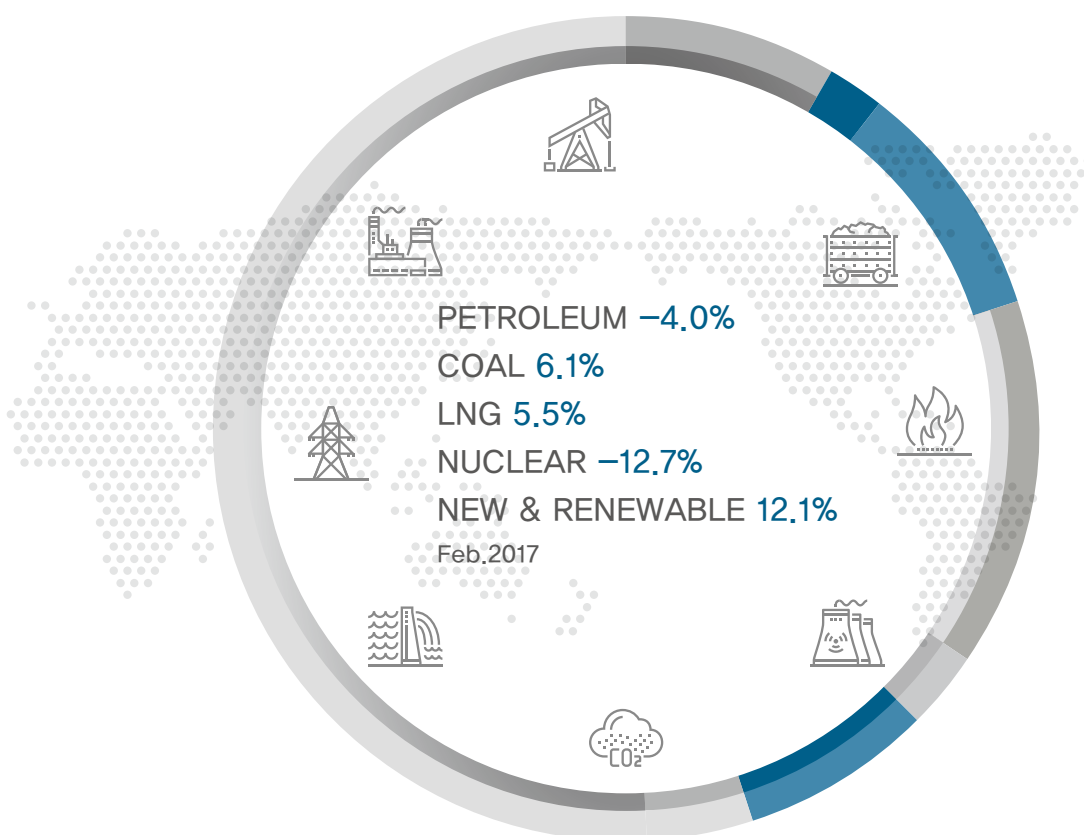


# KEEI

## MONTHLY KOREA ENERGY TRENDS



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# 1. The Economy and the Industry

- **Gross Domestic Product(“GDP”) increased by mere 2.7% in the 1<sup>st</sup> quarter (of 2017) on a year-on-year basis despite rapidly growing investment in the construction sector and facilities, due to a slowdown in private spending.**
- **Export value rose by 20.2% in March on a year-on-year basis as higher unit prices led to increased export volume of major exporting goods.**
  - The export value of semi-conductors increased for six consecutive months (41.9%) and reached a record high (\$7.5billion), driven by higher unit price of memory chips, expanded semi-conductor capacity for smart phones and higher product performance.
  - The export value of petroleum products went up for five months in a row (63.1%) amid steadily rising unit prices and export of high quality diesel to China (73.1%) affected by the Chinese government’s stronger restrictions on car exhaust emissions.
- **The production index of mining and manufacturing went up by 3.0% in March, showing slower growth rate compared to the previous month. The service industry performance index was up 2.8%.**
  - The growth rate of mining and manufacturing production index fell by 3.7%p from a month earlier due to stagnant growth in the iron & steel (1.7%) and cement businesses (9.8%) although the semi-conductor production dramatically increased (24.0%) backed by bigger export volume and the production of basic chemical materials grew faster (4.7%).

## ► Trend in major economic and industrial indicators

	2015	2016	2017			2017		
			M1	M2	M3	M1	M2	M3
GDP (trillion won)	1 466.8 (2.8)	1 508.3 (2.8)	-	-	355.5 (2.9)	-	-	365.1 (2.7)
Total export (\$billion, customs clearance basis)	526.8 (-8.0)	495.4 (-5.9)	36.3 (-19.6)	35.9 (-13.4)	43.0 (-8.2)	40.3 (11.1)	43.2 (20.2)	48.9 (13.6)
Semi-conductors	62.9 (0.4)	62.2 (-1.1)	4.5 (-13.9)	4.2 (-12.8)	5.3 (-1.9)	6.3 (39.4)	6.4 (54.2)	7.5 (41.9)
Petroleum products	32.0 (-37.0)	26.5 (-17.3)	1.7 (-40.0)	1.7 (-26.1)	1.9 (-38.8)	2.8 (68.1)	2.9 (73.7)	3.1 (63.1)
Mining and manufacturing production index (2010=100)	108.1 (-0.3)	109.2 (1.0)	105.9 (-2.2)	98.3 (2.3)	112.7 (-0.5)	107.3 (1.3)	104.9 (6.7)	116.1 (3.0)
ICT production index	113.1 (1.4)	118.7 (4.9)	105.6 (-2.2)	106.2 (5.6)	107.9 (-2.8)	118.6 (12.3)	108.2 (1.9)	120.4 (11.6)
Service industry performance index (2010=100)	112.1 (2.9)	115.5 (3.0)	110.1 (2.8)	108.0 (3.2)	115.8 (2.5)	113.0 (2.6)	110.7 (2.5)	119.0 (2.8)

Note: Figures are based on the real price of 2010, P means provisional, ( ) is year-on-year growth rates (%)  
Source: Korea International Trade Association, Korea Statistical Information Service

## 2. Energy Prices

### Global energy prices

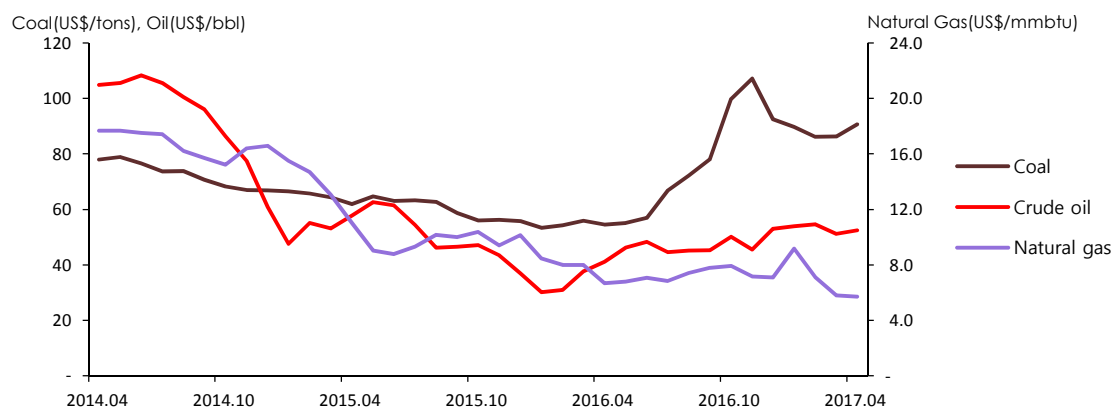
- **Global oil prices went up by 2.5% in April from a month earlier due to the successful implementation of oil output cuts by OPEC and the expectation for the extension of the deal.**
  - According to the April issue of IEA Oil Market Report, OPEC reduced oil output by 1.21 million b/d in March, exceeding its reduction target with a compliance of 104%.
  - The energy ministers of Saudi Arabia and Kuwait mentioned at the GCC Petroleum Media Forum, held in Abu Dhabi that there is a growing consensus among oil producing countries on further output cuts.
- **Global coal prices rose by 5.1% from the previous month as coal supply was disrupted after a cyclone hit coal mining area in Australia.**

#### ► Trend in global energy prices

	2015	2016	2017			2017		
			M2	M3	M4	M2	M3	M4
Crude oil (US\$/bbl)	51.0 (-47.0)	43.2 (-15.2)	31.0 (-43.7)	37.7 (-29.2)	41.2 (-28.8)	54.6 (45.0)	51.1 (24.3)	52.4 (13.4)
Natural gas (US\$/MMBTU)	10.9 (-35.6)	7.4 (-32.0)	8.0 (-45.6)	8.0 (-38.6)	6.7 (-39.4)	7.1 (-11.0)	5.8 (-13.3)	5.7 (-16.2)
Coal (US\$/ton)	61.6 (-18.0)	70.6 (14.6)	54.3 (-17.4)	55.9 (-13.2)	54.5 (-11.9)	86.2 (54.1)	86.3 (58.2)	90.7 (64.4)
Uranium (US\$/lb)	36.7 (9.8)	26.3 (-28.5)	33.6 (-11.9)	29.6 (-24.9)	27.6 (-28.6)	25.1 (-15.4)	24.6 (-11.0)	23.2 (-16.6)

Note: Crude oil price is the average of the three benchmarks; Brent, Dubai, WTI. Natural gas and coal prices are based on Japan's LNG importing price from Indonesia (CIF) and the price of Australian coal, respectively. ( ) is year-on-year growth rates (%)  
Source: www.petronet.co.kr, IMF(primary commodity price)

#### ► Trend in global energy prices by major sources



## Domestic energy prices

- **The prices of gasoline and diesel fell by 1.3% and 1.5% respectively in April following the global oil price decrease in March.**
  - The gasoline and diesel prices declined, after the five straight months of increase until February, due to falling global oil prices.
- **LPG prices maintained the same level as the previous month in April despite decreased global prices, as a consequence of a delay in reflecting accumulated price increase (to the domestic price).**
  - (ver.1) The price of propane stayed at the level of the previous month without any rate increase even though global prices declined, because domestic LPG suppliers recently suffered growing loss due to accumulated price increase.
  - (ver.2) As for the propane price, there was no rate increase despite falling global prices and stayed at the level of the previous month, as domestic LPG suppliers recently suffered growing loss due to accumulated price increase.

