

# **Outline of Supply Plans for FY2015**

## **(Non-Consolidated)**

**March, 2015**

**Tokyo Gas Co., Ltd.**

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## Introduction

Since the Great East Japan Earthquake, various issues of energy, such as safe and stable energy supply and energy cost reduction, have been more deeply discussed and the role for natural gas to play has grown furthermore. Under such circumstances, Tokyo Gas Group released its management vision, “Challenge 2020 Vision (2020 Vision)” in November 2011 and “Main Polices FY2015 – 2017 toward Realizing ‘Challenge 2020 Vision’” in October 2014 to meet the expectations of the society through the spread and expansion of natural gas use.

As for the business environment, the setting of the energy mix and the development of discussions about the electricity and gas system reforms are likely to remain fluid and unclear for the time being. Tokyo Gas Group, however, will use its comprehensive strengths and solidarity to boldly and swiftly embrace the challenge of realizing the 2020 vision, mainly through the three main policies “evolve the total energy business, “accelerate global business development,” and “construct a new group formation.”

With these initiatives, Tokyo Gas Group will make an effective contribution to realize a prosperous, fulfilling way of life, competitive domestic industries, and an environment-friendly society where people can live in peace of mind through the spread and expansion of natural gas use, pursuing sustained growth for the Group at the same time.

### 1. Gas Penetration Plan

The average number of newly connected customers is expected to be about 210,000 per year.

We foresee an average annual growth rate of 1.1 percent in our customer base over the next five years, projecting the customer base of 11,530 thousand by the end of FY2019.

(Unit: thousand)

	FY2014 Outlook	FY2015	FY2016	FY2017	FY2018	FY2019	CAGR
Number of new customers	225	214	212	207	209	211	-
Total number of customers*	10,939	11,063	11,185	11,298	11,413	11,530	1.1%

\*Total number of customers = Number of gas meters installed

### 2. Gas Sales Volume Plan

With the gradual recovery of the economy and the aggressive marketing mainly for the industrial demand, the plan foresees the total gas sales volume of approximately 17.8 billion m<sup>3</sup> in FY2019. As a result, the projected average annual growth rate over the next five-year period would be 2.9 percent.

(Unit: Million m<sup>3</sup>, 45MJ/m<sup>3</sup>)

	FY2014 Outlook*	FY2015	FY2016	FY2017	FY2018	FY2019	CAGR
Total gas sales volume	15,406	15,238	15,721	16,115	16,588	17,771	2.9%

\*FY2014 number is after standardization (applied temperature is adjusted for the one adopted for FY2015 and after). The standardization applies all the following tables.

### (1) Residential demand

In this sector, the amount of sales per customer is in decline due to such factors as the reduction in the number of family members per household, a rise in the share of collective residential properties with high levels of air tightness and insulation, and the penetration of high-efficiency gas equipment. The trend of excess population influx into the Tokyo metropolitan area is expected to moderately continue, and we are committed to efforts for the cultivation of new demand and the penetration and expansion of its cutting-edge equipment and systems such as Ene-Farm. We expect its residential gas sales volume in FY2019 to be 3.5 billion m<sup>3</sup>.

[Residential gas sales volume] Unit: Million m<sup>3</sup>, m<sup>3</sup>/customer·year, 45MJ/m<sup>3</sup>)

	FY2014 Outlook	FY2015	FY2016	FY2017	FY2018	FY2019	CAGR
Residential gas sales volume	3,409	3,429	3,440	3,458	3,470	3,476	0.4%
Gas sales volume per customer	372	369	366	363	361	358	-0.8%

### (2) Commercial and other demand

With the spread and expansion of co-generation systems and marketing for the air-conditioning demand, we foresee its commercial and other gas sales volume in FY2019 to be 2.9 billion m<sup>3</sup>.

[Commercial and other gas sales volume] (Unit: Million m<sup>3</sup>, 45MJ/m<sup>3</sup>)

	FY2014 Outlook	FY2015	FY2016	FY2017	FY2018	FY2019	CAGR
Commercial and other gas sales volume	2,581	2,552	2,620	2,710	2,804	2,917	2.5%
Incl. Large-volume gas sales volume	(1,261)	(1,226)	(1,249)	(1,296)	(1,360)	(1,431)	(2.6%)

### (3) Industrial demand

This sector accounts for the largest share of the total gas sales of the company. The sales volume in this sector is expected to grow as a result of the development of large-volume demands for the expansion of our business to a wider area, fuel conversion to natural gas from other sources, marketing for the power generation demand, and the spread and expansion of co-generation systems. For these reasons, we expect its FY2019 industrial gas sales volume to be 8.9 billion m<sup>3</sup>.

