Expected in the Tokyo Area

The Kanto region, which extends for a 200-kilometer radius around Tokyo, accounts for about 40% of Japan's GDP and is Japan's largest area of concentrated energy demand. Although industrial demand is particularly concentrated in northern Kanto, pipelines are still limited and we will extend necessary pipelines to cultivate demand. We will also boost gas supply capacity through the construction of the Hitachi LNG Terminal.

Energy Demand Concentration in the Kanto Region (200-kilometer radius)

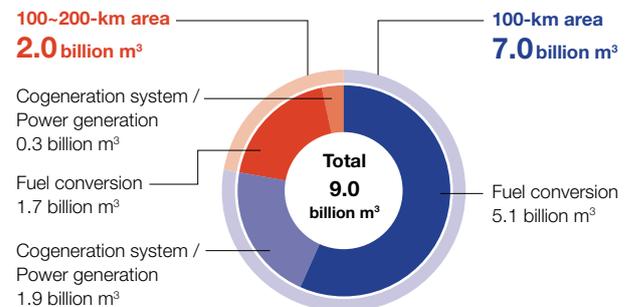


Gas Sales Volumes of the Four Leading Companies (consolidated)



Source: Compiled by Tokyo Gas from individual companies' public documents

Potential for Industrial and Commercial Demand in the Kanto Region (200-kilometer radius around Tokyo)

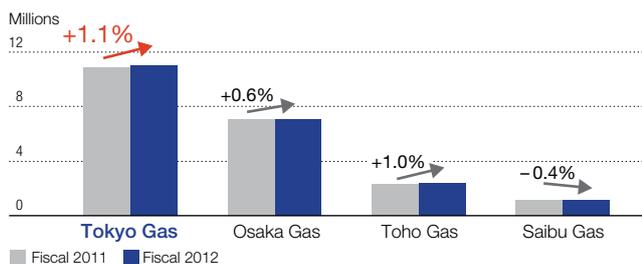


Developing Business in One of the World's Largest Economic Areas

As of September 2007, Tokyo Gas had more than 10 million customers, and the figure is currently around 10.98 million (as of March 31, 2013). This business base is on a par with those of leading public service companies in the gas business in

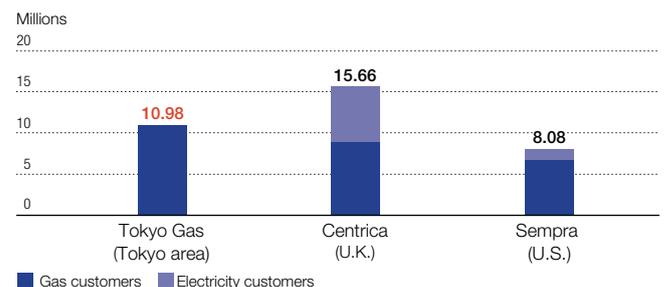
Europe and the United States. Furthermore, although Japan's total population began to decline in 2010, our customer base is expected to continue increasing due to the ongoing influx of people into the Tokyo metropolitan area.

Customers for the Four Leading Companies (consolidated)



Source: Compiled by Tokyo Gas from individual companies' public documents

Customer Comparison among the World's Leading Gas Companies



Source: Compiled by Tokyo Gas from individual companies' public documents (Figures for the two companies other than Tokyo Gas are as of December 31, 2012.)

Strategy



Procuring Resources in a Stable and Affordable Manner and Expanding Overseas Operations

Demand for liquefied natural gas (LNG) is expected to grow into the future, and it is likely that the price of this resource in the region known as the Far East will continue to remain at a higher level than prices seen in the United States and Europe. Amid these circumstances, we will work to diversify and expand our network of suppliers along with the range of our upstream businesses so that we may procure resources in a stable and affordable manner. At the same time, we are developing natural gas-fired thermal power generation ventures overseas to construct an overseas LNG value chain.

Scheduled investment in overseas businesses under the “Challenge 2020 Vision”

¥320.0 billion
(16% of total investment)

Background for Strategies: Traditional Resource Procurement Frameworks

Traditional LNG procurement frameworks generally entailed a price formula linking the price of LNG to the price of crude oil and included conditions forbidding changing the shipment destination of procured LNG as well as reselling. As such, the absence of pipelines and other infrastructure in Asia forced the region to accept LNG prices higher than those in the United States and Europe, creating an “Asia premium” on LNG. Looking ahead, natural gas demand is growing on a global scale and it is likely that the Asia Premium will continue. In such an environment, traditional procurement frameworks that forbid shipment destination changes and reselling lack sufficient flexibility.

Gas Prices by Region



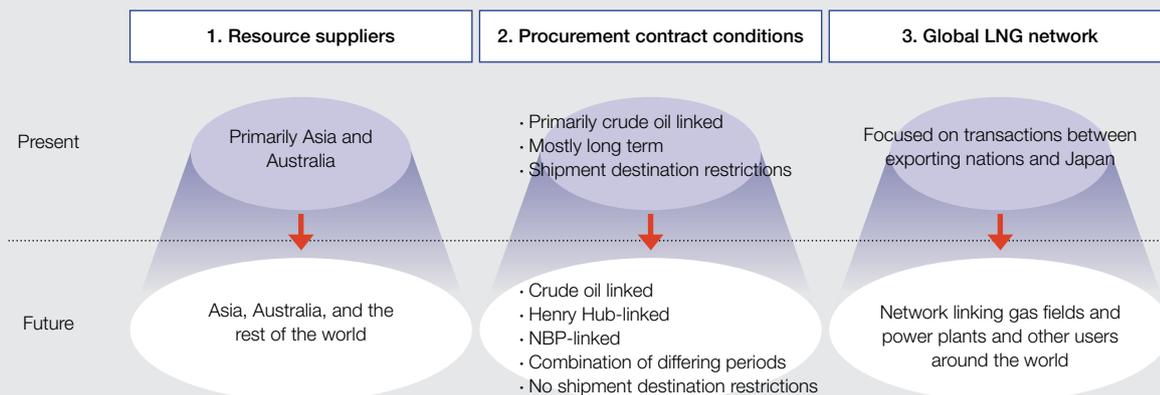
Accelerating Diversification in Three Areas to Reduce Resource Procurement Costs

Action ▶▶

Under the “Challenge 2020 Vision,” ¥320.0 billion, or 16% of total capital expenditures, investments, and financing, will be directed toward overseas businesses over the period from fiscal 2012 to

fiscal 2020. Through this investment, we aim to grow overseas businesses to the extent that 25% of total net income is generated by these businesses. As one facet of these efforts, we will

▶ Three Areas of Diversification for Resource Procurement



diversify and expand our network of suppliers along with the range of our upstream businesses to procure resources in a more stable and affordable manner. These initiatives will be centered on three areas of diversification.

The first area is “the diversification of resource suppliers.” While Asia and Australia have previously been our major suppliers, we will branch out to procure resources from a wider range of countries around the world.

The second area is “the diversification of procurement contract conditions.” Traditional procurement frameworks have primarily employed crude oil linked price formulas and forbidden changing shipment destinations. However, in the future, we will conclude contracts with a wider range of conditions, such as price formulas linked to the Henry Hub index and other indexes and freedom in changing shipment destinations. We expect that this will enable us to procure resources in a more stable and affordable manner and with increased flexibility.

The third area is “the diversification of our global LNG network.” By building upon our current contracts for trade mainly between resource exporting nations and Japan, we will develop a global network enabling resources to be traded between regions around the world where Tokyo Gas holds gas fields, power plants, or other such establishments.