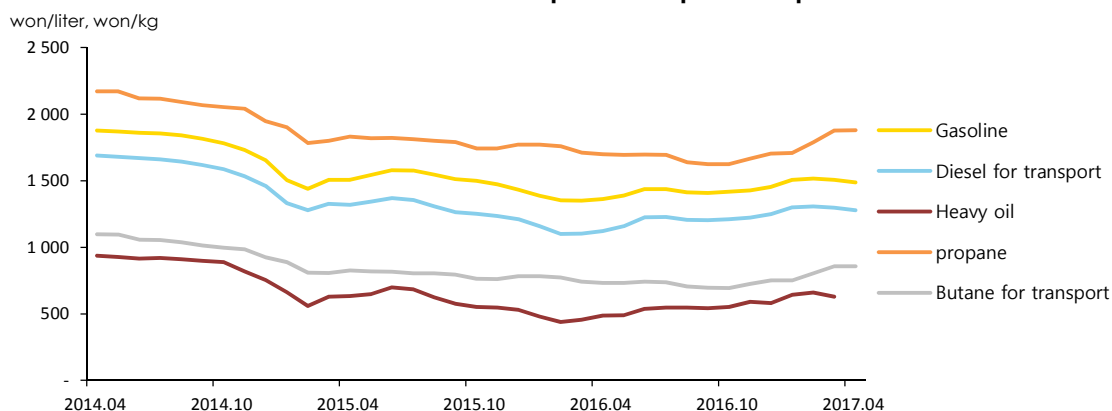
### ► Trend in domestic energy prices

	2015	2016				2017			
			M2	M3	M4	M2	M3	M4	
Gasoline (won/liter)	1 510.4 (-17.3)	1 402.7 (-7.1)	1 351.7 (-6.1)	1 350.1 (-10.5)	1 361.7 (-9.7)	1 516.7 (12.2)	1 506.8 (11.6)	1 487.5 (9.2)	
Diesel for transport (won/liter)	1 299.5 (-20.6)	1 182.7 (-9.0)	1 101.1 (-13.8)	1 103.2 (-16.9)	1 121.4 (-15.1)	1 307.5 (18.7)	1 297.3 (17.6)	1 277.8 (14.0)	
Bunker-C (won/liter)	612.5 (-31.9)	520.8 (-15.0)	439.3 (-21.4)	455.4 (-27.5)	487.7 (-23.1)	660.6 (50.4)	630.0 (38.3)	- (-100.0)	
propane (won/kg)	1 801.5 (-14.8)	1 689.8 (-6.2)	1 759.5 (-1.3)	1 711.1 (-5.0)	1 698.1 (-7.3)	1 788.2 (1.6)	1 875.9 (9.6)	1 878.7 (10.6)	
Butane for transport (won/liter)	806.5 (-23.3)	734.1 (-9.0)	772.0 (-4.6)	742.1 (-8.0)	731.2 (-11.6)	805.2 (4.3)	858.5 (15.7)	858.1 (17.4)	

Note: Gasoline, diesel and butane prices are based on charging station prices, bunker-C price is based on dealership price, propane price is based on sales shop price. ( ) is year-on-year growth rates (%)

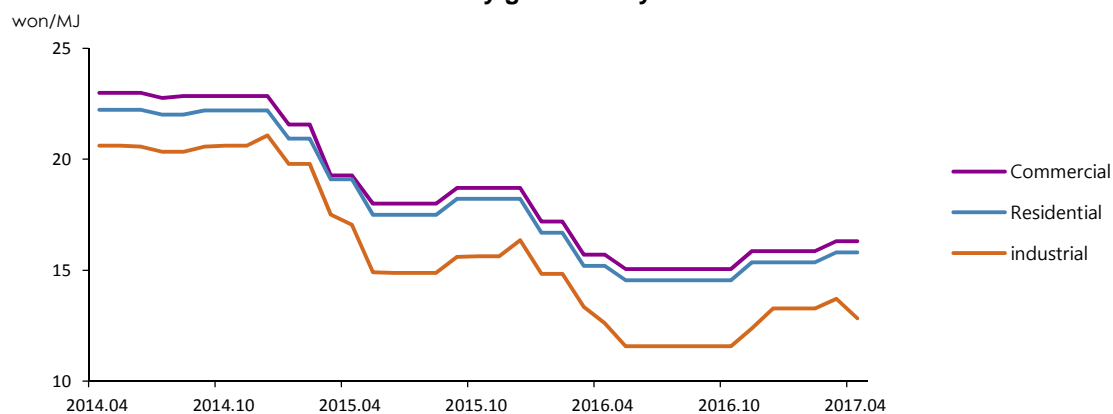
Source: www.opinet.co.kr

### ► Trend in domestic petroleum products prices



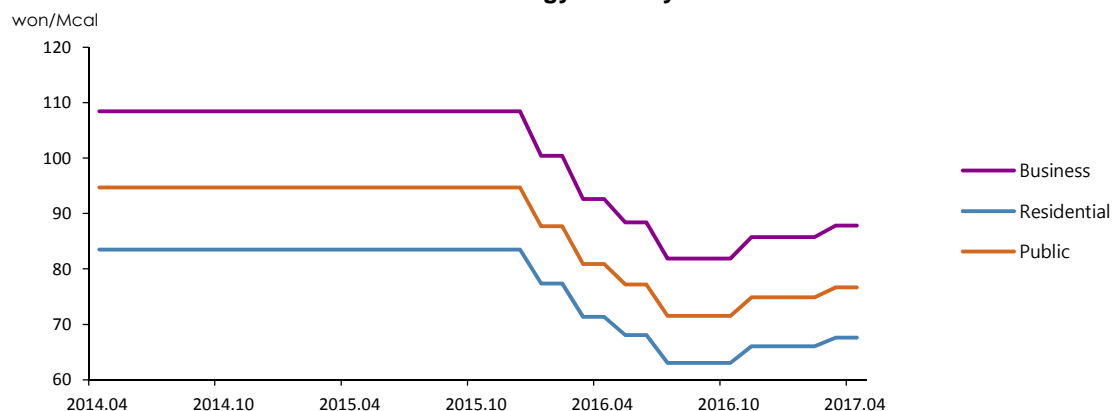
- **City gas rates for the industrial sector fell by 6.4% in April than a month ago after the spring & autumn season rates were applied, and the rates for other end-use sectors were unchanged from the previous month.**
  - Residential and commercial city gas rates are not seasonally adjusted, but the rates for the industrial sector are different by season—summer, winter and the rest—the rate is the highest in winter but lowest in summer depending on the level of demand.
  - City gas rates for residential, commercial and industrial use increased by 2.9%, 2.8% and 3.3% respectively from the previous month with the reflection of the global LNG price increase in the latter half of 2016.
- **Heat energy rates went up in March along with the city gas rate increase and have been at the same level ever since.**

► **Trend in city gas rates by end use sectors**



Note: Instead of volume (m<sup>3</sup>), calorie(MJ) has been used as the unit of measurement in the city gas rate system since July 2012. Figures before that are converted based on standard calorie (additional tax, base charge excluded)

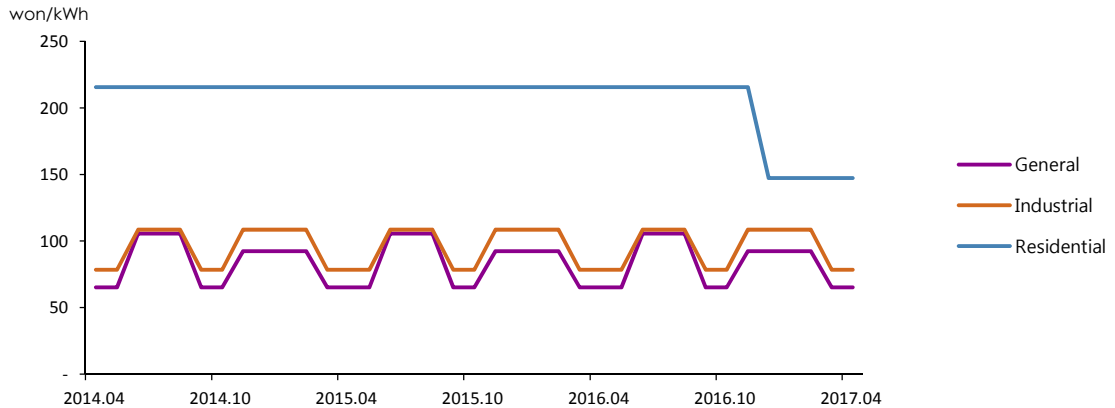
► **Trend in heat energy rates by end use sectors**



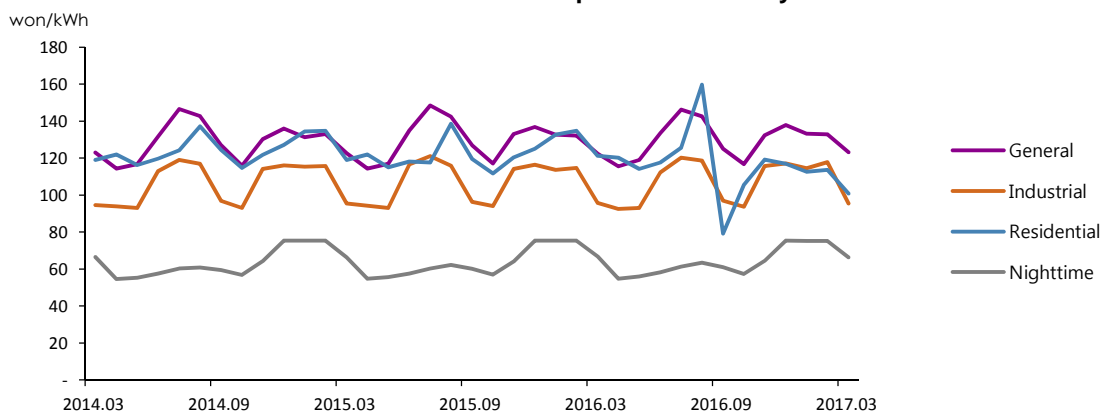
Note: The rates are based on flat rate for heating (additional tax, base charge excluded)  
Source: Korea District Heating Corporation.

- **Electricity rates by end-use<sup>1</sup> sectors maintained the same level since March when the rate was adjusted for the spring & autumn season.**
  - Electricity rates for the industrial and general use declined by 27.7% and 29.4% respectively in March from a month earlier as the winter season rate (Nov-Feb) was replaced by the spring/autumn season rate (Mar-May, Sep-Oct).
- **The unit sales price of electricity for industrial use fell most sharply by 19.0% in March from the previous month, followed by residential use -11.3% and general use -7.2%.**
  - The unit sales price of electricity for industrial and general use declined due to the seasonal rate change while that of residential electricity, which is based on the progressive rate system, fell along with decreased electricity consumption.

#### ► Trend in electricity rates by end-use sectors



#### ► Trend in unit sales price of electricity



<sup>1</sup> The electricity rates by end use sectors refer to the rates for residential use ([high voltage], the 2<sup>nd</sup> stage electricity rates), general use ([A], low voltage) and Industrial use ([B], high voltage B middle load).

### 3. Energy Supply

□ **Energy import rose by 8.6% in February on a year-on-year basis, led by coal and LNG, while crude oil import declined.**

- The import volume of energy showed a steady growth for seven straight months even though crude oil import declined due to lower refinery outputs.
  - Crude oil import was down from the previous month for the first time in six months along with the decreased crude oil input for refineries (-2.9%) in February and reduced inventory that was on the rise since September 2016.
- The share of energy in the total import value rose by 0.3%p to 26.0% on a year-on-year basis thanks to the increased import value of major energy sources.
  - The import value of energy went up for four consecutive months as the import value of coal and crude oil was expanded by 140.0% and 71.2% respectively on the rising global prices.

