FY 2004

Business Plan

March 2004

Tokyo Gas Co., Ltd.

Introduction

Revisions to the Gas Utility Industry Law is coming into force in April 2004, bringing the likelihood of increasingly fierce competition in the gas market through changes such as an increased number of new market entrants. In preparation for full-scale mega-competition in the energy markets, Tokyo Gas formulated its Frontier 2007 mid-term management plan, covering the period FY 2003 to FY 2007. The plans are now being put into action to bring about Reform and Creation.

The Business Plan for FY 2004 is firmly based on a continuation of the Frontier 2007 approach, and incorporates adjustments to take account areas where circumstances have changed. Tokyo Gas will work to fully implement this Business Plan and thereby make progress towards early achievement of the objectives set out in Frontier 2007.

I. Outline of the Business Plan

1. Diffusion plan

The number of new gas service connections in FY 2004 is expected to be 273,000. This more settled figure follows the 2003 peak in completion of large residential projects in the Tokyo metropolitan area. From FY 2005 onwards, there is likely to be a pause in the market after the rush of housing starts abates when the extension of the preferential tax treatment for housing loans ends in December 2004. This is likely to lead to a drop in the level of housing starts in the metropolitan area, resulting in a reduction in the number of new connections. The number of customers is projected to grow at a five-year average of 1.6%.

(Thousands)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Number of new connections	300.1	273.0	260.9	255.1	251.3	245.7	-3.9%
Number of customers	9,451.4	9,628.9	9,791.7	9,946.4	10,094.8	10,235.4	1.6%

* Number of customers = number of gas meters fitted

2. Gas sales volume plans

A 2.8% five-year average growth rate (from FY 2003 outlook to FY 2008) is projected for gas sales volume, with sales of 12.8 billion m^3 expected in FY 2008.

<Overall sales volume>

(Unit: million m^3, 46.04655MJ/m^3)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Total sales volume	11,108	11,490	11,786	12,254	12,538	12,762	2.8%

* FY 2003 outlook is after standardization (values adjusted for temperature etc., based on the average year), the same applies throughout this document.

(1) Residential

The number of residential accounts is increasing with the growth in new gas service connections.

However, the decrease in the sales volume per account is expected to continue despite efforts to promote floor heating systems. This is due to the decline in the number of people per household, the impact of the growth in convenience foods, improvements in the efficiency of appliances, and better draught exclusion and insulation in housing.

<Residential demand and sales volume per account>

(Unit: million m^3/account/year, 46.04655MJ/m^3)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Residential sales volume	3,228	3,265	3,300	3,331	3,361	3,390	1.0%
Sales volume per account	405	404	403	400	398	395	-0.5%

<Cumulative number of floor heating systems installed>

(Thousand households)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Cumulative number	588	688	789	890	993	1,096	13.3%
Rate of diffusion	6.7%	7.6%	86%	9.5%	10.5%	11.4%	—

* The rate of diffusion was calculated by dividing the cumulative number of floor heating systems installed by the number of residential customers as of the end of the year in the company's service area.

(2) Industrial

Industrial sales account for the biggest volume by category of use. This category is growing, primarily in the area of co-generation systems and other large-scale demand.

(Unit: million m^3, 46.04655MJ/m^3)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Industrial sales volume	4,047	4,139	4,277	4,587	4,742	4,807	3.5%
(Of which are of large-scale sales volume)	3,697	3,846	4,003	4,293	4,429	4,470	3.9%

* A new definition of large-scale (500,000m^3) is applied from FY 2004.

(3) Commercial, others

Air conditioning demand is increasing due to a more widespread installed base of gas heat pump and absorption-type air conditioners.

(Unit: million m^3, 46.04655MJ/m^3)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Commercial sales volume	2,665	2,783	2,826	2,889	2,951	3,017	2.5%
(Of which are of large-scale sales volume)	861	1,026	1,104	1,109	1,121	1,156	6.1%

* A new definition of large-scale (500,000m^3) is applied from FY 2004.

(4) Wholesales supply

Wholesale supply to other gas companies is rising due to increased demand from existing wholesale purchasers, and to an increase in the number of new wholesale purchasers.

(Unit: million m^3, 46.04655MJ/m^3)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Wholesale supply sales volume	1,168	1,303	1,383	1,447	1,484	1,548	5.8%

(5) Power generation

Power generation (cogeneration/power generation only) sales volume (Included in figures for (2), (3) above)

Sales volume is steadily increasing due to the growth in cogeneration system utilization and supply to new power generation companies. The proportion of overall gas sales volume accounted for by power generation is expected to remain steady at a little under 30%.

