

KEEI

MONTHLY KOREA ENERGY TRENDS

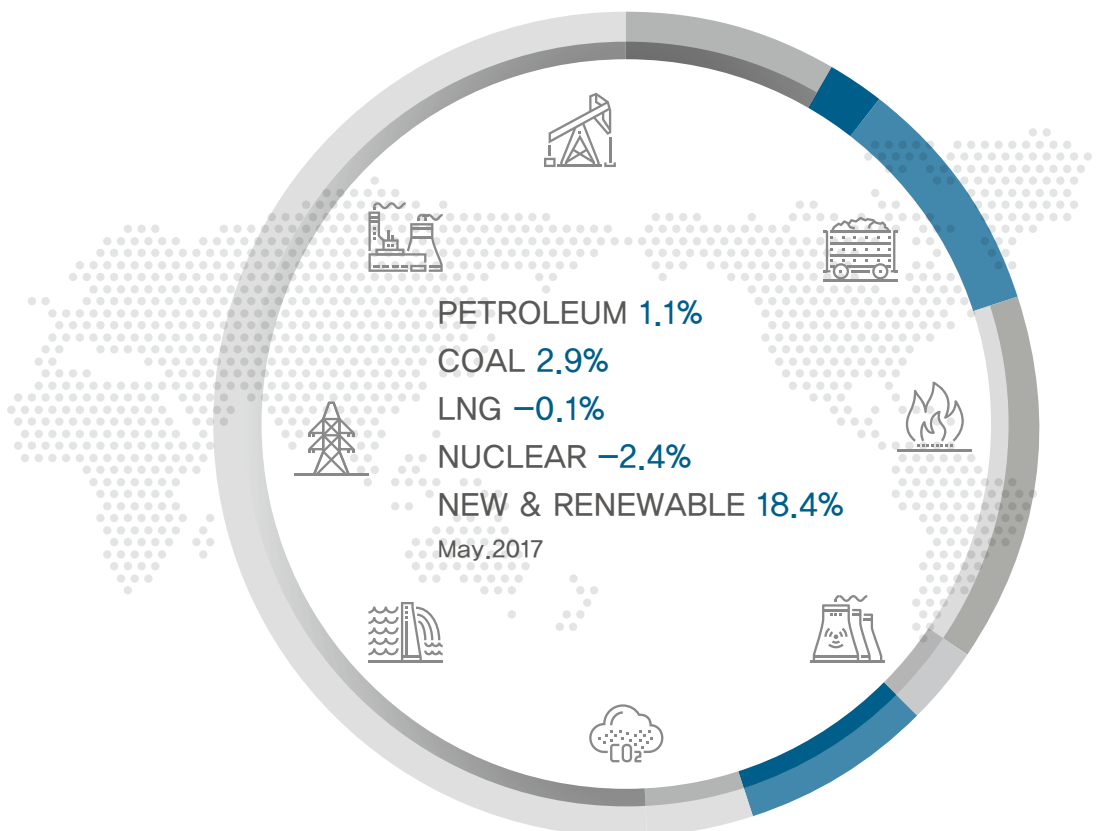


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1. The Economy and the Industry

- **The export value posted a year-on-year increase of 13.2% in May due to higher unit prices and expanded export volume of major exporting goods.**
 - The export value of semi-conductors has been rising for eight consecutive months (53.6%) and reached the highest record of \$7.51billion (in May), backed by the steady increase in unit price of memory chips and enhanced memory capacity in smartphones.
 - The export value of petroleum products has been up for seven months in a row (28.7%) and recorded faster growth compared to the previous quarter because of higher unit exporting price (20.8%) and expanded export volume (11.5%), boosted by growing demand from Asian countries (China, Australia, Taiwan, Japan).
 - The export value of petrochemical products maintained double digit growth rates (13.3%) for five straight months, which is contributable to higher unit prices and bigger export volume (1.3%).
 - The export value of iron and steel products rose by 36.0% due to higher unit prices and bigger export volume (2.4%), in addition to the export of offshore plant structure (\$0.37 billion), which has high added value.
- **The production index of mining & manufacturing industries has been recording slower growth for four consecutive months and was almost unchanged in May (0.1%) from the prior month, while the service industry production index rose by 2.1%.**
 - The growth rate of the mining & manufacturing production index fell by 1.7%p from the previous month, due to the slower growth in basic chemical materials (2.1%) and iron & steel industries (0.3%) along with a decline in electric devices (-2.3%) and automobile industries (-2.6%).

► Trend in major economic and industrial indicators

	2015	2016	2017			2017		
			M2	M4	M5	M3	M4	M5
GDP (trillion won)	1 466.8 (2.8)	1 508.3 (2.8)	-	-	-	365.8 (2.9)	-	-
Total export (\$billion, customs clearance basis)	526.8 (-8.0)	495.4 (-5.9)	35.9 (-13.4)	41.1 (-11.1)	39.7 (-6.1)	48.7 (13.1)	50.9 (23.8)	45.0 (13.2)
Semi-conductors	62.9 (0.4)	62.2 (-1.1)	4.2 (-12.8)	4.6 (-11.8)	4.9 (-4.3)	7.5 (41.7)	7.1 (56.9)	7.5 (53.6)
Iron & steel	2 516.8 (-15.0)	2 377.9 (-5.5)	2 068.0 (-17.7)	2 349.0 (-16.9)	2 197.0 (-8.4)	2 599.0 (-10.8)	3 119.0 (32.8)	2 987.0 (36.0)
Mining and manufacturing production index (2010=100)	108.1 (-0.3)	109.2 (1.0)	98.3 (2.3)	107.2 (-2.7)	110.2 (4.4)	116.4 (3.3)	109.2 (1.9)	110.4 (0.2)
ICT production index	113.1 (1.4)	118.7 (4.9)	106.2 (5.6)	108.7 (-0.2)	118.0 (7.1)	120.4 (11.6)	109.5 (0.7)	118.2 (0.2)
Service industry production index (2010=100)	112.1 (2.9)	115.5 (3.0)	108.0 (3.2)	113.8 (2.0)	115.5 (3.6)	119.0 (2.8)	116.5 (2.4)	118.1 (2.3)

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 price went up by 3.0% in July compared to the previous month, affected by Saudi Arabia's announcement of reduced crude oil export and decreased crude inventory in the U.S.**

- Saudi Arabia's Energy Minister Khalid al-Falih unveiled a decision on the reduction of crude oil export by 1 million b/d on a year-on-year basis at the meeting of the Joint Ministerial Monitoring Committee (JMMC) held in Russia on July 24.
- Gasoline and crude inventory of the U.S. declined by 4.0% and 4.2% respectively in May from the prior month due to expanded gasoline consumption during the holiday season.

□ **Global natural gas price fell by 3.4% in June¹ from the previous month while global coal price rose by 6.9%.**

- Global coal price increase is partly attributable to the reduced bituminous coal production in Indonesia, which was caused by prolonged rainy season.

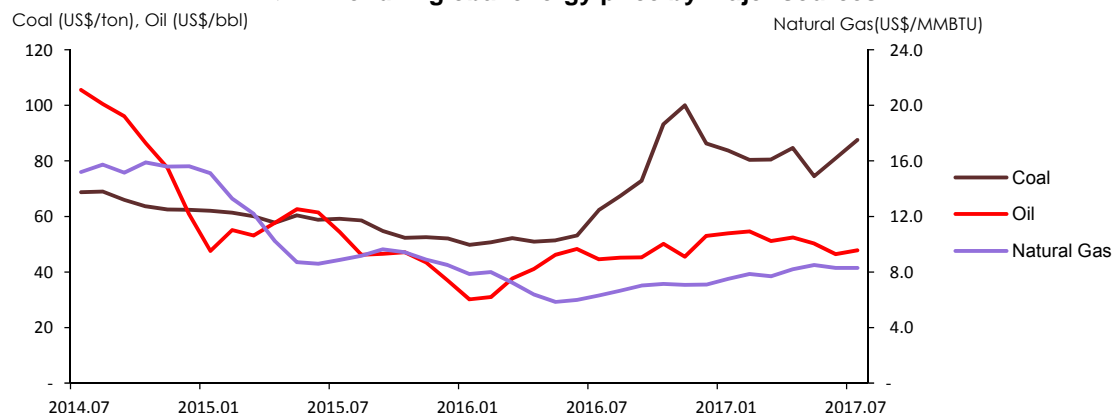
► Trend in global energy prices

	2015	2016	2017		
			M5	M6	M7
Crude oil (US\$/bbl)	51.0	43.2	46.2	48.4	44.6
	(-47.0)	(-15.2)	(-26.2)	(-21.3)	(-18.0)
Natural gas (US\$/MMBTU)	10.2	6.9	5.9	6.0	6.3
	(-36.3)	(-32.5)	(-32.8)	(-30.3)	(-28.7)
Coal (US\$/ton)	57.5	65.9	51.5	53.2	62.3
	(-18.0)	(14.6)	(-14.8)	(-9.6)	(5.3)
Uranium (US\$/lb)	36.7	26.3	27.8	27.2	25.9
	(9.8)	(-28.5)	(-21.9)	(-24.9)	(-28.0)

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

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

► Trend in global energy price by major sources



Domestic energy prices

□ Gasoline and diesel prices fell by 1.6% and 1.7% respectively in July from the previous month, affected by a decline in global oil price in June.

- Gasoline and diesel prices have been declining for five consecutive months, and when compared to the highest records (Feb), the prices fell by 5.1% and 5.9% respectively.

□ Propane and butane prices were down by 1.4% and 2.3% in July from a month earlier, although global prices were unchanged.