In April 2012, the Pluto LNG Project, a project in Australia in which the Company holds interests, commenced LNG production. In addition to receiving LNG from this project, Tokyo Gas recorded revenues from upstream equity interests through LNG sales in fiscal 2012. Other LNG projects we participate in are also progressing smoothly, and we are actively fortifying our overseas business foundations.

For example, Tokyo Gas has entered into a Heads of Agreement for Sale and Purchase with Sumitomo Corporation in relation to LNG produced by the Cove Point LNG Project,



First shipment received from Pluto LNG Project

in Maryland State on the east coast of the United States. Also, in March 2013, we entered into a sale and purchase contract to acquire 25% working interests in the shale gas development joint venture in the Barnett basin in Texas State in the United States from Quicksilver Resources Inc. **Focus 1 ▶**

Further, in February 2013, an agreement was reached with Astomos Energy Corporation entitling the Company to receive a total amount of approximately 400,000 tons of U.S. liquefied petroleum gas (LPG) for a six-year period beginning 2013. This is the first agreement calling for Tokyo Gas to purchase LPG with the price indexed to U.S. propane linked prices, and we believe this will contribute to more stable procurement and lower resource procurement costs. In the future, we will introduce Mozambique, which boasts some of the world's largest gas fields, and other African nations into the list of candidate locations for business development as we seek out new resource supplies.

Action ▶▶ Establishing a Global LNG Value Chain

Tokyo Gas will expand its overseas natural gas-fired thermal power generation and gas supply business on a global scale to secure stable revenues and further the establishment of a global LNG value chain.

In addition, we will supply LNG procured through agreements with no restrictions on shipment destinations to fill orders received from power plants and other users. When necessary, alternative gas will be procured through pipelines, enabling us to resell said LNG. In these ways, we will introduce a new element of flexibility into our operations.

Overseas power generation ventures that Tokyo Gas has participated in up until this point include the Bajio power plant and the MT Falcon power plant, both situated in Mexico. Adding to this list, in June 2012 the Company acquired a 26.66% stake

in Belgium's T-Power NV, which was the first time for Tokyo Gas to participate in such a project in Europe. As a result, our total overseas generating capacity (including other companies' interests) now amounts to 3,259 MW.

Tokyo Gas is also accelerating the overseas development of its engineering and energy services businesses. Efforts in this area include an alliance with Malaysian national energy company Petronas and the signing of a memorandum of understanding with Petrovietnam Gas, of Vietnam, involving the construction of an LNG value chain. Also, consolidated subsidiary Energy Advance Co., Ltd., has acquired a stake in Ecogen Brasil Soluções Energéticas S.A., of Brazil, through a joint venture company with Mitsui & Co., Ltd.

Past Initiatives

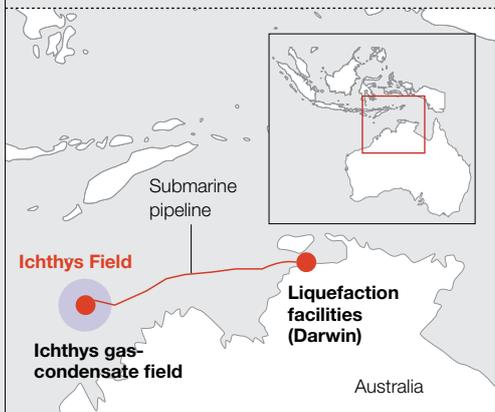
Overseas business

January 2012

Concluded sale and purchase contract (December 2011) regarding Ichthys LNG Project and approved business participation plans

Overview of the Ichthys LNG Project

Gas-condensate field: Offshore of Western Australia, Block WA-37-R
 Liquefying facilities: Darwin, Northern Territory, Australia
 Liquefying capacity: 8.4 million ton/year (LNG) with two 4.2 million ton liquefaction trains
 Planned commencement: October–December 2016
 Participating interest: 66.07% for INPEX Group companies, 30.0% for TOTAL Group companies, 1.575% for Tokyo Gas and other companies (as of March 2013)



Overseas business

December 2012

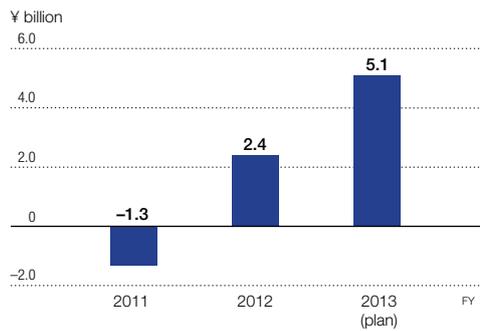
Participated in energy services business in Brazil

Overseas procurement

April 2013

Agreed to procure LNG from Cove Point LNG Project in Maryland, the U.S.

Operating Income in the Overseas Business



November 2011

November 2011
Announced “Challenge 2020 Vision”

December 2011

Overseas business

March 2012

Signed Memorandum of Understanding with Petrovietnam Gas

Overseas procurement

March 2012

Concluded Heads of Agreement for Sale and Purchase of LNG regarding Brunei LNG Project

March 2012

June 2012

Overseas business

June 2012

Completed acquisition of stake in Belgium natural gas-fired thermal power plant

Overseas procurement

June 2012

Received shipment of LNG from Pluto LNG Project

September 2012

Overseas procurement

August 2012

Concluded Memorandum of Agreement with Malaysia LNG Sdn. Bhd. to renew LNG sale and purchase contract

December 2012

Overseas procurement

February 2013

Purchased LPG with price indexed to U.S. propane linked prices

March 2013

Overseas business

March 2013

Participated in shale gas development joint venture in Barnett basin in Texas, the U.S.

July 2013

Participating in the Cove Point LNG Project and Upstream Shale Gas Development in Barnett Basin

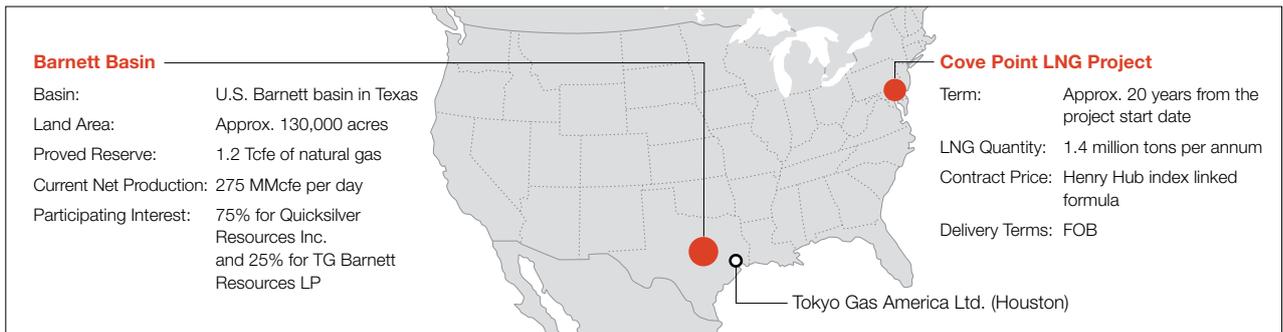
Tokyo Gas has continued to develop the Cove Point LNG Project, in Maryland State in the United States, in cooperation with Sumitomo Corporation (“Sumitomo”). In April 2013, the Company concluded a Heads of Agreement for Sale and Purchase with Sumitomo that will entitle wholly owned subsidiary TG PLUS Co., Ltd., to purchase 1.4 million tons of LNG per year from this project.