(Unit: million m^3, 46.04655MJ/m^3)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Consumer cogeneration	277	263	280	293	306	322	3.1%
Industrial cogeneration	1,051	1,163	1,308	1,379	1,422	1,465	6.9%
Power generation only (business use)	1,517	1,545	1,552	1,579	1,597	1,597	1.0%
Power generation only (private use)	166	165	155	165	155	165	-0.1%
Total	3,011	3,136	3,295	3,416	3,480	3,549	3.3%

* Sales to the Roppongi area in the energy supply sector are included in power generation only (business use).

<Power generation as proportion of overall sales volume>

	FY03 outlook	FY04	FY05	FY06	FY07	FY08
Proportion represented by power generation (%)	27.1	27.3	28.0	27.9	27.8	27.8

3. Production/purchasing volume and feedstock utilization plans

Tokyo Gas is working to secure stable feedstock over the long term. In addition, we are also further reducing procurement costs by increasing short term transactions, thereby boosting our flexibility.

<Gas production/purchasing volume>

(Unit: million m^3, 46.04655MJ/m^3)

		FY03 outlook	FY04	FY05	FY06	FY07	FY08
Natural gas	LNG	10,209	10,657	10,759	11,214	11,477	11,620
	Domestic natural gas	211	238	255	268	279	295
Petroleum	LPG	473	497	735	736	747	814
	Off gas	211	142	105	105	105	105
Total		11,104	11,534	11,854	12,323	12,608	12,834

* Production/purchasing volume does not include receipts from other gas companies

<Feedstock utilization volume>

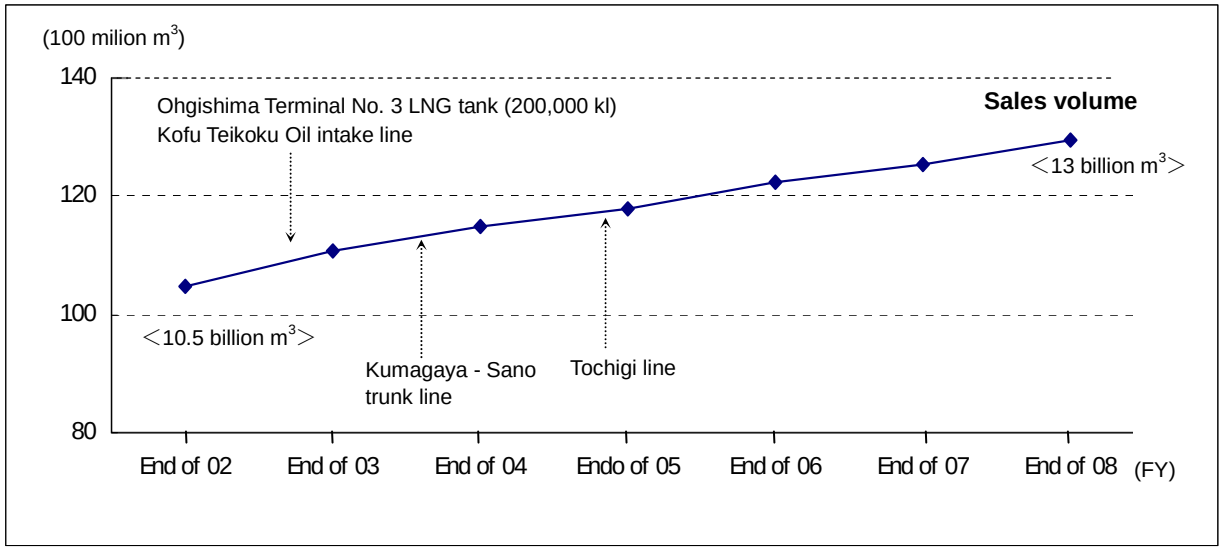
(Unit: thousand tons)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08
LNG	8,327	8,636	8,715	9,104	9,323	9,446
LPG	390	435	644	645	655	713

4. Major facility plans

We are boosting gas production at facilities to respond appropriately to the demand outlook, while at the same time developing related production and supply infrastructure. As well as striving for stable supply, we are making efforts to improve efficiency. Within the current five-year horizon, specific strategies include the completion of the Kumagaya-Sano trunk line in FY 2004, enabling the commencement of city gas supplies from the company's plants to the Utsunomiya area. In FY 2005, this will be followed by the completion of the Tochigi line, ensuring greater reliability for supplies to Utsunomiya and enabling us to handle growing demand in the northern Kanto region. In the longer term, FY 2009 is the target date for completion of a central trunk line (from Edogawa Ward to Soka City), planned for the dual purposes of achieving supply security and meeting increasing demand in the whole Tokyo Gas service area.