► **Trend in energy trade and domestic production**

	2015	2016			2017		
			M1~2	M12	M1~2	M1	M2
Import volume							
Crude oil (mil bbl)	1 026.2 (10.6)	1 078.1 (5.1)	179.4 (8.9)	99.8 (1.6)	182.3 (1.6)	93.7 (13.2)	88.6 (-8.3)
petroleum product (mil bbl)	307.9 (-5.7)	333.8 (8.4)	53.7 (4.5)	27.4 (-5.7)	51.3 (-4.5)	26.5 (-8.4)	24.8 (0.0)
Bituminous coal (mil ton)	119.4 (1.3)	118.5 (-0.8)	18.9 (-7.5)	12.8 (18.0)	23.3 (23.5)	12.2 (16.3)	11.1 (32.6)
Anthracite (mil ton)	8.9 (7.8)	9.4 (5.4)	1.2 (-8.2)	0.6 (-30.0)	1.0 (-12.8)	0.6 (-12.7)	0.4 (-12.9)
LNG (mil ton)	33.4 (-10.1)	33.4 (0.2)	6.4 (-11.6)	4.0 (13.4)	7.9 (23.8)	4.3 (27.5)	3.6 (19.6)
Import volume (mil toe)	314.8 (1.7)	322.7 (2.5)	54.1 (0.3)	31.0 (5.7)	59.3 (9.6)	31.1 (10.5)	28.1 (8.6)
Import value (billion US\$, CIF)	102.7 (1.7)	80.9 (2.5)	11.8 (0.3)	9.0 (9.2)	18.8 (9.6)	9.5 (54.4)	9.4 (64.0)
Domestic production							
Hydropower (TWh)	5.8 (-25.9)	6.6 (14.3)	1.0 (-3.1)	0.5 (29.0)	1.0 (2.0)	0.5 (-15.7)	0.5 (29.5)
Anthracite (mil ton)	1.8 (0.9)	1.7 (-2.2)	0.3 (-2.6)	0.2 (-5.0)	0.3 (-1.9)	0.1 (-9.3)	0.1 (6.5)
Natural gas (mil ton)	0.1 (-41.5)	0.1 (-18.0)	0.0 (-41.5)	0.0 (141.1)	0.0 (142.7)	0.0 (145.1)	0.0 (140.1)
Renewable energy (mil toe)	12.8 (17.2)	15.0 (16.4)	2.5 (16.8)	1.3 (16.9)	2.8 (12.8)	1.5 (13.5)	1.4 (12.1)

Note: p means provisional, ( ) is year-on-year growth rates(%)  
Source: Monthly Energy statistics

## 4. Energy Consumption

□ **Total Primary Energy Supply(“TPES”) was almost the same as the previous month in February despite less use of petroleum and nuclear energy as more coal and gas were consumed**

- Coal consumption drastically increased (10.2%) in the power generation sector, leading the TPES growth, as the effect of reduced maximum power wore off along with expanded installed capacity, although the industrial coal consumption declined particularly in the steelmaking business.
- Gas consumption rose by 5.5% on growing demand from gas-fired power plants (9.3%) affected by increased electricity use and reduced nuclear generation, along with the growing gas demand for city gas production (3.8%) amid lower gas rates.
- Petroleum consumption was down for two straight months (-4.0%) despite an increase in the industrial LPG consumption, as higher global oil prices led to decreased consumption in buildings and power plants along with less naphtha use.
- Nuclear generation fell by 12.7% after a surge in preventive maintenance led to decreased capacity factors.

□ **Total final consumption rose slightly by 0.1% on a year-on-year basis led by the transport and buildings sectors although the industrial sector consumed less energy.**

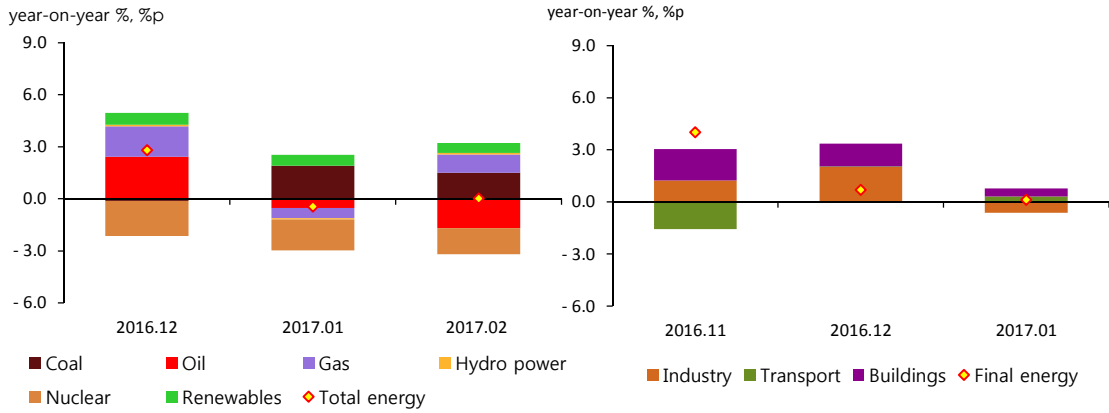
- Industrial energy consumption fell by 1.1% because of decreased naphtha consumption (-6.1%), impeding the growth of total final consumption, despite the increased use of gas (11.2%), electricity (3.5%) and LPG (23.8%).
- Transport energy use rebounded by 1.9% as increased volume of freight raised diesel and bunker-C demand for road and ship transport respectively, although gasoline and LPG consumption decreased due to higher petroleum product prices.
- Energy consumption in buildings rallied by 1.7% as lower prices and colder weather increased energy use, especially city gas and heat energy.
- Electricity consumption was up 2.0% led by the industrial sector where additional facilities were constructed and the production of petrochemical products and semi-conductors increased.

### ► Energy consumption trend

	2015 년	2016p	2017p				
			M1~2	M12	M1~2	M1	M2
Total energy (mil toe)	287.5 (1.6)	295.4 (2.7)	53.0 (4.7)	27.8 (2.8)	52.9 (-0.2)	27.6 (-0.4)	25.3 (0.0)
Final energy (mil toe)	218.6 (2.2)	226.7 (3.7)	40.8 (4.3)	21.2 (4.0)	40.9 (0.4)	21.1 (0.7)	19.9 (0.1)

Note: p means provisional, ( ) is year-on-year growth rates  
Source: Monthly Energy statistics(KEEI)

► The growth rates of TPES and total final consumption & energy consumption trend by energy sources and end-use sectors



## 5. Coal

□ Coal consumption was up 7.4% in February on a year-on-year basis along with the sharp increase in coal use for power generation, although coal consumption decreased in the industrial and buildings sectors.

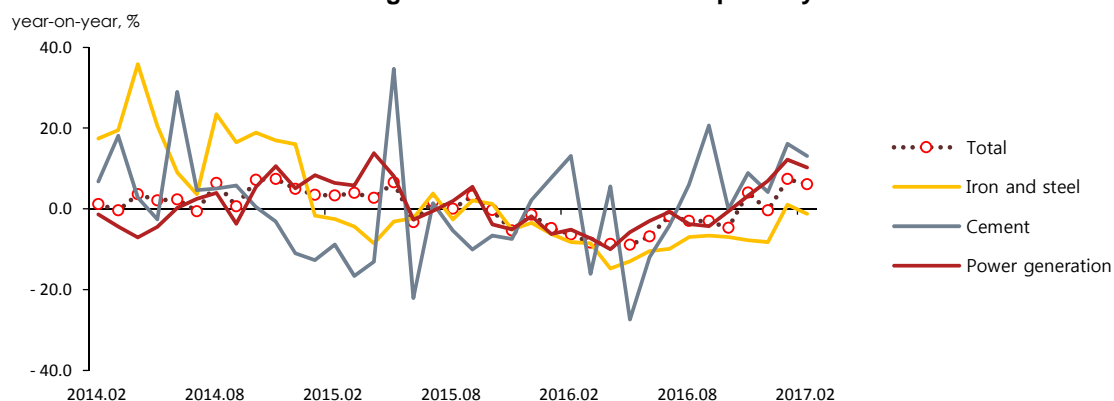
- Coal consumption for power generation rose by more than 10% due to base effect and additional installed capacity, making the biggest contribution in the total coal consumption growth.
- Coal consumption in the industrial sector edged down despite increased coal use for cement production, as coal consumption declined in the steelmaking industry, which is the largest coal consuming business in the industrial sector.
- Anthracite consumption in buildings went down for six months in a row as heating degree days decreased (-5.5degree days, -1.1%) and anthracite has been continuously replaced by other energy sources (city gas, heat energy).

### ► Coal consumption trend

	2015 년	2016p			2017p		
			M1~2	M12	M1~2	M1	M2
Coal (mil ton)	134.8	129.0	21.5	12.1	22.9	12.2	10.7
	(1.1)	(-4.4)	(-5.5)	(-0.4)	(6.8)	(7.4)	(6.1)
Industry	50.9	47.7	7.5	4.0	7.5	3.9	3.5
	(-1.0)	(-6.2)	(-4.8)	(-11.0)	(-0.4)	(0.0)	(-0.9)
Buildings	1.5	1.3	0.3	0.2	0.2	0.1	0.1
	(-9.6)	(-14.8)	(-12.1)	(-23.6)	(-19.3)	(-25.3)	(-11.1)
Power generation	82.5	80.0	13.7	7.9	15.2	8.1	7.1
	(2.8)	(-3.0)	(-5.7)	(6.9)	(11.3)	(12.2)	(10.2)

Note: p means provisional, ( ) is year-on-year growth rates(%)  
Source: Monthly energy statistics

### ► The growth rate of coal consumption by use



## 6. Petroleum

### □ Petroleum consumption declined by 4.0% in February on a year-on-year basis affected by plunging naphtha consumption in the industrial sector.

- Petroleum consumption fell by 5.4% in the industrial sector largely due to decreased consumption in the petrochemical business for the first time in 10 months (-4.1%).
- Petroleum consumption increased in the transport sector backed by a 24.7% rise in petroleum consumption by ship transport due to increased import and export volume.
- Petroleum consumption in the buildings sector declined by 0.8% due to less use of kerosene (-7.5%) as a result of decreased heating degree days (-5.5degree days, -1.1%).
- Petroleum consumption in the transformation sector maintained downward trend amid rising price of bunker-C for power generation and consequent decrease in petroleum-based power generation.

