

KEEI

MONTHLY KOREA ENERGY TRENDS

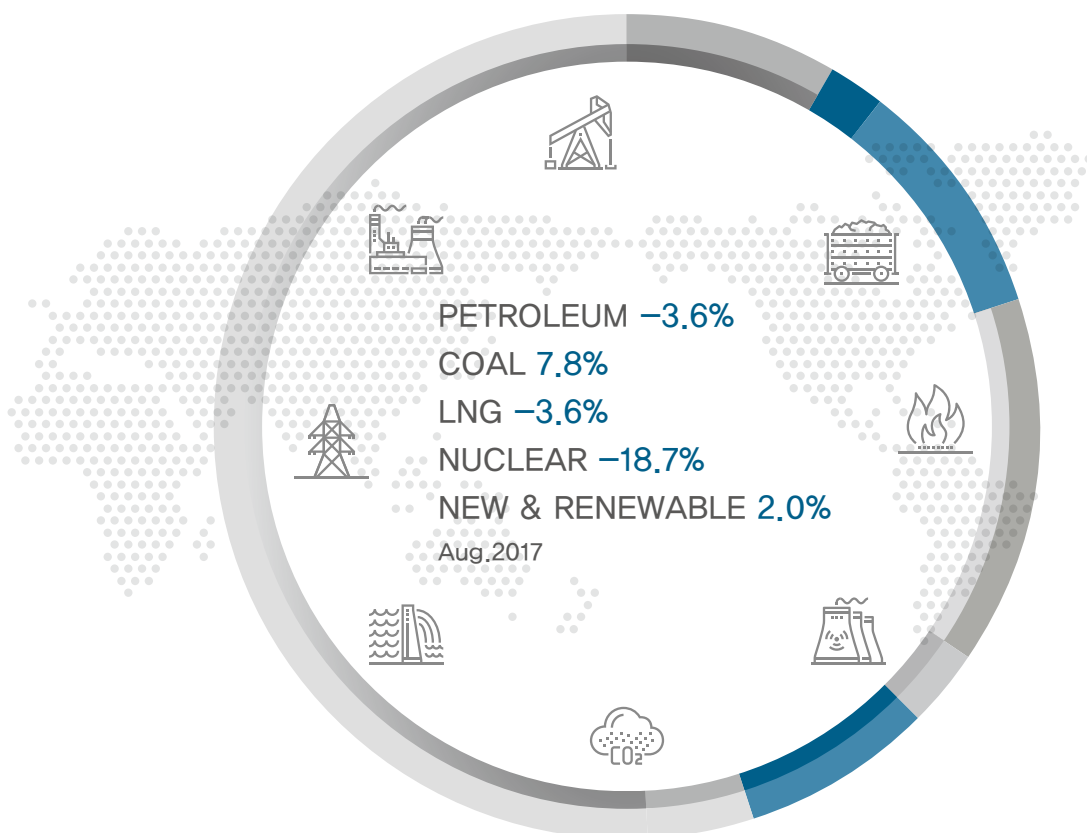


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1. The Economy and the Industry

- **Total export value rose by 17.4% in August on a year-on-year basis partly due to increased unit price of major products, expanded export volume and base effect of the automobile industry.**
 - The export value of semi-conductors reached the highest record (\$8.76 billion), posting five consecutive months of over 50% growth, which was attributable to steadily rising memory chip price and growing semi-conductor demand with the launch of a new smart phone
 - The export value of petroleum products went up by 38.6%, with China and Australia being the two largest sources of demand, with the help of growing unit price (16.4%) and bigger export volume (15.1%).
 - The export value of iron & steel product increased by 13.4% year-on-year, as China's production capacity decreased as a result of the industrial reshuffling, which led to increased unit price and export volume.
- **The production index of mining and manufacturing industries went up by 2.3% year-on-year in August, owing to bigger outputs of major exporting goods. Meanwhile, the service industry production index rose by 2.1%.**
 - The production index of mining and manufacturing industries increased for the first time in three months, as the index increased in the basic chemical materials (2.4%), iron & steel (1.3%), automobiles (14.0%) and ICT industries, backed by growing export, although the index fell more sharply (-10.0%) in the cement industry.
 - The service industry production index has grown by around 2% for eight consecutive months, despite continuous decline in the restaurant & accommodations industry (-3.8%), as the index increased in the wholesale & retail (0.5%), health & social welfare (7.3%) and real estate & leasing (5.0%) industries.

► Trend in major economic and industrial indicators

	2015	2016	2017			2017		
			M6	M7	M8	M6	M7	M8
GDP (trillion won)	1 466.8 (2.8)	1 508.3 (2.8)	378.6 (3.4)	- -	- -	388.8 (2.7)	- -	- -
Total export (\$billion, customs clearance basis)	526.8 (-8.0)	495.4 (-5.9)	45.2 (-2.9)	40.9 (-10.5)	40.1 (2.6)	51.3 (13.4)	48.8 (19.5)	47.1 (17.4)
Semi-conductors	62.9 (0.4)	62.2 (-1.1)	5.3 (-0.5)	5.0 (-2.6)	5.6 (2.5)	8.0 (52.0)	7.9 (57.7)	8.8 (56.7)
Petroleum products	32.0 (-37.0)	26.5 (-17.3)	2.3 (-26.5)	2.7 (-12.1)	2.1 (-24.4)	2.4 (4.9)	2.7 (1.8)	2.9 (38.6)
Iron & steel	30.2 (-15.0)	28.5 (-5.5)	2.9 (-2.3)	2.4 (-11.2)	2.3 (4.6)	2.9 (1.0)	2.6 (10.5)	2.6 (13.4)
Mining and manufacturing production index (2010=100)	108.1 (-0.3)	109.2 (1.0)	111.8 (0.9)	110.8 (1.5)	104.0 (2.2)	111.3 (-0.4)	110.5 (-0.3)	106.4 (2.3)
ICT production index	113.1 (1.4)	118.7 (4.9)	122.7 (14.1)	126.1 (19.6)	123.6 (8.2)	114.1 (-7.0)	120.7 (-4.3)	130.0 (5.2)
Service industry performance index (2010=100)	112.1 (2.9)	115.5 (3.0)	117.3 (4.9)	115.5 (3.2)	115.8 (4.4)	119.8 (2.1)	118.1 (2.3)	118.2 (2.1)

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 3.6% year-on-year in October amid escalating geopolitical anxiety in the Middle East region and an expectation of prolonged oil output reduction in oil producing countries.**

- The geopolitical tension was intensified in the Middle East region, after the Kurdish regional government in northern Iraq carried out an independence referendum and Iraq's central government responded with force.
- The global oil price increased, as Saudi Arabia, OPEC's de-facto leader, and Russia, one of the non-OPEC oil producers, expressed consensus on the extension of oil output reduction period.

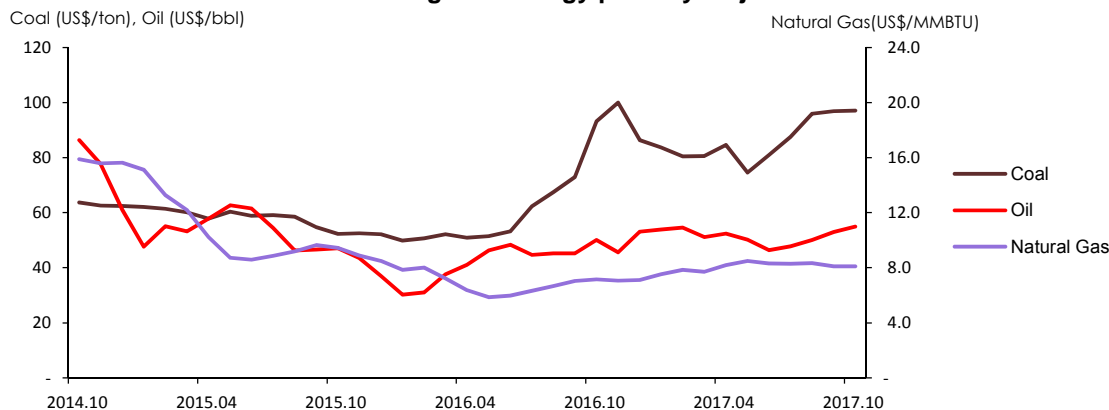
► Trend in global energy prices

	2015	2016	2017			2017		
			M8	M9	M10	M8	M9	M10
Crude oil (US\$/bbl)	51.0	43.2	45.2	45.3	50.1	50.1	53.0	54.9
	(-47.0)	(-15.2)	(-2.3)	(-2.8)	(6.3)	(10.6)	(5.8)	(20.5)
Natural gas (US\$/MMBTU)	10.2	6.9	6.7	7.0	7.2	8.3	8.1	8.1
	(-36.3)	(-32.5)	(-27.3)	(-27.0)	(-24.3)	(18.5)	(13.3)	(14.6)
Coal (US\$/ton)	57.5	65.9	67.4	72.9	93.2	95.9	96.9	97.1
	(-18.0)	(14.6)	(15.0)	(33.2)	(78.1)	(31.5)	(4.0)	(-2.9)

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, World Bank(Commodity Markets)

► Trend in global energy price by major sources



Domestic energy prices

- **Gasoline and diesel prices made a year-on-year increase of 1.7% and 1.9% respectively in October, reflecting the recent growth in global oil price.**
 - Gasoline and diesel prices have risen for three consecutive months from August in line with rising global oil price (July-Oct), and when compared to the lowest level in July, the prices increased by 4.6% and 5.4% respectively.
- **Propane and butane prices rose by 2.3% and 3.4% in October from the previous month amid soaring global prices.**
 - Global prices of propane and butane, based on which domestic LPG price is set in the following month, went up by 14.3% and 8.7% respectively in October from a month earlier, influenced by the closure of some oil fields in Libya and lower oil production in the U.S., that was disrupted by Hurricane Harvey.

