



# Financial Report for 1<sup>st</sup> Half of FY2017.3 (April 2016 – September 2016)

October 2016  
Osaka Gas Co., Ltd.



# I. Business Results for 1<sup>st</sup> Half of FY2017.3 and Forecasts for FY2017.3

**Management information is available on Osaka Gas websites.**

Financial reports, annual reports and road show materials can be accessed and downloaded at the following URL

[http://www.osakagas.co.jp/ir/index\\_e.html](http://www.osakagas.co.jp/ir/index_e.html)

**Disclaimer**

Certain statements contained herein are forward-looking statements, strategies, and plans, which reflect our judgment based on the information so far available. Actual results may differ materially from those discussed in such statements. Among the factors that could cause actual results to differ materially are: economic trends in Japan, sharp fluctuations in exchange rates and crude oil prices, and extraordinary weather conditions

**Note regarding gas sales volume**

All gas sales volumes are indicated based on the standard heating value at 45 MJ/m<sup>3</sup>

**Note regarding consolidated gas sales volume**

The fiscal year of Nabari Kintetsu Gas, toyooka Energy, and Shingu Gas ends on December 31

**Note regarding the indication of quarter**

"Quarter" refers to "quarterly cumulative period," unless otherwise noted

Thank you very much for taking time to attend this briefing on our business result report.

I would also here like to express, on behalf of the Company, my gratitude for your continued cooperation and understanding in regard to the Company's businesses.

Now, I would like to present the results for the first half of the fiscal year ending March 2017, and the forecast for the full fiscal year.

# Summary of the Results for 1<sup>st</sup> Half of FY2017.3 - I

## Year-on-Year Comparison

### ■ Overview

Consolidated net sales	Decreased by 17.0% (¥109.0 billion) from the previous year to ¥532.3 billion due to the fall in gas sales unit price driven by lower LNG prices, etc.
Consolidated ordinary income	Decreased by 46.0% (¥42.7 billion) from the previous year to ¥50.1 billion due to decrease in gross profit of gas sales caused by the decrease in time-lag profit. Time-lag profit totaled ¥17.4 billion (Time-lag profit totaled ¥51.0 billion from the previous year)
Consolidated net income*	Decreased by 49.4% (¥32.6 billion) from the previous year to ¥33.3 billion

\* Profit attributable to owners of parent

### ■ Gas Sales Volume (Non-consolidated)

Residential	Decreased by 3.6% (27 million m <sup>3</sup> ) from the previous year to 746 million m <sup>3</sup> due to higher air and water temperatures leading to lower demand for hot water and heating, etc.
Commercial, public and medical	Increased by 1.1% (8 million m <sup>3</sup> ) from the previous year to 731 million m <sup>3</sup> due to higher air temperatures in summer, which led to higher demand for air conditioning, and development of new demand (mainly air conditioning), etc.
Industrial	Increased by 11.9% (241 million m <sup>3</sup> ) from the previous year to 2,258 million m <sup>3</sup> due to development of huge new demand, and the increase in capacity utilization of customers

The first half of the fiscal year ending March 2017 resulted in a decrease in net sales and income compared with the same period of the previous year.

Consolidated net sales decreased by 17.0% or 109.0 billion yen from the previous year to 532.3 billion yen due to the fall in sales unit price in gas business.

Consolidated ordinary income decreased by 46.0% or 42.7 billion yen from the previous year to 50.1 billion yen due to decrease in the profit of gas business caused by decrease in time-lag profit.

Consolidated net income for the quarter decreased by 49.4% or 32.6 billion yen from the previous year to 33.3 billion yen.

Gas sales volume for residential use decreased by 3.6% from the previous year to 746 million m<sup>3</sup> due to higher air and water temperatures leading to lower demand for hot water and heating.

Gas sales volume for commercial, public and medical uses increased by 1.1% from the previous year to 731 million m<sup>3</sup> due to higher air temperatures in summer leading to higher demand for air conditioning, and development of new demand mainly for air conditioning.

Gas sales volume for industrial use increased by 11.9% from the previous year to 2.258 billion m<sup>3</sup> due to development of huge new demand, and the increase in capacity utilization of customers.

# Summary of the Results for 1<sup>st</sup> Half of FY2017.3 - II

## Comparison with Initial Plan

### ■ Overview

Consolidated net sales	Although the net sales from gas business and affiliated companies decreased, consolidated net sales was <b>almost same level as the plan to ¥532.3 billion</b> due to increase in net sales from incidental business, etc.
Consolidated ordinary income	<b>Increased by 32.0% (¥12.1 billion) from the plan to ¥50.1 billion</b> due to increase in gross margin of gas business and profit from incidental business, etc.

### ■ Gas Sales Volume (Non-consolidated)

Residential	<b>Decreased by 3.2% (25 million m<sup>3</sup>) from the plan to 746 million m<sup>3</sup></b> due to higher air and water temperatures leading to lower demand for hot water and heating, etc.
Commercial, public and medical	<b>Decreased by 1.8% (14 million m<sup>3</sup>) from the plan to 731 million m<sup>3</sup></b> due to the lower-than-expected impact of air and water temperatures, although the development of new demand increased
Industrial	<b>Increased by 3.7% (80 million m<sup>3</sup>) from the plan to 2,258 million m<sup>3</sup></b> due to development of new demand and higher utilization of cogeneration systems, etc.

### ■ Others

Investments for expansion, greenfield and M&A	Invested mainly in international energy businesses that have already been approved. <b>Total investments amounted to 27.6 billion yen</b> (50% of the previous year) in the first half, down 42.3 billion yen from the initial plan
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I will now explain the results in comparison to the initial plan.

Although the net sales from gas business and affiliated companies decreased, consolidated net sales was almost same level as the plan due to increase in net sales from incidental business.

Consolidated ordinary income increased by 32.0%, or 12.1 billion yen compared with initial plan, due to increase in the profit from gas business and incidental businesses.