Through this project, we will export natural gas procured in the U.S. market in the form of LNG. Further, this project represents a large step forward in our efforts to advance our three areas of diversification as it involves procurement from the United States, where shale gas production is rapidly accelerating; is the Company’s first long-term contract with prices linked to the Henry Hub index; and the contract conditions allow for free selection of shipment destinations*. After receiving approval from the U.S. Department of Energy to export LNG from this project to

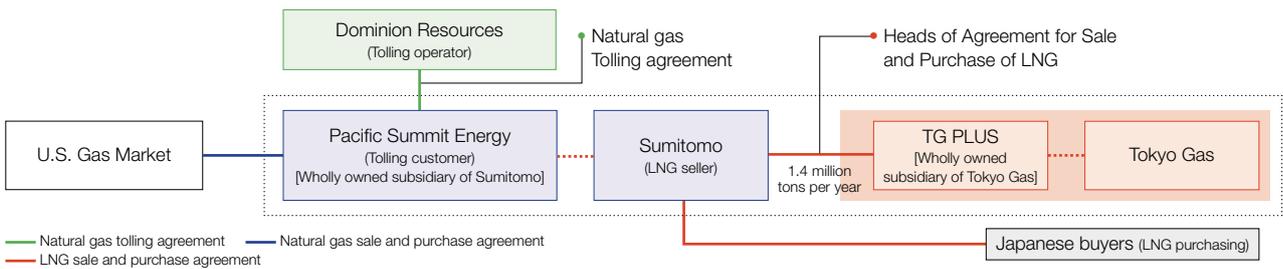
countries that have not entered into free-trade agreements with the United States, the Company plans to begin importing LNG from this project into Japan in 2017. Separately, we acquired our first upstream interests in the United States through our participation in the shale gas development project in the Barnett basin. U.S. company Quicksilver Resources is the operator of this project, which is currently producing approximately 275 million cubic feet per day (natural gas equivalent) of shale gas and natural gas liquids to be marketed in the United States. A stake of 25% working interests will be acquired in this project through TG Barnett Resources LP, a wholly owned subsidiary of Tokyo Gas America Ltd., and it is estimated that this will entitle the Company to receive between 350,000 tons and 500,000 tons of gas resources a year in LNG equivalent.

* This assumes export approval is received from the U.S. Department of Energy.

► **Initiatives in North America**



► **Scheme of Cooperative Ventures with Sumitomo**



F A Q

Q Would it be best for Tokyo Gas to focus on the gas business? Specifically, why is the Company investing in the Barnett basin project and other upstream businesses?

A Investment in upstream businesses not only enables us to secure a certain level of income; it also brings other benefits. For example, should resource procurement costs associated with the Cove Point LNG Project increase due to a rise in the Henry Hub index, the revenues generated by upstream interests in the Barnett basin will also increase. In this manner, investment in upstream businesses helps stabilize the earnings of the entire Tokyo Gas Group.

Q As Tokyo Gas expands the scope of operations through diversification in three areas, how will it respond to risks, such as country risk, in countries where it lacks operational knowledge?

A Diversification efforts will be conducted only after thorough investigations so as to minimize our exposure to risks to the greatest degree possible. At the same time, we feel that the development of a more diverse business portfolio will enable us to mitigate risks through dispersion.

Strategy

Building a Production and Supply Infrastructure to Cultivate Demand

By bolstering our production and supply infrastructure, we will lay the foundation for enhancing the LNG value chain by cultivating demand.

Scheduled investment in infrastructure development under the “Challenge 2020 Vision”

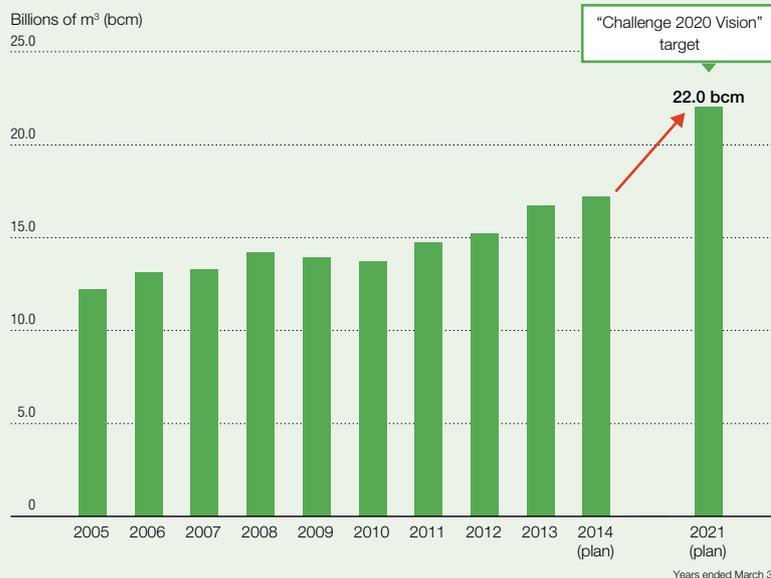
¥730.0 billion
(35% of total investment)

Background for Strategies: Growing Natural Gas Demand in the Tokyo Metropolitan Area

In response to the growing demand for natural gas and the expansion of the area to which it is supplied, Tokyo Gas has increased its manufacturing capacity by reinforcing its network of LNG terminals and extended its transportation pipeline network. Our policy for capital expenditures in infrastructure development is to conduct such expenditures after thoroughly investigating latent demand and confirming the presence of guaranteed demand to an extent that justifies the investment amounts.

Natural gas has been increasingly garnering attention in recent years because it is vastly more environmentally friendly than other fossil fuels. Another factor behind this increased attention is the ever growing volume of recoverable reserves. Following the Great East Japan Earthquake, demand for natural gas began rising rapidly in Japan, with demand growth particularly strong for power generation. Tokyo Gas estimates that latent commercial and industrial demand for natural gas equating to 9.0 billion m³ exists within a 200-kilometer radius around Tokyo. The primary agent of this demand is the desire to convert to natural gas from other fuel sources or to use this fuel source in cogeneration or other power generation systems.

▶ LNG Sales Volume



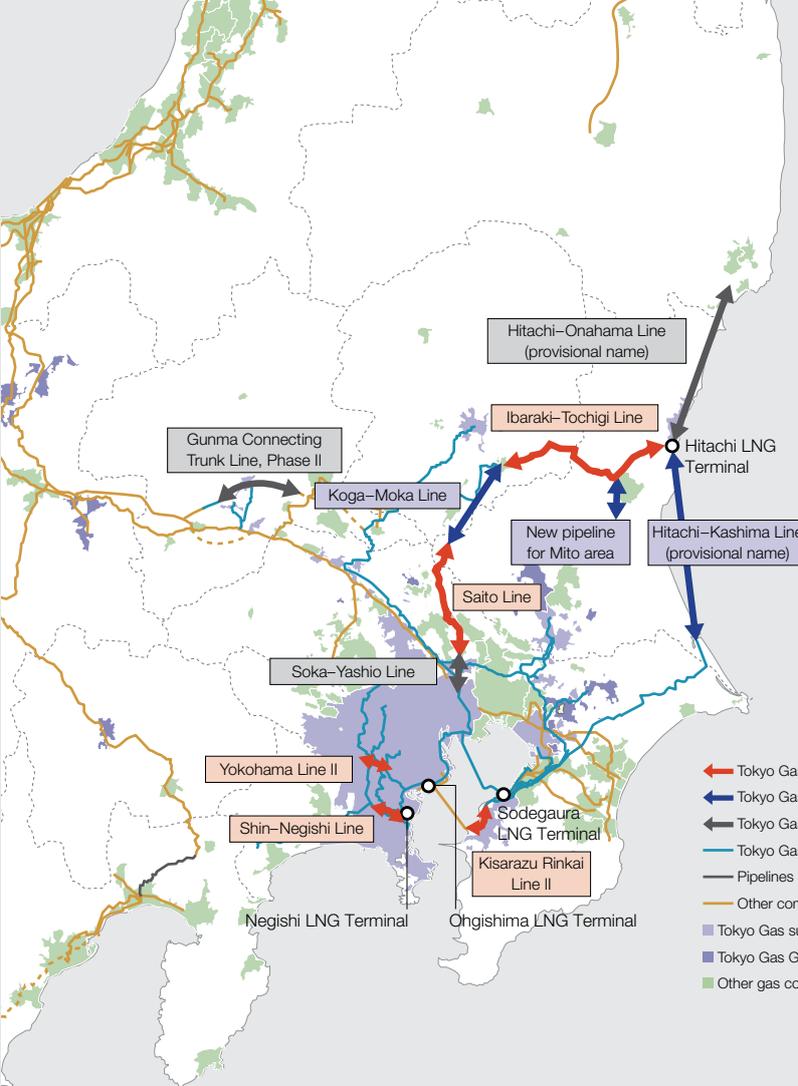
Action ▶▶ Accelerating the Development of Production and Supply Infrastructure