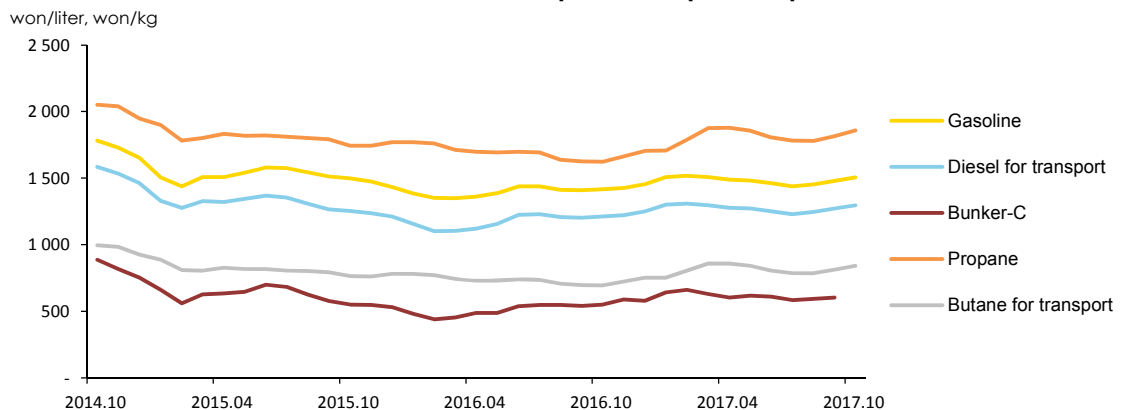
► Trend in domestic energy prices

	2015	2016				2017		
			M8	M9	M10	M8	M9	M10
Gasoline (won/liter)	1 510.4 (-17.3)	1 402.7 (-7.1)	1 411.7 (-8.6)	1 408.2 (-6.8)	1 416.6 (-5.5)	1 451.8 (2.8)	1 479.7 (5.1)	1 504.5 (6.2)
Diesel for transport (won/liter)	1 299.5 (-20.6)	1 182.7 (-9.0)	1 207.2 (-7.7)	1 203.0 (-4.8)	1 211.1 (-3.3)	1 244.9 (3.1)	1 271.0 (5.7)	1 295.6 (7.0)
Bunker-C (won/liter)	612.5 (-31.9)	520.8 (-15.0)	547.3 (-12.3)	541.3 (-6.1)	551.3 (0.0)	594.1 (8.6)	603.1 (11.4)	-
Propane (won/kg)	1 801.5 (-14.8)	1 689.8 (-6.2)	1 637.8 (-9.1)	1 625.4 (-9.2)	1 624.2 (-6.8)	1 779.4 (8.6)	1 815.8 (11.7)	1 857.9 (14.4)
Butane for transport (won/liter)	806.5 (-23.3)	734.1 (-9.0)	706.7 (-12.1)	696.6 (-12.3)	694.3 (-9.1)	785.5 (11.2)	813.4 (16.8)	841.2 (21.2)

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 (%)

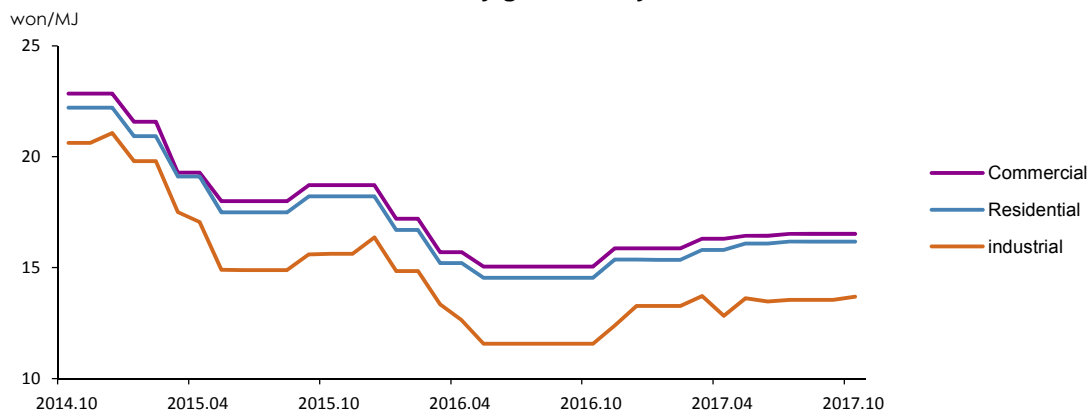
Source: www.opinet.co.kr

► Trend in domestic petroleum product prices



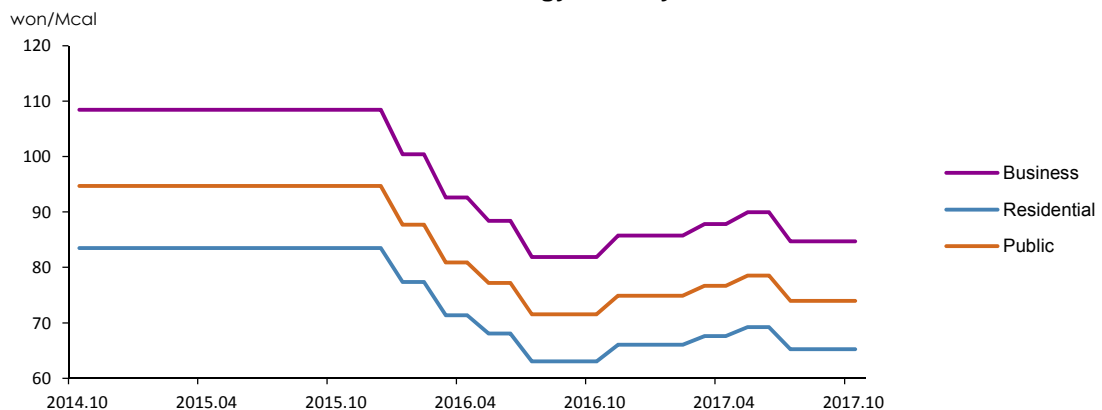
- **City gas rates have been flat since April until October in line with the stagnant natural gas price, which is the raw material for city gas.**
 - City gas rates had moderately increased until early this year, but recently, the price has been almost at the same level, as global natural gas price has been staying at around \$8 per MMBtu.
- **Heat energy rates have been steady until October, after the rates for each end-use sector declined by 5.8% respectively in July through the fuel cost calculation.**
 - On a year-on-year basis, however, heat energy rates increased by 3.4% for each end-use sector (residential, business and public), despite July's rate decline, as the rates had continuously increased from Nov, 2016 to June, 2017.

► 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.

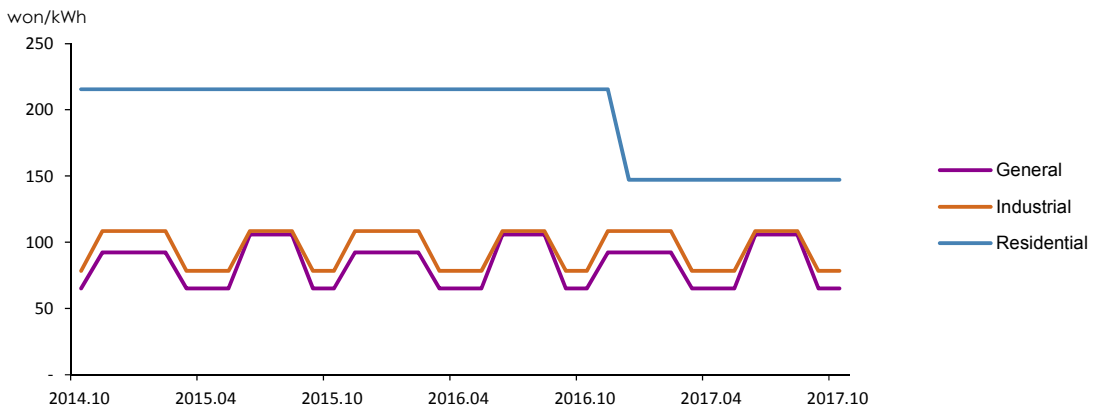
□ Electricity rates¹ remained steady in October, after the rates were seasonally adjusted from summer to spring/autumn in September.

- Electricity rates for industrial and general customers declined by 27.7% and 38.3% in September from the previous month due to the seasonal rate change from summer (Jun-Aug) to spring/autumn (Mar-May, Sept-Oct).

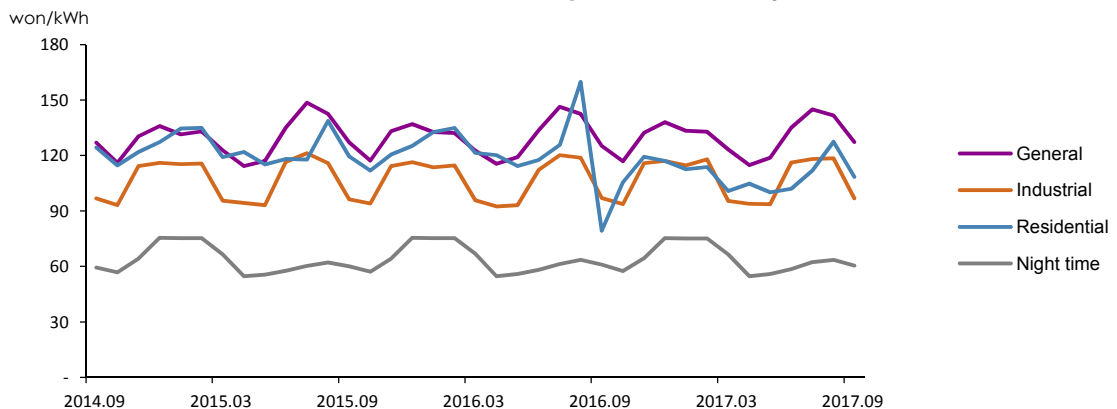
□ Unit price of electricity for general, industrial and residential customers fell by 10.2%, 18.3% and 14.9% respectively in September on a year-on-year basis.

- Such decline was due to the seasonal rate adjustment for general and industrial customers, and in the case of residential customers, seasonally lower electricity demand and progressive power rate system drove down the unit price of electricity.

► Trend in electricity rates by end use sectors



► Trend in unit price of electricity



3. Energy Supply

- **Energy import value went up by 30.8% in August on a year-on-year basis due to expanded import volume and higher unit price, marking 10 consecutive months of growth.**
 - In terms of energy import volume by products, the import of petroleum product decreased while that of bituminous coal and LNG increased.
 - Crude oil import rose dramatically due to the 7.5% growth in crude input to refineries that are running at higher rates.
 - Foreign energy dependency rose by 1.3%p to 83.6%, despite a surge in domestic hydropower generation, due to expanded import volume of other energy sources.

