

KEEI

MONTHLY KOREA ENERGY TRENDS

2019 / 06
KOREA ENERGY ECONOMICS INSTITUTE

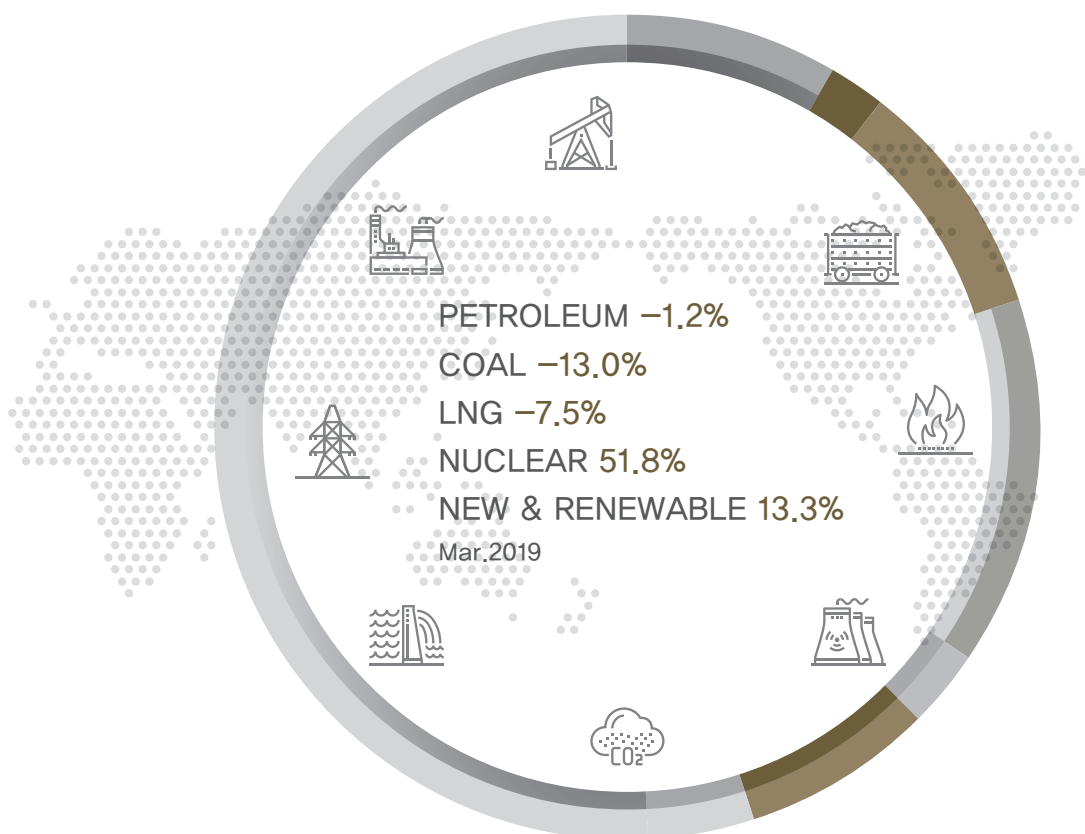


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1. The Economy and the Industry

- ☐ **The Gross Domestic Product (“GDP”) rose by 1.7% year-on-year in 1Q 2019, despite decreased investment, as a result of increased private spending.**
- ☐ **The mining and manufacturing production index fell by 2.3% year-on-year in March, as the index decreased in all major sectors, except the semiconductor industry.**
 - The production index of semiconductors went up by 2.5% along with increased export volume, but the pace of growth has been slowing, and the export value dropped by 16.7% due to continuously decreasing unit price and a lack of investment in data centers.
 - The production index of basic chemical materials declined by 3.6% year-on-year, as increased supply and as the routine maintenance at some naphtha cracking centers led to lower production capacity.
 - The production index of automobiles fell by 0.9%, despite strong green car sales, due to the decreased number of work days (-1 day) and partial strikes (12-day) by some manufacturers (Renault Samsung). The number of cars produced dropped by 4.9%.
 - The production index of iron & steel products fell by 0.7%, as its export volume decreased amid import regulations, and as major source of demand such as the auto industry posted weak business records.
- ☐ **The service production index went up by 0.8% year-on-year, led by the health & social welfare sectors, though the index declined in the wholesale & retail and restaurant & accommodation sectors.**