Under the “Challenge Vision 2020,” ¥730.0 billion, or 35% of total capital expenditures, investments, and financing, will be directed toward infrastructure development over the period from fiscal 2012 to fiscal 2020. A particular strategic focus will be investments to address latent demand in the northern Kanto region by bolstering supply capacity and creating pipeline loops that will boost supply stability.

March 2012 marked the completion of the Chiba–Kashima Line. This trunk pipeline enabled us to commence supply to the Kashima Waterfront Industrial Zone. Situated in Ibaraki Prefecture, this is one of the Kanto region industrial zones.

▶ Trunk Pipeline Installation Plans

Scheduled commencement of usage	Name
October 2013	Shin-Negishi Line
October 2013	Yokohama Line II
February 2015	Kisarazu Rinkai Line II
October 2015	Saito Line
March 2016	Ibaraki–Tochigi Line
March 2016	Tochigi Line extension
March 2018	Koga–Moka Line



In addition, the Kashima Waterfront Line, which was completed in June 2012, has commenced supply to a new gas turbine generation facility at the Kashima Thermal Power Station of Tokyo Electric Power Company, Incorporated.

Further, July 2012 saw the start-up of construction of the Hitachi LNG Terminal in the Hitachi District of Ibaraki port, in Ibaraki Prefecture—our 4th LNG receiving terminal. We aim to begin operations at the Hitachi LNG Terminal in March 2016, in conjunction with the commencement of usage of the Ibaraki-Tochigi Line. Also, plans have been approved to accelerate the development of infrastructure in Ibaraki Prefecture, primarily in the areas surrounding the terminal. **Focus 2 ▶**

Focus 2

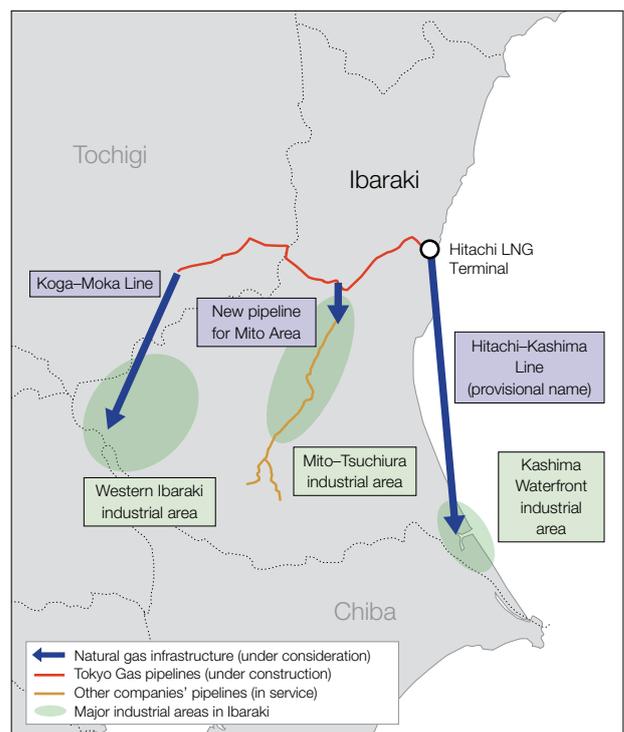
Accelerating Development of Natural Gas Infrastructure in Ibaraki

Cultivating Demand Based Out of the Hitachi LNG Terminal

Estimating that its gas sales volume will outstrip current supply capacity by the late 2010s, Tokyo Gas is moving forward with the Hitachi Project. The Hitachi LNG Terminal, which we began constructing in July 2012, will play a central role in advancing this project. This terminal will be connected to the Ibaraki-Tochigi Line that we started building on the Tochigi Prefecture side in January 2012, and both are scheduled to be operational during fiscal 2015.

In the future, we will connect the Hitachi LNG Terminal to the pipelines displayed on the map to the right. We believe this will greatly facilitate our efforts to cultivate demand in the northern Kanto region, centered on Ibaraki Prefecture. At the same time, this will allow pipeline loops to be established, significantly enhancing energy security throughout the Kanto region.

▶ Pipeline Network in Ibaraki Prefecture



F A Q

Q The “Challenge 2020 Vision” calls for the Tokyo Gas Group to conduct aggressive investments. What is the likelihood that this will result in excessive investment in projects with insufficient profitability?

A Our basic approach toward investment is to make decisions based on economic rationality, and we will only invest in projects from which we can expect appropriate returns. The Investment Evaluation Committee is responsible for evaluating projects and making judgments regarding economic rationality.

► Investment Evaluation Committee

Overview

To evaluate the economic rationality of investments, the Company has established “the Investment Evaluation Committee.” This committee conducts objective, multifaceted evaluations of estimates formulated by planning departments. Before investment proposals are presented to the Corporate Executive Committee for deliberation and approval, the Investment Evaluation Committee evaluates their economic rationality from a quantitative perspective. It then reports these findings to the Corporate Executive Committee.

Scope of Evaluations

The Investment Evaluation Committee evaluates investments targeting increased profitability or business development in a wide range of areas.

Evaluation Methods

The conditions required to generate future cash flows are evaluated, and net present value (NPV) and the internal rate of return (IRR) are calculated based on projected cash flows. The committee also formulates withdrawal standards that consider whether or not investments are producing the anticipated

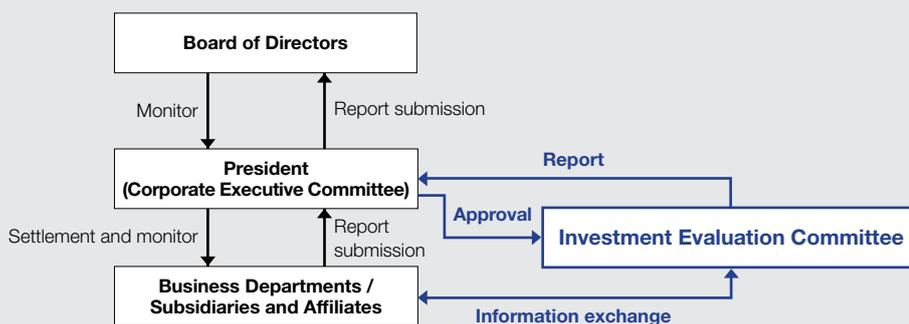
results. Prior to investment, the committee considers possible measures that could be implemented should the projects come into conflict with these standards while also evaluating investment risk factors.