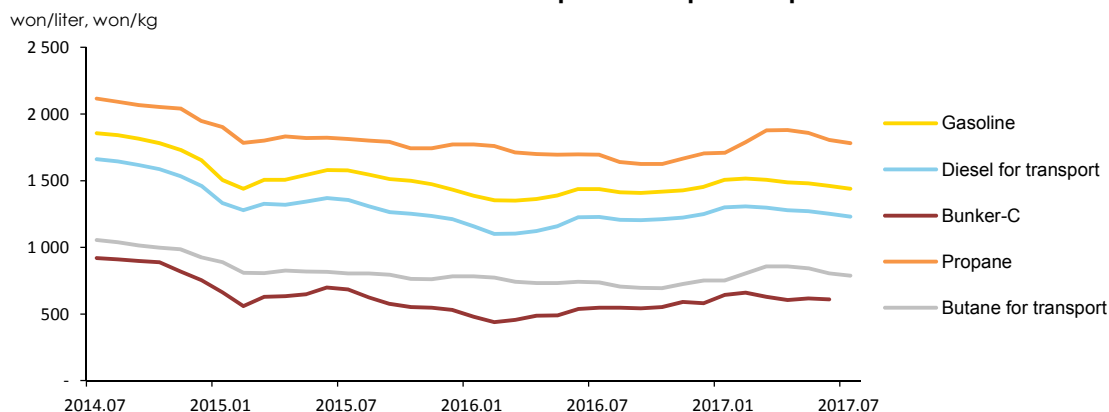
- Global propane and butane prices were unchanged in June after they plunged by 10.5% and 20.4% respectively in May due to seasonally lower LPG demand.
- Domestic LPG suppliers slightly lowered propane and butane prices in order to secure stronger price competitiveness than other fuels, although the global prices were at the same level.

► Trend in domestic energy prices

	2015	2016				2017		
			M5	M6	M7	M5	M6	M7
Gasoline (won/liter)	1 510.4 (-17.3)	1 402.7 (-7.1)	1 388.7 (-10.0)	1 437.6 (-9.0)	1 437.2 (-8.8)	1 481.2 (6.7)	1 461.6 (1.7)	1 438.6 (0.1)
Diesel for transport (won/liter)	1 299.5 (-20.6)	1 182.7 (-9.0)	1 157.9 (-13.8)	1 225.3 (-10.5)	1 228.4 (-9.3)	1 271.4 (9.8)	1 251.5 (2.1)	1 229.8 (0.1)
Bunker-C (won/liter)	612.5 (-31.9)	520.8 (-15.0)	489.1 (-24.4)	538.5 (-23.1)	547.4 (-20.0)	617.6 (26.3)	610.4 (13.4)	- (-100.0)
Propane (won/kg)	1 801.5 (-14.8)	1 689.8 (-6.2)	1 693.2 (-6.9)	1 697.6 (-6.8)	1 693.4 (-6.5)	1 857.1 (9.7)	1 805.9 (6.4)	1 780.9 (5.2)
Butane for transport (won/liter)	806.5 (-23.3)	734.1 (-9.0)	731.1 (-10.6)	741.2 (-9.3)	736.0 (-8.5)	842.3 (15.2)	804.7 (8.6)	786.6 (6.9)

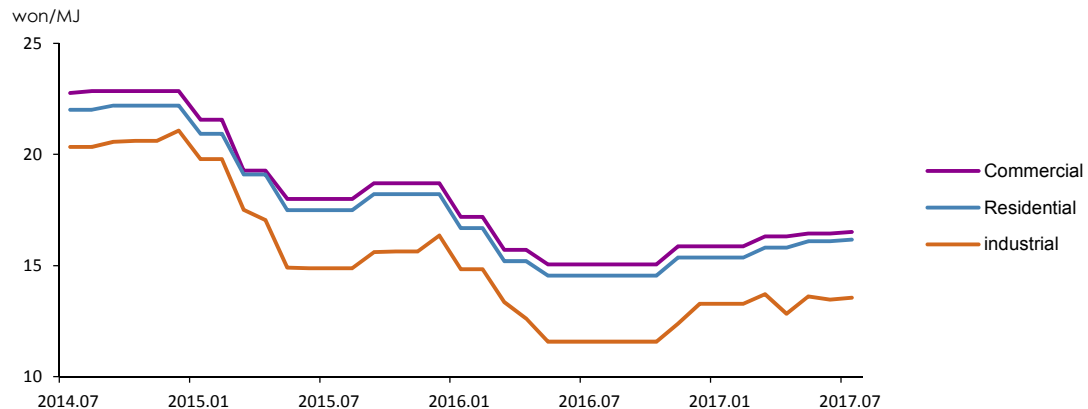
Note: The prices of gasoline, diesel and butane are based on charging station prices, Bunker-C price is based on dealership price, propane price is based on sales shop price. () is year-on-year growth rates (%)
Source: www.opinet.co.kr

► Trend in domestic petroleum product prices



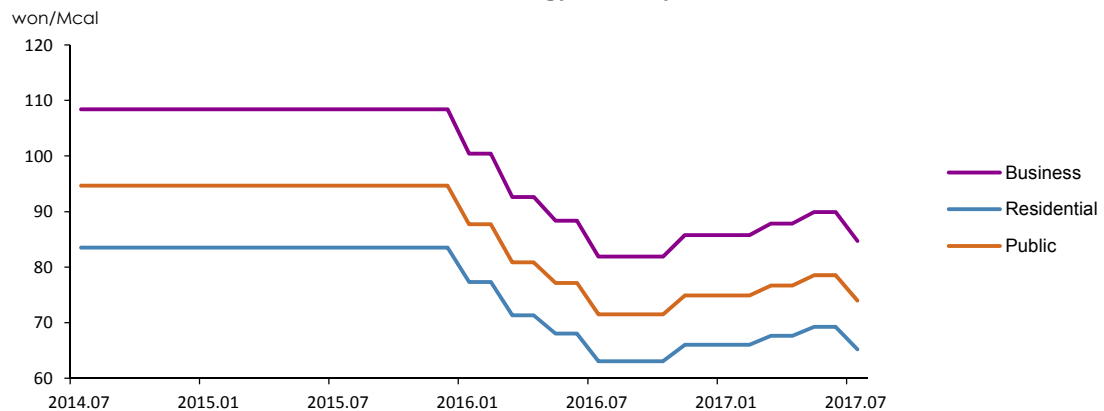
- ☐ **City gas rates stayed at the level of the previous month in July, as global natural gas price has recently shown no significant changes.**
 - City gas rates had constantly increased as natural gas price kept rising until early this year. Recently, however, city gas rates have been flat as natural gas price stays at \$6 per MMBtu.
- ☐ **Heat energy rates for residential, business and public sectors decreased by 5.8% respectively in July compared to the previous month**

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



Note: Instead of volume(M³), 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.

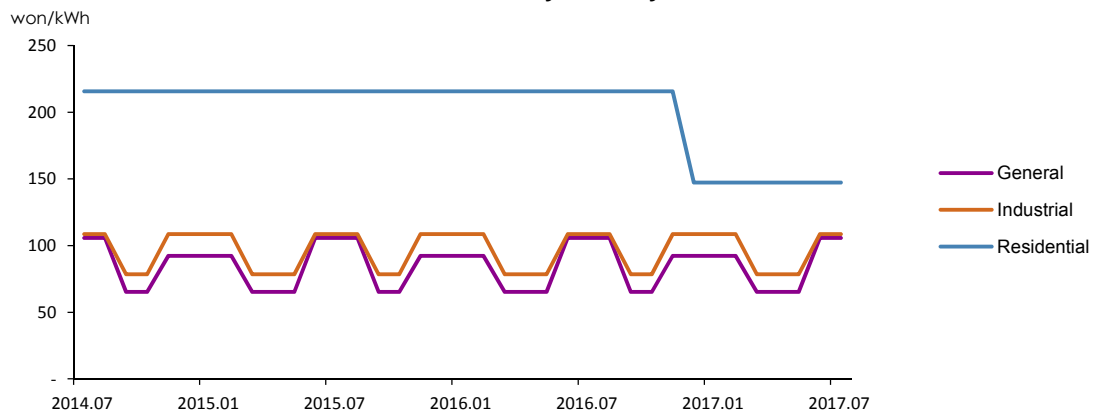
☐ **Electricity rates were unchanged in July after the rates for general and industrial customers were raised in June for the summer season.**

- Electricity rates for general and industrial customers increased by 38.2% and 62.1% respectively in June from a month earlier due to the seasonal rate adjustment from spring/autumn (Mar-May, Sept-Oct) to summer (Jun-Aug).
- Residential electricity rate fell sharply thanks to the reform of the progressive power rate system—the government initiated a discussion on a related reform bill, experiencing extremely hot summer weather and finally disclosed the bill on Dec 13 and retroactively applied the new system from December.

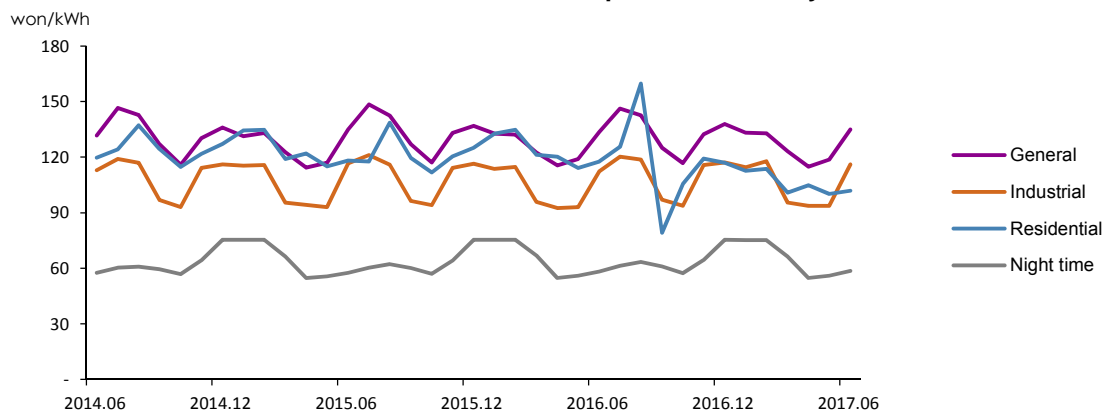
☐ **Unit price of electricity for general, industrial and residential customers rose by 13.7%, 23.9% and 1.8% respectively in June from the previous month.**

- Unit price of electricity for general and industrial customers sharply increased due to the seasonal rate adjustment, and in the case of the residential customers, the unit price of electricity slightly increased under the progressive rate system as more power was sold (1.7%) compared to the previous month.
- On a year-on-year basis, unit price of electricity rose by 1.1% and 3.4% for general and industrial customers and fell by 13.3% for residential customers.