► Trend in major economic and industrial indicators

	2017	2018p	2019p				
			M1~3	M3	M1~3	M2	M3
GDP (trillion won)	1 760.8 (3.2)	1 807.7 (2.7)	428.7 (2.8)	428.7 (2.8)	435.8 (1.7)	- -	435.8 (1.7)
Total export (\$billion, customs clearance basis)	573.7 (15.8)	604.9 (5.4)	145.1 (9.8)	51.3 (5.5)	132.7 (-8.5)	39.5 (-11.3)	47.0 (-8.4)
Industrial production index(2015=100)	104.6 (2.2)	105.8 (1.2)	100.9 (-1.4)	107.7 (-2.8)	98.8 (-2.0)	87.9 (-3.8)	105.0 (-2.5)
Semi-conductors	138.9 (10.8)	167.0 (20.3)	143.2 (7.6)	157.5 (16.1)	151.4 (5.7)	142.8 (5.9)	161.5 (2.5)
Basic compound	110.4 (5.5)	110.4 -	110.7 (0.7)	111.7 (-0.6)	107.1 (-3.3)	100.9 (-2.9)	107.7 (-3.6)
Steel	102.9 (1.7)	99.8 (-3.1)	99.5 (-2.2)	101.2 (-3.3)	97.1 (-2.4)	87.8 (-4.3)	100.5 (-0.7)
Cars	95.0 (-2.7)	93.7 (-1.4)	88.0 (-10.1)	98.2 (-11.6)	90.2 (2.5)	77.1 (0.3)	97.3 (-0.9)
Service production index (2015=100)	104.5 (1.8)	106.7 (2.1)	103.4 (2.5)	107.7 (2.0)	104.5 (1.0)	99.4 (-0.2)	108.6 (0.8)
Wholesale & Retail	103.3 (0.8)	104.8 (1.4)	102.3 (2.2)	109.3 (3.2)	101.7 (-0.6)	92.3 (-3.9)	108.0 (-1.2)
Restaurant & Accommodation	100.4 (-1.9)	98.5 (-1.9)	94.0 (-3.0)	97.8 (-0.6)	92.8 (-1.2)	86.9 (-1.9)	95.0 (-2.9)

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

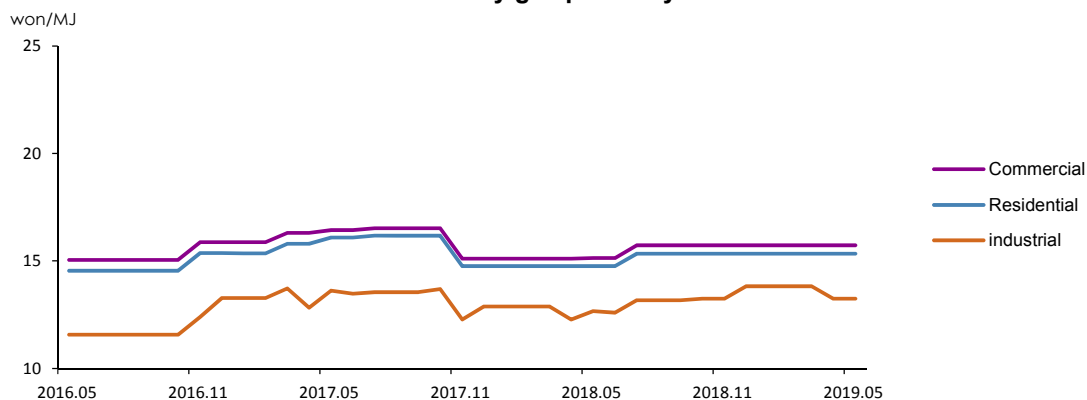
☐ **City gas price has been at the same level for 11 months until May after the fifth price-fixing since July, 2018.**

- Global LNG price which is linked to global oil price in a few months' interval recently showed downward trend. Meanwhile, city gas price was fixed again in May and has been flat since July, 2018.