Post-Investment Monitoring

In addition to evaluating projects before investment, the Investment Evaluation Committee continues to evaluate investments periodically after they are concluded to ensure that they are properly managed. Should a project come into conflict with withdrawal standards, the likelihood of achieving the initial goals of the investment is reevaluated. When deemed necessary the committee will propose withdrawal to the Corporate Executive Committee.

Committee Membership

The Investment Evaluation Committee is chaired by the executive officer in charge of finances and its members include the general managers of the Corporate Planning Department and the Finance Department. Based on the nature of the projects being discussed, Tokyo Gas Group members that are knowledgeable on the subject may be asked to participate.



Q You have mentioned plans to address industrial demand in the Tokyo metropolitan area as a means of expanding gas sales volumes. Is there no risk that factories move overseas and the demand will decline?

A The gas sales volume target for fiscal 2020 of 22.0 billion m³ set out in the “Challenge 2020 Vision” was formulated in consideration of the possibility that a decline in demand could result from the hollowing out of the industry.

Providing Diverse Energy Solutions

By providing various energy solutions centered on natural gas, we aim to diversify the range of circumstances in which natural gas is used and, thereby, enhance the LNG value chain.

Scheduled investment in cultivating energy demand under the “Challenge 2020 Vision”

¥600.0 billion
(29% of total investment)

Background for Strategies: Quest for Stable Provision of Energy to the Tokyo Metropolitan Area

The supply and demand situation for electricity underwent structural changes following the Great East Japan Earthquake. As generation by nuclear power plants has declined, other power sources are increasingly being used to fill the supply gap. In particular, natural gas-fired thermal power plants are continually being operated at full capacity in consideration of the fact that they are relatively low-cost and friendly toward the environment. At the same time, dispersed energy systems are rapidly garnering attention. This is because such systems feature a variety of benefits as they emit less CO₂ than conventional large-scale centralized power generation facilities, enhance

energy security in the event of disasters or power outages, and contribute to electricity peak savings. In addition, smart energy networks are seen as a new, forward-thinking way of recycling energy, and verification testing of these networks is progressing at an accelerated pace. Diversifying the uses of natural gas and the sales venues the Company employs in light of these changes will help increase total transaction volumes of natural gas over the long term and, thereby, contribute to reductions in procurement costs. In other words, these efforts are important in advancing the enhancement of the LNG value chain from the downstream side.

Cultivating Demand by Promoting Advanced Use of Natural Gas and Fuel Conversion

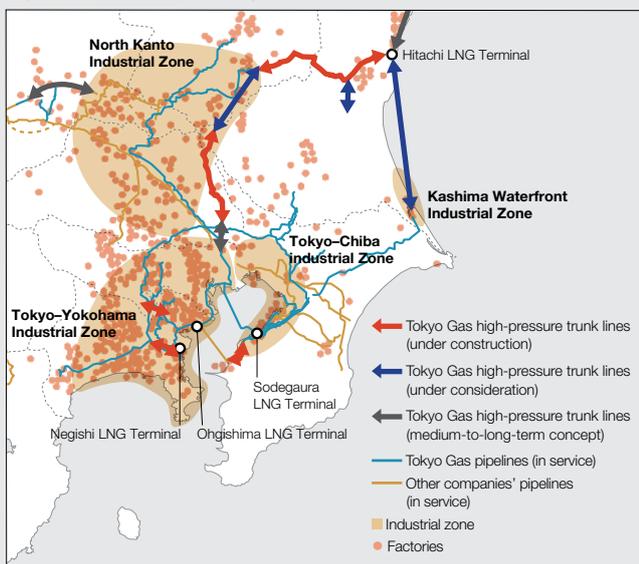
Action ▶▶

General industry demand will play an important part in achieving our goal of expanding gas sales volume to 22.0 billion m³ in fiscal 2020. Therefore, we aim to cultivate an increase in general industry demand from fiscal 2011's 3.4 billion m³ to 7.0 billion m³ in fiscal 2020, effectively doubling this demand.

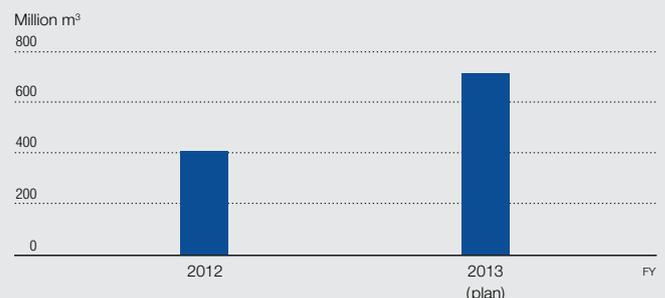
Natural gas is gaining attention for its merits in terms of energy savings, CO₂ reductions, and low operating costs. In light of this trend, Tokyo Gas is cultivating new demand by highlighting the benefits of combining fuel conversion from heavy fuel oil and kerosene to natural gas and by introducing highly efficient appliances and advanced uses of natural gas in cogeneration systems.

In fiscal 2012, we successfully cultivated demand equivalent to approximately 0.4 billion m³ in the Kashima Waterfront Industrial Zone following the completion of the Chiba–Kashima Line. In the future, we expect to cultivate demand of as much as 2.0 billion m³ in this area.

▶ Energy Demand Concentration in the Kanto Region (200-kilometer radius)



▶ Gas Sales Volumes in the Kashima Waterfront Industrial Zone



Focus
3

Promoting Fuel Conversion in the Kashima Waterfront Industrial Zone

As one example of the Company's efforts to cultivate city gas demand through fuel conversion to natural gas in the Kashima Waterfront Industrial Zone, Tokyo Gas would like to introduce an initiative implemented by the Kashima Plant of Kao Corporation.



Kao's Kashima Plant

Kashima Plant, Kao Corporation

Conversion to Natural Gas as Part of a Business Continuity Plan

On June 10, 2013, the fires were lit in boiler No. 2 at Kao's Kashima Plant. However, this process was different to that of the past 30 years. This time, the fuel in the boiler was natural gas. Under the watchful eyes of representatives from the plant and Tokyo Gas, boiler No. 2 successfully completed the switch from heavy fuel oil to natural gas, as had boiler No. 1 before it.



Boiler No. 2, which was successfully lit using natural gas

The Kashima Plant is a critical manufacturing site in Kao's domestic production system for intermediate materials for household products as well as for raw-use products. Kao has been proactively undertaking fuel conversion ventures both in Japan and overseas and, therefore, was well-versed in the benefits of natural gas. As such, the company readily began considering the

possibility of fuel conversion at the Kashima Plant from the time it was decided that Tokyo Gas would supply natural gas to the Kashima Waterfront Industrial Zone.

The Great East Japan Earthquake, which devastated Japan in March 2011, was a major factor behind Kao's decision. "It is the Kashima Plant's duty to supply Kao's domestic plant with raw materials for household products," Kashima Plant Manager Hiroshi Nagumo exclaimed. "If operations were to be halted, it would greatly impact our ability to supply detergent and shampoo throughout Japan."