► **Trend in electricity rates by end use sectors**



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



3. Energy Supply

- **The amount of energy imported was up 6.0% in May on a year-on-year basis, measured in calories, due to bigger import of major energy sources.**
 - Energy import volume has been growing for 10 consecutive months, especially petroleum products, coal and LNG.
 - The volume of crude oil import fell slightly (-0.5%) as crude input to refineries declined during the routine maintenance at some refineries.
 - Foreign energy dependency was down 0.3%p to 81.0% in May thanks to 18.4% growth in renewable energy generation.

► Trend in energy trade and domestic production

	2015	2016p	2017p				
			M1~5	M1~5	M3	M4	M5
Import volume							
Crude oil (Mbbbl)	1 026.2 (10.6)	1 078.1 (5.1)	447.7 (6.1)	455.4 (1.7)	95.9 (11.7)	84.5 (-5.8)	92.7 (-0.1)
Petroleum product (Mbbbl)	307.9 (-5.7)	334.6 (8.7)	134.3 (11.4)	131.3 (-2.2)	27.5 (-1.7)	25.4 (-5.9)	27.2 (5.9)
Bituminous coal (Mton)	119.4 (1.3)	118.5 (-0.8)	47.3 (-6.1)	54.5 (15.4)	11.0 (7.3)	10.5 (9.8)	9.8 (13.6)
Anthracite (Mton)	8.9 (7.8)	9.4 (5.4)	3.5 (-1.1)	2.9 (-18.4)	0.7 (-4.4)	0.6 (-30.1)	0.6 (-28.1)
LNG (Mton)	33.4 (-10.1)	33.4 (0.2)	14.2 (-8.0)	16.2 (14.3)	3.5 (2.7)	2.3 (6.9)	2.5 (12.2)
Import volume (Mtoe)	314.8 (1.7)	323.1 (2.6)	132.6 (1.4)	141.6 (6.8)	29.2 (3.8)	25.9 (3.6)	26.9 (6.0)
Import value (billion US\$, CIF)	102.7 (-41.0)	80.9 (-21.2)	29.8 (-35.6)	45.7 (53.1)	9.8 (68.1)	8.2 (41.2)	8.8 (38.6)
Domestic production							
Hydropower (TWh)	5.8 (-25.9)	6.6 (14.5)	2.5 (2.0)	2.6 (5.5)	0.5 (25.9)	0.5 (9.9)	0.6 (-4.9)
Anthracite (Mton)	1.8 (0.9)	1.7 (-2.2)	0.7 (-1.3)	0.7 (-7.0)	0.1 (-6.5)	0.1 (-6.3)	0.1 (-17.5)
Natural gas (Mton)	0.1 (-41.5)	0.1 (-18.0)	0.0 (-43.3)	0.1 (179.2)	0.0 (155.8)	0.0 (394.0)	0.0 (167.4)
Renewable energy (Mtoe)	12.8 (17.2)	15.0 (16.4)	6.3 (17.4)	7.3 (15.7)	1.5 (15.4)	1.5 (15.0)	1.5 (18.4)

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

4. Energy Consumption

□ **Total Primary Energy Supply (“TPES”) rose by 1.8% year-on-year in May, led by renewable energy, coal and petroleum, although nuclear and gas consumption declined.**

- Coal consumption increased by 2.9%, leading the growth of TPES along with renewable energy, which is attributable to the expanded installed capacity and growing coal use for power generation (5.4%) as the effect of maximum output reduction disappeared.
- Petroleum consumption has been growing for three months in a row due to increased use of diesel (2.2%), gasoline (5.3%) and naphtha (3.3%), with the latter affected by the construction of new petrochemical facilities. Meanwhile, the use of bunker-C oil (-75.6%) for power generation decreased due to higher price.
- Gas consumption fell slightly by 0.1% despite increased consumption for city gas production (1.5%), as the power generation sector consumed less amount of gas amid growing base-load power generation. Meanwhile, nuclear generation has been declining for nine months in a row with lower capacity factor.
- Renewable and other energy consumption went up by 16.1% as the government support on renewable energy boosted renewable generation and its share in Total Final Consumption.

□ **Total Final Consumption (“TFC”) increased by 2.2% in (May) on a year-on-year basis. The growth rate, however, went down as industrial energy use grew more slowly.**

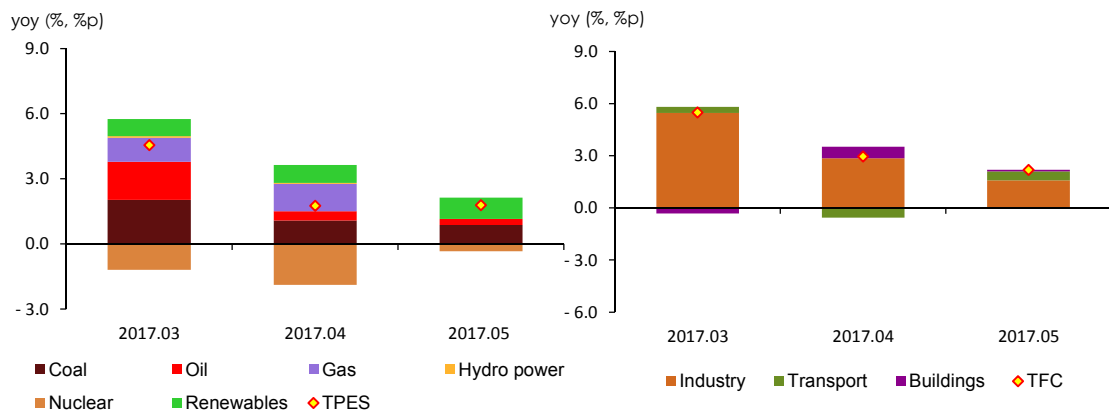
- Industrial energy use went up by 2.4% due to increased use of coal, petroleum and electricity by large energy consumers such as the primary metals, fabricated metals and petrochemical industries. The consumption growth rate, however, decreased due to the slower growth of naphtha consumption in the petrochemical industry.
- Transport energy use rose by 2.5%, especially gasoline and diesel, while bunker-C oil and LPG consumption declined.
- Energy use in buildings made a small increase (0.7%) even amid decreased heating degree days, affected by vigorous production activity in the service industry and the reform of the progressive power rate system.
- Electricity consumption has been growing for 16 months in a row, led by the industrial (petrochemical and fabricated metals) and buildings sector, with the latter affected by growing service industry activity and the reform of the progressive power rate system.

► Energy consumption trend

	2015	2016p	2017p				
			M1~5	M1~5	M3	M4	M5
Total energy (Mtoe)	287.5	295.7	124.1	126.3	26.4	23.1	23.6
	(1.6)	(2.9)	(2.7)	(1.7)	(4.5)	(1.8)	(1.8)
Final energy (Mtoe)	218.6	227.1	95.9	98.3	20.6	18.3	18.3
	(2.2)	(3.9)	(3.1)	(2.5)	(5.5)	(3.0)	(2.2)

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

► **The growth rates of TPES & TGC and energy consumption trend by energy source and end-use sectors**



5. Coal

□ **Coal consumption made a year-on-year increase of 2.9% in May despite a drop in the industrial sector, as the power generation sector consumed more.**

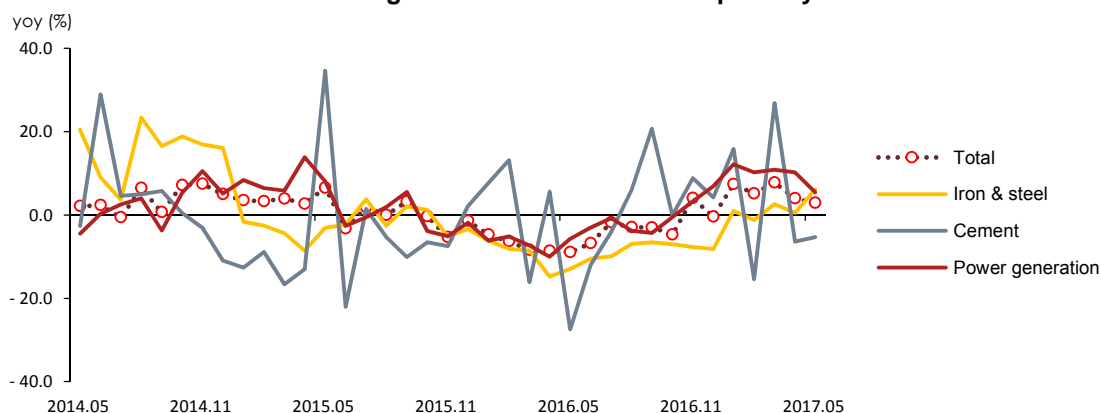
- The power generation (transformation) sector was a main driver of the coal consumption growth, influenced by base effect and expanded installed capacity, though the consumption growth was somewhat slower.
- Industrial coal consumption declined, especially anthracite and in the cement industry, although the consumption increased in the steelmaking industry.
- Anthracite consumption in buildings fell sharply by almost 30% due to the continuous replacement of the fuel with other energy sources and lower heating degree days (-5.6degree days, -28.3%) in May.

► **Coal consumption trend**

	2015	2016p	2017p				
			M1~5	M1~5	M3	M4	M5
Coal (Mton)	134.8	129.0	51.8	54.6	11.3	10.0	10.5
	(1.1)	(-4.4)	(-7.4)	(5.5)	(7.8)	(4.0)	(2.9)
Industry	50.9	47.7	19.1	18.8	4.0	3.6	3.9
	(-1.0)	(-6.2)	(-8.0)	(-1.3)	(3.1)	(-5.4)	(-1.0)
Buildings	1.5	1.3	0.4	0.4	0.1	0.0	0.0
	(-9.6)	(-14.8)	(-15.1)	(-17.6)	(-13.3)	(-7.7)	(-29.2)
Power generation	82.5	80.0	32.3	35.4	7.3	6.4	6.6
	(2.8)	(-3.0)	(-6.8)	(9.9)	(10.8)	(10.2)	(5.4)

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 grew by mere 1.1% in May on a year-on-year basis because of the slower consumption growth in the industrial and buildings sectors.**

- Industrial petroleum consumption grew by no more than around 2%, influenced by slower growth in naphtha and LPG use.
- Petroleum consumption recovered in the transport sector after a decline in the prior month, as the road transport and aviation sectors consumed more.
- Petroleum consumption also increased in the buildings sector, especially in public buildings (↑22.1%), even amid lower heating degree days (-5.6degree days, -28.3%) and higher petroleum product prices.
- Petroleum consumption has been in steep decline in the transformation sector because of higher price of bunker-C oil for power generation in addition to the base effect from a surge in petroleum consumption during the same period last year.