Gas sales volume decreased from initial plan in residential use and commercial, public and medical use by 3.2%, and 1.8%, respectively. Industrial use increased 3.7% from initial plan. Overall, entire gas sales volume increased by 1.1% from initial plan.

Investments for expansion, greenfield and M&A, totaled 27.6 billion yen in the first half, with a focus on overseas energy businesses.

## Gas Sales Volume Results for 1<sup>st</sup> Half of FY2017.3

45MJ/m <sup>3</sup>	A. FY17.3 1 <sup>st</sup> Half	B. FY16.3 1 <sup>st</sup> Half	A-B	(A-B)/B	C. FY17.3 1 <sup>st</sup> H Plan	(A-C)/C
Number of meters installed (thousand)	7,270	7,215	+55	+0.8%	7,266	+0.1%
Installation of new meters (thousand)	45	46	-2	-3.6%	43	+3.9%
Monthly gas sales volume per household (m <sup>3</sup> /month)	20.9	21.8	-0.9	-4.3%	21.6	-3.4%
Residential use	746	774	-27	-3.6%	771	-3.2%
Commercial, public, and medical use	731	723	+8	+1.1%	745	-1.8%
Industrial use	2,258	2,017	+241	+11.9%	2,178	+3.7%
Non-residential total	2,989	2,740	+249	+9.1%	2,923	+2.3%
Wholesale	232	224	+8	+3.7%	232	+0.1%
(non-regulated)	2,576	2,332	+244	+10.5%	2,504	+2.9%
Non-consolidated gas sales volume total (million m <sup>3</sup> )	3,968	3,738	+230	+6.1%	3,926	+1.1%
Consolidated gas sales volume total (million m <sup>3</sup> )	3,985	3,756	+229	+6.1%	3,944	+1.1%

This table summarizes the gas sales volumes explained with the previous slide.

The gas sales volume on consolidated basis increased by 6.1% from the previous year, and increased by 1.1% from initial plan, to 3.985 billion m<sup>3</sup>.

I would like to add that the number of low-voltage electricity retail customer supplied by Osaka Gas reached the 191 thousand as of the end of September.

As of October 25<sup>th</sup>, the number of customer supplied by Osaka Gas reached about 210 thousand households.



# Results for 1<sup>st</sup> Half of FY2017.3 - I

Figures in parentheses are ratios of consolidated results to non-consolidated results

Consolidated, billion yen	A. FY17.3 1 <sup>st</sup> Half	B. FY16.3 1 <sup>st</sup> Half	A-B	(A-B)/B	C. FY17.3 1H Plan	(A-C)/C
Net sales	(1.29) 532.3	(1.25) 641.4	-109.0	-17.0%	533.0	-0.1%
Operating income	(1.32) 49.9	(1.21) 94.0	-44.1	-46.9%	38.0	+31.4%
Ordinary income	(0.98) 50.1	(1.12) 92.9	-42.7	-46.0%	38.0	+32.0%
Net income ※1	(0.84) 33.3	(1.09) 65.9	-32.6	-49.4%	25.5	+30.9%
SVA ※2	19.7	49.9	-30.1	-60.4%	11.0	+79.0%

		A. FY17.3 1 <sup>st</sup> Half	B. FY16.3 1 <sup>st</sup> Half	A-B	C. FY17.3 1H Plan	A-C
Profit/ loss on fuel cost adjustment system	billion yen	17.4	51.0	-33.6	9.9	+7.5
Crude oil price	\$/bbl	43.6 ※3	58.9	-15.2	40.0	+3.6
Exchange rate	yen/\$	105.2	121.9	-16.7	120.0	-14.8
Number of subsidiaries		147	147	±0	---	---

\*1 Profit attributable to owners of parent

\*2 SVA (Shareholders' value added) = NOPAT – Invested capital × WACC

\*3 Average of preliminary monthly data up to September.

This table summarizes the other results for the first half of the fiscal year ending March 2017.

# Results for 1<sup>st</sup> Half of FY2017.3 – II

Consolidated, billion yen	A. FY17.3 1H end	FY16.3 1H end	B. Year end	A-B	Remarks
Total assets	1,711.2	1,849.9	1,829.7	-118.5	Decrease in fixed assets
Net worth	881.6	939.3	906.6	-25.0	
Interest-bearing debt	546.6	593.6	567.1	-20.5	Decrease in long-term loans
Number of employees	21,009	21,486	20,844	+165	
Equity ratio	51.5%	50.8%	49.5%	+2.0%	
D/E ratio	0.62	0.63	0.63	-0.01	
	A. FY17.3 1H	B. FY16.3 1H	A-B		Remarks
Capital expenditure	34.8	51.4	-16.6		Decrease in investment for overseas businesses, etc.
Depreciation	41.6	42.2	-0.6		
Free cash flow	22.1	130.5	-108.3		Decrease in inventories, etc.
ROA	1.9%	3.6%	-1.7%		
ROE	3.7%	7.2%	-3.5%		
EPS (yen)	16.0	31.7	-15.7		Decrease in gross margin of gas business, etc.
BPS (yen)	423.9	451.5	-27.6		Decrease in fixed assets, etc.