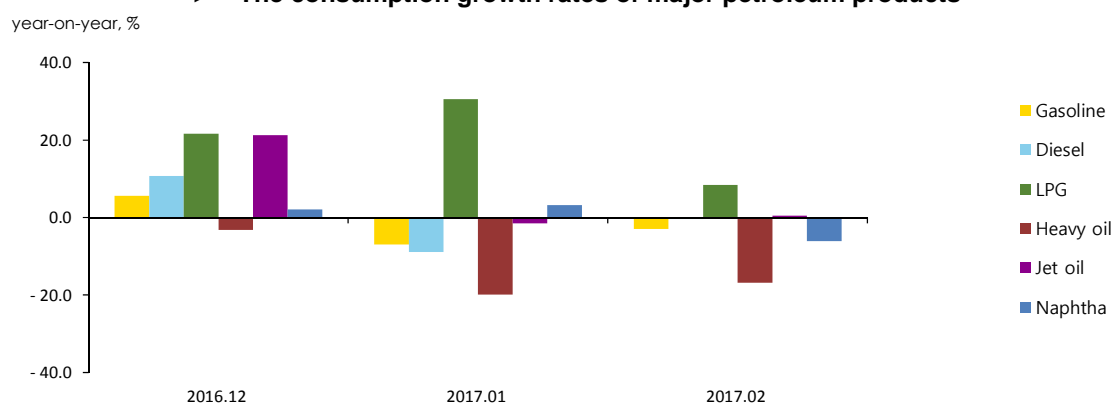
#### ► Trend in petroleum product consumption by use

	20p15	2016p			2017p		
			M1~2	M12	M1~2	M1	M2
<b>Petroleum (mil bbl)</b>	<b>856.2</b>	<b>921.5</b>	<b>155.5</b>	<b>85.0</b>	<b>152.3</b>	<b>78.8</b>	<b>73.4</b>
	(4.2)	(7.6)	(9.3)	(6.7)	(-2.0)	(-0.2)	(-4.0)
Industry	501.0	543.4	90.3	49.1	90.5	47.5	43.1
	(1.9)	(8.5)	(8.6)	(7.3)	(0.2)	(5.9)	(-5.4)
Transport	287.1	300.4	46.8	26.6	45.8	23.0	22.8
	(6.8)	(4.6)	(4.6)	(7.4)	(-2.1)	(-5.4)	(1.4)
Buildings	53.5	56.0	13.1	7.1	12.6	6.5	6.0
	(11.7)	(4.8)	(9.2)	(7.1)	(-4.0)	(-6.8)	(-0.8)
Power generation	14.6	21.6	5.3	2.2	3.4	1.8	1.6
	(13.0)	(47.8)	(116.2)	(-12.1)	(-35.2)	(-35.4)	(-35.1)

Note: p means provisional, ( ) is year-on-year growth rates(%)

Source: Monthly Energy Statistics

#### ► The consumption growth rates of major petroleum products



## 7. Gas

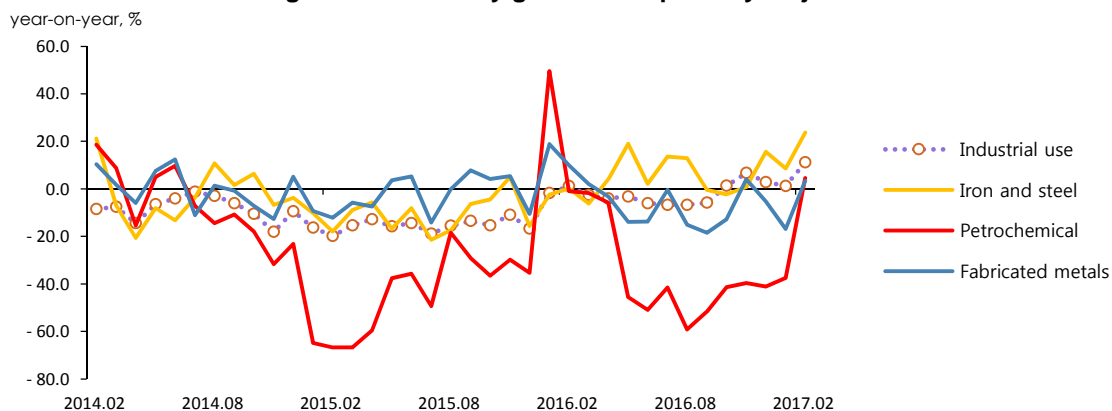
- **Gas consumption went up by 5.5% in February on a year-on-year basis both in the power generation and city gas production.**
  - More gas was consumed for power generation due to increased electricity demand (2.0%) and decreased base-load generation.
- **City gas consumption rose by 5.9% on a year-on-year basis along with steadily increasing gas use in buildings and a surge in industrial gas consumption.**
  - City gas consumption in buildings has been on the rise for 10 consecutive months amid continuous decline in city gas rates on a year-on-year basis.
  - City gas consumption in the industrial sector increased drastically as gas consumption rebounded from the previous sharp fall in the petrochemical sector due to base effect and enhanced price competitiveness.

### ► Trend in natural gas and city gas consumption

	2015	2016p	2017p				
			1M~2	M12	1M~2	M1	M2
<b>LNG (mil ton)</b>	<b>33.4</b>	<b>34.9</b>	<b>8.1</b>	<b>4.0</b>	<b>8.2</b>	<b>4.3</b>	<b>3.9</b>
	(-8.7)	(4.2)	(3.6)	(10.0)	(1.0)	(-2.8)	(5.5)
Power generation	14.6	15.3	2.7	1.5	2.8	1.4	1.3
	(-8.2)	(5.3)	(-5.7)	(19.4)	(2.7)	(-2.7)	(9.3)
Town gas production	16.9	17.4	4.8	2.3	4.9	2.6	2.3
	(-6.9)	(2.7)	(7.0)	(5.6)	(0.3)	(-2.7)	(3.8)
<b>City gas (billion m<sup>3</sup>)</b>	<b>20.8</b>	<b>21.3</b>	<b>5.8</b>	<b>2.6</b>	<b>6.0</b>	<b>3.0</b>	<b>2.9</b>
	(-5.9)	(2.3)	(4.1)	(6.8)	(3.0)	(0.3)	(5.9)
Industry	7.3	7.2	1.4	0.7	1.5	0.7	0.7
	(-15.5)	(-1.9)	(-0.4)	(2.9)	(5.9)	(1.2)	(11.2)
Buildings	12.2	12.8	4.2	1.8	4.3	2.2	2.1
	(0.5)	(5.1)	(5.9)	(9.0)	(2.3)	(0.2)	(4.5)

Note: p means provisional, ( ) is year-on-year growth rates(%)  
Source: Monthly energy statistics

### ► The growth rate of city gas consumption by major industries



## 8. Electricity

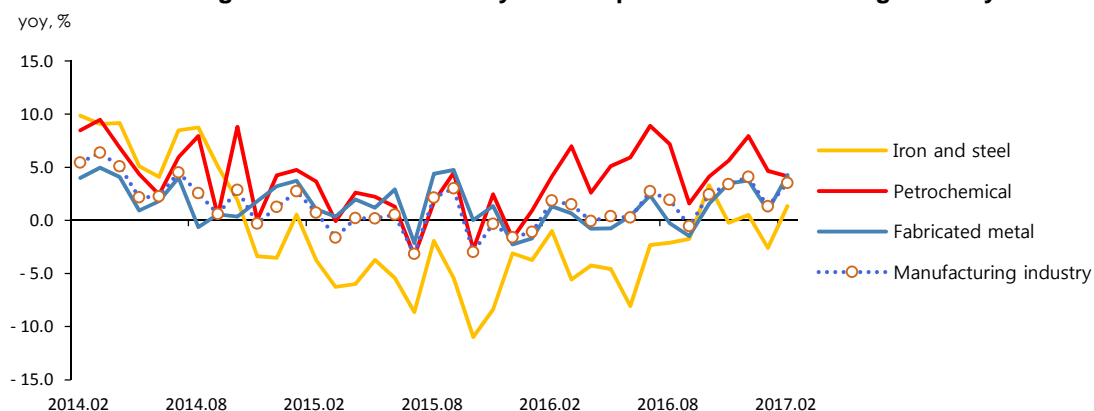
- **Electricity consumption increased by 2.0% in February on a year-on-year basis on the recovery of industrial electricity consumption despite the stagnant consumption growth in the buildings sector.**
  - Industrial electricity consumption rose by more than 3% (in February from the prior-year month) affected by increased working days (+2.0 days) due to the timing of Lunar New Year holidays and decent increase in electricity consumption in the petrochemical and fabricated metal industries.
  - The growth of electricity consumption in buildings was stagnant partly due to decreased heating degree days without the leap month effect.

### ► Trend in electricity consumption by end use sectors

	2015	2016p	2017p				
			M1~2	M12	M1~2	M1	M2
<b>Electricity (TWh)</b>	<b>483.7</b>	<b>497.0</b>	<b>88.2</b>	<b>43.5</b>	<b>89.6</b>	<b>45.2</b>	<b>44.4</b>
	(1.3)	(2.8)	(1.1)	(4.2)	(1.6)	(1.2)	(2.0)
Industry	265.6	270.0	44.9	23.6	46.0	23.5	22.4
	(0.4)	(1.6)	(0.5)	(4.3)	(2.4)	(1.4)	(3.5)
Transport	2.2	2.7	0.5	0.2	0.5	0.2	0.2
	(10.7)	(21.3)	(25.9)	(11.6)	(1.9)	(0.9)	(2.9)
Buildings	215.8	224.4	42.9	19.7	43.2	21.4	21.7
	(2.3)	(4.0)	(1.5)	(3.9)	(0.7)	(1.0)	(0.4)

Notes: p=provisional, ( ) is year-on-year growth rates(%) Source: Monthly energy statistics

### ► The growth rate of electricity consumption in manufacturing industry

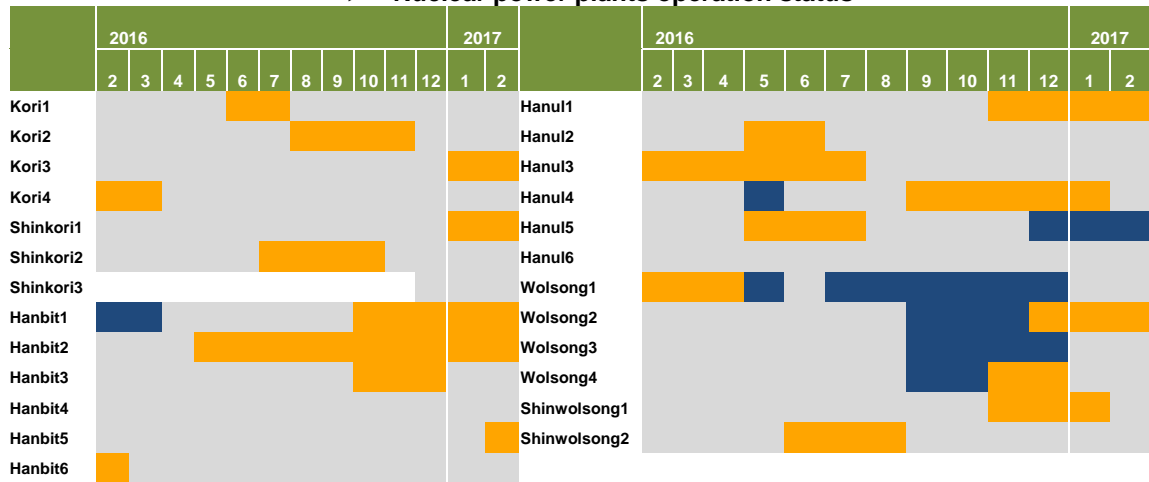


## 9. Nuclear energy

□ Nuclear generation fell by 12.7% in February on a year-on-year basis as a sudden increase in preventive maintenance resulted in lower capacity factors.