According to Plant Manager Nagumo, a stable supply of energy is the key to continuing operations at the Kashima Plant. For this reason, the instability of the electricity supply and the difficulty of stably procuring heavy fuel oil are clear reasons for concern. To address these issues, Kao decided to introduce a cogeneration system and conduct fuel conversion at this plant. This decision was then put into effect in accordance with Kao's business continuity plan. "The earthquake damaged various types of infrastructure, but gas pipes were practically unaffected. I was quite impressed by this fact," stated Kiyoshi Hirano, manager in charge of safety and the environment, reflecting on the process leading up to the decision.

Anticipated Supply of Stable and Affordable Power

Kao has accumulated a wide range of technologies related to fuel conversion, which enabled the conversion to proceed smoothly, with boiler No. 1 completing fuel-conversion construction and running on natural gas from September 2012.

It has been 10 months since then. The managers at the Kashima Plant feel that the greatest benefit of the switch is the improvement in operational efficiency. Deliveries of heavy fuel oil are subject to delays, meaning that inventories must be stringently managed. Further, the oil must be transferred from the ship to storage tanks upon delivery, and the temperature of these tanks must be carefully controlled to prevent fuel from hardening. The introduction of city gas eliminates the need for all of these processes. Moreover, when boilers operate on city gas, pressure fluctuations are minimal and nitrogen oxide (NOx) emissions remain incredibly low. Accordingly, managing operation is infinitely easier. Also, post-combustion flue gas processing requirements have been greatly reduced at the plant, and it is no longer necessary to process absorber after desulfurization. The plant's management has removed an electrostatic precipitator, which was no longer needed, and is utilizing the site to build a cogeneration system.

Troublesome day-to day maintenance processes have also been greatly reduced. One reason behind this is the fact that, as the plant is no longer using C-heavy fuel oil, there is no need to clean the strainers that would be used to remove impurities from this oil. "We used to be wrought with anxiety because we cleaned the strainers during

operations, so we had to be careful to avoid extinguishing the fire. But the new system has freed us from this pressure," claims Takao Iwade, plant leader in charge of operations. Further, the frequency at which pressure atomizing burners and the boiler itself must be cleaned is much lower. Also, as natural gas contains only minimal traces of sulfur oxide, a major culprit in the corrosion of equipment, the natural gas system is expected to help lengthen the lifespan of equipment. And, of course, the introduction of the new system has led to a reduction of approximately 30% in CO₂ emissions in comparison to the heavy fuel oil system, just as had been expected.

After the scheduled introduction of a cogeneration system at the Kashima Plant is completed in December 2013, the plant will have finished all steps of its fuel conversion venture. "The Kashima Plant's main fuel source is now natural gas, a resource for which Japan is suffering due to unfavorable procurement conditions. I expect that Tokyo Gas will change this situation and secure a stable and affordable supply of this resource." This was Plant Manager Nagumo's last request to Tokyo Gas as it considers such undertakings as the procurement of unconventional natural gas and the construction of the Hitachi-Kashima Line.



(From left) Hiroyuki Sada (Tokyo Gas), Plant Leader Takao Iwade (Kao), Plant Manager Hiroshi Nagumo (Kao), Manager Kiyoshi Hirano (Kao), and Shinzo Ienaka (Tokyo Gas)

Kao Group

The Kao Group provides cosmetics, health drinks, detergents, and other consumer products as well as a wide range of industrial-use products to users around the world. Acting in accordance with the Kao Environmental Statement announced in 2009, the Kao Group is developing products with low environmental impacts, reducing CO₂ emissions from production processes, and implementing energy-saving initiatives in a forward-thinking manner. Almost all of its manufacturing bases in Japan and overseas that have access to natural gas infrastructure have converted to systems utilizing this resource.

Expanding Power Generation

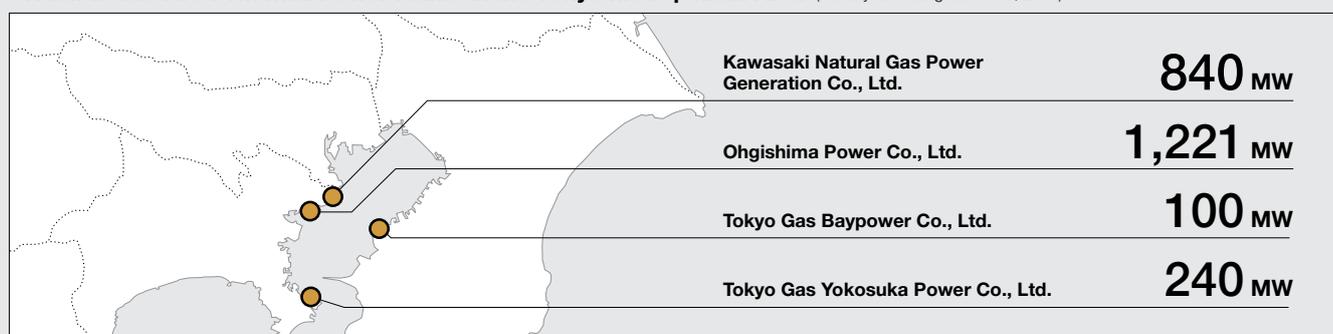
Action ▶▶ (Natural Gas-Fired Thermal Power Generation)

In 2000, a revision to the Electricity Business Act of Japan deregulated sales of electricity to large-volume users. In light of this change, Tokyo Gas entered the electric power business in June 2001 when it established Tokyo Gas Bayspower Co., Ltd., within the grounds of its Sodegaura LNG Terminal. Since then, the Company has progressively advanced the construction of thermal power plants employing gas turbine combined cycle generation. Today, we have a total generating capacity of approximately 2,000 MW (of which, the Tokyo Gas Group's ownership share is 1,300 MW). Under the "Challenge 2020 Vision," we aim to expand this capacity to between 3,000 MW and 5,000 MW.

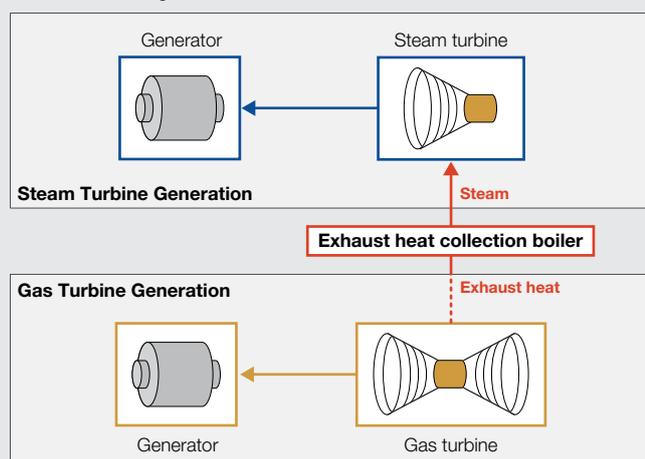
As one effort to expand generation capacity, we decided on the construction of a third unit at the Ohgishima Power Station in October 2012. Situated in Yokohama, Kanagawa Prefecture, this cutting-edge facility employs gas turbine combined cycle generation, which is highly energy efficient, with maximum efficiency reaching 58%. The third unit will have a generation capacity of 407 MW, and the total generation capacity of the Ohgishima Power Station will rise to 1,221 MW once this unit is operational.

Going forward, we will continue to develop our electric power business in a low-risk manner by carefully monitoring trends in Japan's supply and demand situation for electricity as well as revisions to electricity regulations to accurately evaluate the economic rationality of future ventures.