► Trend in energy trade and domestic production

	2015	2016p		2017p			
			M1~8	M1~8	M6	M7	M8
Import volume							
Crude oil (Mbbl)	1 026.2 (10.6)	1 078.1 (5.1)	707.9 (3.5)	737.7 (4.2)	87.3 (4.0)	93.6 (3.9)	101.5 (17.8)
Petroleum product (Mbbl)	307.9 (-5.7)	334.6 (8.7)	221.6 (15.2)	209.6 (-5.4)	27.9 (2.1)	25.5 (-14.0)	24.9 (-17.8)
Bituminous coal (Mton)	119.4 (1.3)	118.5 (-0.8)	75.5 (-6.6)	87.5 (15.9)	11.2 (26.0)	10.9 (13.2)	11.4 (15.8)
Anthracite (Mton)	8.9 (7.8)	9.4 (5.4)	6.0 (3.0)	4.9 (-17.5)	0.5 (-18.7)	0.7 (-32.1)	0.5 (-42.5)
LNG (Mton)	33.4 (-10.1)	33.4 (0.2)	20.5 (-4.8)	25.0 (21.6)	3.5 (39.7)	2.7 (41.5)	2.6 (32.3)
Import volume (Mtoe)	314.8 (1.7)	323.1 (2.6)	210.7 (1.3)	225.7 (7.1)	27.9 (10.5)	28.2 (7.4)	28.0 (5.5)
Import value (billion US\$, CIF)	102.7 (-41.0)	80.9 (-21.2)	49.5 (-31.2)	71.0 (43.4)	8.7 (37.6)	8.1 (18.9)	8.5 (30.8)
Domestic production							
Hydropower (TWh)	5.8 (-25.9)	6.6 (14.5)	4.6 (10.6)	4.8 (4.4)	0.6 (8.1)	0.6 (-29.6)	1.0 (38.8)
Anthracite (Mton)	1.8 (0.9)	1.7 (-2.2)	1.1 (-2.0)	1.0 (-9.4)	0.1 (-3.4)	0.1 (-19.0)	0.1 (-18.0)
Natural gas (Mton)	0.1 (-41.5)	0.1 (-18.0)	0.1 (-44.3)	0.2 (210.6)	0.0 (391.1)	0.0 (79.1)	0.0 n.a
Renewable energy (Mtoe)	12.8 (17.2)	15.0 (16.4)	10.0 (17.1)	10.2 (1.5)	1.3 (3.6)	1.2 (0.1)	1.3 (2.0)

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

4. Energy Consumption

☐ Total Primary Energy Supply (“TPES”) fell by 1.7% year-on-year in August due to less use of major energy sources except coal.

- TPES declined for the first time in six months as petroleum and gas consumption moved downward while nuclear generation fell more sharply, although coal consumption grew faster.
- Nuclear generation fell by 18.7%, affected by increased planned preventive maintenance (2.8GW, 100.4%), and petroleum consumption fell by 3.6%, as rising oil price caused a drop in use of major petroleum products, except naphtha and jet oil.
- Gas consumption declined by 3.6%, as gas-fired generation decreased by 7.9% even amid growing power demand, because more power was generated from coal.
- Coal consumption went up by 7.8%, led by the power generation sector, where the installed capacity was expanded (6.9GW, 23.7%) with the commissioning of a new large-scale power plant, although industrial coal consumption fell for two months in a row, especially anthracite and in the cement industry.

☐ Total Final Consumption was down 2.0% year-on-year in August, despite increased energy use in buildings, as the industrial and transport sectors consumed less energy.

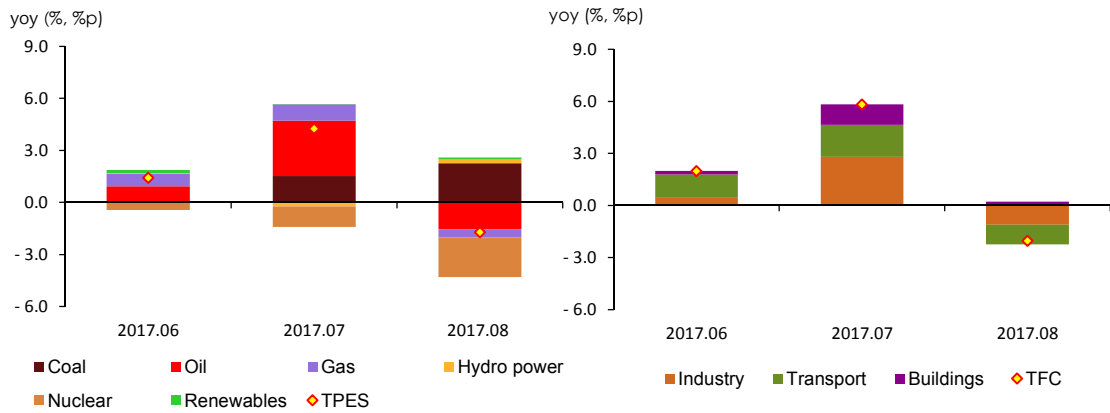
- Industrial energy consumption fell for the first time in six months, due to slower growth of energy use in the primary metals industry, much slower growth of naphtha consumption in the petrochemical industry and a steep decline in LPG consumption (-31.8%).
- Transport energy use decreased by 5.4%, especially in the road transport sector (-8.6%), because of rising oil price and a base effect.
- Energy consumption in buildings grew more slowly (1.4%), affected by decreased cooling degree days, even though the service industry’s production was stronger.
- Electricity consumption went up by no more than 2.1% due to stagnant growth in the buildings sector (1.0%), even though the consumption made a decent growth in the industrial sector (3.2%).

► Energy consumption trend

	2015	2016p	2017p				
			M1~8	M1~8	M6	M7	M8
Total energy (Mtoe)	287.5	295.7	195.9	198.3	22.9	25.1	24.7
	(1.6)	(2.9)	(2.8)	(1.2)	(1.4)	(4.2)	(-1.7)
Final energy (Mtoe)	218.6	227.1	149.8	152.5	17.7	18.7	18.5
	(2.2)	(3.9)	(3.4)	(1.8)	(2.0)	(5.8)	(-2.0)

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

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



5. Coal

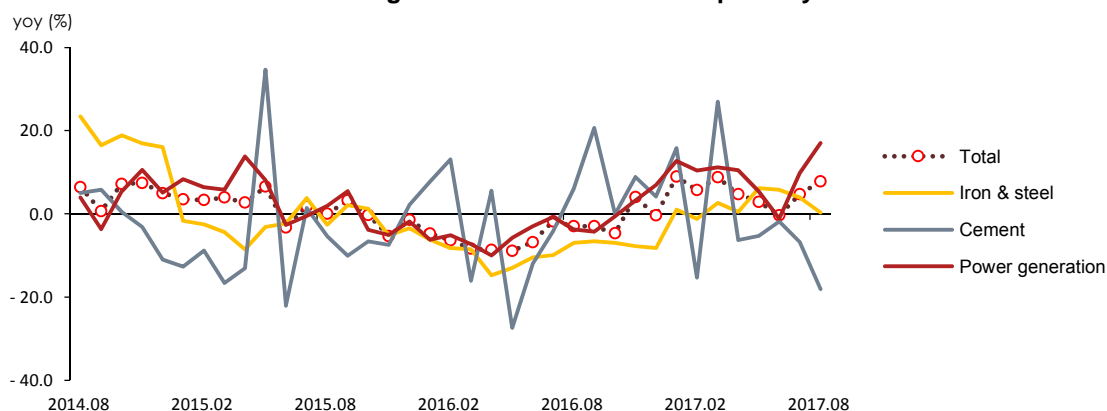
- **Coal consumption made a year-on-year growth of 7.8% in August due to a surge in coal-fired generation, although industrial coal consumption declined.**
 - Coal consumption for power generation posted the highest growth rate since January, 2010 (20.0%), leading the growth of total coal consumption, which was affected by a surge in installed capacity (6.9GW, 23.7%).
 - Industrial coal consumption declined, especially for cement production and anthracite, even though the consumption slightly increased in the steelmaking sector.

► Coal consumption trend

	2015	2016p	2017p				
			M1~8	M1~8	M6	M7	M8
Coal (Mton)	134.8	129.0	84.9	89.6	10.1	12.2	12.3
	(1.1)	(-4.4)	(-6.0)	(5.5)	(-0.3)	(4.7)	(7.8)
Industry	50.9	47.7	31.2	30.8	3.8	4.1	3.8
	(-1.0)	(-6.2)	(-7.3)	(-1.2)	(1.3)	(-3.9)	(-7.9)
Buildings	1.5	1.3	0.5	0.4	0.0	0.0	0.0
	(-9.6)	(-14.8)	(-12.0)	(-21.2)	(-33.3)	(-42.9)	(-50.0)
Power generation	82.5	80.0	53.2	58.4	6.3	8.1	8.5
	(2.8)	(-3.0)	(-5.2)	(9.7)	(-1.2)	(9.8)	(17.0)

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 3.6% year-on-year in August, owing to a slower consumption growth in the buildings sector and less consumption in other sectors.**

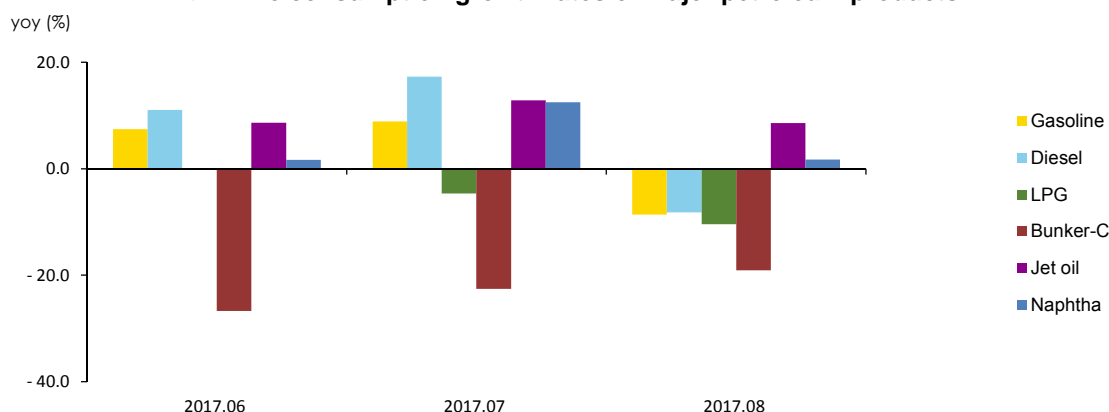
- Industrial petroleum consumption fell for the first time in six months, as naphtha consumption grew at slower pace, and the use of energy oil including LPG plunged due to rising oil price and diminished effect of petrochemical facility expansion.
- Petroleum consumption decreased in the transport sector for the first time in four months, influenced by higher oil price and accordingly lower petroleum consumption for road transport.
- Petroleum consumption grew more slowly in the buildings sector, as increased oil price caused a slowdown in the growth of diesel consumption and 19.3% decline in the use of kerosene, although LPG use rose by 16.0% through the town-level LPG pipeline project.
- Petroleum consumption maintained its downward trend in the transformation sector with rising bunker-C oil price for power generation and the base effect of a surge during the same period last year.