[Industrial gas sales volume] (Unit: Million m<sup>3</sup>, 45MJ/m<sup>3</sup>)

	FY2014 Outlook	FY2015	FY2016	FY2017	FY2018	FY2019	CAGR
Industrial gas sales volume	7,094	6,891	7,242	7,509	7,855	8,899	4.6%
Incl. Large-volume gas sales volume	(6,987)	(6,779)	(7,131)	(7,398)	(7,722)	(8,788)	(4.7%)

### (4) Wholesale demand

We expect the gas sales volume to other gas utilities/marketing companies in FY2019 to be 2.5 billion m<sup>3</sup>, taking into account the trends in industrial demand among wholesale customers.

[Wholesale gas volume]

(Unit: Million m<sup>3</sup>, 45MJ/m<sup>3</sup>)

	FY2014 Outlook	FY2015	FY2016	FY2017	FY2018	FY2019	CAGR
Wholesale gas volume	2,322	2,366	2,420	2,438	2,460	2,478	1.3%

### 3. Production/Purchasing Volume and Feedstock Use Plan

We aim to heighten flexibility in our procurement by engaging in upstream business development and through the utilization of short-term business transactions to cope with demand fluctuation, making an effort to procure more competitive resources in addition to long-term contract based procurement of resources and commencement of receiving unconventional LNG.

[Gas production and purchasing volume]

(Unit: Million m<sup>3</sup>, 45MJ/m<sup>3</sup>)

		FY2014 Outlook	FY2015	FY2016	FY2017	FY2018	FY2019
Natural gas	LNG	14,662	14,568	14,823	15,162	15,502	16,617
	Domestic natural gas	245	248	254	258	263	268
Petroleum oil	LPG	522	560	787	841	969	1,048
	Off gas	53	32	31	31	31	31
Other	Biogas	1	1	1	1	1	1
Total		15,483	15,409	15,895	16,292	16,767	17,966

[Gas resource/fuel use volume]

(Unit: 1,000 ton)

	FY2014 Outlook	FY2015	FY2016	FY2017	FY2018	FY2019
LNG	11,518	11,471	11,655	11,915	12,171	13,047
LPG	443	478	671	717	827	894

### 4. Major Facility Plan

We will improve the security and disaster prevention initiatives by taking measures resistant to earthquakes and floods as well as accelerating the replacement of aged pipes. We will install and reinforce the production and supply infrastructure to establish more safe and secure base of supply and to respond more appropriately to gas demand projection, taking into account the heightened expectation and demand toward natural gas from customers and society at large.

- We will complete the Hitachi LNG Terminal, the Ibaraki-Tochigi Line, and the Koga-Moka Line both connecting to the existing network.
- We will install vaporizers in the Ohgishima LNG Terminal and the Sodegaura LNG Terminal.
- We will complete the Onahama Satellite (LNG storage tank/LNG vaporizer) and plan to construct the middle pressure pipeline.
- We will newly plan the construction of No. 2 LNG storage tank in the Hitachi LNG Terminal.

[Major pipeline plans]

Planned Commencement	Name	Route	Inner Diameter (mm)	Total Length (km)
Oct. 2015	Saito Line	Soka city – Koga city	600	39.9
Jan. 2016	Onahama Middle-Pressure Line	Iwaki city	400	3.9
Mar. 2016	Ibaraki-Tochigi Line	Hitachi city – Moka city	600	81.3
Mar. 2018	Koga-Moka Line	Koga city – Moka city	600	50.0