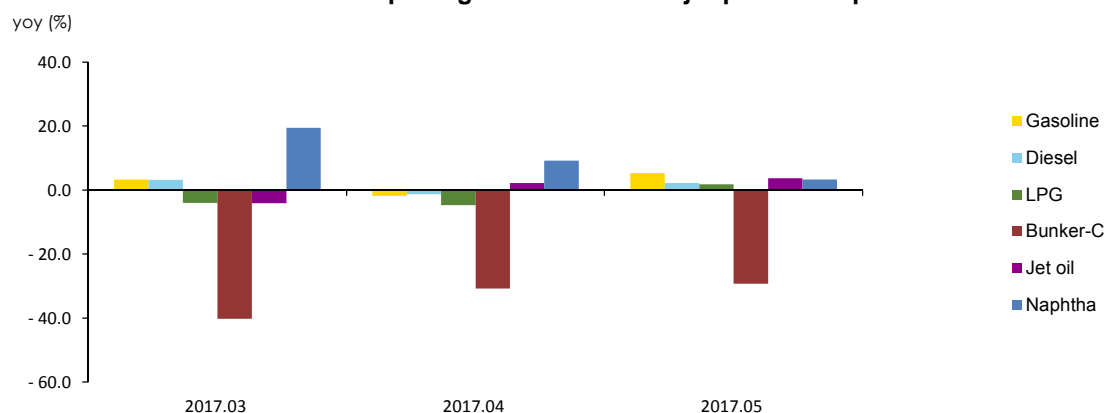
► Trend in petroleum product consumption by end-use sectors

	2015	2016p	2017p				
			M1~5	M1~5	M3	M4	M5
Petroleum (Mbbbl)	856.2	924.2	378.6	383.9	80.6	71.9	76.8
	(4.2)	(7.9)	(8.0)	(1.4)	(5.5)	(1.6)	(1.1)
Industry	501.0	542.6	217.1	230.6	49.3	43.0	46.3
	(1.9)	(8.3)	(7.0)	(6.2)	(14.8)	(8.6)	(2.4)
Transport	287.1	303.6	123.9	123.0	25.5	24.6	26.3
	(6.8)	(5.7)	(6.0)	(-0.7)	(1.7)	(-3.0)	(2.1)
Buildings	53.5	56.3	26.1	24.9	5.1	3.9	3.6
	(11.7)	(5.2)	(9.2)	(-4.6)	(-9.3)	(-3.0)	(1.4)
Power generation	14.6	21.8	11.5	5.3	0.7	0.5	0.6
	(13.0)	(48.7)	(67.1)	(-54.2)	(-74.4)	(-74.3)	(-58.4)

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 use decreased by 0.1% in May on a year-on-year basis due to decreased gas-fired generation, although gas use increased for city gas production.**

- Gas-fired power generation declined due to a small increase in power demand (1.3%) and increased coal-fired generation (7.4%).

□ **City gas use made a year-on-year growth of 1.7% (in May) despite less use of city gas in buildings, as the industrial sector consumed much more.**

- Industrial city gas consumption expanded due to base effect, even after a sharp increase in the industrial city gas rate (12.3%).
- City gas consumption in buildings fell for the first time in four months amid lower heating degree days (-5.6degree days, -28.3%) and higher city gas rates (commercial use 9.2%, residential use 10.6%).

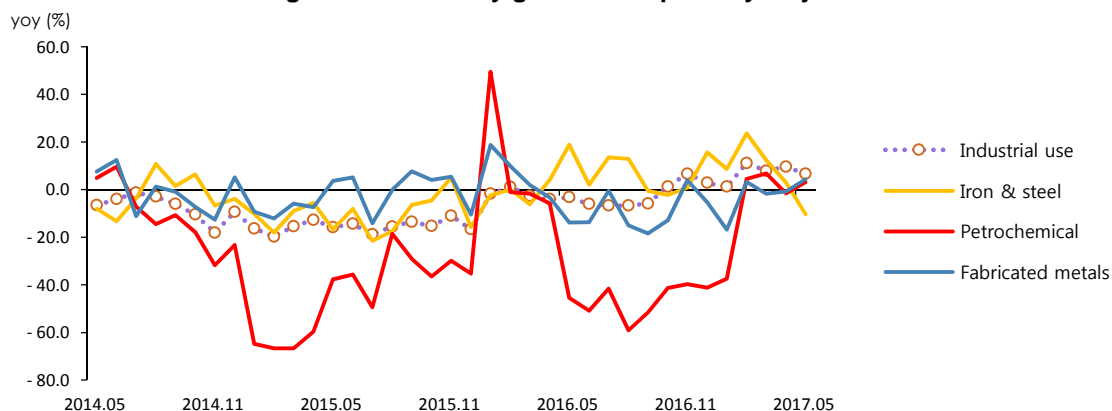
► **Trend in natural gas and city gas consumption**

	2015	2016p	2017p				
			M1~5	M1~5	M3	M4	M5
LNG (Mton)	33.4	34.9	15.7	16.2	3.5	2.5	2.1
	(-8.7)	(4.2)	(-2.2)	(3.2)	(6.4)	(9.7)	(-0.1)
Power generation	14.6	15.3	5.8	6.1	1.3	1.0	1.0
	(-8.2)	(5.3)	(-9.8)	(4.9)	(7.6)	(15.8)	(-1.9)
City gas production	16.9	17.4	8.9	9.1	2.0	1.3	1.0
	(-6.9)	(2.7)	(1.9)	(2.6)	(6.0)	(7.3)	(1.5)
City gas (bm³)	20.8	21.3	11.2	11.5	2.5	1.8	1.3
	(-5.9)	(2.3)	(1.4)	(3.0)	(2.4)	(7.3)	(1.7)
Industry	7.3	7.2	3.2	3.4	0.7	0.7	0.6
	(-15.5)	(-1.9)	(-2.0)	(7.1)	(7.9)	(9.7)	(6.6)
Buildings	12.2	12.8	7.5	7.6	1.6	1.1	0.6
	(0.5)	(5.1)	(3.1)	(1.5)	(0.4)	(6.8)	(-2.2)

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 mere 1.3% in May on a year-on-year basis amid slower consumption growth in the industrial and buildings sectors.**

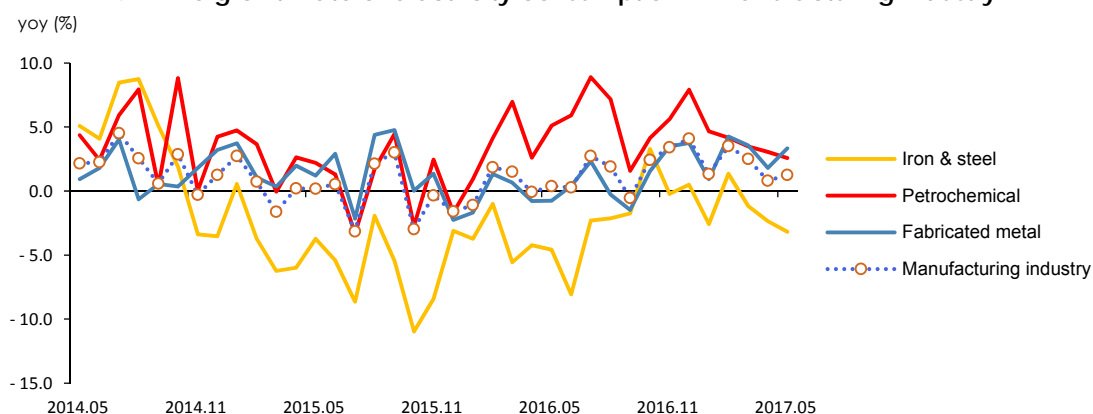
- Industrial electricity use rose by no more than around 1%, about the same as the prior month, affected by the continuous consumption decline in the primary metals industry, although the electricity demand grew in the petrochemical and fabricated metals industries.
- Electricity use went up by 1.0% in the buildings sector and in all of the residential, commercial and public buildings.

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

	2015	2016p	2017p				
			M1~5	M1~5	M3	M4	M5
Electricity (TWh)	483.7	497.0	208.8	211.7	42.6	40.8	38.7
	(1.3)	(2.8)	(1.3)	(1.4)	(0.7)	(1.7)	(1.3)
Industry	265.6	270.0	112.1	114.4	23.5	22.6	22.3
	(0.4)	(1.6)	(0.7)	(2.0)	(2.5)	(1.1)	(1.5)
Transport	2.2	2.7	1.1	1.1	0.2	0.2	0.2
	(10.7)	(21.3)	(24.8)	(1.4)	(-4.5)	(2.7)	(5.3)
Buildings	215.8	224.4	95.6	96.3	18.9	18.0	16.2
	(2.3)	(4.0)	(1.8)	(0.7)	(-1.3)	(2.5)	(1.0)

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

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

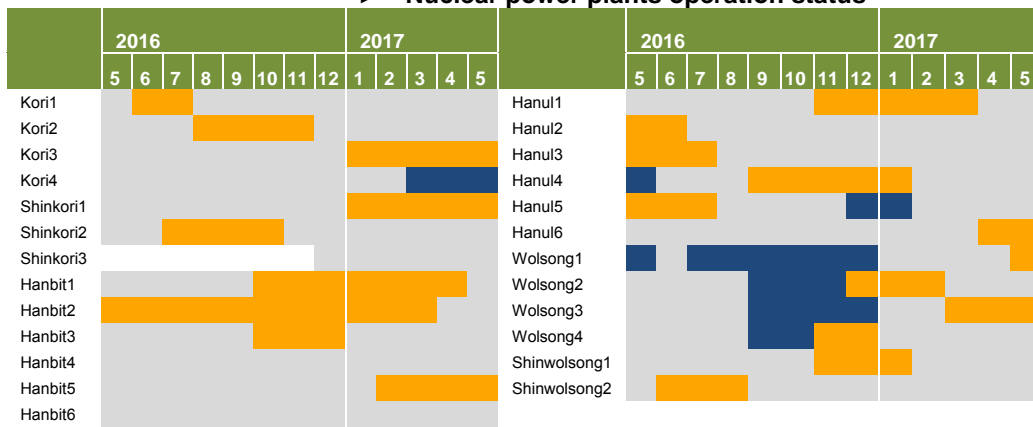


9. Nuclear

□ **Nuclear generation declined by 2.4% year-on-year in May with several plants running at lower capacity factors, though the pace of decline was much slower.**

