

### **Outline and Strength**

Since 2000 when the Tokyo Gas Group started to generate and supply the electric power, it has engaged in a comprehensive range of business activities that extend from fuel procurement to power generation and sales. Among the new entrants to the sector following the start of its deregulation program, we own the largest power station in the Greater Tokyo Area and sell generated power to wholesale and large-lot customers. With the completion of deregulation of the retail electric sector in April 2016, we started electricity sales to residential and commercial customers. The complete lifting of the restrictions on region of operations or original business sector provided an enormous growth opportunity for our Group, which has a competitive power source portfolio and well established sales power.

By our responding to customers' needs for more affordable, reliable, and safe energy, we aim to significantly expand our electric power business and to raise corporate value (see details on the deregulation of the electric power and gas industries on page 15).

## Objective: Selling about 10% of electricity demand in the Greater Tokyo Area

The Tokyo Gas Group has steadily increased its electricity sales volume, mainly in the wholesale segment. In the coming years we plan to expand sales to residential and commercial customers and raise our electricity sales volume from around 10 billion kWh at

present to about 30 billion kWh, equivalent to about 10% of demand in the Greater Tokyo Area, by 2020.



# **Toward realizing our Challenge 2020 Vision**

Deregulation of the retail market, completing the program for electric power and gas deregulation, can provide the impetus for the Tokyo Gas Group to greatly advance toward expanding as a "total energy" concern. While completion of the deregulation program for retail gas in 2017 is likely to intensify competition in the gas business, we are expecting to gain more earnings opportunities by entering the much bigger retail electric power market. In the Challenge 2020 Vision, we aim to evolve our total energy business including the electricity retail business, and expand the ratio of "electric power, LNG sales, and other business" from 20% of consolidated net earnings when the plan was adopted to 25% by fiscal 2020.

# **Tokyo Gas Group's strengths**

#### In The largest-scale and highly-efficient power sources among the new power suppliers in the Greater Tokyo Area

The Tokyo Gas Group now has the largest scale of power sources (1,600MW from 4 bases) among the new power suppliers servicing the Greater Tokyo Area. By adopting highly efficient gas turbine combined cycle (GTCC) generation, which offers superior energy savings, highly efficient power generation has been realized (a record high of 58% realized at the Ohgishima Power Station). In addition, close proximity to the LNG receiving terminals enables efficient gas transportation.

# Community-based sales network and over 11 million customer base

The Tokyo Gas Group has established a community-based sales network with over 200 outlets in the Kanto region (operated by Tokyo Gas Lifeval, Enesta, and Enefit) enabling us to tailor services to individual customers' needs. The 10,000 employees of Lifeval, through whom there is direct interaction with those customers on behalf of the Tokyo Gas Group, are engaged every day in meticulous services that encompass from sales calls and maintenance of gas appliances to the opening and closing of gas fixtures in time of moving, gas appliance safety checking, and gas meter reading. Our push-type marketing, involving contacts with over 11 million customers at their homes and places of work, has benefitted us by enabling us to steadily gain contracts toward becoming a No. 1 new electric power entrant in a competitive and newly deregulated market.

### Infrastructure and management know-how system

In addition to the owned city gas business assets such as LNG terminals, pipelines, and LNG purchasing capacity, the Tokyo Gas Group is capable of using distributed power generations, including cogeneration and fuel cells, know-how for management of electricity generation by use of LNG, and experience in systematic business techniques from utility rate calculation to billing and collection.

#### Full Deregulated Market of the Electric Power and Gas

		Number of companies	Approximate potential customers (Million)	Approximate market size (¥trillion)
	Electricity	10	85	8.0
		Within TEPCO's domain	29	2.8
	City gas	206	26	2.4

**Business Structure** 

(Consolidated Net Income Ratio by Business)



Moka Power Station L. (Kobe Steel)

Hitachi LNG Terminal

Kawasaki Natural Gas Power Generation Co., Ltd. Ohgishima LNG Terminal/ Ohgishima Power Co., Ltd.

Sodegaura LNG Terminal

Negishi LNG Terminal Tokyo Gas Yokosuka Power Co., Ltd.

 Sales and Service Network

 (Number of Outlets Operated by Tokyo Gas

 Lifeval, Enesta, and Enefit)

 Tokyo
 107

 Kanagawa
 53

 Saitama
 24

 Chiba
 11

Oniba	
Gunma	8
Ibaraki	8
Yamanashi	3
Tochigi	2

## **Future Initiatives Given Complete Deregulation of Retail Electric Power**

In light of the objectives of the electric power system reforms and of the needs of customers, Tokyo Gas intends to establish a demand and supply structure that contributes to greater stability of supply, realize to supply affordable energy, and help diversify services offered to customers by undertaking a variety of measures to expand its electric power business.