FCF = CF from operating activities - (OP after tax + depreciation and other non-cash expenses) - capital expenditure

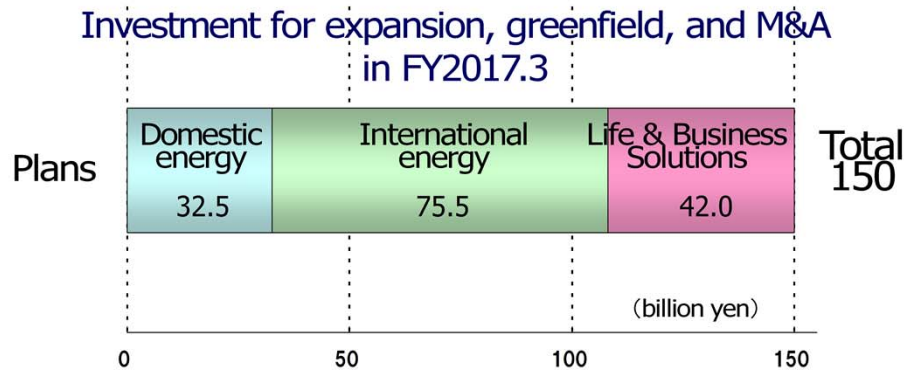
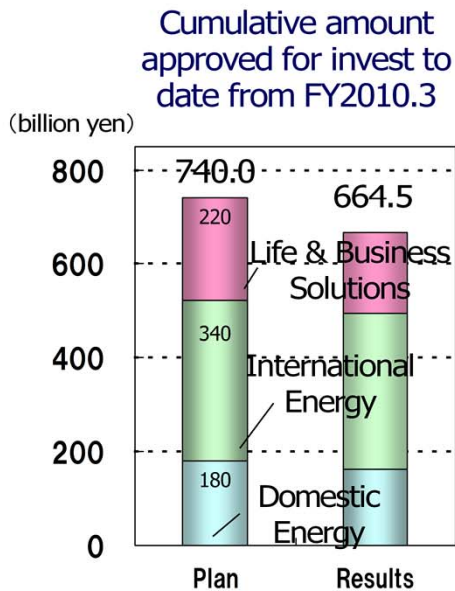
This slide shows the results of assets, liability, and primary financial indicators.

Capital expenditure decreased by 16.6 billion yen from the previous year to 34.8 billion yen due to decrease in investment to overseas businesses.

ROA and ROE decreased from the previous year to 1.9% and 3.7%, respectively.

# Results of Investment for Expansion, Greenfield, and M&A in 1<sup>st</sup> Half of FY2017.3

- Total investment in FY2017.3 were **¥27.6 billion**, mainly invested to overseas upstream and mid-downstream businesses and real estate.
- Cumulative amount approved for investment from FY2010.3 onwards are **¥664.5 billion**. (90% of the amount projected for the period between FY2010.3 and FY2017.3)



**1<sup>st</sup> H Total investment : ¥27.6 billion in FY2017.3**

Domestic energy : 4.2 (LPG business, construction of power plants, etc.)

International energy : 16.0 (Upstream business, construction of power plant, etc.)

Life & Business Solutions : 7.3 (Real estate business, etc.)

Amounts of investment include both capital expenditure items and investment-and-loan items, and therefore the amounts of investment are different from actual amounts of capital expenditures.



This slide summarizes the results of the investment plan for expansion, greenfield, and M&A.

Cumulative amount approved for investments since April 2009 are 664.5 billion yen, which amount to 90% of the capex plan for the same period.

We will further make investments for our future business growth.



## Summary of Modifications to Forecasts for FY 2017.3

			A. Revised Forecasts	B. Initial Plan	A-B	Remarks
Assumed factors for 2 <sup>nd</sup> Half	Crude oil price	\$/bbl	55.0	45.0	+10.0	
	Exchange rate	yen/\$	105	120	-15	
Non-consolidated gas sales volume (45MJ/m <sup>3</sup> )	Residential use		(1,356) 2,103	(1,356) 2,127	(±0) -25	
	Commercial, industrial, and other use		(3,123) 6,345	(3,165) 6,320	(-42) +25	Considering changing in customers' facilities utilization
P/L	Consolidated net sales		1,170.5	1,170.5	±0	
(billion yen)	Gross margin of gas sales		320.0	326.0	-6.0	Decrease in a time-lag profit
	Profit of other sales		25.2	20.2	+5.0	Increase in incidental profit
	Operating expenses, labor costs, and depreciation		296.7	298.7	-2.0	Decrease in operating expenses
	Profit of subsidiaries		33.5	38.0	-4.5	OGUSA/Related to Free Port PJ
	Consolidated operating income		82.0	85.5	-3.5	
	Consolidated non-operating income / expenses		-4.0	-7.5	+3.5	Increase in equity in earnings of affiliates
	Consolidated ordinary income		78.0	78.0	±0	

Gas sales volume figures in parentheses in the upper row are figures for the 2<sup>nd</sup> half of FY2017.3

Let me now explain the modified forecasts for the fiscal year ending March 2017.

Considering forward price and the forecasts of think tanks, the forecasts for the second half are based on our latest assumptions of the crude oil price and exchange rate, which are 55 US dollars per barrel and 105 yen to the US dollar, respectively.

As for residential use, the forecast of gas sales volume is lowered by 25 million m<sup>3</sup> from the initial plan. And as for commercial, industrial and other use, the forecast is over by 25 million m<sup>3</sup> from the initial plan. Overall, the entire gas sales volume is expected to be same level as initial plan.

Consolidated ordinary income is expected to be same level as initial plan to 78.0 billion yen, considering the reduction of operating expenses and increasing in profits from incidental businesses, though gross margin of gas business and the profit from affiliated companies will decrease.

# Gas Sales Volume Forecasts for FY2017.3

45MJ/m <sup>3</sup>	A. FY17.3 Forecasts	B. FY16.3 Results	A-B	(A-B)/B
Number of meters installed (thousand)	7,298	7,252	+46	+0.6%
Installation of new meters (thousand)	110	109	+0	+0.3%
Monthly gas sales volume per household (m <sup>3</sup> /month)	29.3	29.3	+0.1	+0.2%
Residential use	2,103	2,083	+19	+0.9%
Commercial, public, and medical use	1,446	1,410	+36	+2.6%
Industrial use	4,416	4,059	+357	+8.8%
Commercial and industrial use	5,862	5,469	+393	+7.2%
Wholesale	483	469	+14	+3.1%
(Non-regulated included)	(5,021)	(4,647)	(+374)	(+8.0%)
Non-consolidated gas sales volume (million m <sup>3</sup> )	8,447	8,021	+427	+5.3%
Consolidated gas sales volume (million m <sup>3</sup> )	8,480	8,052	+427	+5.3%

This slide shows the gas sales volume forecast for the fiscal year ending March 2017.