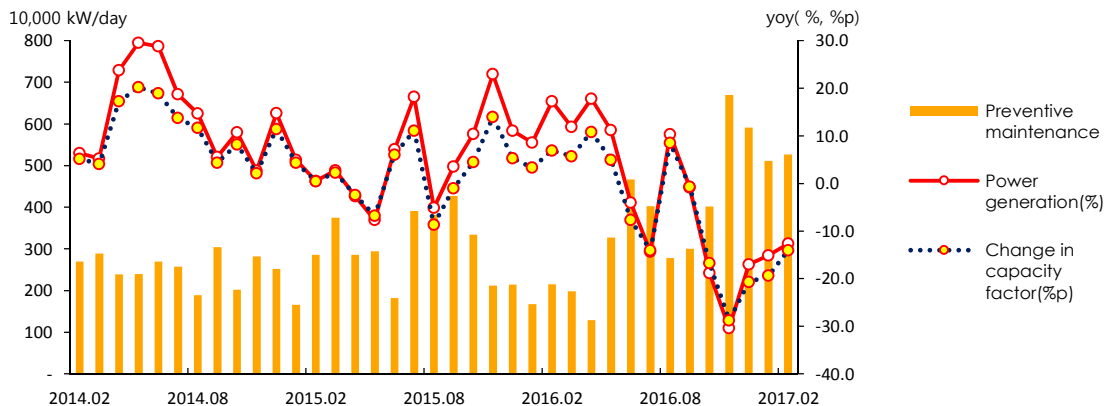
- Capacity factors of nuclear power plants decreased by 14.1%p to 79.7% on a year-on-year basis, affected by a surge in preventive maintenance (145.0%, 3,118,000 KW).
- Consequently, nuclear power generation declined from a year ago, making six straight months of decrease, and the nuclear share of total generation was down 4.7%p to 27.2%.

► Nuclear power plants operation status



Notes: ■ normal operation, ■ prevented maintenance, ■ unscheduled shutdown

► The growth rate of nuclear generation & daily average of preventive maintenance

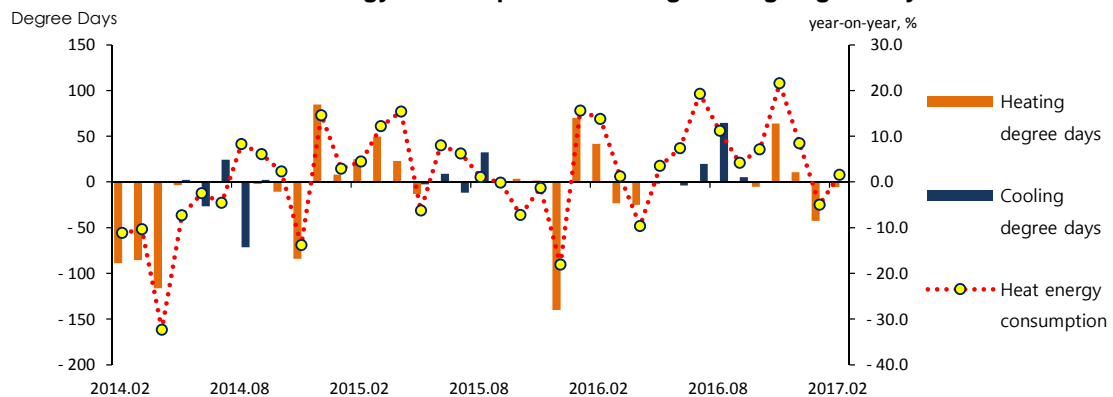


## 10. Heat and Renewable energy

□ **Heat energy consumption increased by 1.5% in February on a year-on-year basis mainly because of the lower heat energy rates while the number of heating degree days declined.**

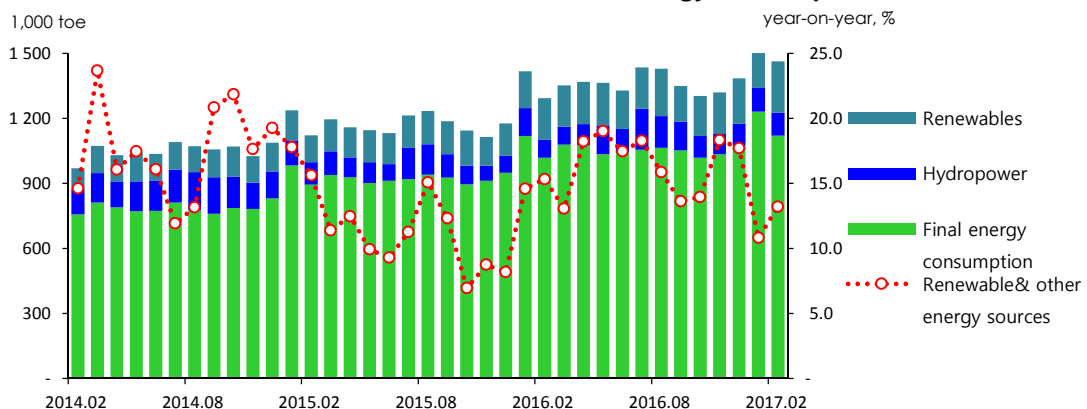
- Heat energy consumption edged up because of the lower heat energy rates (-14.6%) although the heating degree days decreased by 5.5 degree days due to the leap year base effect even though the average temperature was lower (-0.4°C in Seoul).
- The consumption of renewable and other energy sources went up by 13.2% (in February) from the prior-year month amid the steady consumption growth in the power generation and industrial sectors.
- Renewable energy consumption for power generation maintained the rapid growth backed by the commercial operation of IGCC (2016.8) along with the sudden expansion of solar and wind power generation. Total final consumption was up more than 10% led by the industrial sector.

### ► Heat energy consumption & heating/cooling degree days-



Note: The heat energy consumption is based on the supply of KDHC, GS Power, SH Corp. In accordance with the heating/cooling degree days of the meteorological agency, base temperature of heating degree days is set at 18°C and that of cooling degree days was revised from 18°C to 24°C.

### ► Trend in renewable and other energy consumption



# 11. Industry

□ **Industrial energy consumption edged down 1.1% in February on a year-on-year basis as energy consumption started dwindling in the petrochemical sector.**

- Energy consumption slid by 4.1% in the petrochemical sector due to the decline in naphtha consumption (-6.1%) that had been on the steady rise previously.
- Energy consumption fell slightly by 0.2% in the primary metals sector as a result of reduced pig iron output (-0.4%) though the electric furnace steel output increased (35.6%).
- Energy consumption was up 4.5% in the fabricated metal industry as stronger export performance of semi-conductors (54.2%) and automobiles (9.6%) led to increased consumption of electricity (4.3%) and city gas (3.3%).

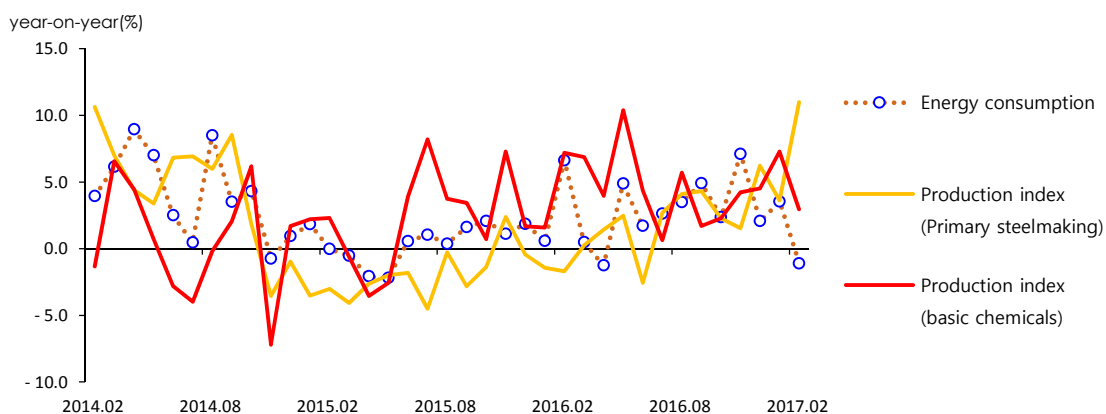
## ► Trend in the industrial energy consumption

	2015	2016p	2017p		2017p	M1	M2
			M1~2	M12			
<b>Industry (Mtoe)</b>	<b>136.7</b>	<b>140.7</b>	<b>23.4</b>	<b>12.5</b>	<b>23.7</b>	<b>12.3</b>	<b>11.3</b>
	(0.5)	(2.9)	(3.4)	(2.1)	(1.3)	(3.5)	(-1.1)
Petrochemical	61.7	65.2	11.1	5.8	11.1	5.8	5.3
	(-0.6)	(5.7)	(8.5)	(4.5)	(0.3)	(4.6)	(-4.1)
- Naphtha	50.4	52.3	9.2	4.6	9.0	4.7	4.3
	(3.7)	(3.9)	(6.8)	(2.1)	(-1.5)	(3.2)	(-6.1)
Iron & Steel	31.4	29.0	4.8	2.5	4.8	2.5	2.3
	(-2.6)	(-7.6)	(-6.3)	(-6.6)	(0.3)	(0.7)	(-0.2)
Fabricated metal	10.6	10.7	1.9	1.0	1.9	1.0	0.9
	(-1.1)	(1.4)	(3.6)	(3.3)	(0.6)	(-3.0)	(4.5)
Share of feedstock (%)	59.0	57.4	58.5	57.3	56.9	56.9	56.9

Note: p means provisional, ( ) is year-on-year growth rates(%)

Source: Monthly energy statistics

## ► Industrial energy consumption & production index



## 12. Transport

□ **Energy consumption in the transport sector was up 1.9% in February on a year-on-year basis supported by the increased energy consumption in domestic navigation sector although the consumption growth was stagnant in the road transport and domestic aviation sectors.**

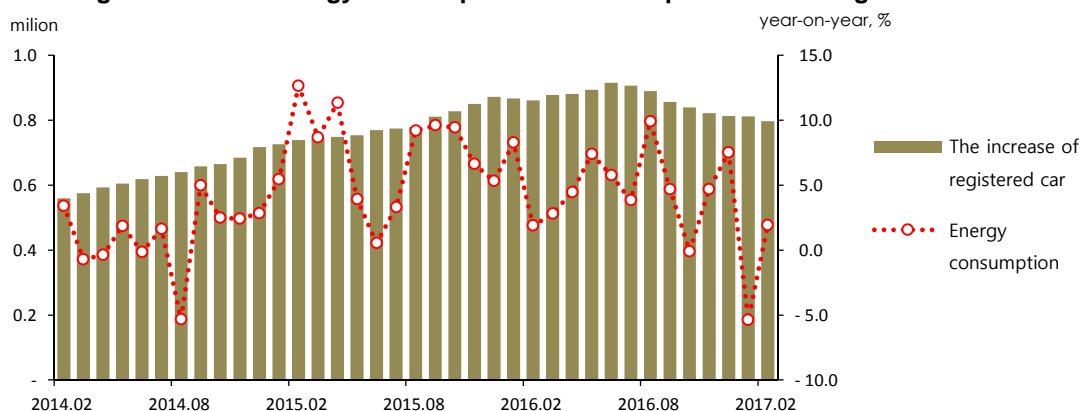
- Energy consumption edged up mere 0.3% in the road transport sector due to smaller traffic (-2.3%, highway based) and higher price of petroleum products even though the number of cars increased (3.8%).
- Energy consumption rose by 24.7% in domestic navigation sector, leading the growth of energy consumption in the transport sector, supported by a sudden increase in the coastal transport (22.0%) although bunker-C price was higher (50.4%) and the growth of export volume was sluggish (0.5%).