## Initiative

# Expand power sources

Aiming at delivering electricity to low-voltage residential and commercial customers, in addition to the wholesale market, we plan to expand generation capacity from the current level of approximately 1,600 MW (company equity base) to around 3,000 MW by 2020. In addition to the Tokyo Gas Group's power stations, it has been agreed that electric power generated at Moka Power Station, which is under construction by Kobe Steel, one of the largest Independent Power Producers (IPP), will be supplied to Tokyo Gas. Adding to our competitive gas-fired thermal power sources and base load supply sources, we will also promote initiatives aimed at expanding renewable power sources in order to address to the issue of preventing climate change. Plan to Expand Power Sources (Own Equity)



#### **Recent Initiatives**

Sep. 2014	Concluded an agreement with Kobe Steel, Ltd. for the supply of electricity from the Moka Power Station (1,200 MW; operations scheduled to commence from fiscal 2019)
Jan. 2016	Submitted the "Environmental Impact Statement" for the construction plan of the coal-fired thermal power plant (power generation scale up to a maximum of 2,000 MW by mid-2020s) of Chiba-Sodegaura Energy Co., Ltd. (investment by Idemitsu Kosan, 33%; Kyushu Electric Power, 33%; Tokyo Gas, 33%)
Feb. 2016	Ohgishima Power (investment by Showa Shell Sekiyu, 25%; Tokyo Gas, 75%) started operation of the No. 3 of Ohgishima Power Station, expanding the Tokyo Gas Group's Power source to approximately 1,600 MW
Mar. 2016	Received the subsidy of Fukushima Prefecture's wind power generation optimal location selection business and began a study of wind conditions.
Mar. 2016	Kawasaki Natural Gas Power Generation (investment by JX Nippon Oil & Energy, 51%; Tokyo Gas, 49%) submitted the Environmental Impact Statement for the Kawasaki Natural Gas Power Plant Units No. 3 and No.4 Enlargement Plan (power output of approximately 550 MW X 2 units, scheduled to start operations from 2021)

#### The Group's Natural Gas-Fired Thermal Power Plants







# Initiative

# Expand electricity sales to high-voltage and extra-high-voltage customers

In October 2015, we established Synergia Power Co., Ltd., jointly with Tohoku Electric Power Co., Ltd. Synergia began electricity sales to high-voltage and extra-high-voltage customers in the Kanto Region, mainly in its northern area.

#### Tokyo Gas Group's Electricity Sales Companies



	Corporate name	Synergia Power Co., Ltd.
	Address	1-9-12 Kita Ueno, Taito-ku, Tokyo
	Established	October 1, 2015
	Main business	Electricity retail supply to high-voltage and extra-high-voltage customers in the Kanto region, mainly in its northern area
	Capital	¥495 million
	Shareholders	Tohoku Electric Power 50%; Tokyo Gas 50%



Corporate name	ENNET Corporation
Address	The Front Tower Shiba Koen, 2-6-3 Shiba Koen, Minato-ku, Tokyo
Established	July 7, 2000
Main business	Electricity trading and electricity generation
Capital	¥6.3 billion
Shareholders	NTT Facilities 40%; Tokyo Gas 30%, Osaka Gas 30%

## Initiative



## Expand electricity sales to low-voltage customers

Following the full deregulation of the electricity retail sector in April 2016, we began low-voltage electricity sales to residential and commercial customers mainly in our supply area, the Kanto Region. We sell electricity through the Tokyo Gas Group companies, such as Tokyo Gas Lifeval, Enesta, and Enefit, as well as through partnerships with companies in various industries, including nearby city gas and LPG suppliers and businesses in a range of other industries, including housing, construction, equipment, and telecommunications services.

# Offer one-stop electricity, gas and other value-added services

The Tokyo Gas Group has established relationships of trust with over 11 million customers through its community-based sales network, which tailor services to individual customers' needs at their homes and workplaces. The services include gas appliance safety checking and gas meter reading, gas appliance repair and installation, and the opening and closing of gas fixtures in time of moving. In the electricity retail business, we will leverage our existing sales structure and relationships of trust with customers, provide more value to them, and take up challenges that may arise, whereby to raise the Tokyo Gas Group's corporate value.