☐ **Heat energy price was the same as the previous month, as city gas price was fixed again.**

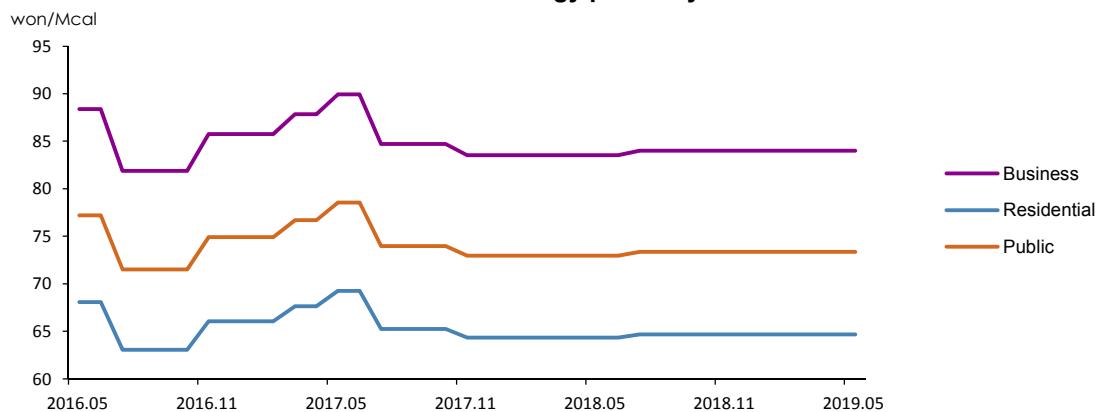
- Korea District Heating Corporation's heat energy price is linked to city gas price according to the fuel cost pass-through scheme, and the actual fuel cost is reflected in the heat energy price once a year (LNG for over 100MW, city gas for under 100MW).

► Trend in city gas prices 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 prices by end-use sectors



Note: The prices are based on flat rate for heating (additional tax, base charge excluded)

Source: Korea District Heating Corporation.

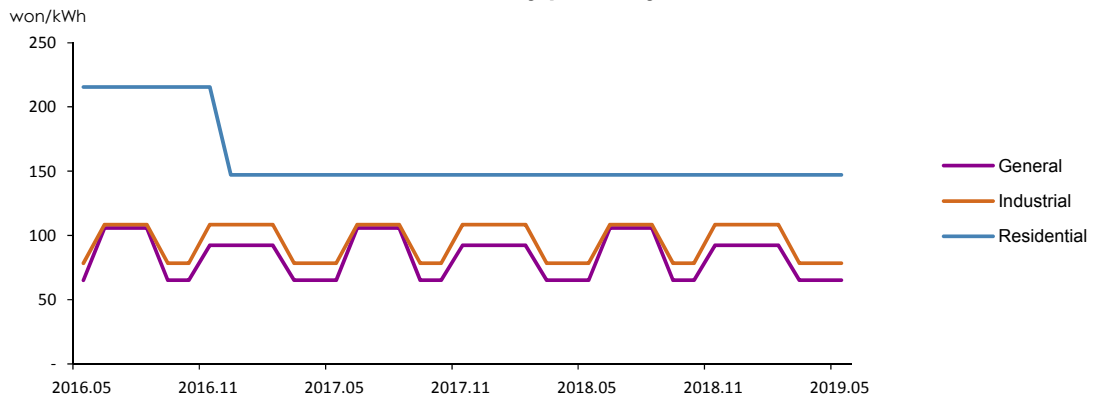
□ **Electricity prices¹ remained stagnant (in May), after the prices for industrial and general use declined in March with the seasonal price adjustment (spring/winter).**

- Electricity prices for industrial and general use were flat in April, after the price adjustment in March from winter (Nov-Feb) to spring/autumn (Mar-May/Sept-Oct) season.
- Electricity price for residential use has been flat since the reform of the progressive pricing scheme, which was implemented after 2016's extreme heatwaves.