► Trend in petroleum product consumption by end-use sectors

	2015	2016p		2017p			
			M1~8	M1~8	M6	M7	M8
Petroleum (Mbbl)	856.2	924.2	605.5	615.6	74.5	79.2	78.0
	(4.2)	(7.9)	(8.1)	(1.7)	(2.3)	(8.3)	(-3.6)
Industry	501.0	542.6	353.3	371.4	45.0	48.3	47.5
	(1.9)	(8.3)	(7.2)	(5.1)	(0.9)	(10.5)	(-1.0)
Transport	287.1	303.6	201.0	202.2	25.6	27.1	26.5
	(6.8)	(5.7)	(6.4)	(0.6)	(6.8)	(9.0)	(-6.1)
Buildings	53.5	56.3	35.3	34.9	3.5	3.0	3.5
	(11.7)	(5.2)	(6.2)	(-1.2)	(13.6)	(12.1)	(1.1)
Power generation	14.6	21.8	15.9	7.0	0.5	0.8	0.6
	(13.0)	(48.7)	(91.4)	(-55.7)	(-61.9)	(-58.2)	(-58.7)

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

► The consumption growth rates of major petroleum products



7. Gas

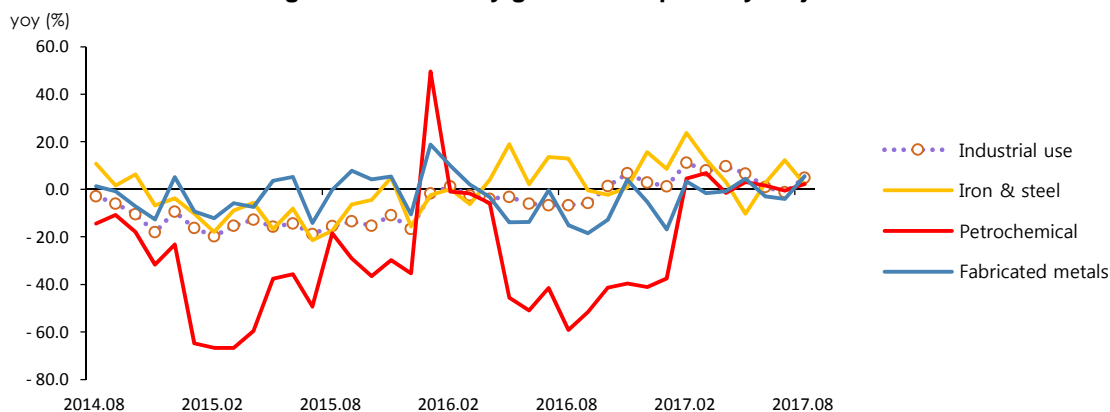
- **Gas consumption fell by 3.6% in August on a year-on-year basis because of a sharp decline in gas-fired generation, though gas was consumed more for city gas production.**
 - Gas use for power generation decreased, despite increased electricity consumption (2.1%), as coal-fired generation rose dramatically (14.2%) and the share of baseload generation (coal + nuclear) went up by 0.5%p to 70.8% compared to the same month last year.
- **City gas consumption made a year-on-year increase of 2.6% in August, driven by the industrial and buildings sectors.**
 - Industrial city gas consumption went up by almost 5%, as the consumption grew in the primary metals, fabricated metals and petrochemical industries (2.1%, 5.5%, 2.3%).
 - City gas consumption in buildings rose by 8.4%, especially in the residential buildings due to growing demand on cooking and hot water-based heating, while the consumption fell by 3.9% in the commercial buildings, partly affected by weak performance of the restaurant & accommodations business.

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

	2015	2016p	2017p				
			M1~8	M1~8	M6	M7	M8
LNG (Mton)	33.4	34.9	22.6	23.3	2.3	2.5	2.3
	(-8.7)	(4.2)	(0.0)	(3.2)	(5.8)	(7.3)	(-3.6)
Power generation	14.6	15.3	9.7	10.2	1.3	1.5	1.3
	(-8.2)	(5.3)	(-2.7)	(4.6)	(8.6)	(13.3)	(-7.9)
City gas production	16.9	17.4	11.4	11.7	0.9	0.9	0.8
	(-6.9)	(2.7)	(1.1)	(2.3)	(1.4)	(-1.3)	(4.4)
City gas (bm³)	20.8	21.3	14.4	14.8	1.1	1.1	1.1
	(-5.9)	(2.3)	(0.7)	(2.6)	(1.1)	(-0.8)	(2.6)
Industry	7.3	7.2	4.7	5.0	0.5	0.5	0.5
	(-15.5)	(-1.9)	(-3.5)	(5.3)	(0.9)	(-1.2)	(4.9)
Buildings	12.2	12.8	8.9	9.0	0.5	0.5	0.4
	(0.5)	(5.1)	(3.3)	(1.4)	(1.8)	(-0.5)	(1.0)

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 2.1% year-on-year in August, despite a decent recovery in the industrial sector, as the consumption grew at slower pace in the buildings sector.**

- Industrial electricity consumption has grown by around 3% for two months in a row until August, because the fabricated metals industry posted the highest power consumption growth for this year, and the primary metals and petrochemical industries also maintained the upward trend.
- The growth of electricity consumption slowed down in the buildings sector, as the consumption remained steady in the residential buildings on a year-on-year basis and rose slightly in the commercial and public buildings.

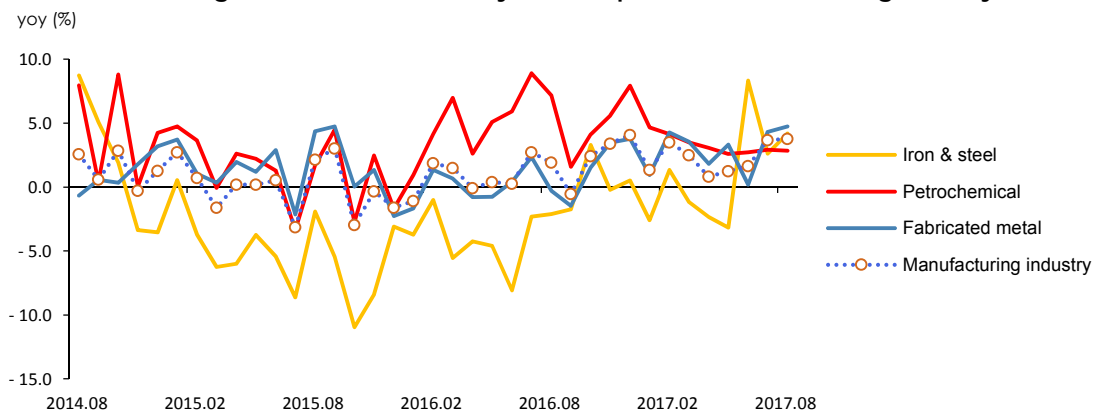
► **Trend in electricity consumption by end-use sectors**

	2015	2016p	2017p				
			M1~8	M1~8	M6	M7	M8
Electricity (TWh)	483.7	497.0	333.5	340.0	39.7	43.2	45.4
	(1.3)	(2.8)	(2.4)	(1.9)	(0.0)	(6.5)	(2.1)
Industry	265.6	270.0	179.6	184.0	22.6	23.6	23.4
	(0.4)	(1.6)	(1.2)	(2.4)	(2.5)	(3.8)	(3.2)
Transport	2.2	2.7	1.8	1.9	0.2	0.3	0.3
	(10.7)	(21.3)	(20.2)	(3.0)	(5.5)	(9.1)	(2.2)
Buildings	215.8	224.4	152.1	154.1	16.9	19.3	21.7
	(2.3)	(4.0)	(3.6)	(1.3)	(-3.2)	(9.8)	(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**

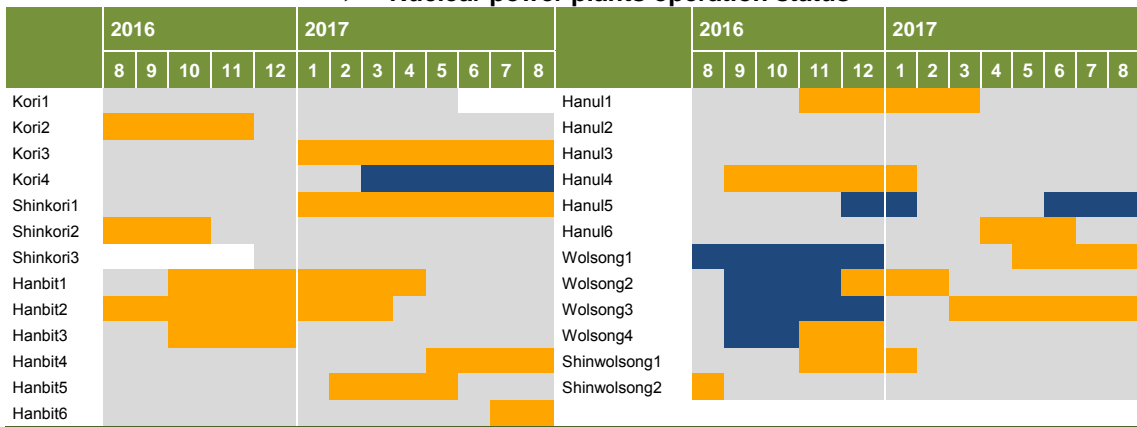


9. Nuclear

☐ Nuclear energy generation declined by 18.7% year-on-year in August, partly due to increased planned preventive maintenance.