Consolidated gas sales volume is expected to increase by 5.3% from the previous year to 8.480 billion m<sup>3</sup>.

# Forecasts for FY2017.3 - I

Figures in parentheses are ratios of consolidated results to non-consolidated results

Consolidated, billion yen	A. FY17.3 Forecasts	B. FY16.3 Results	A-B	(A-B)/B
Net sales	(1.31) 1,170.5	(1.27) 1,322.0	-151.5	-11.5%
Operating income	(1.69) 82.0	(1.31) 146.6	-64.6	-44.1%
Ordinary income	(1.25) 78.0	(1.19) 134.9	-56.9	-42.2%
Net income ※1	(1.07) 52.0	(1.01) 84.3	-32.3	-38.3%
SVA ※2	25.6	52.6	-26.9	-51.3%

		A. FY17.3 Forecasts	B. FY16.3 Results	A-B
Profit/loss on fuel cost adjustment system	billion yen	8.9	81.7	-72.7
Crude oil price	\$/bbl	49.3 ※3	48.7	+0.6
Exchange rate	yen/\$	105.1	120.2	-15.0

\*1 Profit attributable to owners of parent

\*2 SVA (Shareholders' value added) = NOPAT – Invested capital × WACC

\*3 For the period from October 2016 to March 2017, it is assumed that the crude oil price is 55 \$/bbl

This slide shows the profit and loss forecasts for the entire year in comparison with the previous year.

The assumptions of the average crude oil price and exchange rate for the entire year, are 49.3 US dollars per barrel and 105.1 yen to the US dollar, respectively.

## Forecasts for FY2017.3 - II

Consolidated, billion yen	A. FY17.3 end Forecasts	B. FY16.3 end Results	A-B
Total assets	1,781.8	1,829.7	-47.9
Net worth	889.8	906.6	-16.8
Interest-bearing debt	552.8	567.1	-14.3
Number of employees	21,232	20,844	+388
Equity ratio	49.9%	49.5%	+0.4%
D/E ratio	0.62	0.63	-0.00
	A. FY17.3 Forecasts	B. FY16.3 Results	A-B
Capital expenditure	109.5	114.4	-4.8
Depreciation	86.6	86.7	-0.0
Free cash flow	88.6	225.7	-137.1
ROA	3.0%	4.6%	-1.6%
ROE	5.9%	9.4%	-3.5%
EPS (yen)	25.0	40.5	-15.5
BPS (yen)	427.8	435.8	-8.0

FCF = CF from operating activities - (OP after tax + depreciation and other non-cash expenses) - capital expenditure

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Lastly, here is the summary of the forecasts for assets, liability, and primary financial indicators.

ROA and ROE for the entire year are expected to be 3.0% and 5.9%, respectively.

For the detailed gap analysis and breakdown by segment, please refer to the handouts from page 13.

As the gas retail market will be fully deregulated next April, Osaka Gas is facing unprecedented challenges, which we need to tackle with renewed resolve and determination as an integrated energy company.

Of utmost importance in our business, is to secure as many customers as possible and retain their high level of customer loyalty for many years to come. To that end, we need to offer new services and upgrade existing ones to enhance their satisfaction. We intend to continue our efforts to create and add new value to our customers and remain their choice of an energy company. We deeply appreciate your continued support and encouragement.

This concludes my presentation. Thank you for your kind attention.

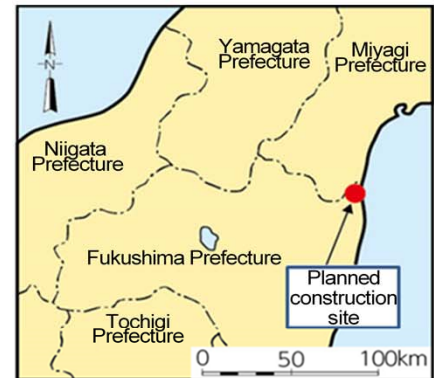
## II. Facts and Figures



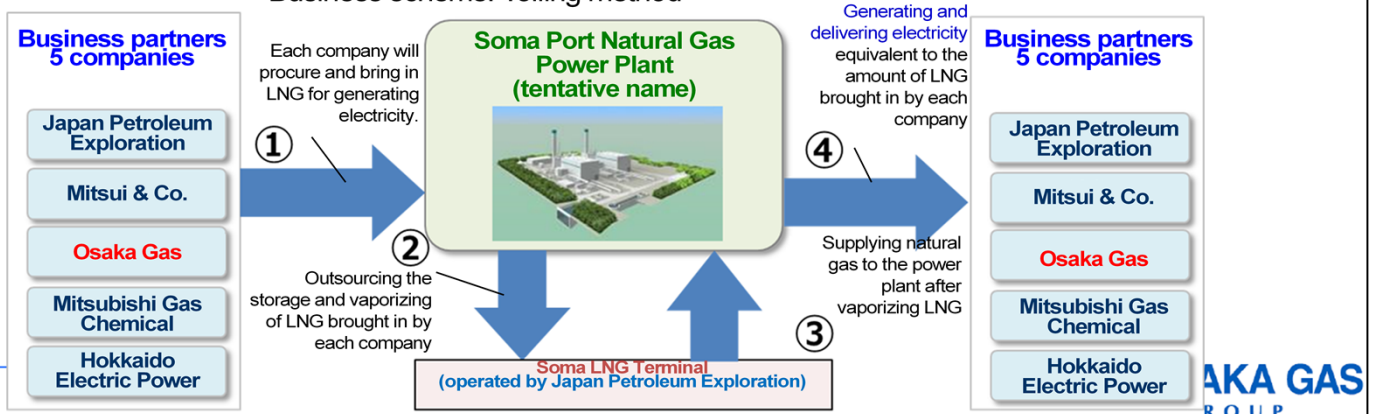
# Topics : Investments in Fukushima Gas Power (FGP)