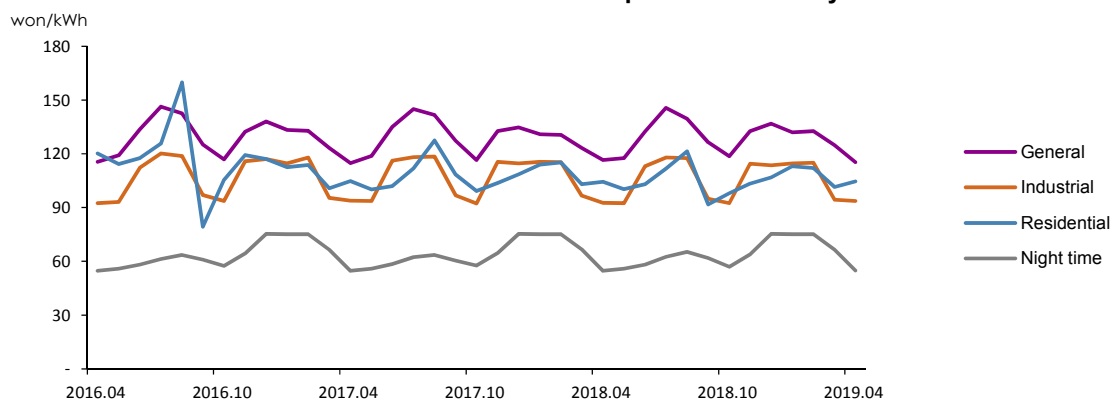
□ **The unit sales price of electricity for industrial and general use declined in April, while that for residential use increased.**

- The unit sales price of electricity for industrial and general use fell by 0.7% and 7.7% respectively from the previous month, but in the case of residential electricity that is progressively priced, it rose by 3.0% in line with increased sales volume (7.9%).

► Trend in electricity prices by end-use sectors



► Trend in unit sales price of electricity



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

3. Energy Supply

□ **The total energy import volume dropped by 10.3% year-on-year in March, despite increased crude oil import, as the import of petroleum products, bituminous coal and LNG all decreased.**

- The import volume of crude oil was up 5.2% due to the surging import from the U.S., although the import from the Middle East declined.
- The import volume of petroleum products fell by 14.7% year-on-year, as the import of naphtha, LPG and bunker-C continuously decreased.
- The foreign energy dependence including nuclear energy was 91.0%, and the energy share of the total import value fell by 0.7%p to 23.3%.

► Trend in energy trade and domestic production

	2017	2018p			2019p		
			M1~3	M3	M1~3	M2	M3
Import volume							
Crude oil (Mbbbl)	1 118.2 (3.7)	1 116.3 (-0.2)	277.1 (-0.4)	82.8 (-13.6)	278.7 (0.6)	98.5 (4.2)	87.1 (5.2)
Petroleum product (Mbbbl)	314.5 (-6.0)	341.2 (8.5)	85.0 (7.6)	28.1 (2.3)	76.8 (-9.6)	22.6 (-22.8)	24.0 (-14.7)
Bituminous coal (Mton)	131.5 (11.0)	131.5 (0.0)	33.4 (-1.4)	11.5 (5.1)	31.7 (-5.1)	10.7 (3.2)	8.1 (-29.1)
Anthracite (Mton)	7.0 (-25.7)	8.1 (16.0)	1.8 (-14.0)	0.6 (-27.9)	2.0 (8.6)	0.8 (34.0)	0.6 (9.7)
LNG (Mton)	37.5 (12.2)	44.0 (17.3)	13.0 (13.8)	4.3 (22.0)	10.4 (-20.0)	3.8 (-16.8)	2.8 (-35.3)
Import volume (Mtoe)	339.7 (5.5)	354.1 (4.2)	89.8 (1.7)	29.2 (0.4)	87.0 (-3.2)	28.5 (-3.7)	26.2 (-10.3)
Import value (billion US\$, CIF)	109.5 (35.2)	146.0 (33.3)	34.6 (20.6)	10.8 (10.6)	31.9 (-7.6)	11.0 (-8.6)	9.8 (-9.6)
Energy share of total import value (%)	22.9	27.3	26.2	24.0	26.1	30.2	23.3
Foreign energy dependence (%)*	93.9	93.5	94.0	93.7	93.3	93.1	92.9
Domestic production							
Hydropower (TWh)	7.0 (5.5)	7.3 (4.0)	1.4 (-10.0)	0.5 (-7.6)	1.5 (6.2)	0.5 (6.7)	0.4 (-3.1)
Anthracite (Mton)	1.5 (-14.0)	1.2 (-19.2)	0.3 (-15.2)	0.1 (-18.1)	0.3 (-20.5)	0.1 (-17.3)	0.1 (-23.7)
Natural gas (Mton)	0.3 (120.5)	0.2 (-10.4)	0.1 (-7.7)	0.0 (-10.2)	0.0 (-36.4)	0.0 (-16.5)	0.0 (-13.7)
Renewable energy (Mtoe)	15.8 (16.7)	17.5 (10.5)	4.3 (9.8)	1.5 (9.1)	4.8 (11.2)	1.6 (9.1)	1.6 (13.3)