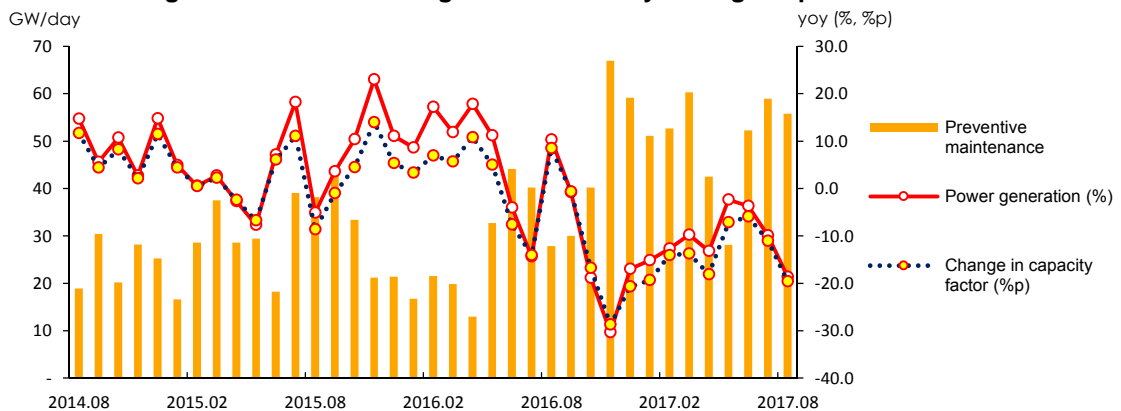
- Nuclear capacity factor decreased by 19.6%p year-on-year to 71.1%, as the planned preventive maintenance increased (100.4%, 2.8GW) with a delay in permitting the resumption of power plant operation by a regulatory body.
- Nuclear generation has been declining for 12 consecutive months, and its share of total power generation fell by 5.5%p year-on-year to 24.4%, staying at less than 30% level for three 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

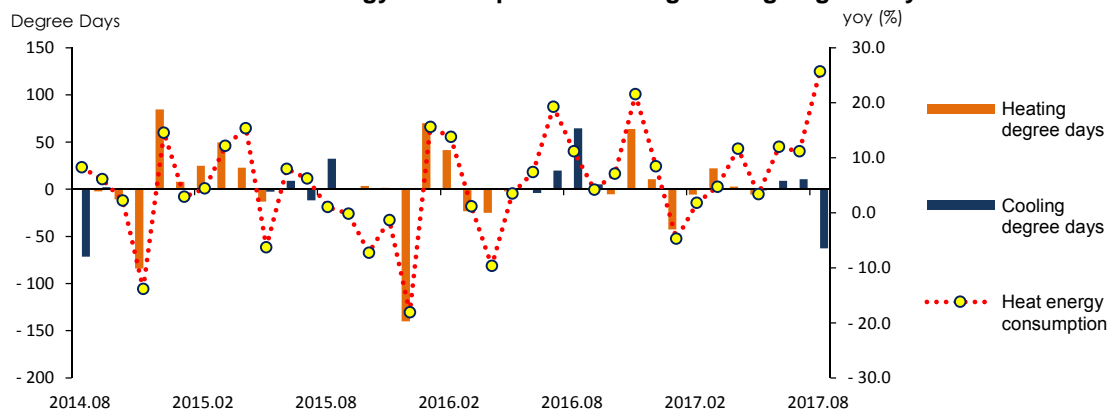
□ Heat energy consumption rose by 25.7% year-on-year in August, even at higher price level, as the consumption surged in the residential and commercial sectors.

- Residential heat energy consumption increased by 44.6% due to the base effect of the reduction during the same month last year, and commercial heat energy consumption, mostly for cooling, rose by 10.4%, even though the heat energy rate was up 3.4% year-on-year after the rate increase in July.

□ Renewable and other energy consumption increased by 5.8% in August on a year-on-year basis, led by the power generation sector, although the consumption declined in the industrial sector.

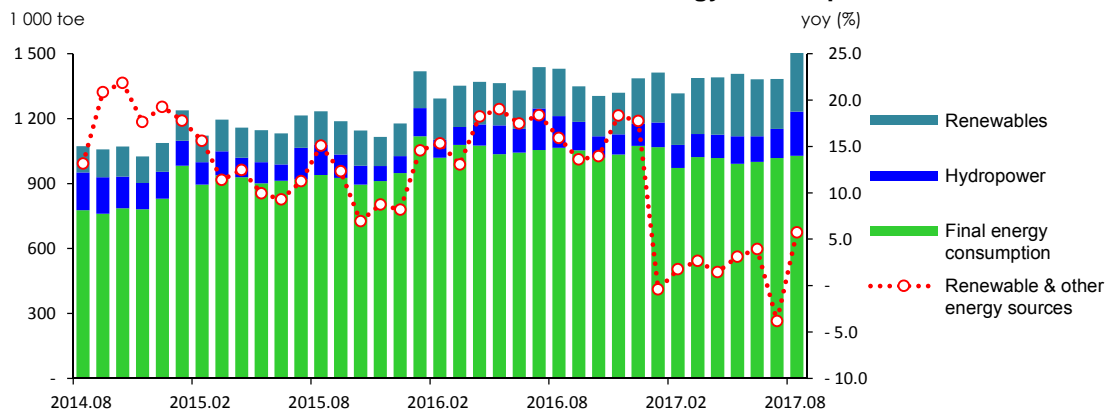
- Hydropower generation rose by 38.8% year-on-year (964.0GW), posting the highest generation record since September, 2013, backed by dramatically increased rainfall (241.0mm) compared to the same period last year.
- Renewable energy generation increased by over 10%, with the help of steady growth in solar PV, wind power and bioenergy generation along with expanded IGCC generation (76.5%). Meanwhile, the renewable and other energy consumption fell by 7.8% in 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 made a year-on-year decline of 1.7% in August, as the petrochemical industry consumed less energy.

- Energy consumption declined in the petrochemical industry, mostly affected by plunged LPG consumption, even though naphtha was consumed more.
- Energy consumption slightly increased in the primary metals industry, despite lower converter steel production (1.7%), as the production of electric furnace steel rose by 17%.
- Energy consumption has been growing by around 5% in the fabricated metals industry, amid continuously expanding semi-conductor production.

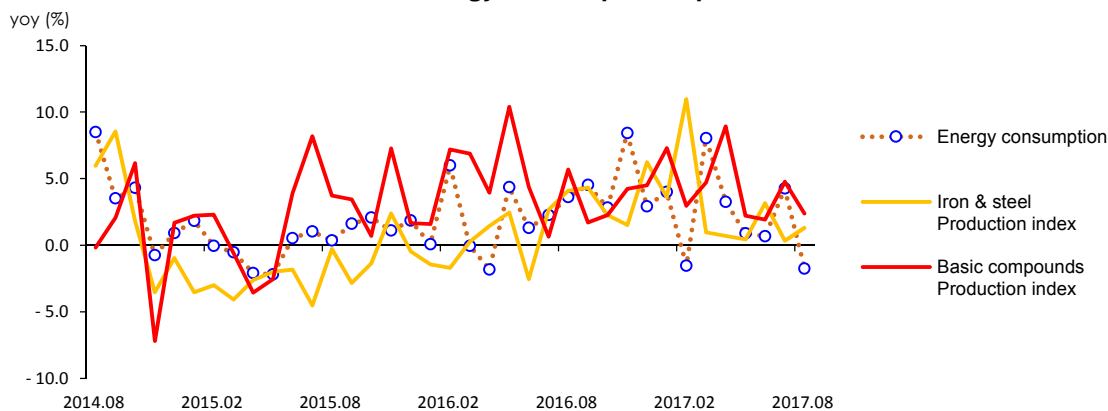
► Trend in the industrial energy consumption

	2015	2016p	2017p				
			M1~8	M1~8	M6	M7	M8
Industry (Mtoe)	136.7	140.6	92.2	94.3	11.4	12.1	11.8
	(0.5)	(2.8)	(1.9)	(2.2)	(0.7)	(4.3)	(-1.7)
Petrochemical	61.7	65.8	43.2	45.1	5.4	5.9	5.8
	(-0.6)	(6.7)	(6.1)	(4.4)	(-0.2)	(8.4)	(-1.7)
- Naphtha	50.4	52.7	34.7	36.8	4.3	4.8	4.7
	(3.7)	(4.7)	(3.7)	(6.1)	(1.7)	(12.5)	(1.7)
Iron & Steel	31.4	29.0	19.1	19.6	2.5	2.6	2.5
	(-2.6)	(-7.6)	(-8.4)	(2.3)	(5.8)	(4.1)	(1.2)
Fabricated metal	10.6	10.6	7.1	7.3	0.9	0.9	0.9
	(-1.1)	(0.4)	(0.3)	(3.4)	(2.6)	(5.4)	(5.0)
Share of feedstock (%)	59.0	57.7	57.8	59.0	59.1	59.9	60.7

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

Source: Monthly energy statistics

► Industrial energy consumption & production index



12. Transport

□ Transport energy use decreased by 5.4% year-on-year in August, as gasoline and diesel consumption plunged partly due to rising oil price.

- Global oil price rose by 10.7% in August from the same period last year, and accordingly, the domestic prices of gasoline, diesel, bunker-C oil and butane for transport went up by 2.8%, 3.1%, 8.6% and 11.2% respectively, marking faster growth than a month earlier.
- The road transport sector led the decline of transport energy use, as gasoline, diesel and LPG consumption fell by 9.0%, 10.8% and 4.0% respectively on a year-on-year basis, due to increased product price and the base effect of the surge during the same month last year.
- Energy consumption has grown for two consecutive months in the domestic navigation sector, partly due to expanded export volume (5.7%), even with higher price of bunker-C oil.
- Energy consumption has increased for five months in a row in the aviation industry, as the number of flights, passengers and air cargo volume rose by 1.2%, 1.2% and 6.7% respectively.