## ■ Promotion of natural gas power generation business at Soma Port, Fukushima Prefecture

Company name	Fukushima Gas Power Co., Ltd. (established in April 2015)
Capital stock	Capital stock: ¥537 million; Legal capital surplus: ¥537 million
Investment ratio	Japan Petroleum Exploration Co., Ltd. 33%, Mitsui & Co., Ltd.: 29%, <b>Osaka Gas Co., Ltd.: 20%</b> , Mitsubishi Gas Chemical Company, Inc.: 9%, Hokkaido Electric Power Co., Inc.: 9%
Power plant name	Soma Port Natural Gas Power Plant (tentative name)
Generation method	Gas turbine combined cycle method
Total generation capacity	1,180 MW (2 units of 590 MW)
Commencement of commercial operation	Spring 2020 * Full operation (1,180 MW) in Summer 2020

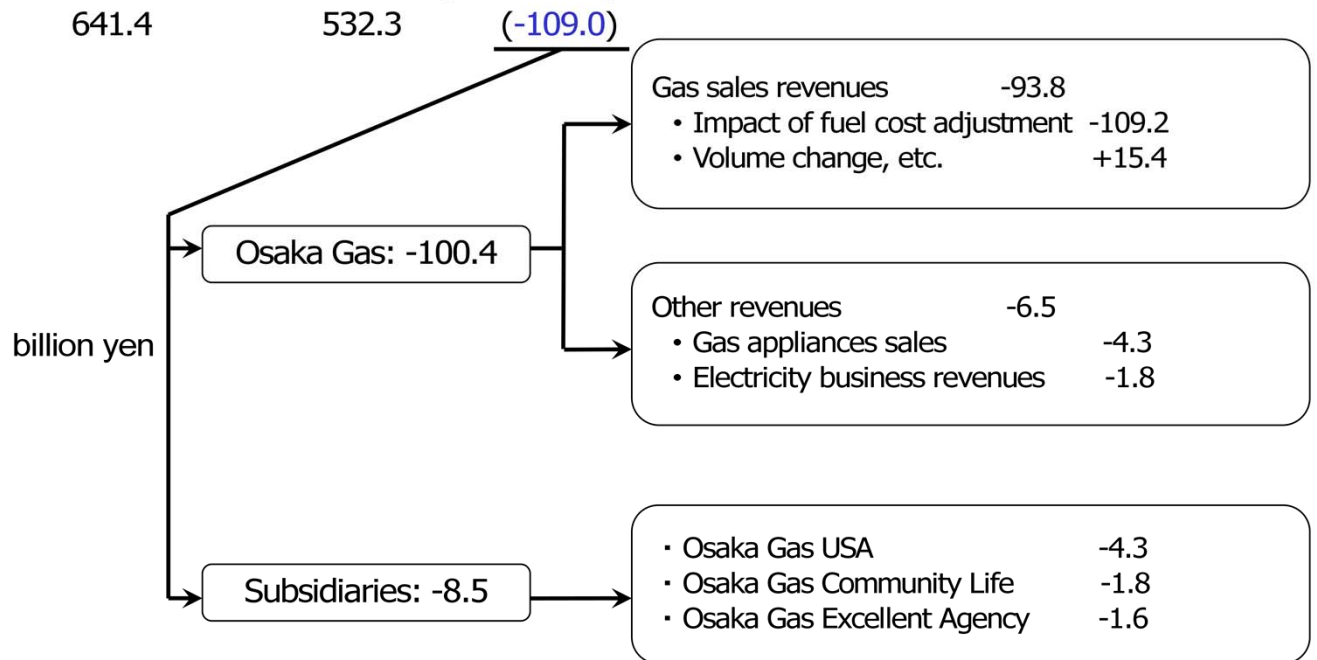


## ■ Business scheme: Tolling method



## Sales Variance for 1<sup>st</sup> Half of FY2017.3 (Year-on-Year)

FY16.3 1<sup>st</sup> Half → FY17.3 1<sup>st</sup> Half (differences)



# Ordinary Income Variance for 1<sup>st</sup> Half of FY2017.3 (Year-on-Year)

+/- signs indicate impact on profit.

FY16.3 1<sup>st</sup> Half → FY17.3 1<sup>st</sup> Half (differences)

92.9

50.1

(-42.7)

billion yen

Osaka Gas : -31.8

Subsidiaries : -10.8

Gross margin of gas sales -35.5  
 • Profit/ loss on fuel cost adjustment system -33.6  
 • Volume change, etc. -1.8