### ► The growth rate of petroleum consumption in the transport sector

	2015	2016p			2017p		
			M1~2	M12	M1~2	M1	M2
<b>Transport (mil toe)</b>	<b>40.3</b>	<b>42.3</b>	<b>6.6</b>	<b>3.7</b>	<b>6.5</b>	<b>3.2</b>	<b>3.2</b>
	(7.1)	(5.1)	(5.1)	(7.5)	(-1.9)	(-5.4)	(1.9)
Road	32.8	34.1	5.2	3.0	5.0	2.5	2.5
	(5.6)	(4.0)	(4.3)	(6.0)	(-3.5)	(-6.9)	(0.3)
Domestic navigation	2.9	3.3	0.5	0.3	0.6	0.3	0.3
	(27.0)	(10.8)	(5.8)	(5.1)	(14.0)	(5.6)	(24.7)
Domestic aviation	4.3	4.7	0.8	0.4	0.7	0.4	0.4
	(7.5)	(9.1)	(9.7)	(22.9)	(-2.1)	(-3.3)	(-1.0)
Rail	0.3	0.3	0.1	0.0	0.1	0.0	0.0
	(2.2)	(8.3)	(11.7)	(-2.7)	(-1.8)	(-3.7)	(0.3)

Note: p means provisional, ( ) is year-on-year growth rates (%)  
Source: Monthly energy statistics

### ► The growth rate of energy consumption in the transport sector & registered car status



## 13. Buildings

□ **Energy consumption in buildings went up by 1.7% in February with city gas and heat energy accounting for the largest share of energy consumed, even though heating degree days decreased.**

- Energy consumption in buildings rebounded affected by lower prices, although heating degree days decreased due to vanished leap month effect.
- Residential energy consumption was up 1.6%, especially city gas, heat energy and LPG, although coal and kerosene consumption decreased affected by higher prices.
- Commercial energy use went up by 1.6%p from the previous month because of the price effect and increased electricity consumption.

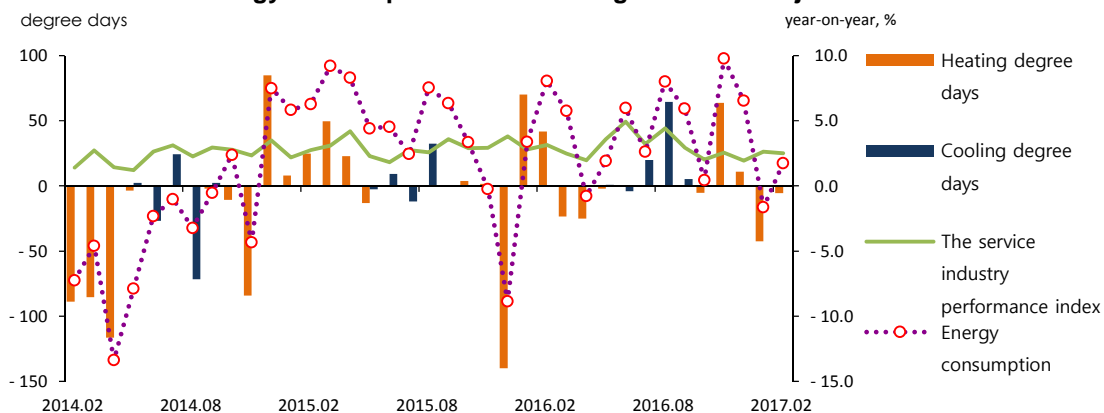
### ► Energy consumption trend in the buildings sector

	2015	2016p			2017p		
			M1~2	M12	M1~2	M1	M2
<b>Buildings (mil toe)</b>	<b>41.6</b> (3.6)	<b>43.7</b> (5.0)	<b>10.8</b> (5.6)	<b>5.0</b> (6.5)	<b>10.8</b> -	<b>5.5</b> (-1.6)	<b>5.3</b> (1.7)
Residential	20.1 (1.7)	21.1 (5.0)	6.1 (6.8)	2.8 (6.5)	6.1 (-0.8)	3.1 (-3.0)	3.0 (1.6)
Commercial	16.4 (4.0)	17.1 (4.2)	3.7 (2.7)	1.7 (6.3)	3.7 (1.2)	1.9 (0.4)	1.8 (2.1)
Public-others	5.2 (10.1)	5.5 (7.6)	1.1 (9.3)	0.5 (7.6)	1.1 (0.6)	0.5 (-0.4)	0.5 (1.5)

Note: p means provisional, ( ) is year-on-year growth rates(%)

Source: Monthly energy statistics

### ► Energy consumption in the buildings sector & major indicators



## 14. Transformation

- **Energy use for power generation increased by 1.0% on a year-on-year basis, despite decreased nuclear generation, backed by expanded coal and gas input.**

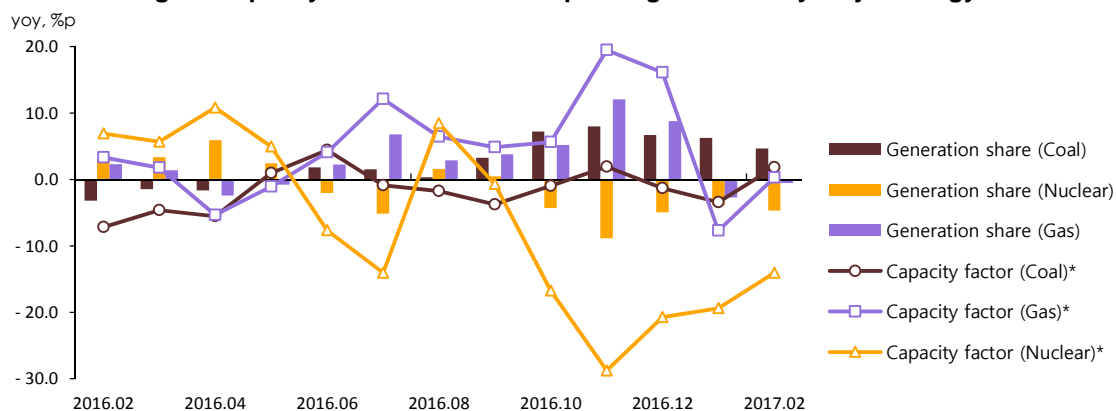
- The share of baseload generation (coal + nuclear energy) maintained the level of the same month last year, as coal-fired generation offset the decline in nuclear generation.
- Meanwhile, coal and nuclear shares of the total generation was up 4.7%p to 41.8% and down 4.7%p to 27.2% respectively on a year-on-year basis.

### ► Energy consumption in the power generation sector

	2015	2016p			2017p		
			M1~2	M12	M1~2	M1	M2
<b>Input (Mtoe)</b>	<b>109.6</b>	<b>110.3</b>	<b>19.5</b>	<b>10.1</b>	<b>19.5</b>	<b>10.2</b>	<b>9.3</b>
	(1.4)	(0.6)	(2.8)	(1.2)	(-0.1)	(-1.0)	(1.0)
Coal	50.6	49.0	8.4	4.8	9.3	5.0	4.4
	(2.7)	(-3.1)	(-5.6)	(7.0)	(11.3)	(12.3)	(10.3)
Petroleum	2.0	3.1	0.8	0.3	0.4	0.3	0.2
	(16.6)	(54.4)	(157.0)	(-12.4)	(-41.1)	(-38.2)	(-44.5)
Gas	19.3	20.3	3.6	1.9	3.7	1.9	1.8
	(-8.1)	(5.2)	(-5.7)	(19.3)	(3.0)	(-2.3)	(9.4)
Nuclear	34.8	34.2	6.2	2.7	5.4	2.8	2.6
	(5.3)	(-1.6)	(12.6)	(-17.0)	(-13.9)	(-15.1)	(-12.7)
Hydro/other renewables	3.0	3.7	0.6	0.3	0.7	0.3	0.3
	(-5.5)	(24.1)	(19.0)	(36.2)	(19.1)	(13.4)	(25.4)

Notes: p means provisional, ( ) is year-on-year growth rates (%)  
Source: Monthly energy statistics

### ► Change in capacity factor and share of power generation by major energy sources



\*Capacity factor is the ratio of actual energy produced to the amount of energy produced from continuous operation at full rated power

## <Appendix> Major indicators & statistics of energy demand and supply

### Major Statistics & Indicators of the Economy

	2014	2015	2016		2017	2018		2019	2020
			3Q	4Q		3Q	4Q		
GDP (trillion won)	1 427.0 (3.3)	1 466.8 (2.8)	368.5 (3.0)	386.6 (3.2)	355.5 (2.9)	1 466.8 (2.8)	368.5 (3.0)	395.9 (2.4)	365.8 (2.9)
Private consumption	692.2 (1.7)	707.5 (2.2)	177.1 (2.2)	181.8 (3.4)	181.9 (2.3)	707.5 (2.2)	177.1 (2.2)	184.6 (1.5)	185.6 (2.0)
Facilities investment	134.0 (6.0)	140.3 (4.7)	34.5 (6.0)	36.0 (3.0)	31.9 (-4.6)	140.3 (4.7)	34.5 (6.0)	36.8 (2.0)	36.5 (14.4)
Construction investment	198.5 (1.1)	211.5 (6.6)	55.9 (7.6)	58.2 (9.6)	44.7 (9.0)	211.5 (6.6)	55.9 (7.6)	64.9 (11.6)	49.7 (11.3)
Consumer price index (2010=100)	99.3	100.0	100.2	100.1	100.6	100.0	100.2	101.5	102.7
USD to KRW exchange rate (won)	1 052.8	1 131.0	1 169.0	1 157.5	1 202.4	1 131.0	1 169.0	1 156.4	1 154.9
Benchmark rate (%)	2.3	1.6	1.5	1.5	1.5	1.6	1.5	1.3	1.3
Coincident composite index (2010=100)	113.6	117.3	117.6	119.2	119.5	117.3	117.6	122.7	124.2
Mining & manufacturing production index (2010=100)	108.4	108.1	106.0	111.7	105.6	108.1	106.0	114.8	109.5
Manufacturing operation ratio index (2010=100)	94.3	92.4	90.1	93.9	89.1	92.4	90.1	93.5	88.1
Average temperature	13.3	13.6	24.8	8.7	1.3	13.6	24.8	8.0	1.4
- year-on-year difference	0.9	0.2	0.4	1.4	-0.8	0.2	0.4	-0.6	0.1
Heating degree days	2 501.6 (-13.5)	2 459.1 (-1.7)	- n.a	866.1 (-13.5)	1 513.2 (6.2)	2 459.1 (-1.7)	- n.a	935.3 (8.0)	1 487.5 (-1.7)
Cooling degree days	125.4 (-35.6)	151.8 (21.1)	138.3 (16.9)	- n.a	- n.a	151.8 (21.1)	138.3 (16.9)	- n.a	- n.a
Energy intensity	0.20 (-2.4)	0.20 (-1.1)	0.19 (-0.7)	0.19 (-2.1)	0.22 (0.4)	0.20 (-1.1)	0.19 (-0.7)	0.19 (0.1)	0.22 (-1.3)
Per capita consumption									
oil (bbl)	16.2 (-1.1)	16.8 (3.7)	4.1 (2.8)	4.5 (6.5)	4.5 (7.3)	16.8 (3.7)	4.1 (2.8)	4.7 (5.6)	- -
Electricity (MWh)	9.4 (-0.1)	9.5 (0.7)	2.4 (1.9)	2.3 (-1.4)	2.5 (1.4)	9.5 (0.7)	2.4 (1.9)	2.4 (3.1)	- -
City gas (1 000 m <sup>3</sup> )	0.4 (-8.1)	0.4 (-6.4)	0.1 (-8.6)	0.1 (-11.6)	0.2 (2.7)	0.4 (-6.4)	0.1 (-8.6)	0.1 (6.9)	- -
Total energy (toe)	5.6 (0.3)	5.6 (1.1)	1.4 (1.8)	1.5 (0.5)	1.5 (2.8)	5.6 (1.1)	1.4 (1.8)	1.5 (2.0)	- -