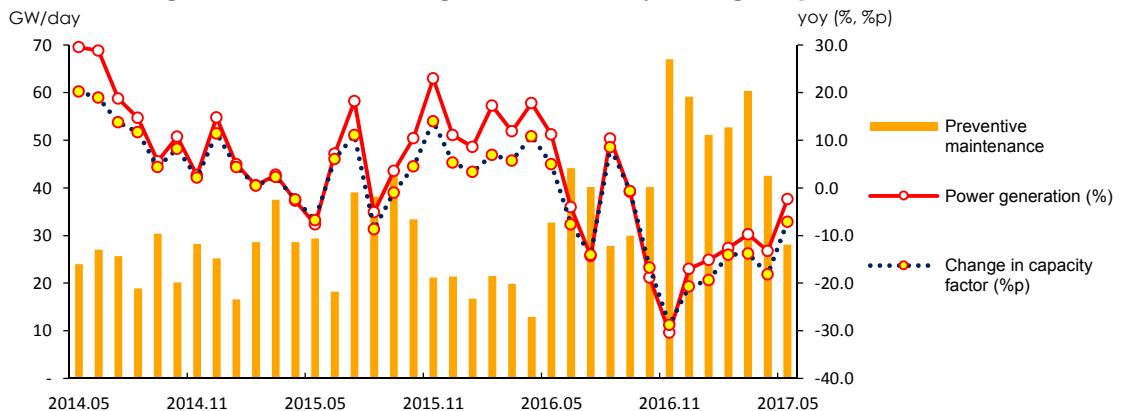
- Although nuclear generation has been falling for nine consecutive months, such decline was markedly slower than the previous month (-2.4%), partly due to decreased planned preventive maintenance (-14.1%, -4.6GW), which had surged for the past six months on a year-on-year basis.
- Nuclear capacity factors went down by 7.2%p to 79.5% on a year-on-year basis, and the share of nuclear energy in the total power generation fell by 1.3%p to 32.0%, staying at slightly over 30% for two months in a row.

► **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

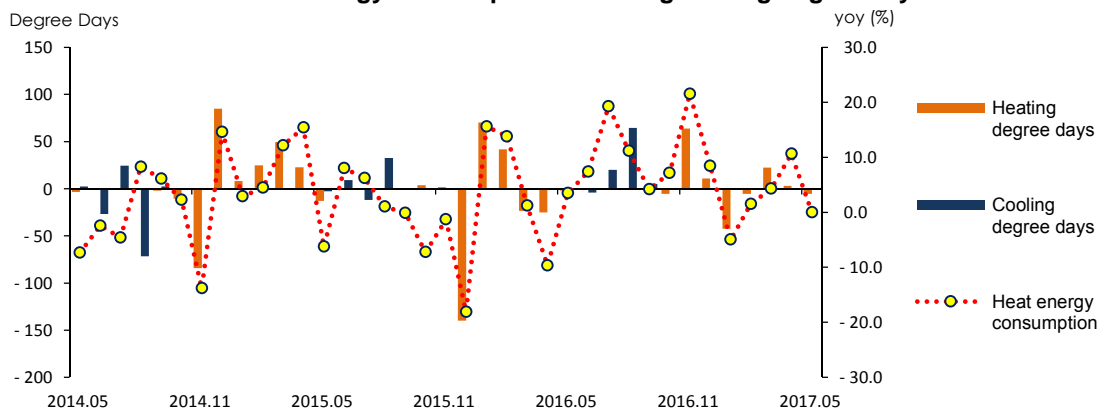
□ **Heat energy use was flat (0.0%) in May on a year-on-year basis, as an increase in the residential sector was offset by a sharp decline in the commercial sector.**

- Residential heat energy use grew at much slower rate of 2.8%, compared to the prior month, due to decreased heating degree days and increased heat energy rate (1.8%). Commercial heat energy use declined by 17.6% due to the base effect from a sharp consumption increase during the same period last year.

□ **Renewable and other energy consumption increased by 16.1% year-on-year despite a decline in hydropower generation, because of a surge in renewable energy generation.**

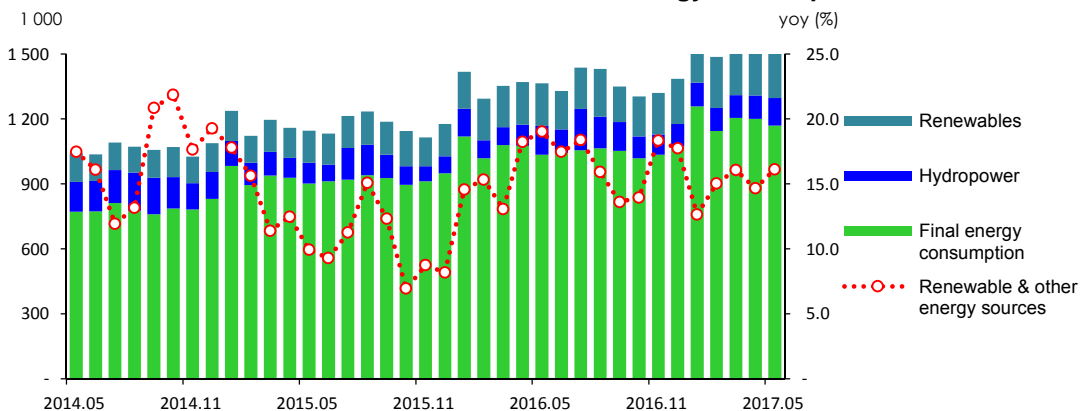
- Hydropower generation fell by 4.9% (603.0GWh) due to smaller amount of rainfall (28.5mm, 29.0% of the total rainfall during the same period last year).
- Renewable energy generation soared by more than 40%, following the commissioning of a new Integrated Gasification Combined Cycle(IGCC) plant (2016.8) and expanded solar PV & bio-energy generation. Renewable's share in TFC maintained around 10% growth rate, led by the industrial and buildings sectors.

► 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. The Industrial Sector

□ Industrial energy use recorded mere 2.4% growth in May on a year-on-year basis, affected by slower consumption growth in the petrochemical industry.

- As for the contribution of industrial sectors to the growth of energy consumption, the petrochemical, primary metals and fabricated metals industries accounted for 48.5%, 32% and 2.9% respectively.
- Naphtha consumption grew slowly due to the temporary shutdown of some installations for the extension and repair.

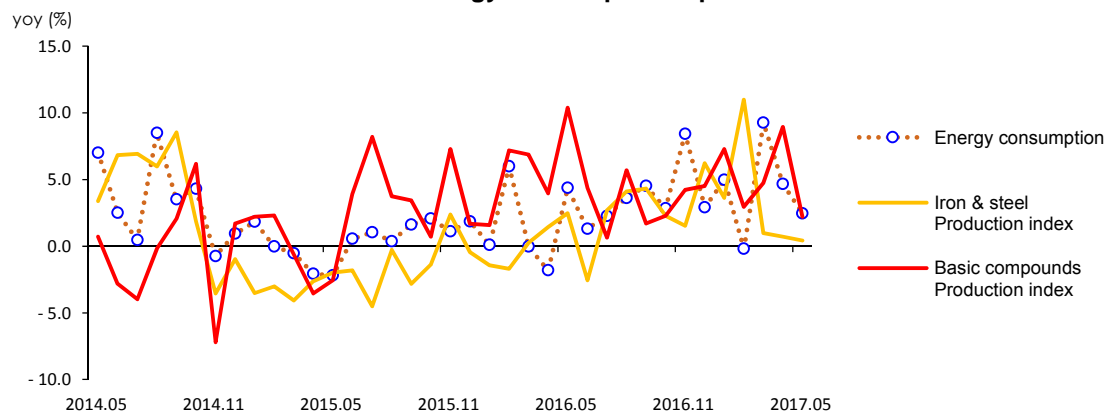
► Trend in the industrial energy consumption

	2015	2016p	2017p				
			M1~5	M1~5	M3	M4	M5
Industry (Mtoe)	136.7	140.6	57.2	59.6	12.6	11.4	11.9
	(0.5)	(2.8)	(1.7)	(4.2)	(9.2)	(4.6)	(2.4)
Petrochemical	61.7	65.8	26.6	28.2	6.0	5.2	5.6
	(-0.6)	(6.7)	(6.7)	(5.9)	(15.9)	(7.3)	(2.5)
- Naphtha	50.4	52.7	21.6	23.0	5.0	4.2	4.5
	(3.7)	(4.7)	(3.6)	(6.6)	(19.4)	(9.2)	(3.3)
Iron & Steel	31.4	29.0	11.8	12.0	2.5	2.3	2.4
	(-2.6)	(-7.6)	(-8.7)	(1.5)	(2.5)	(0.3)	(3.9)
Fabricated metal	10.6	10.6	4.5	4.6	1.0	0.9	0.9
	(-1.1)	(0.4)	(0.7)	(2.9)	(3.8)	(3.2)	(5.0)
Share of feedstock (%)	59.0	57.7	57.6	57.8	58.5	56.4	58.5

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

Source: Monthly energy statistics

► Industrial energy consumption & production index



12. The Transport Sector

□ Transport energy use recovered in May, posting 2.5% year-on-year growth, as energy use rebounded in the road transport sector.