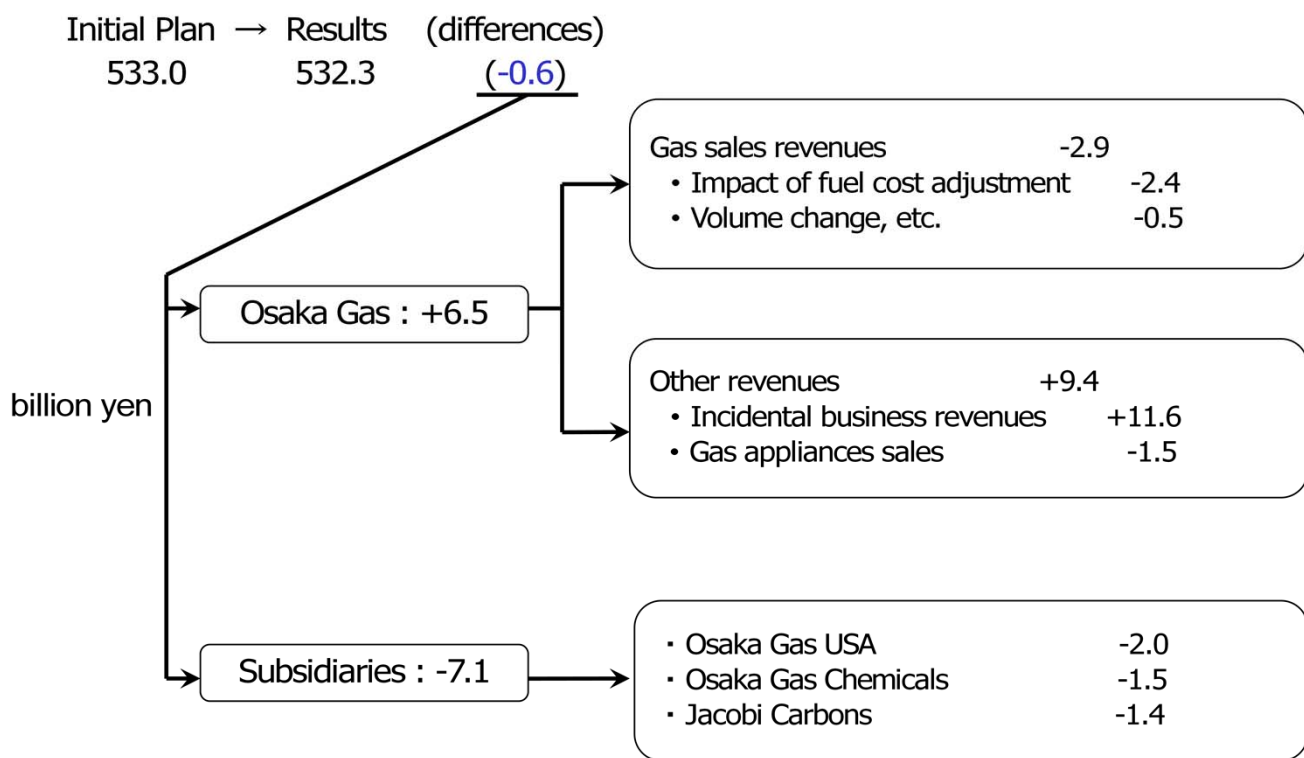
Decrease in expenses +0.3  
 • Decrease in operating expenses +3.6  
 • Increase in labor costs -2.6  
 • Increase in depreciation costs -0.5

Profit of other sales -4.6  
 • Profit of Electricity business -3.9  
 • Profit of LNG sales -1.6

Non-operating income/expenses +7.8

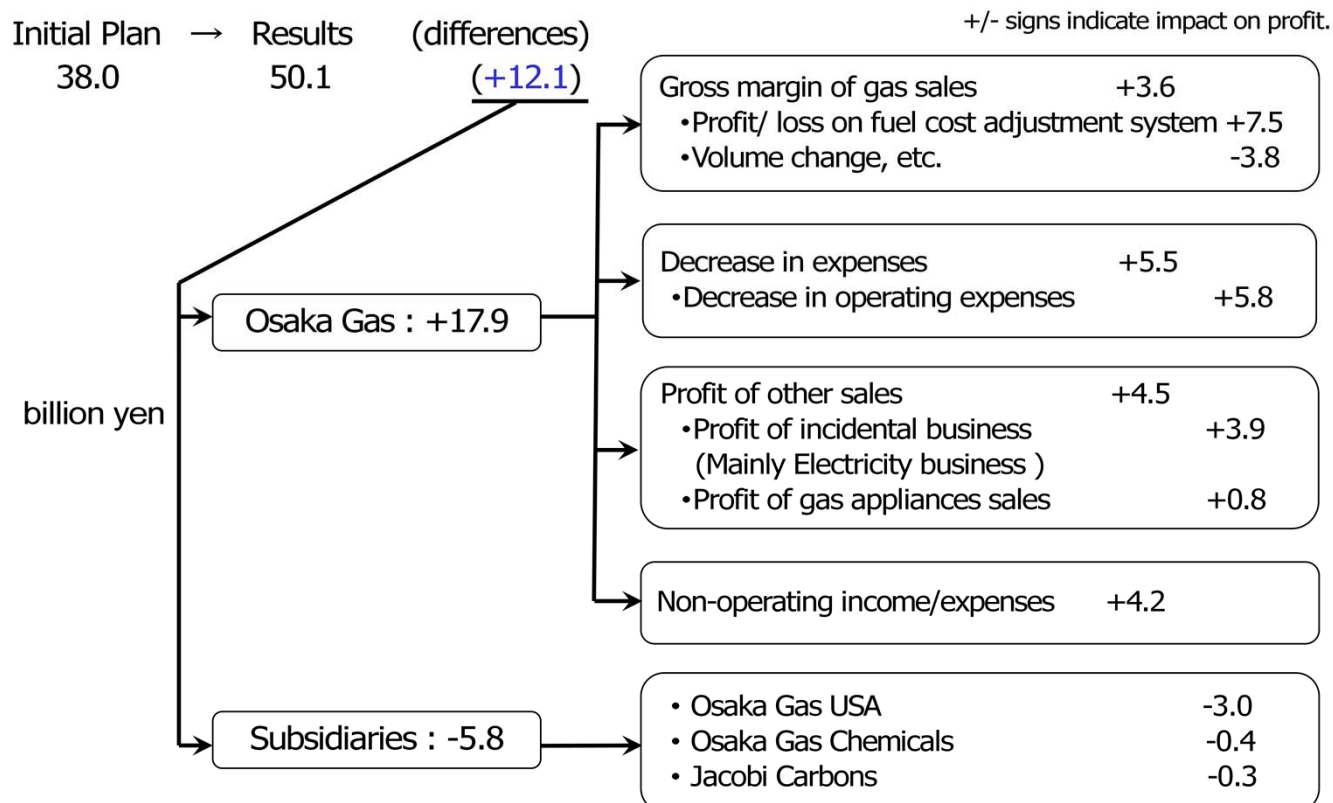
Osaka Gas USA -5.7  
 Osaka Gas UK -0.7

# Sales Variance for 1<sup>st</sup> Half of FY2017.3 (with initial plan)



# Ordinary Income Variance for 1<sup>st</sup> Half of FY2017.3

(with initial plan)