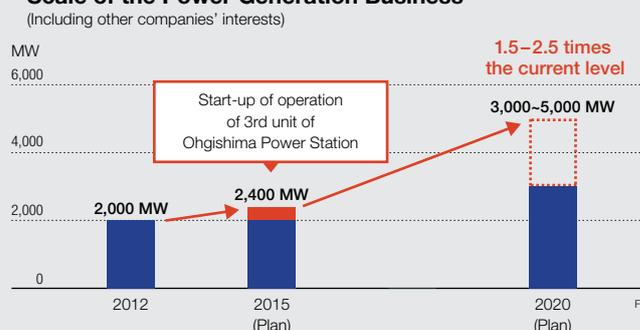
▶ Natural Gas-Fired Thermal Power Plants in the Tokyo Metropolitan Area (Fiscal year ending March 31, 2016)



▶ Combined Cycle Generation



▶ Scale of the Power Generation Business



F A Q

Q Amid electricity system reforms underway at present, how will Tokyo Gas develop its electric power business?

A Reforms to electricity systems are currently in progress. Regardless of how systems may change, we will remain committed to contributing to society and invigorating the electricity market by providing a stable supply of energy

and helping reduce electricity rates. In this quest, we will leverage all of our various strengths in the electric power business. These strengths include our LNG procurement capabilities as well as our terminals, pipelines, and other LNG infrastructure. Another strength is our breadth of experience and expertise regarding the construction and operation of in-house generation facilities, which we have refined through our operations at Ohgishima Power Co., Ltd., and Kawasaki Natural Gas Power Generation Co., Ltd., etc.

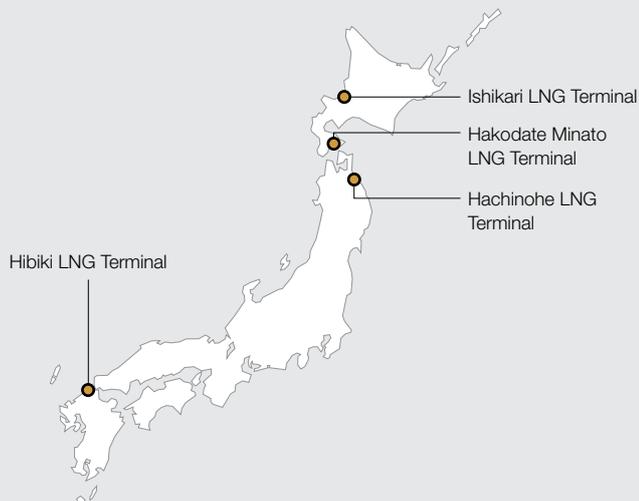
Action ▶▶ Supplying LNG throughout Japan

Not limiting its operations to the Kanto region, Tokyo Gas provides the resources that it procures throughout Japan. We thereby meet the needs of gas companies throughout Japan, supplying them with LNG via tank lorries, large ocean-going tankers, and smaller domestic vessels. Expanding our sales channels in this manner is yet another one of our efforts to enhance the LNG value chain.

As one facet of these efforts, we commenced supply to the Ishikari LNG Terminal of Hokkaido Gas Co., Ltd., in October 2012. This project is our first endeavor to provide a domestic gas company with gas procured by the Company via ocean-going

tankers. Through this venture, the Ishikari LNG Terminal will be supplied with between 300,000 tons and 400,000 tons of LNG per year during the 11-year period beginning fiscal 2012. Further, we acquired a 20% stake in Hokkaido LNG Co., Ltd., a consolidated subsidiary of Hokkaido Gas that is the direct owner of the Ishikari LNG Terminal, to deepen our relationship as we work to advance the spread of LNG. We also signed an LNG sales agreement with Saibu Gas Co., Ltd., for the supply of about 300,000 tons of LNG per year over the 16-year period beginning fiscal 2014.

▶ **Supplying LNG via Domestic and Overseas Vessels**



▶ **Supplying LNG via Domestic and Overseas Vessels**

JX Nippon Oil & Energy Corporation	Hachinohe LNG Terminal	Currently supplying
Hokkaido Gas Co., Ltd.	Hakodate Minato LNG Terminal	Currently supplying
	Ishikari LNG Terminal	Currently supplying
Saibu Gas Co., Ltd.	Hibiki LNG Terminal	From 2014

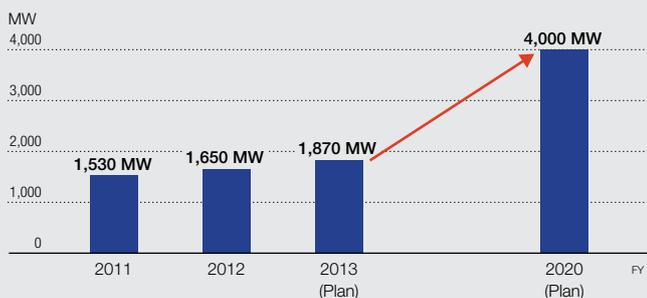


LNG Tanker "Energy Frontier"

Action ▶▶ Promoting the Proliferation and Expansion of Dispersed Energy Systems

Against the backdrop of increased demand for energy security and business continuity plans, we have been promoting sales of commercial and industrial cogeneration systems, and our cumulative stock of these systems has risen to 1,650 MW. We plan to raise this cumulative stock by 220 MW in fiscal 2013 and then to 4,000 MW in fiscal 2020.

▶ **Cogeneration System (Commercial, Industrial) Stock Plan**



▶ **Benefits of Cogeneration Systems**

1. Reduced Energy Usage and Costs

As cogeneration systems make effective use of waste heat or direct this heat for use in air conditioning or water heating equipment, they contribute to reductions in energy costs.

2. Environmental Preservation Benefits

City gas is a clean source of energy and its systems make effective use of waste heat, thereby helping cut CO₂ emissions by approximately one-third in comparison to conventional systems.

3. Improved Energy Security

Cogeneration systems enable the usage of several power sources, making it easier to secure a supply of electricity during times of disaster.

**Focus
4**

Accelerating the Proliferation of New “ENE-FARM” Systems

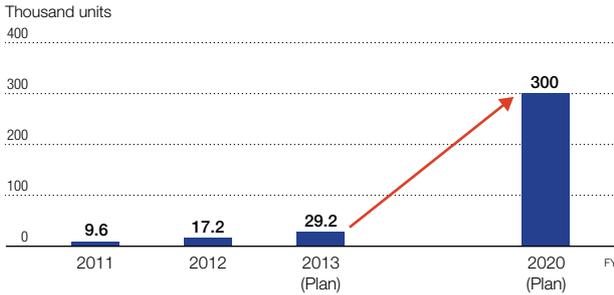
Simultaneously Realizing Reduced Costs and Improved Performance

Tokyo Gas is promoting the proliferation of dispersed energy systems for which natural gas is a core element. As part of these efforts, we have been expanding sales of “ENE-FARM” residential fuel cell systems, and in fiscal 2012 “ENE-FARM” sales exceeded targets, at approximately 7,600 units. In fiscal 2013, we will promote sales of new “ENE-FARM” systems that boast reduced

costs and the world’s highest level of total efficiency, targeting a year-on-year increase of approximately 58% in “ENE-FARM” sales, to 12,000 units.

Our plans call for a stock of 300,000 “ENE-FARM” units to be accumulated by fiscal 2020.