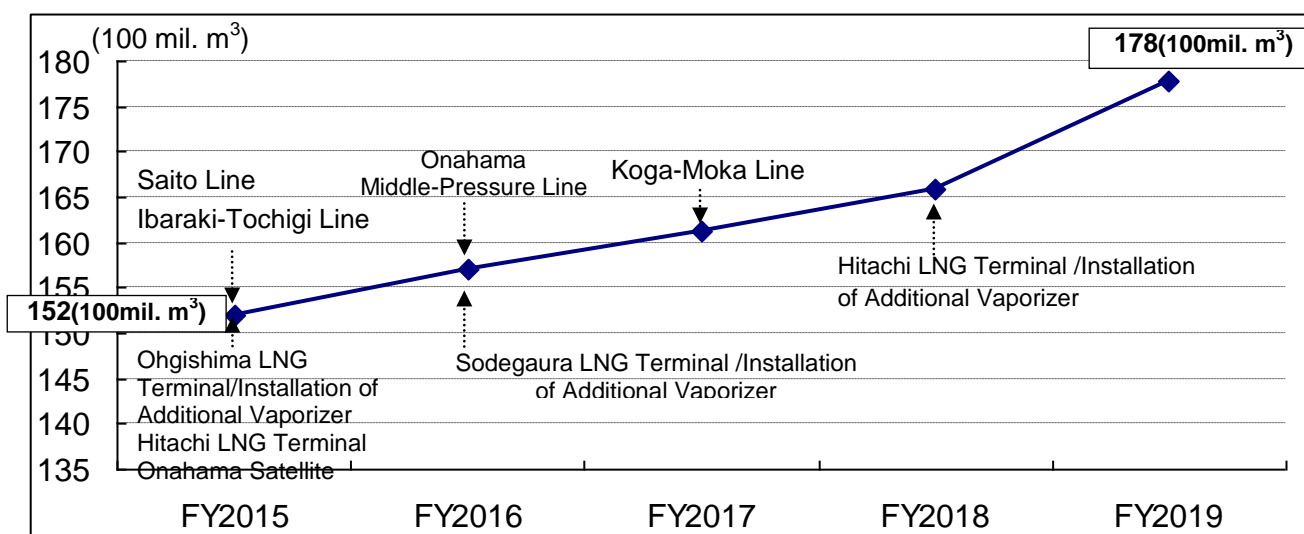
[Total length of pipelines at year-end] (Unit: km)

FY2014 Outlook	FY2015	FY2016	FY2017	FY2018	FY2019
56,761	57,496	58,140	58,826	59,458	60,100

[Major production facilities plans]

Planned commencement	Installed site	Installed facilities	No. of units
Jul. 2015	Ohgishima LNG Terminal	LNG vaporizer	1
Dec. 2015	Onahama Satellite	LNG storage tank	1
		LNG vaporizer	2
Mar. 2016	Hitachi LNG Terminal	LNG storage tank	1
		LPG storage tank	1
		LNG/LPG vaporizer	3
		LPG vaporizer	2
Jun. 2016	Onahama Satellite	LNG vaporizer	1
Dec. 2016	Sodegaura LNG Terminal	LNG/LPG vaporizer	2
Dec. 2018	Hitachi LNG Terminal	LNG/LPG vaporizer	2
Mar. 2021		LNG storage tank	1

[Gas sales volume plan and facilities development plan]



## 5. Capital Investment Plan

Tokyo Gas plans to invest a total of 765.2 billion yen in its facilities (after advanced depreciation of contribution for construction) over the five-year period of the supply plans (FY2015 – FY2019) as follows.