Note: p means provisional, () is year-on-year growth rates (%), *Foreign energy dependence (%) including Nuclear energy
Source: Monthly Energy Statistics

4. Energy Consumption

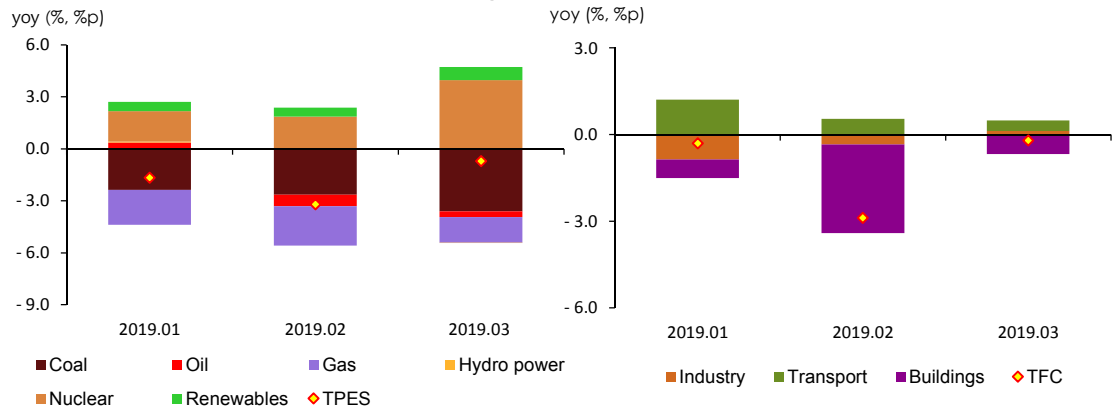
- **The Total Primary Energy Supply (“TPES”) decreased by 0.7% year-on-year in March, as the use of all major energy sources declined except nuclear and renewable energy.**
 - Petroleum consumption fell by 1.2% year-on-year because of decreased industrial consumption, especially naphtha during the maintenance work at some petrochemical facilities, although the consumption increased in the transport sector, backed by fuel tax cut and decreased oil price.
 - Coal consumption plunged by 13.0% on a year-on-year basis, as bituminous coal use declined in the steelmaking sector amid sluggish business, and it also declined in the power generation sector due to the upper limit on maximum power aimed at reducing fine dust, a surge in preventive maintenance and the shutdown of some power plants for safety issues.
 - Gas consumption fell by 7.5%, as city gas consumption declined owing to the price increase (2018.7), and gas-fired generation also declined amid falling power demand and growing nuclear generation.
- **Total Final Consumption (“TFC”) was down 0.2% on a year-on-year basis, as the consumption remained stagnant in the industrial sector and decreased in the buildings sector.**
 - Industrial energy use was flat on a year-on-year basis (0.2%), as the production activity slowed down, and the number of work days decreased.
 - Transport energy use rose by 2.0% year-on-year, led by the road transport sector, with the help of the temporary fuel tax cut.
 - Energy use in buildings fell by 2.9%, especially gas, despite increased number of heating degree days (6.3%, 19.4degree days), partly because of increased city gas price from the same month last year.

► Energy consumption trend

	2017	2018p	2019p				
			M1~3	M3	M1~3	M2	M3
Total energy (Mtoe)	302.1	307.3	81.3	25.8	79.8	25.2	25.6
	(2.9)	(1.7)	(2.4)	(-1.8)	(-1.9)	(-3.2)	(-0.7)
- Non-energy oil&coal excluded	215.4	221.4	60.1	18.8	59.0	18.5	18.7
	(1.6)	(2.8)	(4.1)	(0.3)	(-1.9)	(-3.9)	(-0.3)
Final energy (Mtoe)	233.9	237.9	63.9	20.2	63.2	20.3	20.1
	(3.9)	(1.7)	(2.7)	(-2.3)	(-1.1)	(-2.9)	(-0.2)