# Sales variance for FY2017.3 (Year-on-Year)

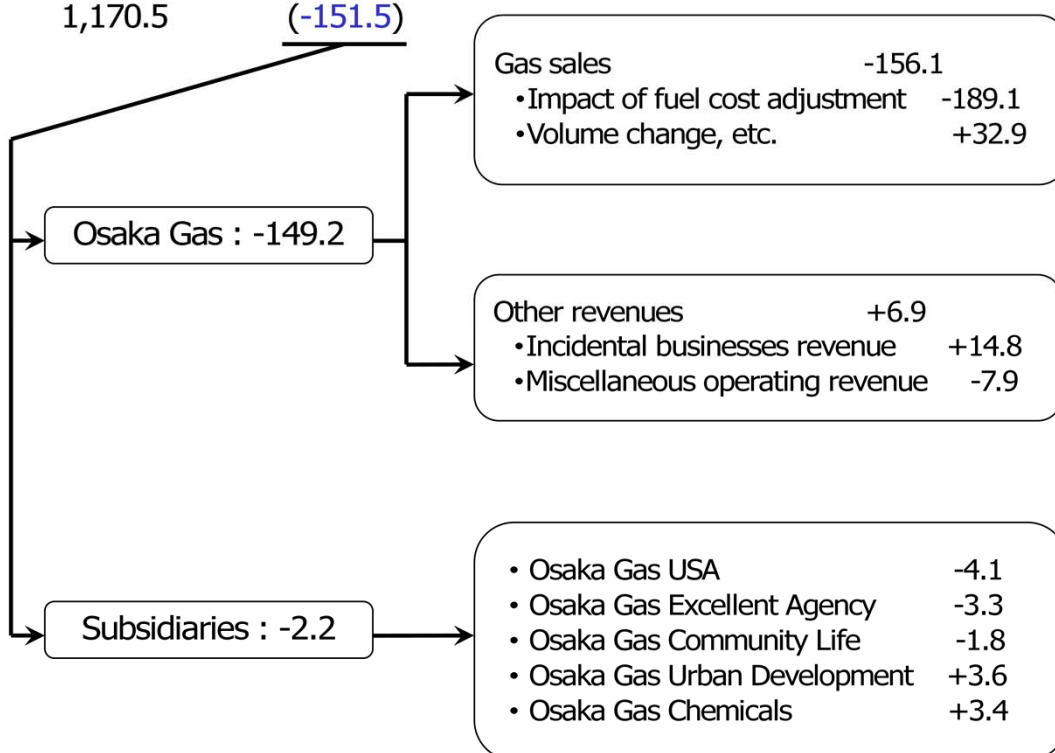
FY16.3 results→FY17.3 forecasts (differences)

1,322.0

1,170.5

(-151.5)

(billion yen)



# Ordinary income variance for FY2017.3 (Year-on-Year)

FY16.3 results → FY17.3 forecasts (differences)

134.9

78.0

(-56.9)

+/- signs indicate impact on profit.

(billion yen)

Osaka Gas : -50.8

Subsidiaries : -6.1

Gross margin of gas sales -69.4  
 • Profit/loss on fuel cost adjustment system -72.7  
 • Volume change, etc. +3.3

Decrease in expenses +12.1  
 • Decrease in operating expenses +15.3  
 • Increase in labor costs -2.2

Profit of other sales -6.2  
 • Profit of incidental business -9.7  
 • Profit of Miscellaneous operating business +3.4

Non-operating income/expenses +12.7

• Osaka Gas USA -5.1  
 • Osaka Gas UK -1.0

# Results for FY2017.3 by Segment

billion yen	Net sales		Operating income + Equity in earnings of affiliates		Remarks
	FY17.3 1 <sup>st</sup> Half	FY16.3 1 <sup>st</sup> Half	FY17.3 1 <sup>st</sup> Half	FY16.3 1 <sup>st</sup> Half	
Gas	359.7	458.6	31.9	64.8	<u>Net sales</u> : Decrease in gas sales unit price <u>Profit</u> : Decrease in gross margin of gas business
LPG, electricity, and other energy	94.7	103.8	11.8	16.9	<u>Net sales / Profit</u> : Mainly decrease in electricity business, etc. Profit of electricity business (*) FY16.3 1H: 10.0, FY17.3 1H: 6.0
International energy	6.4	10.7	-1.8	3.6	<u>Net sales / Profit</u> : Decrease in energy business in USA, etc. (Mainly impact from Freeport Project)
Life & Business Solutions	100.4	100.2	7.8	7.4	<u>Net sales / Profit</u> : Overall, almost same line with the results of previous year
Adjustments	-28.9	-32.1	0.1	0.7	
Consolidated	532.3	641.4	49.8	93.7	

(\*) Profit from electricity business represents operating income earned by Osaka Gas's related electricity business.