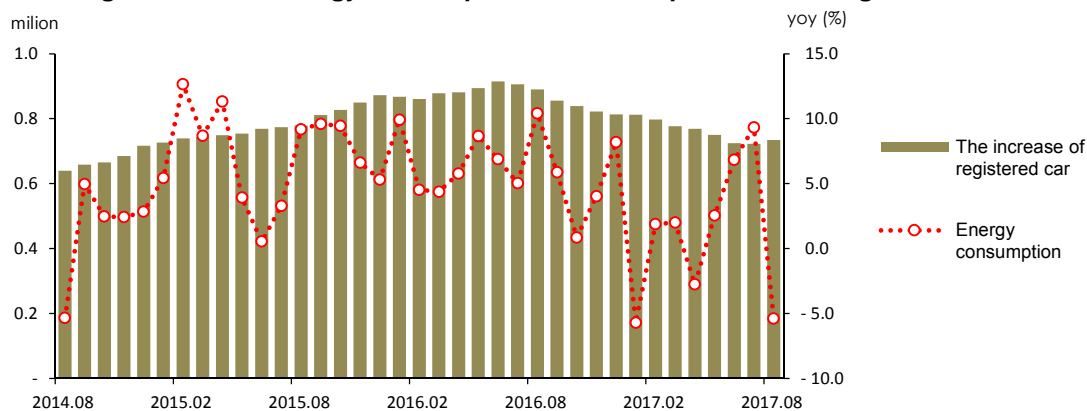
► The growth rate of petroleum consumption in the transport sector

	2015	2016p		2017p			
			M1~8	M8	M6	M7	M8
Transport (Mtoe)	40.3	42.8	28.3	3.7	3.6	3.8	3.7
	(7.1)	(6.2)	(7.0)	(-5.4)	(6.8)	(9.3)	(-5.4)
Road	32.8	34.4	22.8	3.0	3.0	3.1	3.0
	(5.6)	(5.1)	(6.0)	(-8.6)	(7.8)	(9.6)	(-8.6)
Navigation	2.9	3.4	2.2	0.3	0.2	0.3	0.3
	(27.0)	(13.8)	(16.8)	(4.7)	(-4.8)	(1.3)	(4.7)
Aviation	4.3	4.7	3.1	0.5	0.4	0.4	0.5
	(7.5)	(9.1)	(7.6)	(12.7)	(8.5)	(14.5)	(12.7)
Rail	0.3	0.3	0.2	0.0	0.0	0.0	0.0
	(2.2)	(8.3)	(11.0)	(-1.0)	(1.2)	(2.8)	(-1.0)

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 increased by 1.4% year-on-year in August, mostly electricity for commercial and public use and LPG.

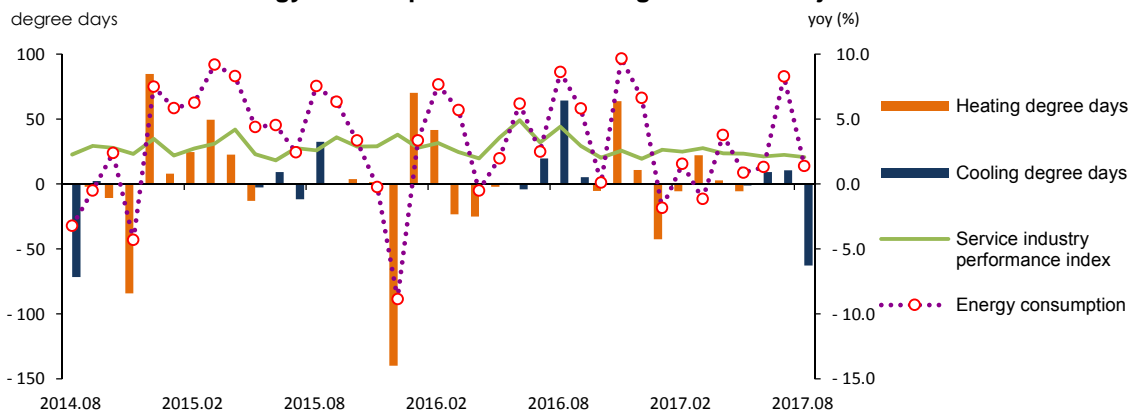
- Energy consumption increased in the buildings sector, especially electricity, LPG and residential city gas use. However, the consumption growth rate decreased, affected by higher price and a sharp decline in cooling degree days (-62.7degree days), which was due to the base effect of last year's record-breaking heatwaves.
- Energy consumption went up by 1.1% year-on-year in residential buildings despite less use of petroleum, as electricity consumption remained steady on a year-on-year basis, following the reform of the progressive power rate system for households in addition to the 8.4% growth in city gas use.
- Energy consumption rose by 1.3% year-on-year in commercial buildings, driven by growing electricity and LPG consumption, although city gas consumption declined.
- Energy consumption increased in public buildings for two months in a row due to growing use of electricity (2.2%), which takes up a large part of the total consumption, and renewable energy (10.8%) as well, although petroleum consumption decreased (-6.0%). Meanwhile, the consumption growth rate fell by 20.2%p from a month earlier, affected by slower electricity consumption growth.

► Energy consumption trend in the buildings sector

	2015	2016p	2017p				
			M1~8	M1~8	M6	M7	M8
Buildings (Mtoe)	41.6	43.7	29.2	29.6	2.6	2.7	3.0
	(3.6)	(5.0)	(4.6)	(1.2)	(1.3)	(8.3)	(1.4)
Residential	20.1	21.2	14.1	14.2	1.0	0.9	1.0
	(1.7)	(5.7)	(5.2)	(0.3)	(3.6)	(4.4)	(1.1)
Commercial	16.4	17.0	11.5	11.6	1.2	1.4	1.5
	(4.0)	(3.6)	(2.9)	(1.5)	(2.7)	(6.9)	(1.3)
Public-others	5.2	5.5	3.7	3.8	0.4	0.5	0.5
	(10.1)	(6.7)	(7.3)	(3.7)	(-6.6)	(22.5)	(2.3)

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 input for power generation rose by mere 0.5% year-on-year in August, despite rapid growth in coal use, as nuclear and gas use declined.

- Total power generation fell slightly (-0.4%), but more energy was consumed for power generation because of expanded coal-fired generation that has comparably low efficiency.

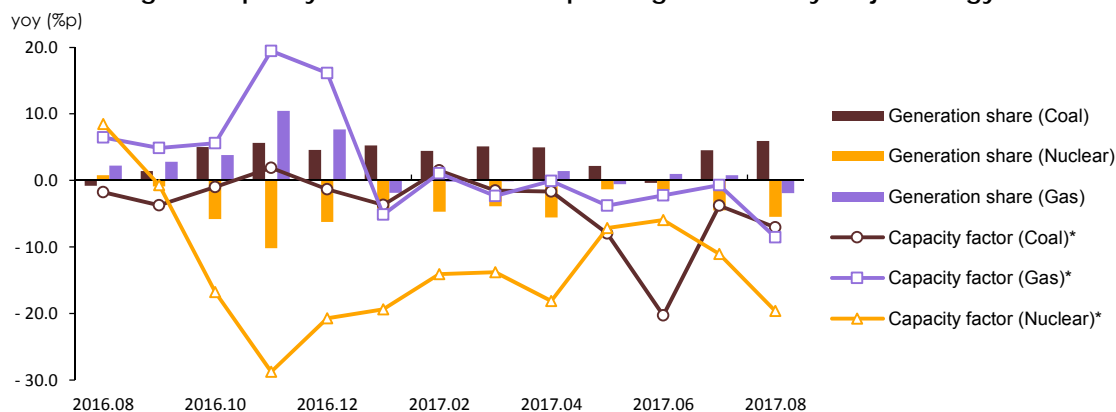
► Energy consumption in the power generation sector

	2015	2016p	2017p				
			M1~8	M1~8	M6	M7	M8
Input (Mtoe)	109.6	110.2	74.4	74.8	8.6	10.0	10.0
	(1.4)	(0.5)	(1.3)	(0.6)	(-0.3)	(2.4)	(0.5)
Coal	50.6	49.0	32.6	35.8	3.9	5.0	5.2
	(2.7)	(-3.1)	(-5.2)	(9.8)	(-1.1)	(10.1)	(17.4)
Oil	2.0	3.0	2.2	0.9	0.1	0.1	0.1
	(16.6)	(50.1)	(100.2)	(-61.4)	(-67.8)	(-60.9)	(-61.9)
Gas	19.3	20.3	12.9	13.5	1.7	2.0	1.8
	(-8.1)	(5.2)	(-2.8)	(5.0)	(9.0)	(13.6)	(-7.4)
Nuclear	34.8	34.2	24.2	21.6	2.6	2.6	2.5
	(5.3)	(-1.7)	(6.6)	(-10.9)	(-3.7)	(-9.9)	(-18.7)
Hydro/other renewables	3.0	3.7	2.5	3.1	0.4	0.4	0.5
	(-5.5)	(24.2)	(23.8)	(22.6)	(33.2)	(-4.5)	(32.3)