▶ **“ENE-FARM” (Residential) Stock Plan**

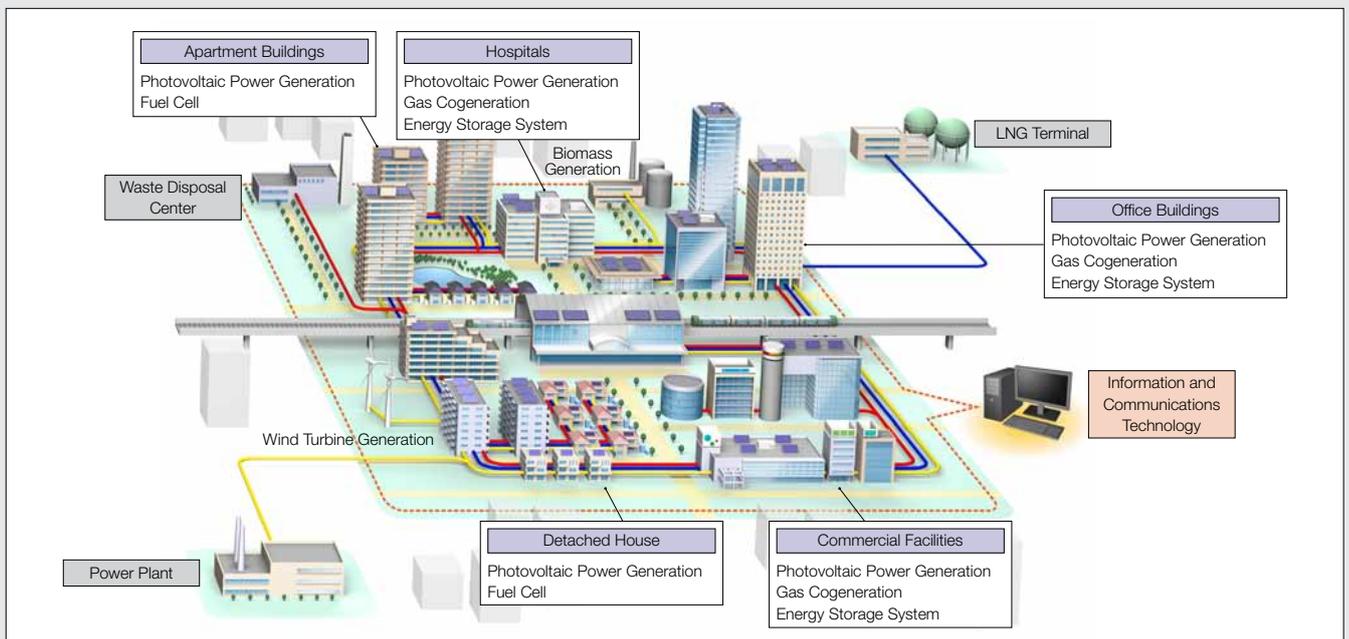


Action ▶▶ Promoting Smart Energy Networks

Tokyo Gas advocates the creation of “smart energy networks.” These networks are based on a concept of combining renewable energy with cogeneration systems and controlling these in an optimal manner through information and communications technology (ICT). This process enables electricity and heat to be managed comprehensively throughout the network to reduce energy usage and CO₂ emissions. We are advancing a number of

projects in cooperation with the government and our business partners to complete various verification tests for these networks and realize practical use. These projects include energy usage related ventures, such as a network designed to optimize energy supply and demand management in the area north of the east exit of Tamachi Station, in Tokyo, and a network utilizing untapped renewable energy in the Toyosu wharf area, also in Tokyo.

▶ **Smart Energy Network**



Capital Expenditures Plan

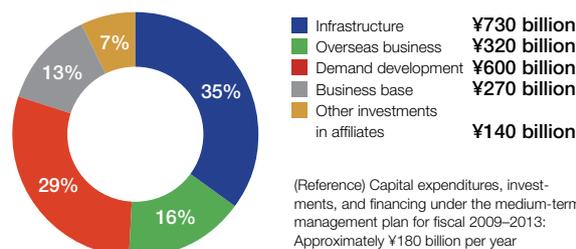
Capital Expenditures, Investment, and Financing Plan for “Challenge 2020 Vision”

The “Challenge 2020 Vision” calls for aggressive capital expenditures, investments, and financing, including through external funding, to achieve new growth by “enhancing the LNG value chain.” Between fiscal 2012 and fiscal 2020, this plan calls for total capital expenditures, investments, and financing of ¥2.06 trillion. As an annual average, the vision, compared with the Group medium-term management plan for fiscal 2009–2013 (hereinafter, “FY09–13 Medium-Term Plan”) targets an annual increase in spending of around ¥50 billion, from approximately ¥180 billion to around ¥230 billion. This proactive funding is aimed at optimizing and enhancing our infrastructure so that we can promote and expand the use of natural gas. Much of this investment will go toward production and supply facilities including the Hitachi LNG Terminal. We will also augment our trunk and service lines and electric power generation to develop demand, and continue investing aggressively in overseas

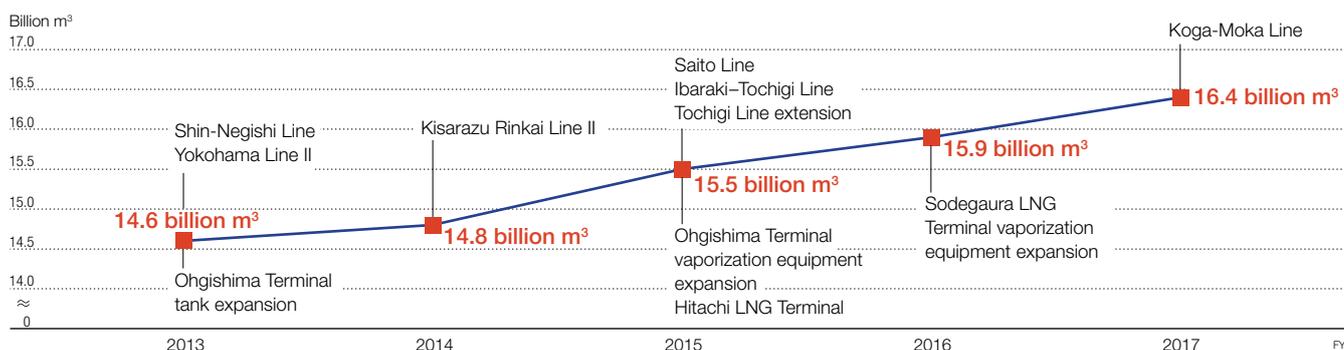
business to procure gas resources. During the investment period, we expect operating cash flow (consolidated net income + depreciation) to be around ¥250 billion per year, approximately ¥40 billion per year higher than during the FY09–13 Medium-Term Plan.

► Use of Capital Expenditures, Investment, and Financing

Fiscal 2012–Fiscal 2020: Approx. ¥2,060 billion
(Approx. ¥230 billion per year)



► Gas Sales Volume Plan and Facilities Development Plan (non-consolidated)



► Facility Investment Plans (non-consolidated)

	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017	Total for fiscal 2013–2017
Production facilities	28.1	32.2	29.4	8.4	7.7	105.7
LNG-related facilities	19.6	24.3	23.2	0.1	1.2	68.3
Other	8.5	7.9	6.2	8.3	6.5	37.5
Supply facilities	95.8	97.3	99.4	79.4	76.3	448.2
Trunk lines	21.0	23.3	28.8	10.7	5.7	89.6
Other	74.8	73.9	70.6	68.7	70.6	358.7
Business facilities	22.3	34.1	40.1	51.2	40.9	188.6
Subtotal for gas business facilities (reduction entry of land contribution for construction)	146.2	163.6	168.8	139.0	124.9	742.6
Incidental facilities	0.8	0.6	0.6	0.6	0.6	3.1
Total (reduction entry of land contribution for construction)	147.0	164.2	169.4	139.6	125.5	745.7