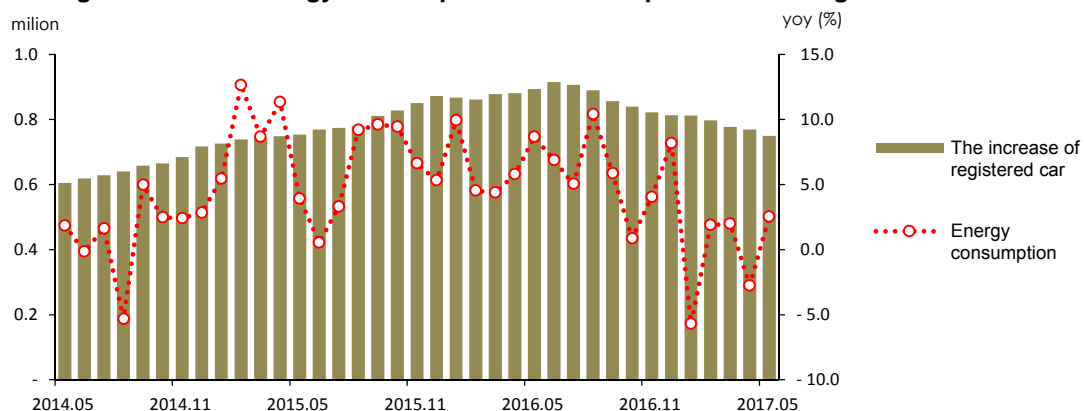
- Global oil price increased by 8.6% year-on-year in May, recording eight consecutive months of growth, although the growth rate declined sharply. As for the domestic petroleum product prices, gasoline, diesel, bunker-C oil and butane for transport rose by 6.7%, 9.8%, 26.3% and 15.2% respectively.
- Energy consumption rose by 3.2% in the road transport sector with the recovery of gasoline and diesel consumption, leading the growth of transport energy use, although LPG consumption declined (-9.2%) due to the reduced number of LPG vehicles on the road.
- Energy consumption started to decline by 0.9% in the domestic navigation sector, affected by 0.3% and 1.2% drop in export and coastal transport.
- Energy consumption increased in the aviation sector due to the growing demand for air travel from/to Jeju Island and on other domestic routes along with expanded air cargo volume including semi-conductors.
- As for the contribution to the growth of energy consumption, road transport accounted for 2.6%p, followed by aviation and railway 0.0%p and domestic navigation -0.1%p.

► The growth rate of petroleum consumption in the transport sector

	2015	2016p		2017p			
			M1~5	M5	M3	M4	M5
Transport (Mtoe)	40.3	42.8	17.5	3.7	3.6	3.5	3.7
	(7.1)	(6.2)	(6.6)	(2.5)	(2.0)	(-2.8)	(2.5)
Road	32.8	34.4	14.0	3.0	2.9	2.8	3.0
	(5.6)	(5.1)	(6.1)	(3.2)	(2.3)	(-4.3)	(3.2)
Navigation	2.9	3.4	1.4	0.3	0.3	0.3	0.3
	(27.0)	(13.8)	(11.2)	(-0.9)	(6.3)	(7.7)	(-0.9)
Aviation	4.3	4.7	1.9	0.4	0.4	0.4	0.4
	(7.5)	(9.1)	(6.7)	(0.2)	(-2.8)	(2.0)	(0.2)
Rail	0.3	0.3	0.1	0.0	0.0	0.0	0.0
	(2.2)	(8.3)	(12.3)	(1.4)	(-11.8)	(-0.0)	(1.4)

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. The Buildings Sector

□ **Energy use in buildings made a small year-on-year increase (0.7%) in May, despite decreased use of coal, LPG and city gas, as electricity and diesel were more used.**

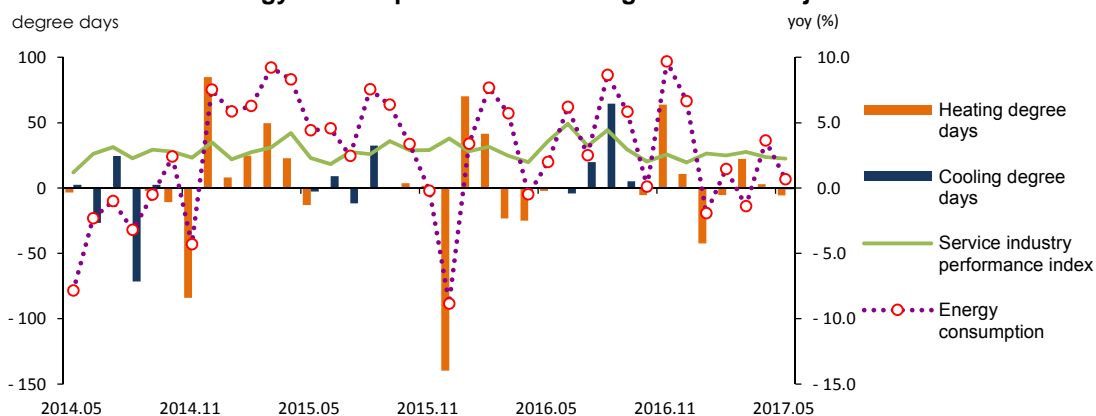
- Energy use in buildings remained steady even amid higher fuel prices and lower heating degree days (-5.6degree days, -28.3%), due to growing use of diesel and electricity, with the latter influenced by the reform of progressive power rate system.
- Residential energy use fell by 1.3% despite an increase in electricity and heat energy consumption (0.5%, 2.8%), as anthracite consumption plunged (-29.2%) and petroleum and city gas consumption decreased as well (-3.1%, -2.9%).
- Commercial energy consumption slightly rose, especially electricity and diesel, although LPG and city gas consumption decreased and heat energy consumption fell sharply.

► Energy consumption trend in the buildings sector

	2015	2016p	2017p				
			M1~5	M1~5	M3	M4	M5
Buildings (Mtoe)	41.6 (3.6)	43.7 (5.0)	21.2 (4.1)	21.3 (0.2)	4.4 (-1.4)	3.4 (3.6)	2.7 (0.7)
Residential	20.1 (1.7)	21.2 (5.7)	11.3 (5.4)	11.2 (-0.4)	2.4 (-1.5)	1.7 (4.5)	1.1 (-1.3)
Commercial	16.4 (4.0)	17.0 (3.6)	7.6 (1.4)	7.6 (0.4)	1.5 (-1.2)	1.3 (2.8)	1.1 (0.4)
Public-others	5.2 (10.1)	5.5 (6.7)	2.4 (6.8)	2.4 (2.3)	0.5 (-1.6)	0.4 (2.6)	0.4 (7.4)

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

► Energy consumption in the buildings sector & major indicators



14. Transformation

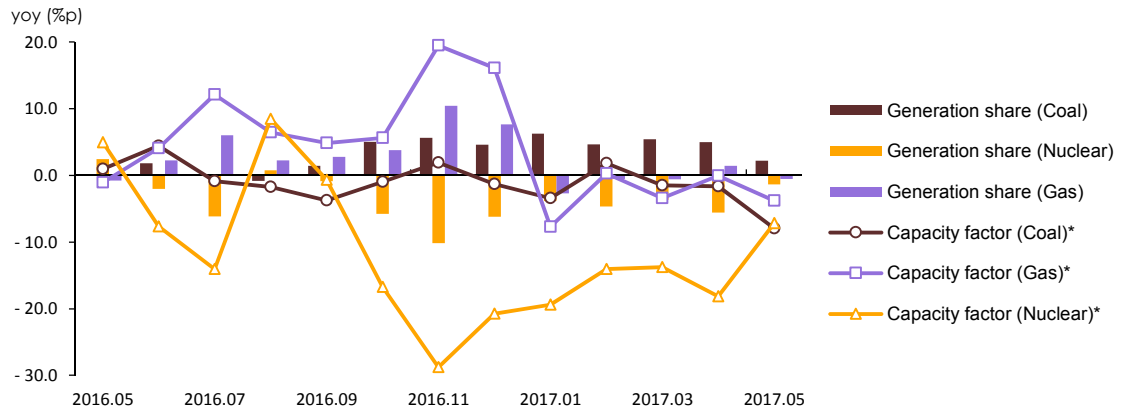
- Energy consumption for power generation recorded 0.8% year-on-year increase in May, owing to the increased coal-fired generation, although nuclear and gas-fired generation decreased.
 - The total amount of power generated went up by 1.8% even amid lower nuclear generation, due to the increased coal-fired generation.

► Energy consumption in the power generation sector

	2015	2016p		2017p			
			M1~5	M1~5	M3	M4	M5
Input (Mtoe)	109.6	110.2	46.0	46.1	9.4	8.5	8.7
	(1.4)	(0.5)	(1.0)	(0.2)	(0.4)	(-0.2)	(0.8)
Coal	50.6	49.0	19.8	21.7	4.4	3.9	4.0
	(2.7)	(-3.1)	(-6.8)	(10.0)	(10.9)	(10.4)	(5.6)
Oil	2.0	3.0	1.6	0.6	0.1	0.1	0.1
	(16.6)	(50.1)	(71.2)	(-60.7)	(-81.7)	(-78.1)	(-67.1)
Gas	19.3	20.3	7.7	8.1	1.8	1.3	1.3
	(-8.1)	(5.2)	(-9.8)	(5.2)	(7.9)	(15.9)	(-1.4)
Nuclear	34.8	34.2	15.5	13.8	2.8	2.8	2.9
	(5.3)	(-1.7)	(13.2)	(-10.8)	(-9.8)	(-13.2)	(-2.4)
Hydro/other renewables	3.0	3.7	1.5	1.8	0.4	0.4	0.4
	(-5.5)	(24.2)	(21.1)	(24.6)	(33.0)	(26.0)	(26.0)