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		
			4Q	1Q	2Q		4Q	1Q	2Q
GDP (trillion won)	1 427.0 (3.3)	1 466.8 (2.8)	386.6 (3.2)	355.5 (2.9)	378.6 (3.4)	1 508.3 (2.8)	395.9 (2.4)	365.8 (2.9)	388.8 (2.7)
Private consumption	692.2 (1.7)	707.5 (2.2)	181.8 (3.4)	181.9 (2.3)	176.6 (3.5)	725.0 (2.5)	184.6 (1.5)	185.6 (2.0)	180.7 (2.3)
Facilities investment	134.0 (6.0)	140.3 (4.7)	36.0 (3.1)	31.9 (-4.6)	35.2 (-2.9)	137.0 (-2.3)	36.8 (2.0)	36.5 (14.4)	41.3 (17.3)
Construction investment	198.5 (1.1)	211.5 (6.6)	58.2 (9.6)	44.7 (9.0)	62.4 (10.6)	234.2 (10.7)	64.9 (11.6)	49.7 (11.3)	67.4 (8.0)
Consumer price index (2010=100)	99.3	100.0	100.1	100.6	100.8	101.0	101.5	102.7	102.7
USD to KRW exchange rate (won)	1 052.8	1 131.0	1 157.5	1 202.4	1 163.2	1 160.8	1 156.4	1 154.9	1 129.4
Benchmark rate (%)	2.3	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.3
Coincident composite index (2010=100)	113.6	117.3	119.2	119.5	120.5	121.1	122.7	124.2	125.2
Mining & manufacturing production index (2010=100)	108.4	108.1	111.7	105.6	109.7	109.2	114.8	109.5	110.3
Manufacturing operation ratio index (2010=100)	94.3	92.4	93.9	89.1	92.3	90.4	93.5	88.2	91.2
Average temperature	13.3	13.6	8.7	1.3	19.1	13.6	8.0	1.4	18.9
- year-on-year difference	0.9	0.2	1.4	- 0.8	0.5	- 0.0	- 0.6	0.1	- 0.2
Heating degree days	2 501.6 (-13.5)	2 459.1 (-1.7)	866.1 (-13.5)	1 513.2 (6.2)	140.9 (-16.2)	2 589.7 (5.3)	935.3 (8.0)	1 487.5 (-1.7)	138.6 (-1.6)
Cooling degree days	125.4 (-35.6)	151.8 (21.1)	- n.a	- n.a	10.2 (-24.4)	238.1 (56.9)	- n.a	- n.a	18.2 (78.4)
Energy intensity	0.20 (-2.4)	0.20 (-1.1)	0.19 (-2.1)	0.22 (0.4)	0.18 (-1.7)	0.20 (0.0)	0.19 (0.5)	0.22 (-1.6)	0.18 (-1.5)
Per capita consumption									
oil (bbl)	16.2 (-1.1)	16.8 (3.7)	4.5 (6.5)	4.5 (7.2)	4.3 (8.0)	18.0 (7.5)	4.8 (6.8)	4.6 (1.0)	4.3 (1.3)
Electricity (MWh)	9.4 (-0.1)	9.5 (0.7)	2.3 (-1.4)	2.5 (1.4)	2.3 (1.0)	9.7 (2.3)	2.4 (3.1)	2.6 (0.9)	2.3 (0.6)
City gas (1 000 m ³)	0.4 (-8.1)	0.4 (-6.4)	0.1 (-11.6)	0.2 (2.7)	0.1 (-3.2)	0.4 (1.8)	0.1 (6.9)	0.2 (1.9)	0.1 (3.5)
Total energy (toe)	5.6 (0.3)	5.6 (1.1)	1.5 (0.5)	1.5 (2.8)	1.3 (1.2)	5.8 (2.4)	1.5 (2.4)	1.5 (0.8)	1.3 (0.8)

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)

	2015	2016					2017			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Industrial production index										
All industry	110.0 (1.9)	113.3 (3.0)	111.2 (3.0)	117.0 (4.4)	113.2 (3.2)	110.3 (4.5)	114.5 (3.0)	119.0 (1.7)	115.5 (2.0)	113.2 (2.6)
Mining & manufacturing	108.1 (-0.3)	109.2 (1.0)	107.6 (0.7)	111.8 (0.9)	110.8 (1.5)	104.0 (2.2)	109.6 (1.8)	111.3 (-0.4)	110.5 (-0.3)	106.4 (2.3)
Iron & steel	110.9 (-2.0)	112.7 (1.6)	111.4 (0.7)	110.7 (-2.6)	115.1 (2.7)	114.2 (4.1)	114.2 (2.5)	114.2 (3.2)	115.5 (0.3)	115.7 (1.3)
Cement	125.8 (19.4)	134.3 (6.8)	129.4 (6.9)	152.2 (8.3)	129.4 (-0.4)	135.6 (9.4)	133.7 (3.3)	133.9 (-12.0)	124.2 (-4.0)	122.0 (-10.0)
Basic compound	115.5 (2.2)	120.5 (4.4)	120.5 (5.0)	119.4 (4.4)	123.7 (0.7)	126.3 (5.7)	125.8 (4.4)	121.7 (1.9)	129.6 (4.8)	129.3 (2.4)
Transport equipment	120.8 (1.2)	117.4 (-2.8)	115.6 (-3.4)	126.5 (-4.0)	120.0 (-5.9)	84.0 (-12.3)	116.9 (1.1)	123.4 (-2.5)	120.9 (0.8)	95.8 (14.0)
Electric & electronic	95.6 (-3.3)	96.6 (1.1)	93.9 (-0.3)	96.9 (-4.2)	94.8 (-3.3)	89.4 (4.6)	93.1 (-0.8)	98.0 (1.1)	90.9 (-4.1)	90.6 (1.3)
Service	112.1 (2.9)	115.5 (3.0)	114.0 (3.3)	117.3 (4.9)	115.5 (3.2)	115.8 (4.4)	116.7 (2.4)	119.8 (2.1)	118.1 (2.3)	118.2 (2.1)
Operating ratio index										
Manufacturing	92.4 (-2.0)	90.4 (-2.1)	90.0 (-2.4)	93.4 (-4.1)	92.1 (-3.1)	83.7 (-3.0)	89.4 (-0.7)	92.0 (-1.5)	91.4 (-0.8)	85.2 (1.8)
Iron & steel	100.2 (-2.4)	103.4 (3.2)	102.0 (2.3)	99.9 (-2.3)	105.9 (3.3)	107.1 (4.8)	106.1 (4.0)	104.4 (4.5)	107.8 (1.8)	109.0 (1.8)
Cement	108.8 (8.3)	129.8 (19.4)	125.2 (18.5)	147.6 (20.5)	124.4 (12.6)	130.4 (26.7)	128.7 (2.8)	128.8 (-12.7)	119.9 (-3.6)	117.9 (-9.6)
Basic compound	91.1 (-1.8)	94.1 (3.3)	94.6 (3.9)	93.3 (2.5)	97.2 (-0.7)	98.3 (4.8)	96.5 (2.1)	93.6 (0.3)	98.4 (1.2)	99.2 (0.9)
Transport equipment	105.0 (1.5)	97.2 (-7.4)	95.6 (-8.0)	108.3 (-8.1)	99.1 (-11.4)	58.2 (-28.3)	97.5 (2.0)	105.6 (-2.5)	103.1 (4.0)	75.5 (29.7)
Electric & electronic	91.4 (1.0)	92.2 (0.8)	89.2 (-1.0)	90.2 (-5.1)	91.8 (-3.3)	83.7 (-0.9)	89.1 (-0.1)	93.3 (3.4)	86.5 (-5.8)	87.6 (4.7)

Note: p means provisional
Source: Monthly energy statistics

International Energy Prices

	2015	2016					2017			
		M1~10	M8	M9	M10	M1~10	M8	M9	M10	
Crude oil (USD/bbl)										
WTI	48.8 (-47.5)	43.3 (-11.2)	42.2 (-16.5)	44.8 (4.5)	45.2 (-0.5)	49.9 (7.9)	49.7 (17.8)	48.1 (7.3)	49.9 (10.3)	51.6 (3.3)
Dubai	50.8 (-47.5)	41.2 (-18.8)	39.9 (-25.1)	43.6 (-8.6)	43.3 (-5.3)	49.0 (6.9)	51.6 (29.3)	50.2 (15.1)	53.7 (23.8)	55.5 (13.4)
Brent	53.6 (-46.1)	45.0 (-16.0)	43.8 (-21.5)	47.2 (-2.2)	47.2 (-2.7)	51.4 (4.3)	53.1 (21.1)	51.9 (10.0)	55.5 (17.5)	57.7 (12.2)
Unit value of import (C&F)	53.3 (-47.5)	41.0 (-23.0)	39.7 (-28.4)	43.8 (-19.8)	43.8 (-10.7)	45.7 (-2.5)	46.5 (17.1)	48.7 (11.2)	51.9 (18.5)	- -
LNG										
From Indonesia (USD/MMBTU)	10.2 (-36.3)	6.9 (-32.6)	6.9 (-34.9)	6.7 (-27.3)	7.0 (-27.0)	7.2 (-24.3)	8.1 (18.1)	8.3 (25.0)	8.1 (15.1)	8.1 (13.3)
Unit value of import (USD/ton, CIF)	549.1 (-35.3)	356.9 (-35.0)	351.6 (-37.7)	330.9 (-31.2)	352.9 (-29.3)	379.0 (-24.9)	416.3 (18.4)	426.0 (28.7)	421.4 (19.4)	419.9 (10.8)
Bituminous coal (USD/ton)										
From Australia	57.5 (-18.0)	65.9 (14.5)	60.4 (3.2)	67.4 (15.0)	72.9 (33.2)	93.2 (78.1)	86.2 (42.8)	95.9 (42.3)	96.9 (32.9)	97.1 (4.3)
Unit value of import (CIF)	73.9 (-19.8)	68.8 (-6.8)	63.1 (-16.6)	63.6 (-8.2)	66.8 (-2.7)	74.9 (9.2)	104.5 (65.5)	92.6 (45.4)	94.3 (41.2)	102.6 (37.0)
Petroleum product (USD/bbl)										
Gasoline	69.4 (-37.4)	56.2 (-19.1)	54.8 (-23.7)	54.2 (-18.3)	58.1 (-10.3)	63.0 (-1.9)	66.6 (21.5)	67.5 (24.5)	70.5 (21.5)	70.1 (11.3)
Kerosene	64.7 (-42.5)	52.8 (-18.3)	51.3 (-23.6)	53.6 (-5.7)	54.9 (-5.8)	60.9 (3.6)	63.5 (23.6)	63.1 (17.8)	68.1 (24.1)	68.3 (12.1)
Diesel	66.6 (-41.6)	53.0 (-20.4)	51.5 (-25.6)	54.1 (-11.1)	55.2 (-8.9)	61.6 (1.1)	64.7 (25.6)	64.3 (18.9)	69.4 (25.7)	70.3 (14.0)
Bunker-C	45.2 (-47.7)	35.4 (-21.6)	33.3 (-30.6)	37.3 (-4.5)	39.5 (7.6)	43.9 (17.1)	48.3 (45.3)	47.3 (26.9)	50.7 (28.4)	51.9 (18.3)
Propane	416.3 (-47.4)	323.3 (-22.3)	311.0 (-24.9)	285.0 (-21.9)	295.0 (-6.3)	340.0 (-5.6)	444.5 (42.9)	420.0 (47.4)	480.0 (62.7)	575.0 (69.1)
Butane	436.7 (-46.1)	355.8 (-18.5)	341.0 (-21.2)	290.0 (-27.5)	320.0 (-7.2)	370.0 (1.4)	487.0 (42.8)	460.0 (58.6)	500.0 (56.3)	580.0 (56.8)
Naphtha	52.5 (-44.3)	42.5 (-19.0)	41.3 (-23.3)	39.9 (-14.9)	42.4 (-7.8)	47.5 (-1.2)	51.6 (25.2)	50.3 (26.1)	54.9 (29.6)	57.6 (21.1)