# Forecasts for FY2017.3 by Segment

billion yen	Net sales		Operating income + Equity in earnings of affiliates		Remarks
	FY17.3 forecasts	FY16.3 results (*)	FY17.3 forecasts	FY16.3 results (*)	
Gas	785.6	948.5	42.0	95.7	Net sales :Decrease in gas sales unit price Profit: Decrease in gross margin of gas business
LPG, electricity, and other energy	205.3	206.4	19.0	28.8	Net sales :Increase in electricity business and LNG sales, decrease in LPG business Profit :Decrease in electricity business and LNG sales, etc.
International energy	17.7	18.7	-1.5	-0.2	Net sales / Profit :Decrease in energy business in USA, etc. (Mainly impact from Freeport Project)
Life & Business Solutions	222.2	221.7	20.5	18.8	Net sales :Almost same line with previous year Profit :Increase in Material businesses, etc.
Adjustments	-60.3	-73.3	2.0	-0.9	
Consolidated	1,170.5	1,322.0	82.0	142.1	

# Residential Gas Sales

## FY2017.3 1<sup>st</sup> Half Results

	YoY change	Remarks
Number of customers	+0.8%	
Influence of temperature, etc.	-2.1%	Average annual temperature: 24.1 degrees Celsius (Year-on-Year change: +0.9 degrees Celsius)
Others	-2.3%	Improved efficiency of gas appliance, impact of further energy conservation by customers etc.
Total	-3.6%	

## FY2017.3 Forecasts

- Results in the 1<sup>st</sup> half decreased by 27 million m<sup>3</sup> from the previous year, and decreased by 25 million m<sup>3</sup> from the initial plan
- Sales volume for the 2<sup>nd</sup> half is expected to be in line with the initial plan
- Full-year result is expected to increase by 19 million m<sup>3</sup> from the previous year, and decrease by 25 million m<sup>3</sup> from the initial plan to 2,103 million m<sup>3</sup>



# Commercial, Public, and Medical Gas Sales

## FY2017.3 1<sup>st</sup> Half Results

	YoY change	Remarks
Demand development	+1.9%	Development of new demand mainly for air conditioning
Influence of temperature, etc.	+2.5%	Increase in demand for air conditioning due to higher weather in summer
Individual factors	-1.2%	Decrease in capacity of customers' facilities due to special factors
Others	-2.1%	Improved efficiency of gas appliance, impact of further energy conservation by customers etc.
Total	+1.1%	

## FY2017.3 Forecasts

- Results in the 1<sup>st</sup> half increased by 8 million m<sup>3</sup> from the previous year, and decreased by 14 million m<sup>3</sup> from the initial plan
- Sales volume for the 2<sup>nd</sup> half is expected to decrease by 5 million m<sup>3</sup> from the initial plan
- Full-year result is expected to increase by 36 million m<sup>3</sup> from the previous year, and decrease by 19 million m<sup>3</sup> from the initial plan to 1,446 million m<sup>3</sup>

# Industrial Gas Sales

## FY2017.3 1<sup>st</sup> Half Results

	YoY change	Remarks
Demand development	+13.6%	Development of huge new demand, etc.
Increase/decrease of operating rates	+0.9%	Increase in capacity of customers' facilities, etc.
Individual factors	-2.3%	Decrease due to special factors
Others	-0.2%	
Total	+11.9%	

## Breakdown by sector

(45MJ, million m<sup>3</sup>)

	Volume	YoY change
Machinery	153	97.2%
Metal	474	100.0%
Glass	141	96.0%
Chemical	625	101.5%
Food	265	102.8%

## FY2017.3 Forecasts

- Results in the 1<sup>st</sup> half increased by 241 million m<sup>3</sup> from the previous year, and increased by 80 million m<sup>3</sup> from the initial plan
- Sales volume for the 2<sup>nd</sup> half is expected to decrease by 37 million m<sup>3</sup> from the initial plan
- Full-year result is expected to increase by 357 million m<sup>3</sup> from the previous year, and increase by 43 million m<sup>3</sup> from the initial plan to 4,416 million m<sup>3</sup>

# Monthly Gas Sales

Year-on-Year Change 2016/2015 (%)

		Apr.	May	Jun.	Jul.	Aug.	Sep.	1 <sup>st</sup> Half Total
Residential use		94.8	99.9	100.7	94.2	95.2	92.1	96.4
Commercial, public, and medical use		95.5	90.2	104.6	102.9	100.0	110.7	101.1
Industrial use		101.5	121.2	112.9	106.0	114.5	116.8	111.9
By sector	Machinery	93.8	104.1	95.4	91.4	99.2	101.4	97.2
	Metal	98.2	102.0	99.7	99.9	98.2	101.8	100.0
	Glass	95.4	104.0	98.1	92.8	99.1	95.7	96.0
	Chemical	94.5	109.2	107.4	96.4	100.5	102.2	101.5
	Food	100.0	106.9	102.8	98.2	104.6	104.5	102.8
Wholesale		98.7	120.8	94.6	96.3	109.3	104.2	103.7
Total		98.3	110.3	108.0	102.9	107.9	111.2	106.1

# Risk Factors for Annual Earnings Results Forecast

- **Atmospheric and water temperatures**
  - A +1 degree Celsius change in atmospheric and water temperatures will affect the residential gas sales volume: approx. -7% in spring and autumn, approx. -8% in summer, and approx. -6% in winter
- **Crude oil prices**
  - LNG prices are linked to crude oil prices. A +\$1/bbl. change in crude oil prices will have an effect of approx. -1.1 billion yen on ordinary profit since the 3rd quarter (Oct. thru. Mar.) of this fiscal year
- **Foreign exchange rate**
  - LNG prices are affected by fluctuations in the US\$/JPY exchange rate. A +1 yen fluctuation in the US\$/JPY exchange rate will have an effect of approx. -0.9 billion yen on ordinary profit since the 3rd quarter (Oct. thru. Mar.) of this fiscal year
- **Materials costs**
  - Although the fuel cost adjustment system allows us to reflect changes in fuel costs in gas rates in the medium- and long-term, an increase in fuel costs is likely to affect the business results due to a time lag in reflecting cost fluctuations, and also depends on the composition of fuel suppliers
- **Interest rate**
  - A +1% change in the interest rate will have an effect of approx. -0.4 billion yen on annual consolidated non-operating expenses