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 Supply and Demand

Major Statistics & Indicators of the Economy

	2014	2015			2016				2017
			3Q	4Q	1Q		3Q	4Q	1Q
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)	1 508.3 (2.8)	378.2 (2.6)	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)	725.0 (2.5)	181.9 (2.7)	184.6 (1.5)	185.6 (2.0)
Facilities investment	134.0 (6.0)	140.3 (4.7)	34.5 (6.0)	36.0 (3.1)	31.9 (-4.6)	137.0 (-2.3)	33.1 (-3.9)	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)	234.2 (10.7)	62.2 (11.2)	64.9 (11.6)	49.7 (11.3)
Consumer price index (2010=100)	99.3	100.0	100.2	100.1	100.6	101.0	101.0	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	1 160.8	1 121.1	1 156.4	1 154.9
Benchmark rate (%)	2.3	1.6	1.5	1.5	1.5	1.4	1.3	1.3	1.3
Coincident composite index (2010=100)	113.6	117.3	117.6	119.2	119.5	121.1	122.0	122.7	124.2
Mining & manufacturing production index (2010=100)	108.4	108.1	106.0	111.7	105.6	109.2	106.5	114.8	109.5
Manufacturing operation ratio index (2010=100)	94.3	92.4	90.1	93.9	89.1	90.4	86.9	93.5	88.2
Average temperature	13.3	13.6	24.8	8.7	1.3	13.6	25.8	8.0	1.4
- year-on-year difference	0.9	0.2	0.4	1.4	- 0.8	- 0.0	0.9	- 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)	2 589.7 (5.3)	0.3 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	238.1 (56.9)	227.9 (64.8)	- 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 (0.0)	0.19 (0.9)	0.19 (0.5)	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 (7.2)	18.0 (7.5)	4.5 (7.8)	4.8 (6.8)	4.6 (1.0)
Electricity (MWh)	9.4 (-0.1)	9.5 (0.7)	2.4 (1.9)	2.3 (-1.4)	2.5 (1.4)	9.7 (2.3)	2.5 (3.8)	2.4 (3.1)	2.6 (0.9)
City gas (1 000 m ³)	0.4 (-8.1)	0.4 (-6.4)	0.1 (-8.6)	0.1 (-11.6)	0.2 (2.7)	0.4 (1.8)	0.1 (-2.6)	0.1 (6.9)	0.2 (1.9)
Total energy (toe)	5.6 (0.3)	5.6 (1.1)	1.4 (1.8)	1.5 (0.5)	1.5 (2.8)	5.8 (2.4)	1.4 (3.0)	1.5 (2.4)	1.5 (1.2)

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			
			M1-5	M3	M4	M5	M1-5	M3	M4	M5
Industrial production index										
All industry	110.0 (1.9)	113.3 (3.0)	109.8 (2.3)	115.7 (2.3)	110.3 (0.7)	112.4 (4.7)	113.6 (3.5)	120.5 (4.1)	114.2 (3.5)	115.1 (2.4)
Mining & manufacturing	108.1 (-0.3)	109.2 (1.0)	106.9 (0.2)	112.7 (-0.5)	107.2 (-2.7)	110.2 (4.4)	109.6 (2.6)	116.4 (3.3)	109.1 (1.8)	110.3 (0.1)
Iron & steel	110.9 (-2.0)	112.7 (1.6)	110.3 (0.3)	113.2 (0.3)	112.8 (1.4)	116.5 (2.5)	113.7 (3.1)	114.3 (1.0)	113.7 (0.8)	116.9 (0.3)
Cement	125.8 (19.4)	134.3 (6.8)	123.6 (7.7)	145.3 (14.2)	145.7 (8.3)	148.7 (6.8)	137.9 (11.5)	159.3 (9.6)	151.7 (4.1)	158.6 (6.7)
Basic compound	115.5 (2.2)	120.5 (4.4)	119.0 (5.9)	122.7 (6.9)	113.0 (4.0)	122.2 (10.4)	125.1 (5.2)	128.5 (4.7)	123.1 (8.9)	124.8 (2.1)
Transport equipment	120.8 (1.2)	117.4 (-2.8)	118.9 (-1.3)	133.8 (2.8)	120.3 (-8.6)	119.9 (3.1)	119.0 (0.1)	132.8 (-0.7)	122.5 (1.8)	116.8 (-2.6)
Electric & electronic	95.6 (-3.3)	96.6 (1.1)	94.0 (0.3)	102.9 (-0.4)	94.1 (-5.7)	95.2 (5.5)	93.1 (-0.9)	99.9 (-2.9)	93.9 (-0.2)	93.0 (-2.3)
Service	112.1 (2.9)	115.5 (3.0)	112.6 (2.8)	115.8 (2.5)	113.8 (2.0)	115.5 (3.6)	115.4 (2.5)	119.0 (2.8)	116.6 (2.5)	117.9 (2.1)
Operating ratio index										
Manufacturing	92.4 (-2.0)	90.4 (-2.1)	90.1 (-1.8)	96.2 (-0.3)	90.4 (-5.9)	93.1 (1.1)	89.3 (-1.0)	95.5 (-0.7)	90.6 (0.2)	91.1 (-2.1)
Iron & steel	100.2 (-2.4)	103.4 (3.2)	100.6 (2.6)	101.8 (1.3)	101.4 (3.6)	105.9 (3.0)	105.4 (4.8)	106.6 (4.7)	104.4 (3.0)	108.5 (2.5)
Cement	108.8 (8.3)	129.8 (19.4)	119.8 (17.6)	140.2 (22.6)	142.5 (28.1)	144.1 (14.5)	132.5 (10.7)	153.6 (9.6)	145.6 (2.2)	154.0 (6.9)
Basic compound	91.1 (-1.8)	94.1 (3.3)	93.6 (5.0)	97.2 (6.6)	89.4 (4.8)	95.8 (9.7)	96.2 (2.8)	98.4 (1.2)	94.6 (5.8)	95.5 (-0.3)
Transport equipment	105.0 (1.5)	97.2 (-7.4)	99.9 (-4.1)	114.8 (1.3)	101.3 (-13.8)	100.3 (-0.9)	99.2 (-0.6)	113.0 (-1.6)	106.3 (4.9)	98.7 (-1.6)
Electric & electronic	91.4 (1.0)	92.2 (0.8)	89.5 (0.4)	101.1 (1.8)	86.3 (-11.4)	89.3 (3.7)	89.0 (-0.5)	95.3 (-5.7)	91.0 (5.4)	91.1 (2.0)

Note: p means provisional
Source: Monthly energy statistics

International Energy Prices

	2015	2016					2017			
		M1~6	M4	M5	M6	M1~6	M4	M5	M6	
Crude oil (USD/bbl)										
WTI	48.8 (-47.5)	43.3 (-11.2)	39.5 (-25.8)	41.1 (-24.7)	46.8 (-21.2)	48.9 (-18.4)	50.1 (26.8)	51.1 (24.3)	48.5 (3.7)	45.2 (-7.5)
Dubai	50.8 (-47.5)	41.2 (-18.8)	36.8 (-34.7)	39.0 (-32.5)	44.3 (-29.8)	46.3 (-23.9)	51.5 (40.0)	52.3 (34.1)	50.7 (14.6)	46.5 (0.4)
Brent	53.6 (-46.1)	45.0 (-16.0)	41.0 (-30.9)	43.3 (-29.1)	47.7 (-27.4)	49.9 (-21.7)	52.8 (28.7)	53.8 (24.2)	51.4 (7.8)	47.6 (-4.8)
Unit value of import (C&F)	53.3 (-47.5)	41.0 (-23.0)	36.3 (-36.5)	36.7 (-36.1)	41.2 (-33.6)	45.0 (-29.1)	44.5 (22.6)	52.7 (43.7)	52.4 (27.3)	- -
LNG										
From Indonesia (USD/MMBTU)	11.0 (-35.5)	7.4 (-32.1)	7.5 (-37.5)	6.7 (-39.4)	6.8 (-24.7)	7.1 (-19.5)	6.5 (-13.3)	5.7 (-14.5)	5.7 (-16.0)	5.5 (-22.0)
Unit value of import (USD/ton, CIF)	549.1 (-35.3)	356.9 (-35.0)	357.8 (-41.9)	342.7 (-43.4)	311.1 (-37.1)	296.9 (-37.3)	416.7 (16.5)	415.3 (21.2)	432.4 (39.0)	- -
Bituminous coal (USD/ton)										
From Australia	61.6 (-18.0)	70.6 (14.5)	55.0 (-14.5)	54.5 (-11.9)	55.2 (-14.8)	57.0 (-9.6)	86.6 (57.3)	90.1 (65.2)	80.1 (45.3)	85.7 (50.4)
Unit value of import (CIF)	73.9 (-19.8)	68.8 (-6.8)	60.6 (-24.0)	60.3 (-24.9)	62.0 (-18.8)	60.6 (-20.2)	549.9 (807.4)	103.0 (70.8)	113.6 (83.3)	- -
Petroleum product (USD/bbl)										
Gasoline	69.4 (-37.4)	56.2 (-19.1)	53.5 (-28.1)	54.5 (-28.3)	59.1 (-30.0)	59.1 (-30.2)	66.0 (23.3)	67.7 (24.2)	64.8 (9.6)	59.8 (1.2)
Kerosene	64.7 (-42.5)	52.8 (-18.3)	48.3 (-32.8)	49.6 (-31.1)	55.1 (-28.6)	58.4 (-21.6)	62.6 (29.6)	63.9 (28.9)	61.1 (10.7)	57.0 (-2.2)
Diesel	66.6 (-41.6)	53.0 (-20.4)	48.2 (-34.3)	49.6 (-32.9)	56.1 (-30.4)	59.1 (-24.0)	63.6 (32.0)	65.0 (31.2)	62.0 (10.6)	58.4 (-1.2)
Bunker-C	45.2 (-47.7)	35.4 (-21.6)	29.1 (-44.9)	29.6 (-45.0)	34.3 (-42.1)	37.0 (-34.5)	47.9 (64.5)	48.0 (62.4)	47.3 (37.9)	45.3 (22.6)
Propane	416.3 (-47.4)	323.3 (-22.3)	315.8 (-29.9)	320.0 (-30.4)	325.0 (-30.1)	330.0 (-18.5)	437.5 (38.5)	430.0 (34.4)	385.0 (18.5)	385.0 (16.7)
Butane	436.7 (-46.1)	355.8 (-18.5)	353.3 (-24.2)	350.0 (-25.5)	380.0 (-20.0)	365.0 (-17.0)	494.2 (39.9)	490.0 (40.0)	390.0 (2.6)	390.0 (6.8)
Naphtha	52.5 (-44.3)	42.5 (-19.0)	40.2 (-29.6)	42.3 (-29.9)	44.0 (-30.4)	45.3 (-24.8)	51.3 (27.7)	52.2 (23.3)	48.6 (10.6)	44.8 (-1.2)

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)