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

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



5. Coal

□ **Coal consumption posted a year-on-year drop of 13.0%, amid sharply the power generation sector reduced due to the fine dust reduction measures.**

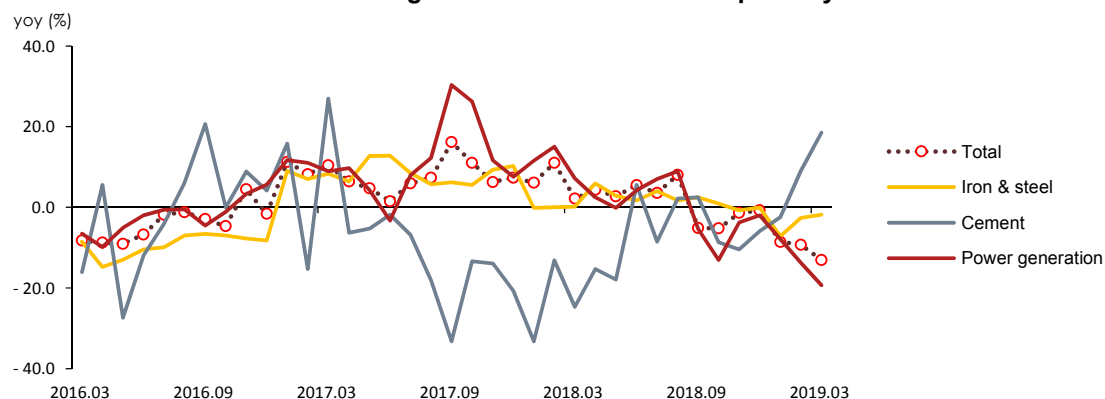
- Coal use plunged by nearly 20% in the power generation sector owing to the upper limit on power output for fine dust reduction and increased daily average of preventive maintenance.
- Industrial coal use fell slightly due to decreased consumption in the steelmaking sector, although it increased in the cement production sector partly because of base effect.

► Coal consumption trend

	2017	2018p	2019p	
			M1~3	M2
Coal (Mton)	139.8	143.2	37.4	11.9
	(8.1)	(2.5)	(6.3)	(2.2)
Industry	49.3	50.5	12.2	4.1
	(3.2)	(2.6)	(-2.1)	(-5.8)
Buildings	1.1	0.9	0.3	0.1
	(-14.0)	(-15.7)	(-12.9)	(-23.1)
Power generation	89.4	91.8	25.0	7.7
	(11.3)	(2.6)	(11.3)	(7.2)

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

► The growth rate of coal consumption by use



6. Petroleum

□ **Petroleum consumption dropped by 1.2% year-on-year in March due to decreased consumption in the industrial and other sectors, except the transport sector.**

- Industrial petroleum use fell by 1.5% from the same month last year, despite 2.8% increase in the use of energy oil (including LPG), because the use of non-energy oil decreased by 2.3%, especially naphtha that takes up a large share of the total industrial petroleum use.
- Transport petroleum use has been increasing for five consecutive months, which is attributed to the government's fuel tax cut and consequently decreased prices.

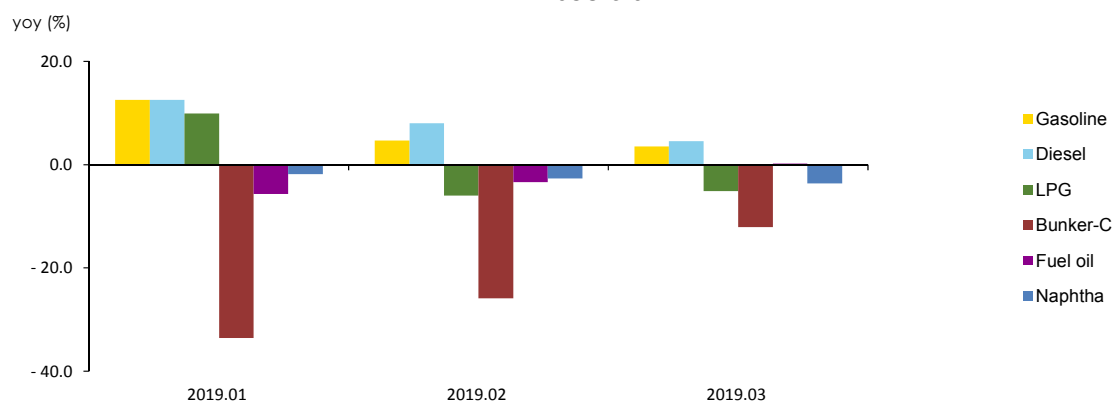
► **Trend in petroleum product consumption by end-use sectors**