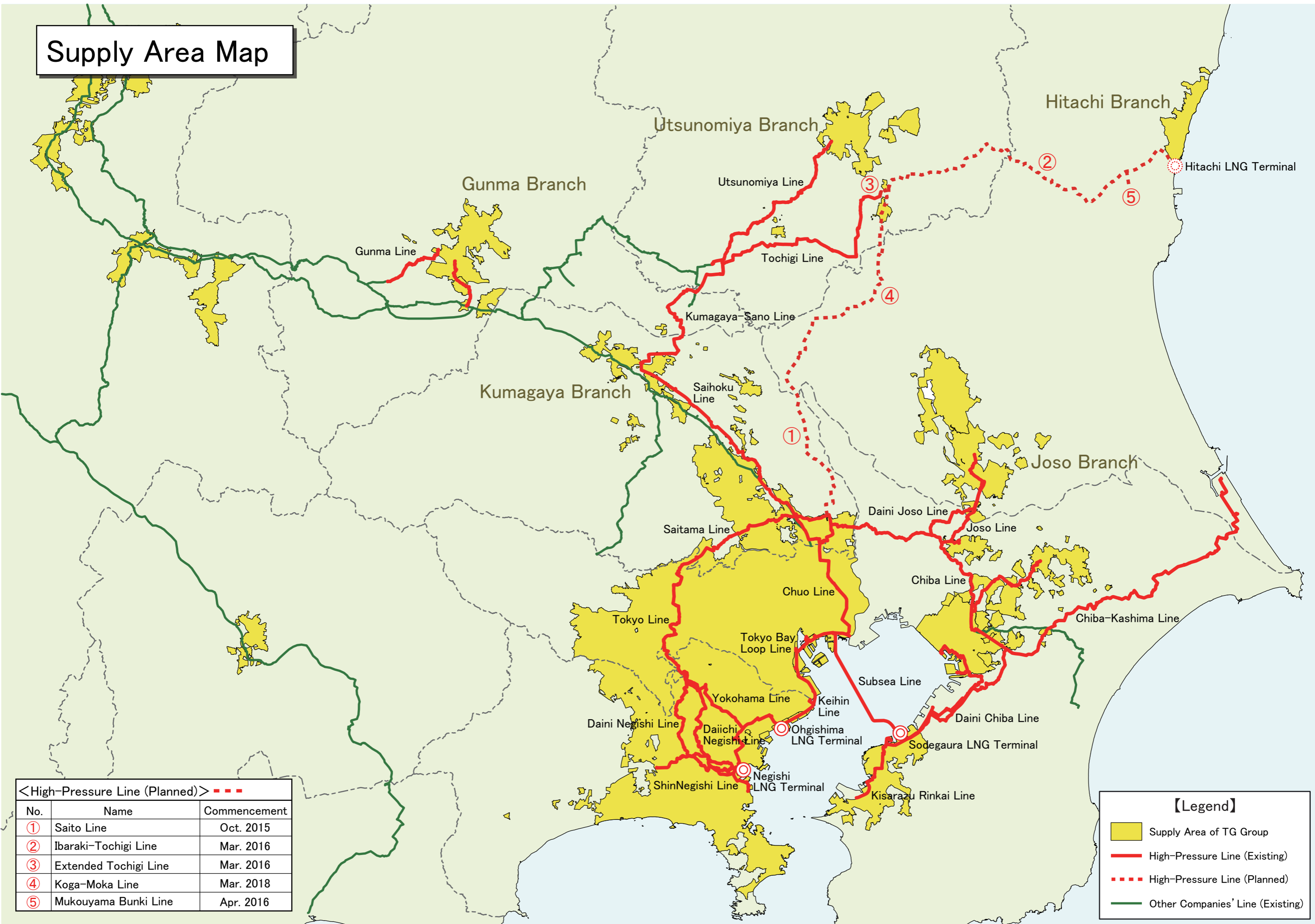
- (1) Production facilities; the further reinforcement of stable production systems through construction of the Hitachi LNG Terminal expansions of the LNG-related facilities in the three Terminals on Tokyo Bay and construction of the Onahama Satellite, as well as by proper measures for continued operation under long-term blackout situation, by appropriate methods resistant to earthquakes and floods and by scheduled repair and renovation of aged facilities.
- (2) Supply facilities; the establishment of stable supply systems and safety assurance through investment in pipeline installation for new demand development, formation of main pipeline network (reference: P6 “Supply Area Map”), facilities for measures resistant to earthquakes and floods, and further promotion of replacing aged pipes.
- (3) Business facilities; the further reinforcement of business development systems through improvements to information systems, enhancement of earthquake-proof business buildings, and promotion of technology development.
- (4) Incidental business facilities; improvements mainly to existing facilities.

[Capital investment plans]

(Unit: billion yen)

	FY2014 Outlook	FY2015	FY2016	FY2017	FY2018	FY2019	FY2015- FY2019 Total
LNG facilities	28.9	29.1	9.9	5.3	5.3	4.1	53.6
Other	6.3	11.1	13.7	16.8	7.1	6.7	55.4
Production facilities	35.2	40.2	23.5	22.2	12.3	10.8	109.0
Trunk line investment	27.0	28.4	10.2	6.2	0.5	0.0	45.3
Other	72.5	75.2	80.7	78.1	76.5	75.2	385.7
Supply facilities	99.5	103.6	90.8	84.3	77.0	75.2	431.0
Business facilities	22.7	45.8	39.4	58.6	48.7	27.6	220.1
Gas supply business Facilities	157.4	189.6	153.8	165.1	138.0	113.6	760.1
Incidental business facilities	0.4	1.2	1.2	1.2	0.8	0.6	5.0
Total	157.8	190.8	155.0	166.3	138.8	114.2	765.2

# Supply Area Map



<High-Pressure Line (Planned)> - - -

No.	Name	Commencement
①	Saito Line	Oct. 2015
②	Ibaraki-Tochigi Line	Mar. 2016
③	Extended Tochigi Line	Mar. 2016
④	Koga-Moka Line	Mar. 2018
⑤	Mukouyama Bunki Line	Apr. 2016

**【Legend】**

- Supply Area of TG Group
- High-Pressure Line (Existing)
- High-Pressure Line (Planned)
- Other Companies' Line (Existing)