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	2016p					2017p			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Coal (Mton)	134.8 (1.1)	129.0 (-4.4)	84.9 (-6.0)	10.1 (-6.8)	11.6 (-1.8)	11.4 (-3.0)	89.6 (5.5)	10.1 (-0.3)	12.2 (4.7)	12.3 (7.8)
- Coking coal excluded	98.1 (2.5)	95.5 (-2.6)	62.9 (-4.6)	7.4 (-5.4)	8.7 (1.2)	8.5 (-1.5)	67.0 (6.6)	7.2 (-2.6)	9.2 (5.0)	9.3 (10.3)
Oil (Mbbbl)	856.2 (4.2)	924.2 (7.9)	605.5 (8.1)	72.9 (8.9)	73.1 (6.6)	81.0 (9.5)	615.6 (1.7)	74.5 (2.3)	79.2 (8.3)	78.0 (-3.6)
- Non-energy oil excluded	411.7 (6.0)	458.0 (11.2)	298.9 (12.4)	34.7 (14.2)	35.7 (9.2)	40.0 (16.6)	293.7 (-1.7)	36.2 (4.1)	37.6 (5.4)	36.6 (-8.5)
LNG (Mton)	33.4 (-8.7)	34.9 (4.2)	22.6 (0.0)	2.1 (-0.6)	2.4 (14.1)	2.4 (3.8)	23.3 (3.2)	2.3 (5.8)	2.5 (7.3)	2.3 (-3.6)
Hydro (TWh)	5.8 (-25.9)	6.6 (14.5)	4.6 (10.6)	0.5 (43.7)	0.9 (29.9)	0.7 (4.4)	4.8 (4.4)	0.6 (8.1)	0.6 (-29.6)	1.0 (38.8)
Nuclear (TWh)	164.8 (5.3)	162.0 (-1.7)	114.7 (6.6)	13.0 (-4.0)	13.6 (-14.3)	14.7 (10.3)	102.3 (-10.9)	12.5 (-3.7)	12.2 (-9.9)	11.9 (-18.7)
Others (Mtoe)	12.8 (17.2)	15.0 (16.4)	10.0 (17.1)	1.2 (15.6)	1.2 (16.8)	1.3 (17.4)	10.2 (1.5)	1.3 (3.6)	1.2 (0.1)	1.3 (2.0)
TPES (Mtoe)	287.5 (1.6)	295.7 (2.9)	195.9 (2.8)	22.6 (1.6)	24.0 (2.4)	25.1 (5.2)	198.3 (1.2)	22.9 (1.4)	25.1 (4.2)	24.7 (-1.7)
- Non-energy oil excluded	232.2 (1.4)	237.6 (2.4)	157.7 (2.5)	17.8 (0.8)	19.4 (2.0)	20.0 (5.7)	158.3 (0.3)	18.1 (1.6)	19.9 (2.6)	19.6 (-2.4)
- Non-energy oil&coal excluded	206.4 (1.9)	214.2 (3.8)	142.3 (4.0)	15.9 (2.3)	17.4 (3.6)	18.0 (7.4)	142.5 (0.1)	16.1 (1.2)	17.8 (2.5)	17.5 (-2.7)

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

Share of TPES by Sources

(unit: %)

	2015	2016p					2017p			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Coal	29.7	27.6	27.4	28.5	30.6	28.7	28.6	28.1	30.8	31.5
- Coking coal excluded	20.8	19.7	19.6	20.1	22.2	20.6	20.7	19.4	22.4	23.2
Oil	38.1	39.9	39.5	41.2	38.7	41.0	39.5	41.5	40.2	40.1
- non-energy oil excluded	18.9	20.3	20.1	20.1	19.4	20.7	19.3	20.6	19.6	19.3
LNG	15.2	15.4	15.0	12.4	12.8	12.3	15.3	12.9	13.1	12.1
Hydro	0.4	0.5	0.5	0.5	0.8	0.6	0.5	0.5	0.5	0.8
Nuclear	12.1	11.6	12.4	12.1	11.9	12.3	10.9	11.5	10.3	10.2
Others	4.5	5.1	5.1	5.4	5.2	5.1	5.1	5.5	5.0	5.3
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			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Industry	136.7 (0.5)	140.6 (2.8)	92.2 (1.9)	11.3 (1.3)	11.6 (2.3)	12.0 (3.6)	94.3 (2.2)	11.4 (0.7)	12.1 (4.3)	11.8 (-1.7)
Transport	40.3 (7.1)	42.8 (6.2)	28.3 (7.0)	3.4 (6.9)	3.5 (5.0)	4.0 (10.4)	28.6 (1.0)	3.6 (6.8)	3.8 (9.3)	3.7 (-5.4)
Residential-commercial	36.4 (2.7)	38.2 (4.8)	25.6 (4.2)	2.1 (3.2)	2.2 (4.5)	2.5 (8.1)	25.8 (0.9)	2.2 (3.1)	2.3 (5.9)	2.5 (1.2)
Public	5.2 (10.1)	5.5 (6.7)	3.7 (7.3)	0.5 (21.8)	0.4 (-7.7)	0.5 (11.4)	3.8 (3.7)	0.4 (-6.6)	0.5 (22.5)	0.5 (2.3)
TFC	218.6 (2.2)	227.1 (3.9)	149.8 (3.4)	17.3 (3.1)	17.7 (2.8)	18.9 (5.7)	152.5 (1.8)	17.7 (2.0)	18.7 (5.8)	18.5 (-2.0)
Coal (Mton)	52.4 (-1.3)	49.0 (-6.4)	31.7 (-7.4)	3.7 (-12.7)	4.3 (-3.6)	4.2 (-1.5)	31.2 (-1.5)	3.8 (1.1)	4.1 (-4.0)	3.8 (-8.3)
Oil (Mbbbl)	841.6 (4.1)	902.4 (7.2)	589.6 (6.9)	71.6 (7.8)	71.3 (4.5)	79.6 (8.6)	608.6 (3.2)	74.1 (3.4)	78.4 (10.0)	77.5 (-2.7)
Electricity (TWh)	483.7 (1.3)	497.0 (2.8)	333.5 (2.4)	39.7 (3.4)	40.6 (3.0)	44.4 (5.9)	340.0 (1.9)	39.7 (0.0)	43.2 (6.5)	45.4 (2.1)
City gas (Bm ³)	20.8 (-5.9)	21.3 (2.3)	14.4 (0.7)	1.1 (-1.4)	1.1 (-1.1)	1.0 (-2.5)	14.8 (2.6)	1.1 (1.1)	1.1 (-0.8)	1.1 (2.6)
Heat-others (1 000 toe)	12.7 (14.7)	14.4 (13.6)	9.6 (13.7)	1.1 (14.0)	1.1 (15.0)	1.1 (13.2)	9.3 (-3.5)	1.0 (-3.5)	1.1 (-3.0)	1.1 (-2.4)

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			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Industry	62.5	61.9	61.6	65.5	65.8	63.6	61.8	64.7	64.8	63.8
Transport	18.4	18.8	18.9	19.6	19.9	20.9	18.8	20.6	20.5	20.2
Residential-commercial	16.7	16.8	17.1	12.1	12.2	13.0	16.9	12.3	12.2	13.5
Public	2.4	2.4	2.5	2.7	2.1	2.4	2.5	2.5	2.4	2.5
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	14.1	14.5	16.2	14.7	13.7	14.4	14.8	13.9
Oil	49.1	50.5	50.1	52.6	51.1	53.4	50.7	53.4	53.3	53.1
Electricity	19.0	18.8	19.1	19.7	19.8	20.2	19.2	19.3	19.9	21.1
City gas	10.1	9.9	10.2	7.0	6.7	5.9	10.3	6.9	6.3	6.1
Heat-others	5.8	6.3	6.4	6.3	6.2	5.8	6.1	5.9	5.7	5.8

Note: p means provisional
Source: Monthly energy statistics

Statistics on Energy Production Facilities

	2014	2015	2016				2017p		
				M6	M7	M8	M6	M7	M8
Total capacity (GW)	93.2 (7.2)	97.6 (4.8)	105.9 (13.6)	98.9 (12.3)	100.2 (12.0)	101.0 (12.1)	113.7 (18.8)	113.4 (17.1)	114.2 (17.9)
Nuclear	20.7 -	21.7 (4.8)	23.1 (11.6)	21.7 (4.8)	21.7 (4.8)	21.7 (4.8)	22.5 (8.8)	22.5 (3.7)	22.5 (3.7)
Bituminous coal	25.9 (10.7)	26.2 (1.1)	30.9 (19.3)	26.4 (5.6)	27.3 (9.4)	27.9 (11.7)	34.7 (34.0)	34.7 (34.0)	35.3 (36.3)
Gas	30.3 (27.2)	32.2 (6.5)	32.6 (7.8)	32.6 (22.9)	32.6 (16.5)	32.6 (13.5)	36.6 (14.9)	36.7 (15.1)	36.7 (15.1)
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		
				M6	M7	M8	M6	M7	M8
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 (3.4)	17.6 (3.4)	18.2 (3.3)	18.2 (3.2)	18.2 (3.3)
Registered cars (mil)	20.1 (3.7)	21.0 (4.3)	21.8 (3.9)	21.5 (4.5)	21.5 (4.4)	21.6 (4.3)	22.2 (3.4)	22.3 (3.4)	22.3 (3.4)
- gasoline	9.6 (2.0)	9.8 (2.3)	10.1 (2.9)	10.0 (2.7)	10.0 (2.8)	10.0 (2.8)	10.3 (2.9)	10.3 (2.8)	10.3 (2.9)
- diesel	7.9 (7.3)	8.6 (8.6)	9.2 (6.4)	8.9 (8.2)	9.0 (7.8)	9.0 (7.6)	9.4 (4.8)	9.4 (4.8)	9.4 (4.8)
- 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)	2.1 (-3.4)	2.1 (-3.3)	2.1 (-3.3)
- hybrid	0.1 (40.0)	0.2 (31.3)	0.2 (37.6)	0.2 (34.8)	0.2 (35.8)	0.2 (36.4)	0.3 (34.3)	0.3 (34.6)	0.3 (35.4)

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

KEEI

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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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