	2017	2018p	2019p		2019p		
			M1~3	M3	M1~3	M2	M3
Petroleum (Mbbl)	937.1	929.3	235.8	77.4	234.5	73.1	76.5
	(1.7)	(-0.8)	(0.4)	(-3.9)	(-0.6)	(-2.0)	(-1.2)
Industry	567.0	562.2	139.6	45.7	138.8	44.2	45.0
	(4.5)	(-0.8)	(-1.2)	(-7.1)	(-0.6)	(-0.5)	(-1.5)
Transport	303.2	299.8	72.0	25.1	75.5	23.0	25.6
	(0.9)	(-1.1)	(0.2)	(-1.0)	(4.8)	(4.0)	(2.0)
Buildings	56.4	55.9	18.8	5.0	17.3	5.3	4.6
	(0.3)	(-1.0)	(7.1)	(-3.9)	(-7.7)	(-15.1)	(-8.6)
Power generation	10.5	11.5	5.5	1.6	2.9	0.6	1.3
	(-51.9)	(9.6)	(27.2)	(110.7)	(-46.9)	(-67.1)	(-17.3)

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

Source: Monthly Energy Statistics

► **The growth rates of petroleum product consumption & the consumption by end-use sectors**



7. Gas

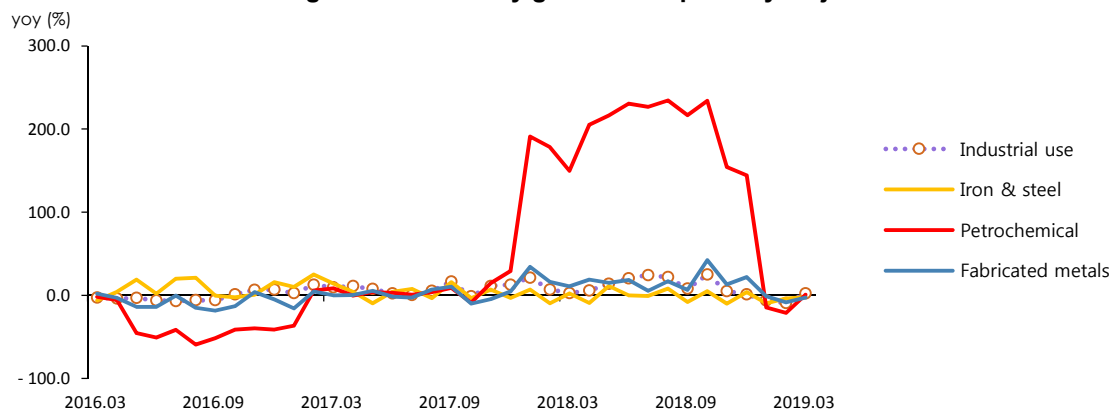
- **Natural gas consumption sharply declined in the power generation sector where nuclear generation surged, and as a result, the total consumption fell by 7.5% year-on-year in March.**
 - Gas use for power generation plunged amid stagnant power demand and soaring nuclear generation (51.8%), while its use for city gas production rebounded in five months due to the slower pace of decline in city gas use.
- **City gas consumption dropped by 2.6% in March on a year-on-year basis despite growing industrial consumption, as it declined in the buildings sector.**
 - Industrial city gas consumption posted a year-on-year growth, led by the petrochemical sector, though the consumption declined in the primary metals and fabricated metals sectors.
 - City gas consumption in buildings decreased from the same month last year, as residential city gas use declined even amid increased number of heating degree days (19.4, 6.3%) partly due to the price increase (2018.7)