Note: Figures are based on the real price of 2010, p means provisional, ( ) is year-on-year growth rates (%)  
Source: BOA Economic statistics system, Monthly energy statistics

## The Index of Production & Operating Ratio by Sectors

(2010=100)

2010=100

	2015	2016					2017			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Industrial production index										
All industry	110.0 (1.9)	113.3 (3.0)	108.7 (2.1)	107.0 (1.5)	103.5 (2.6)	115.7 (2.3)	113.0 (3.9)	110.6 (3.4)	107.8 (4.2)	120.5 (4.1)
Mining & manufacturing	108.1 (-0.3)	109.2 (1.0)	105.6 (-0.3)	105.9 (-2.2)	98.3 (2.3)	112.7 (-0.5)	109.5 (3.7)	107.3 (1.3)	104.9 (6.7)	116.4 (3.3)
Iron & steel	110.9 (-2.0)	112.7 (1.6)	107.3 (-0.9)	110.4 (-1.4)	98.4 (-1.7)	113.2 (0.3)	112.6 (4.9)	114.4 (3.6)	109.2 (11.0)	114.3 (1.0)
Cement	125.8 (19.4)	134.3 (6.8)	107.9 (7.8)	95.4 (3.7)	83.1 (2.5)	145.3 (14.2)	126.4 (17.1)	104.9 (10.0)	114.9 (38.3)	159.3 (9.6)
Basic compound	115.5 (2.2)	120.5 (4.4)	119.9 (5.1)	122.1 (1.6)	114.8 (7.2)	122.7 (6.9)	125.9 (5.0)	131.0 (7.3)	118.2 (3.0)	128.5 (4.7)
Transport equipment	120.8 (1.2)	117.4 (-2.8)	118.1 (-0.0)	116.7 (-3.6)	103.8 (0.6)	133.8 (2.8)	118.6 (0.4)	106.6 (-8.7)	116.4 (12.1)	132.8 (-0.7)
Electric & electronic	95.6 (-3.3)	96.6 (1.1)	93.5 (0.7)	91.7 (0.3)	86.0 (2.5)	102.9 (-0.4)	93.0 (-0.6)	87.7 (-4.4)	91.0 (5.8)	100.3 (-2.5)
Service	112.1 (2.9)	115.5 (3.0)	111.3 (2.8)	110.1 (2.8)	108.0 (3.2)	115.8 (2.5)	114.2 (2.6)	113.0 (2.6)	110.7 (2.5)	119.0 (2.8)
Operating ratio index										
Manufacturing	92.4 (-2.0)	90.4 (-2.1)	89.1 (-1.3)	89.4 (-4.0)	81.6 (0.5)	96.2 (-0.3)	88.1 (-1.1)	85.1 (-4.8)	84.1 (3.1)	95.1 (-1.1)
Iron & steel	100.2 (-2.4)	103.4 (3.2)	98.5 (2.1)	102.2 (2.2)	91.6 (3.0)	101.8 (1.3)	104.8 (6.3)	106.5 (4.2)	101.2 (10.5)	106.6 (4.7)
Cement	108.8 (8.3)	129.8 (19.4)	104.1 (14.7)	92.5 (9.0)	79.6 (9.0)	140.2 (22.6)	121.0 (16.2)	100.5 (8.6)	109.0 (36.9)	153.5 (9.5)
Basic compound	91.1 (-1.8)	94.1 (3.3)	94.2 (3.5)	95.9 (-0.4)	89.5 (4.7)	97.2 (6.6)	97.0 (2.9)	101.1 (5.4)	91.4 (2.1)	98.4 (1.2)
Transport equipment	105.0 (1.5)	97.2 (-7.4)	99.2 (-1.4)	97.8 (-4.1)	85.1 (-1.7)	114.8 (1.3)	97.0 (-2.2)	83.9 (-14.2)	94.2 (10.7)	113.0 (-1.6)
Electric & electronic	91.4 (1.0)	92.2 (0.8)	90.7 (3.6)	88.3 (2.3)	82.6 (7.4)	101.1 (1.8)	87.7 (-3.3)	80.7 (-8.6)	87.1 (5.4)	95.2 (-5.8)

Note: p means provisional  
Source: Monthly energy statistics

## International Energy Prices

	2015	2016					2017			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Crude oil (USD/bbl)										
WTI	48.8 (-47.5)	43.3 (-11.2)	35.4 (-29.4)	30.6 (-39.6)	38.0 (-20.7)	41.1 (-24.7)	51.7 (46.2)	53.5 (74.6)	49.7 (30.8)	51.1 (24.3)
Dubai	50.8 (-47.5)	41.2 (-18.8)	32.5 (-39.2)	28.9 (-48.2)	35.2 (-35.6)	39.0 (-32.5)	52.9 (62.8)	54.4 (88.4)	51.2 (45.3)	52.3 (34.1)
Brent	53.6 (-46.1)	45.0 (-16.0)	37.1 (-34.4)	33.5 (-43.0)	39.8 (-30.1)	43.3 (-29.1)	54.5 (46.6)	56.0 (67.0)	52.5 (32.0)	53.8 (24.2)
Unit value of import (C&F)	53.3 (-47.5)	41.0 (-23.0)	32.9 (-39.5)	29.3 (-41.0)	32.1 (-42.5)	36.7 (-36.1)	53.6 (63.0)	55.1 (88.3)	54.2 (68.8)	52.7 -
LNG										
From Indonesia (USD/MMBTU)	11.0 (-35.5)	7.4 (-32.1)	7.8 (-42.6)	8.0 (-45.6)	8.0 (-38.6)	6.7 (-39.4)	7.0 (-10.7)	7.1 (-10.8)	5.8 (-27.7)	5.7 (-14.5)
Unit value of import (USD/ton, CIF)	549.1 (-35.3)	356.9 (-35.0)	384.7 (-43.6)	402.9 (-42.4)	376.5 (-44.6)	342.7 (-43.4)	412.0 (7.1)	417.2 (3.5)	406.5 (7.9)	- -
Bituminous coal (USD/ton)										
From Australia	61.6 (-18.0)	70.6 (14.5)	54.5 (-15.7)	54.3 (-17.4)	55.9 (-13.2)	54.5 (-11.9)	88.5 (62.2)	86.0 (58.2)	86.3 (54.4)	90.1 (65.2)
Unit value of import (CIF)	73.9 (-19.8)	68.8 (-6.8)	60.3 (-26.1)	57.3 (-27.8)	61.2 (-25.6)	60.3 (-24.9)	106.0 (75.8)	106.4 (85.7)	110.2 (80.1)	- -
Petroleum product (USD/bbl)										
Gasoline	69.4 (-37.4)	56.2 (-19.1)	50.8 (-26.8)	45.0 (-36.2)	52.9 (-28.3)	54.5 (-28.3)	67.9 (33.7)	70.0 (55.4)	64.3 (21.6)	67.7 (24.2)
Kerosene	64.7 (-42.5)	52.8 (-18.3)	44.0 (-37.0)	40.9 (-44.4)	47.9 (-32.5)	49.6 (-31.1)	64.3 (46.1)	66.2 (62.0)	61.9 (29.3)	63.9 (28.9)
Diesel	66.6 (-41.6)	53.0 (-20.4)	43.5 (-38.3)	40.0 (-44.6)	46.9 (-35.3)	49.6 (-32.9)	65.4 (50.1)	67.3 (68.2)	63.1 (34.6)	65.0 (31.2)
Bunker-C	45.2 (-47.7)	35.4 (-21.6)	25.8 (-48.7)	23.8 (-55.6)	27.2 (-48.2)	29.6 (-45.0)	48.6 (88.3)	49.6 (108.3)	46.2 (70.0)	48.0 (62.4)
Propane	416.3 (-47.4)	323.3 (-22.3)	310.0 (-32.4)	285.0 (-36.7)	290.0 (-42.0)	320.0 (-30.4)	463.8 (49.6)	510.0 (78.9)	480.0 (65.5)	430.0 (34.4)
Butane	436.7 (-46.1)	355.8 (-18.5)	343.8 (-26.9)	315.0 (-34.4)	320.0 (-30.4)	350.0 (-25.5)	546.3 (58.9)	600.0 (90.5)	600.0 (87.5)	490.0 (40.0)
Naphtha	52.5 (-44.3)	42.5 (-19.0)	38.0 (-30.7)	33.8 (-40.6)	38.9 (-33.0)	42.3 (-29.9)	53.6 (41.3)	56.4 (66.8)	50.7 (30.3)	52.2 (23.3)

Note: 1. ( ) is year-on-year growth rates(%)

2. Gasoline type is 95RON, diesel is 0.001%, Bunker-C is high-sulfur oil(180cst/3.5%), for propane and butane, CP is reference value

Source: www.petronet.co.kr, IMF (primary commodity price), Monthly energy statistics