<Demand outlook and facility formation plans>



<Major production facility plans>

Date of scheduled commencement	Production facility	Location
Nov. 2008	LNG vaporization facilities	Sodegaura Terminal

<Major pipeline plans>

(Unit: km)

Date of scheduled commencement	Name of route	Section	Inner diameter (mm)	Pressure (MPa)	Total length (km)
Oct. 2004	1. Kumagaya-Sano trunk line	Kumagaya～Sano	400	7.00	38.9
				1.77	2.9
Mar. 2006	2. Tochigi line	Sano～Moka	400	7.00	54.0
Oct.2009	3. Central trunk line	Edogawa-ward～ Soka-city	600	7.00	23.0
Mar. 2006	[1] Tochigi line (medium pressure)	Moka～Utsunomiya	500	0.99	16.0

<Total length of pipeline infrastructure at end of fiscal year>

(Unit: km)

FY03 outlook	FY04	FY05	FY06	FY07	FY08
50,108	50,684	51,302	51,846	52,380	52,973

5. Outline of capital investment plans

We have made plans for investments totaling ¥387.6 billion (after adjustment for construction contribution income) in the five year period from FY 2004 to FY 2008. The following were the major considerations in this supply planning period:

(1) In the area of production facilities, expansion of LNG-related facilities at the Ohgishima Terminal was largely completed within FY 2003, so for the time being we intend to fully

ensure a stable production system by utilizing existing facilities, making modifications where necessary.

(2) In the area of supply facilities, we will make efforts to establish a stable supply system and assure safety through investments in construction of additional pipelines to meet new demand, the formation of a major pipeline network, the systematic replacement of existing pipelines, and facilities for disaster prevention.

(3) In the area of business facilities, we are planning to promote technology development, IT infrastructure, and the construction or renovation of old buildings to further reinforce our administrative setup.

(4) In the area of incidental services, we plan to enhance our capabilities with regard to areas peripheral to the city gas business, beginning with facilities related to on-site heat supply and natural gas vehicles.

<Table of capital investment plans>

(Unit: ¥ billion)

		FY02 outlook	FY03	FY04	FY05	FY06	FY07	FY03~07 Total
Gas business facilities	LNG-related facilities	3.3	0	0	0	0.7	1.4	2.1
	Others	1.4	2.8	4.3	5.4	5.4	2.1	20.0
	Production facilities	4.7	2.8	4.3	5.4	6.1	3.5	22.1
	Trunk line investment	8.3	7.1	5.3	3.6	2.4	2.4	20.8
	Others	58.1	53.3	57.4	52.0	50.0	49.3	262.0
	Supply facilities	66.4	60.4	62.7	55.6	52.4	51.7	282.8
	Business facilities	18.0	24.9	24.1	9.7	9.8	9.7	78.2
	Subtotal	89.1	88.1	91.1	70.7	68.3	64.9	383.1
Associated business facilities		0.9	1.8	2.3	0.2	0.1	0.1	4.5
Total*		90.0	89.9	93.4	70.9	68.4	65.0	387.6

* Total investment figures are after adjustment for construction contribution income.

Trunk line investment	Kumagaya-Sano trunk line (Completion in FY 2004: total cost ¥ 15.1 billion, of which ¥ 0.1 billion is over five-year period in question) Tochigi line (Completion in FY 2005: total cost ¥ 16.9 billion, of which ¥ 7.1 billion is over five-year period in question): including medium pressure lines Central line (Completion in FY 2009: total cost ¥ 16.0 billion, of which ¥ 14.5 billion is over five-year period in question)
Business facilities	Technology development, information technology, construction/renovation of buildings, etc.

II. Major numerical projections

(1) Diffusion plan

(Thousands)

	FY03 outlook	FY04	FY05	FY06	FY07	FY08	Comments
Number of new gas service connections	300.1	273.0	260.9	255.1	251.3	245.7	Five-year total 1,286.0
Number of customers	(2.2%) 9,451.4	(1.9%) 9,628.9	(1.7%) 9,791.7	(1.6%) 9,946.4	(1.5%) 10,094.8	(1.4%) 10,235.4	(Year-on-year rate of growth)
Net increase	207.1	177.5	162.8	154.7	148.4	140.6	Five-year net increase 784.0
Diffusion rate (%)	90.1	90.8	91.5	92.3	93.0	93.5	

Note: The rate of diffusion was calculated by dividing the number of customers in the company's service area by the total number of households in the company's service area.