	2015	2016					2017p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Coal (Mton)	134.8 (1.1)	129.0 (-4.4)	41.6 (-7.0)	10.1 (-6.3)	10.5 (-8.4)	9.6 (-8.7)	44.2 (6.2)	10.6 (5.1)	11.3 (7.8)	10.0 (4.0)
- Coking coal excluded	98.1 (2.5)	95.5 (-2.6)	30.7 (-6.1)	7.5 (-5.7)	7.7 (-8.3)	7.0 (-6.2)	33.2 (8.1)	8.0 (7.4)	8.5 (9.6)	7.4 (5.2)
Oil (Mbbbl)	856.2 (4.2)	924.2 (7.9)	302.7 (6.5)	76.5 (12.1)	76.4 (4.8)	70.8 (2.7)	307.1 (1.5)	74.6 (-2.4)	80.6 (5.5)	72.0 (1.6)
- Non-energy oil excluded	411.7 (6.0)	458.0 (11.2)	151.6 (11.3)	36.4 (7.9)	39.2 (9.6)	36.6 (12.2)	146.5 (-3.4)	36.2 (-0.8)	37.2 (-5.1)	34.8 (-4.9)
LNG (Mton)	33.4 (-8.7)	34.9 (4.2)	13.6 (-1.6)	3.7 (3.7)	3.3 (-4.3)	2.2 (-13.5)	14.1 (3.7)	3.9 (5.5)	3.5 (6.4)	2.5 (9.7)
Hydro (TWh)	5.8 (-25.9)	6.6 (14.5)	1.9 (-6.4)	0.4 (-19.9)	0.4 (-24.8)	0.5 (8.4)	2.0 (9.0)	0.5 (29.4)	0.5 (25.9)	0.5 (9.9)
Nuclear (TWh)	164.8 (5.3)	162.0 (-1.7)	59.5 (13.7)	14.2 (17.2)	14.6 (11.9)	15.3 (17.8)	52.0 (-12.7)	12.4 (-12.6)	13.2 (-9.8)	13.3 (-13.2)
Others (Mtoe)	12.8 (17.2)	15.0 (16.4)	5.0 (17.4)	1.2 (18.9)	1.3 (16.9)	1.3 (19.1)	5.7 (13.1)	1.4 (12.1)	1.4 (13.5)	1.4 (13.1)
TPES (Mtoe)	287.5 (1.6)	295.7 (2.9)	101.0 (2.4)	25.3 (5.8)	25.2 (0.6)	22.7 (-0.6)	102.6 (1.6)	25.4 (0.4)	26.3 (4.5)	23.1 (1.7)
- Non-energy oil excluded	232.2 (1.4)	237.6 (2.4)	82.2 (2.4)	20.3 (3.6)	20.6 (0.6)	18.5 (0.6)	82.6 (0.6)	20.6 (1.4)	20.9 (1.8)	18.5 (0.1)
- Non-energy oil&coal excluded	206.4 (1.9)	214.2 (3.8)	74.6 (3.8)	18.5 (5.0)	18.6 (1.6)	16.6 (2.6)	75.0 (0.5)	18.8 (1.7)	19.0 (1.7)	16.6 (0.1)

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

Share of TPES by Sources

(unit: %)

	2015	2016					2017p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Coal	29.7	27.6	26.1	25.4	26.4	26.9	27.2	26.5	27.2	27.5
- Coking coal excluded	20.8	19.7	18.6	18.1	18.7	18.9	19.8	19.3	19.7	19.6
Oil	38.1	39.9	38.5	38.7	39.0	40.0	38.1	37.5	39.0	39.7
- non-energy oil excluded	18.9	20.3	19.9	19.1	20.6	21.2	18.7	18.7	18.5	19.7
LNG	15.2	15.4	17.6	19.0	17.1	12.9	18.0	19.9	17.4	13.9
Hydro	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.5
Nuclear	12.1	11.6	12.4	11.8	12.2	14.2	10.7	10.3	10.6	12.2
Others	4.5	5.1	5.0	4.8	5.0	5.6	5.6	5.3	5.5	6.2
TPES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: p means provisional
Source: Monthly energy statistics

Total Final Consumption (TFC)

(Unit: Mtoe)

	2015	2016p					2017p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Industry	136.7 (0.5)	140.6 (2.8)	45.6 (1.0)	11.4 (6.0)	11.5 (-0.0)	10.9 (-1.8)	47.7 (4.6)	11.3 (-0.3)	12.5 (9.1)	11.4 (4.5)
Transport	40.3 (7.1)	42.8 (6.2)	13.8 (6.1)	3.2 (4.5)	3.5 (4.4)	3.6 (5.8)	13.7 (-1.2)	3.3 (1.9)	3.6 (2.0)	3.5 (-2.8)
Residential-commercial	36.4 (2.7)	38.2 (4.8)	16.5 (4.0)	4.7 (7.2)	3.9 (5.1)	2.9 (-1.1)	16.5 (-0.0)	4.8 (1.3)	3.9 (-1.4)	3.0 (3.7)
Public	5.2 (10.1)	5.5 (6.7)	2.0 (7.4)	0.5 (12.2)	0.5 (10.4)	0.4 (3.5)	2.0 (-0.3)	0.5 (1.5)	0.5 (-3.2)	0.4 (0.8)
TFC	218.6 (2.2)	227.1 (3.9)	78.0 (2.7)	19.8 (6.2)	19.5 (2.0)	17.8 (-0.1)	79.9 (2.4)	19.9 (0.5)	20.5 (5.4)	18.3 (2.8)
Coal (Mton)	52.4 (-1.3)	49.0 (-6.4)	15.6 (-6.8)	3.7 (-8.3)	3.9 (-10.1)	3.9 (-6.6)	15.3 (-1.8)	3.5 (-3.8)	4.1 (2.7)	3.6 (-5.5)
Oil (Mbbbl)	841.6 (4.1)	902.4 (7.2)	292.7 (5.2)	74.0 (10.5)	73.6 (4.4)	68.9 (1.8)	302.5 (3.4)	73.0 (-1.3)	79.9 (8.5)	71.5 (3.7)
Electricity (TWh)	483.7 (1.3)	497.0 (2.8)	170.6 (1.4)	43.6 (4.2)	42.2 (3.3)	40.1 (0.1)	173.0 (1.4)	44.4 (2.0)	42.6 (0.7)	40.8 (1.7)
City gas (Bm³)	20.8 (-5.9)	21.3 (2.3)	9.9 (1.8)	2.8 (8.1)	2.4 (1.0)	1.7 (-4.6)	10.2 (3.0)	2.9 (5.1)	2.5 (2.4)	1.8 (6.6)
Heat others (1 000 toe)	12.7 (14.7)	14.4 (13.6)	5.2 (13.5)	1.3 (13.8)	1.3 (12.5)	1.2 (13.1)	5.7 (8.3)	1.4 (8.1)	1.4 (8.7)	1.3 (10.3)

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

Source: Monthly energy statistics

Share of the Total Final Consumption by Sources

(unit: %)

	2015	2016p					2017p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Industry	62.5	61.9	58.5	57.4	59.0	61.3	59.7	56.9	61.1	62.3
Transport	18.4	18.8	17.7	16.3	18.2	20.2	17.1	16.5	17.6	19.1
Residential-commercial	16.7	16.8	21.2	23.7	20.2	16.1	20.7	23.9	18.9	16.2
Public	2.4	2.4	2.6	2.6	2.7	2.4	2.5	2.6	2.4	2.4
Final energy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Coal	16.0	14.4	13.3	12.4	13.5	14.4	12.8	11.9	13.2	13.4
Oil	49.1	50.5	47.8	47.4	48.2	49.4	48.0	46.5	49.5	49.9
Electricity	19.0	18.8	18.8	18.9	18.6	19.4	18.6	19.2	17.8	19.2
City gas	10.1	9.9	13.4	14.8	13.1	10.1	13.5	15.4	12.7	10.5
Heat others	5.8	6.3	6.7	6.6	6.6	6.6	7.1	7.1	6.8	7.1

Note: p means provisional

Source: Monthly energy statistics

Statistics on Energy Production Facilities

	2014	2015	2016				2017p		
				M2	M3	M4	M2	M3	M4
Total capacity (GW)	93.2 (7.2)	97.6 (4.8)	105.9 (13.6)	98.8 (13.3)	98.8 (13.3)	98.9 (12.2)	107.1 (13.8)	109.5 (14.8)	110.7 (16.0)
Nuclear	20.7 -	21.7 (4.8)	23.1 (11.6)	21.7 (4.8)	21.7 (4.8)	21.7 (4.8)	23.1 (11.6)	23.1 (11.6)	23.1 (11.6)
Bituminous coal	25.9 (10.7)	26.2 (1.1)	30.9 (19.3)	26.4 (9.3)	26.4 (9.3)	26.4 (9.5)	31.0 (19.6)	31.6 (21.9)	31.6 (21.9)
Gas	30.3 (27.2)	32.2 (6.5)	32.6 (7.8)	32.5 (26.2)	32.5 (26.2)	32.6 (20.7)	33.5 (8.0)	35.2 (10.4)	36.2 (13.6)
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 -	3.1 -	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				2017p		
				M2	M3	M4	M2	M3	M4
The number of household demanding city gas (mil)	16.9 (3.1)	17.4 (3.0)	18.0 (3.4)	17.6 (3.3)	17.6 (3.3)	17.6 (3.2)	18.1 (3.2)	18.2 (3.2)	18.2 (3.3)
Registered cars (mil)	20.1 (3.7)	21.0 (4.3)	21.8 (3.9)	21.1 (4.2)	21.2 (4.3)	21.3 (4.3)	21.9 (3.8)	22.0 (3.7)	22.1 (3.6)
- gasoline	9.6 (2.0)	9.8 (2.3)	10.1 (2.9)	9.9 (2.3)	9.9 (2.4)	9.9 (2.4)	10.2 (3.0)	10.2 (3.0)	10.2 (3.1)
- diesel	7.9 (7.3)	8.6 (8.6)	9.2 (6.4)	8.7 (8.4)	8.8 (8.4)	8.8 (8.4)	9.2 (5.9)	9.3 (5.5)	9.3 (5.3)
- LPG	2.3 (-2.3)	2.3 (-3.4)	2.2 (-4.0)	2.2 (-3.6)	2.2 (-3.6)	2.2 (-3.7)	2.2 (-3.9)	2.2 (-3.8)	2.1 (-3.6)
- hybrid	0.1 (40.0)	0.2 (31.3)	0.2 (37.6)	0.2 (29.0)	0.2 (28.9)	0.2 (30.9)	0.2 (37.5)	0.2 (37.6)	0.2 (31.2)

Note: () is year-on-year growth rates (%)
Source: Monthly energy statistics

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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.

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