## Total Primary Energy Supply (TPES)

	2014	2015	2016p				2017p		
				M1~2	M1	M2	M1~2	M1	M2
Coal (Mton)	133.3	134.8	129.0	21.5	11.4	10.1	22.8	12.2	10.6
	(2.9)	(1.1)	(-4.4)	(-5.5)	(-4.7)	(-6.3)	(6.3)	(7.4)	(5.1)
- Coking coal excluded	95.7	98.1	95.5	16.0	8.5	7.5	17.3	9.3	8.0
	(-1.8)	(2.5)	(-2.6)	(-4.9)	(-4.2)	(-5.7)	(8.5)	(9.6)	(7.4)
Oil (Mbbbl)	821.5	856.2	921.5	155.5	79.0	76.5	154.5	79.9	74.6
	(-0.5)	(4.2)	(7.6)	(9.3)	(6.6)	(12.1)	(-0.6)	(1.2)	(-2.5)
- Non-energy oil excluded	388.5	411.7	458.5	75.9	39.4	36.5	74.5	38.4	36.2
	(-4.1)	(6.0)	(11.4)	(11.9)	(15.8)	(8.0)	(-1.8)	(-2.7)	(-0.8)
LNG (Mton)	36.6	33.4	34.9	8.1	4.4	3.7	8.2	4.3	3.9
	(-9.0)	(-8.7)	(4.2)	(3.6)	(3.5)	(3.7)	(1.0)	(-2.8)	(5.5)
Hydro (TWh)	7.8	5.8	6.6	1.0	0.6	0.4	1.0	0.5	0.5
	(-6.8)	(-25.9)	(14.3)	(-3.1)	(12.0)	(-20.0)	(2.0)	(-15.7)	(29.5)
Nuclear (TWh)	156.4	164.8	162.2	29.6	15.4	14.2	25.5	13.1	12.4
	(12.7)	(5.3)	(-1.6)	(12.6)	(8.6)	(17.2)	(-13.9)	(-15.1)	(-12.7)
Others (Mtoe)	11.0	12.8	15.0	2.5	1.3	1.2	2.8	1.5	1.4
	(21.9)	(17.2)	(16.4)	(16.8)	(14.8)	(18.9)	(12.8)	(13.5)	(12.1)
<b>TPES (Mtoe)</b>	<b>282.9</b>	<b>287.5</b>	<b>295.4</b>	<b>53.0</b>	<b>27.8</b>	<b>25.3</b>	<b>53.1</b>	<b>27.8</b>	<b>25.4</b>
	(0.9)	(1.6)	(2.7)	(4.7)	(3.6)	(5.8)	(0.2)	(0.0)	(0.4)
- Non-energy oil excluded	229.0	232.2	237.7	43.2	22.9	20.3	43.2	22.6	20.6
	(0.5)	(1.4)	(2.4)	(4.2)	(4.7)	(3.6)	(0.1)	(-1.0)	(1.4)
- Non-energy oil&coal excluded	202.7	206.4	214.3	39.3	20.9	18.5	39.4	20.6	18.8
	(-1.4)	(1.9)	(3.8)	(5.5)	(5.9)	(5.0)	(0.2)	(-1.2)	(1.7)

Note: p means provisional, ( ) is year-on-year growth rates (%)  
Source: Monthly energy statistics

## Share of TPES by Sources

(unit: %)

	2014	2015	2016p				2017p		
				M1~2	M1	M2	M1~2	M1	M2
Coal	29.9	29.7	27.6	25.6	25.8	25.4	27.2	27.7	26.5
- Coking coal excluded	20.6	20.8	19.7	18.3	18.6	18.1	19.9	20.4	19.3
Oil	37.1	38.1	39.9	37.6	36.6	38.7	37.0	36.5	37.5
- non-energy oil excluded	18.0	18.9	20.4	19.0	18.9	19.1	18.3	18.0	18.7
LNG	16.9	15.2	15.4	19.9	20.7	19.0	20.0	20.1	19.9
Hydro	0.6	0.4	0.5	0.4	0.5	0.3	0.4	0.4	0.4
Nuclear	11.7	12.1	11.6	11.8	11.7	11.8	10.1	10.0	10.3
Others	3.9	4.5	5.1	4.7	4.6	4.8	5.3	5.3	5.3
<b>TPES</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Note: p means provisional  
Source: Monthly energy statistics

## Total Final Consumption (TFC)

(unit: Mtoe)

	2014	2015	2016p				2017p		
				M1~2	M1	M2	M1~2	M1	M2
Industry	136.1 (4.0)	136.7 (0.5)	140.7 (2.9)	23.4 (3.4)	11.9 (0.6)	11.4 (6.6)	23.8 (1.8)	12.4 (4.4)	11.3 (-0.9)
Transport	37.6 (0.8)	40.3 (7.1)	42.3 (5.1)	6.6 (5.1)	3.4 (8.3)	3.2 (1.9)	6.6 (-0.1)	3.3 (-4.3)	3.3 (4.5)
Residential-commercial	35.5 (-5.0)	36.4 (2.7)	38.1 (4.6)	9.8 (5.2)	5.0 (3.2)	4.7 (7.5)	9.7 (-0.6)	4.9 (-2.1)	4.8 (1.0)
Public	4.7 (0.2)	5.2 (10.1)	5.5 (7.6)	1.1 (9.3)	0.5 (5.4)	0.5 (13.7)	1.1 (-1.0)	0.5 (-2.1)	0.5 (0.2)
<b>TFC</b>	<b>213.9</b> (1.7)	<b>218.6</b> (2.2)	<b>226.7</b> (3.7)	<b>40.8</b> (4.3)	<b>20.9</b> (2.5)	<b>19.8</b> (6.2)	<b>41.1</b> (0.8)	<b>21.2</b> (1.2)	<b>19.9</b> (0.4)
Coal (Mton)	53.1 (7.1)	52.4 (-1.3)	49.0 (-6.4)	7.8 (-5.1)	4.1 (-2.0)	3.7 (-8.3)	7.6 (-2.3)	4.1 (-1.0)	3.5 (-3.8)
Oil (Mbbbl)	808.5 (1.2)	841.6 (4.1)	899.8 (6.9)	150.2 (7.4)	76.2 (4.5)	74.0 (10.5)	151.1 (0.6)	78.1 (2.5)	73.0 (-1.4)
Electricity (TWh)	477.6 (0.6)	483.7 (1.3)	497.0 (2.8)	88.2 (1.1)	44.7 (-1.7)	43.6 (4.2)	89.6 (1.6)	45.2 (1.2)	44.4 (2.0)
City gas (Bm <sup>3</sup> )	22.1 (-7.5)	20.8 (-5.9)	21.3 (2.3)	5.8 (4.1)	3.0 (0.7)	2.8 (8.1)	5.9 (2.2)	3.0 (-0.4)	2.9 (5.1)
Heat-others (1 000 toe)	11.0 (15.2)	12.7 (14.7)	14.4 (13.6)	2.8 (14.1)	1.5 (14.3)	1.3 (13.8)	3.0 (7.3)	1.6 (6.5)	1.4 (8.1)

Note: p means provisional, ( ) is year-on-year growth rates (%)

Source: Monthly energy statistics

## Share of the Total Final Consumption by Sources

(unit: %)

	2014	2015	2016p				2017p		
				M1~2	M1	M2	M1~2	M1	M2
Industry	63.6	62.5	62.1	57.3	56.9	57.7	57.8	58.7	56.9
Transport	17.6	18.4	18.7	16.1	16.4	15.9	16.0	15.5	16.5
Residential-commercial	16.6	16.7	16.8	23.9	24.1	23.8	23.6	23.3	23.9
Public	2.2	2.4	2.4	2.6	2.6	2.7	2.6	2.5	2.6
<b>Final energy</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Coal	16.6	16.0	14.4	12.7	13.1	12.4	12.4	12.8	11.9
Oil	48.1	49.1	50.5	46.9	46.4	47.4	46.5	46.5	46.5
Electricity	19.2	19.0	18.9	18.6	18.3	18.9	18.7	18.3	19.2
City gas	10.9	10.1	10.0	15.0	15.2	14.7	15.2	14.9	15.4
Heat-others	5.2	5.8	6.3	6.8	7.0	6.6	7.2	7.4	7.1

Note: p means provisional

Source: Monthly energy statistics

### Statistics on Energy Production Facilities

	2014	2015	2016				2017		
			M12	M1	M2		M12	M1	M2
Total capacity (GW)	93.2 (7.2)	97.6 (4.8)	97.6 (4.8)	98.2 (12.6)	98.8 (13.3)	105.9 (13.6)	105.9 (13.6)	106.2 (12.9)	107.1 (13.8)
Nuclear	20.7 -	21.7 (4.8)	21.7 (4.8)	21.7 (4.8)	21.7 (4.8)	23.1 (11.6)	23.1 (11.6)	23.1 (11.6)	23.1 (11.6)
Bituminous coal	25.9 (10.7)	26.2 (1.1)	26.2 (1.1)	26.2 (8.7)	26.4 (9.3)	30.9 (19.3)	30.9 (19.3)	31.0 (19.6)	31.0 (19.6)
Gas	30.3 (27.2)	32.2 (6.5)	32.2 (6.5)	32.1 (24.5)	32.5 (26.2)	32.6 (7.8)	32.6 (7.8)	32.6 (5.2)	33.5 (8.0)
Refinery capacity (mil BPSD)	2.9 -	3.1 (3.7)	3.1 (3.7)	3.1 (3.7)	3.1 (3.7)	3.1 (3.7)	3.1 (3.7)	3.1 -	3.1 -

Note: ( ) is year-on-year growth rates (%)

Source: The monthly report on major electric power statistics

### Statistics on Energy Consumption

	2014	2015	2016				2017		
			M12	M1	M2		M12	M1	M2
The number of household demanding city gas (mil)	16.9 (3.1)	17.4 (3.0)	17.4 (3.0)	17.5 (3.2)	17.6 (3.3)	18.0 (3.4)	18.0 (3.4)	18.0 (3.3)	18.1 (3.2)
Registered cars (mil)	20.1 (3.7)	21.0 (4.3)	21.0 (4.3)	21.1 (4.3)	21.1 (4.2)	21.8 (3.9)	21.8 (3.9)	21.9 (3.9)	21.9 (3.8)
- gasoline	9.6 (2.0)	9.8 (2.3)	9.8 (2.3)	9.8 (2.3)	9.9 (2.3)	10.1 (2.9)	10.1 (2.9)	10.1 (3.0)	10.2 (3.0)
- diesel	7.9 (7.3)	8.6 (8.6)	8.6 (8.6)	8.7 (8.5)	8.7 (8.4)	9.2 (6.4)	9.2 (6.4)	9.2 (6.1)	9.2 (5.9)
- LPG	2.3 (-2.3)	2.3 (-3.4)	2.3 (-3.4)	2.3 (-3.5)	2.2 (-3.6)	2.2 (-4.0)	2.2 (-4.0)	2.2 (-3.9)	2.2 (-3.9)
- hybrid	0.1 (40.0)	0.2 (31.3)	0.2 (31.3)	0.2 (29.1)	0.2 (29.0)	0.2 (37.6)	0.2 (37.6)	0.2 (37.8)	0.2 (37.5)

Note: ( ) is year-on-year growth rates (%)

Source: Monthly energy statistics

# KEEI

MONTHLY **KOREA ENERGY TRENDS** [2017, NO.62]



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KEEI Monthly Korea Energy Trends is designed to be used for energy policy and market strategy in the government and industrial sector by analyzing and providing energy economic indicators in Korea.

This report is written by the Energy Demand and Supply Division of the Center for Energy Information and Statistics in cooperation with the Energy Statistics Research Division of KEEI and other related research divisions.

The energy economic indicators included in this report will be constantly updated until further confirmation.

If you have any further inquiries, please send an email to [EnergyOutlook@keei.re.kr](mailto:EnergyOutlook@keei.re.kr) or call +82-52-714-2270.

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