(2) Gas demand outlook

(Unit: million m^3, 46.04655MJ/m^3)

			FY03 Outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Sales volume	Residential		(405) 3,228	(404) 3,265	(403) 3,300	(400) 3,331	(398) 3,361	(395) 3,390	(-0.5%) 1.0%
	Business sector	Industrial	4,047	4,139	4,277	4,587	4,742	4,807	3.5%
		Commercial	2,665	2,783	2,826	2,889	2,951	3,017	2.5%
		Subtotal	6,712	6,922	7,103	7,476	7,693	7,824	3.1%
	Total		9,940	10,187	10,403	10,807	11,054	11,214	2.4%
Wholesale supply			1,168	1,303	1,383	1,447	1,484	1,548	5.8%
Grand total			11,108	11,490	11,786	12,254	12,538	12,762	2.8%
(Of which are for power generation)			3,011	3,136	3,295	3,416	3,480	3,549	3.3%
Excluding power generation			8,097	8,354	8,491	8,838	9,058	9,213	2.6%

* FY 2003 outlook is after standardization (values adjusted for temperature etc., based on the average year).
Figures in parentheses indicate sales volume per household (m^3/household/year).

<Reference>

(Unit: million m^3, 46.04655MJ/m^3)

	FY03 Outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Large-scale demand (included in business sector figures)	4,558	4,872	5,107	5,402	5,550	5,626	4.3%

* FY 2003 outlook is after standardization (values adjusted for temperature etc., based on the average year).
* A new definition of large-scale (500,000m^3) is applied from FY 2004.

(3) Installed stock for each system type in the air conditioning sector

(Unit: thousand kW)

	FY03 Outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Absorption type	2,783	2,866	2,968	3,067	3,153	3,254	3.2%
GHP	813	880	948	1,015	1,072	1,145	7.1%
Total	3,596	3,746	3,916	4,082	4,225	4,399	4.1%

* Installed stock is a conversion of the base cooling facility capacity managed at the company to COP 3.5 electric air conditioners.

(4) Installed stock of power generation facilities

(Unit: thousand kW)

	FY03 Outlook	FY04	FY05	FY06	FY07	FY08	Average annual growth rate
Consumer cogeneration	269	297	314	327	340	356	5.8%
Industrial cogeneration	747	834	946	1,011	1,058	1,105	8.1%
Total for Cogeneration	1,016	1,131	1,260	1,338	1,398	1,461	7.5%
Power generation only (business use)	2,156	2,213	2,169	2,369	2,369	2,369	1.9%
Power generation only (private use)	187	187	187	187	187	187	0.0%
Total for Power generation only	2,343	2,400	2,356	2,556	2,556	2,556	1.8%
Grand Total	3,359	3,531	3,616	3,894	3,954	4,017	3.6%

(5) FY 2004 capital investment plans

(Unit: ¥ million)

Item			Amount of investment	Percentage of total	Comments
Production facilities	New LNG-related facilities		0	0.0%	
	Others		2,757	3.1%	・Improvement and replacement of existing facilities
	Total		2,757	3.1%	
Supply facilities	Mains and laterals	Demand development	23,637	26.3%	・668.4 km: Mains and laterals to meet demand
		Stable supply	11,006	12.2%	・57.8 km: High pressure transmission trunk lines, 14.6 km Includes: Kumagaya - Sano trunk line Tochigi line (including medium pressure lines) Chuo trunk line Improvement of supply pressure, etc.
		Pipe maintenance	7,992	8.9%	・120.6 km: Systematic replacement of superannuated pipes
		Other construction, etc.	1,756	1.9%	・99.4 km: Concomitant construction such as need to move facilities due to road construction
		Subtotal	44,391	49.3%	・936.7 km
	Service pipes and gas meters		14,688	16.3%	
	Others		1,334	1.5%	・Disaster prevention facilities and other safety equipment
	Total		60,413	67.1%	
Business facilities			24,937	27.7%	・Technology development, introduction of information technology and construction/renovation of buildings
Gas utility facility total (after adjustment for construction contribution income)			88,107	97.9%	
Associated business facilities			1,847	2.1%	・On-site heat supply, etc.
Total (after adjustment for construction contribution income)			89,954	100.0%	・Construction contribution income

* Figures for length in Comments indicate total length to be constructed.