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

	2017	2018p	2019p				
			M1~3	M3	M1~3	M2	M3
LNG (Mton)	36.4	40.9	13.6	3.9	12.4	3.9	3.6
	(4.3)	(12.4)	(16.1)	(11.2)	(-8.8)	(-10.3)	(-7.5)
Power generation	15.6	18.0	5.0	1.7	4.5	1.4	1.4
	(0.6)	(15.6)	(20.9)	(25.0)	(-10.6)	(-6.0)	(-17.3)
City gas production	18.4	19.8	7.5	1.9	7.0	2.3	2.0
	(5.8)	(7.7)	(10.3)	(-1.0)	(-6.6)	(-11.0)	(0.9)
City gas (bm³)	22.6	24.2	9.3	2.6	8.8	2.9	2.5
	(6.3)	(7.2)	(10.1)	(2.0)	(-6.3)	(-11.0)	(-2.6)
Industry	7.8	8.7	2.4	0.8	2.3	0.7	0.8
	(7.7)	(12.1)	(10.4)	(2.8)	(-4.5)	(-9.3)	(2.5)
Buildings	13.6	14.3	6.6	1.7	6.1	2.1	1.6
	(6.0)	(5.2)	(10.5)	(1.8)	(-7.1)	(-11.8)	(-5.0)

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 grew by 0.4% year-on-year in March, led by the industrial sector, although it declined in the buildings sector.

- Industrial electricity consumption went up by 2.2% year-on-year, despite fewer work days (-1.0day), owing to base effect.
- Electricity consumption in buildings declined from the same month last year, especially in commercial buildings, even though it slightly increased in residential buildings amid increased number of heating degree days.

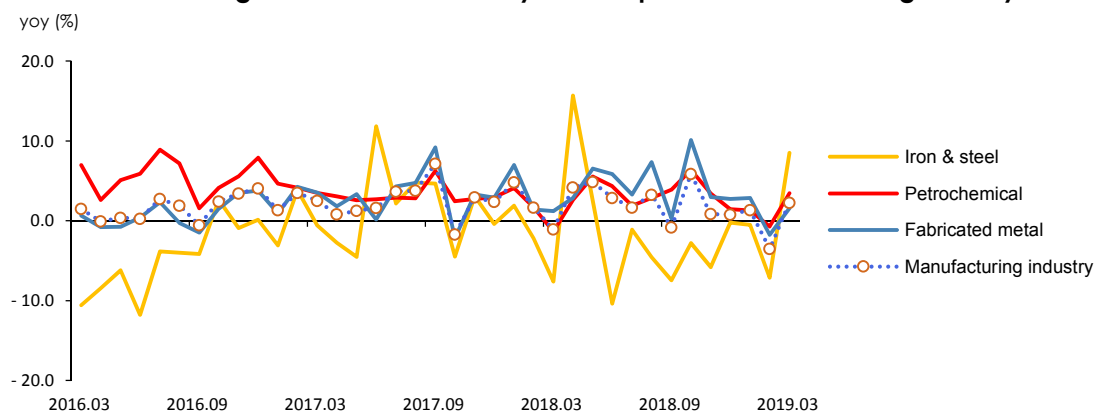
► Trend in electricity consumption by end-use sectors

	2017	2018p	2019p				
			M1~3	M3	M1~3	M2	M3
Electricity (TWh)	507.7	526.1	138.0	42.9	136.1	44.4	43.1
	(2.2)	(3.6)	(4.4)	(0.9)	(-1.4)	(-5.1)	(0.4)
Industry	276.7	283.7	70.9	23.3	71.0	22.1	23.8
	(2.5)	(2.5)	(2.1)	(-0.9)	(0.1)	(-3.5)	(2.2)
Transport	2.9	3.0	0.8	0.2	0.7	0.2	0.2
	(6.5)	(3.6)	(9.4)	(8.6)	(-1.8)	(-3.6)	(-0.6)
Buildings	228.2	239.5	66.4	19.4	64.3	22.0	19.1
	(1.7)	(4.9)	(7.0)	(3.1)	(-3.1)	(-6.7)	(-1.8)
Residential	66.5	70.7	17.7	5.3	17.7	6.1	5.4
	(0.5)	(6.3)	(5.0)	(4.1)	(0.3)	(-1.3)	(0.5)
Commercial	130.4	136.4	39.6	11.4	37.9	13.0	11.0
	(2.3)	(4.6)	(7.7)	(2.7)	(-4.3)	(-8.4)	(-3.1)

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

Source: Monthly Energy Statistics

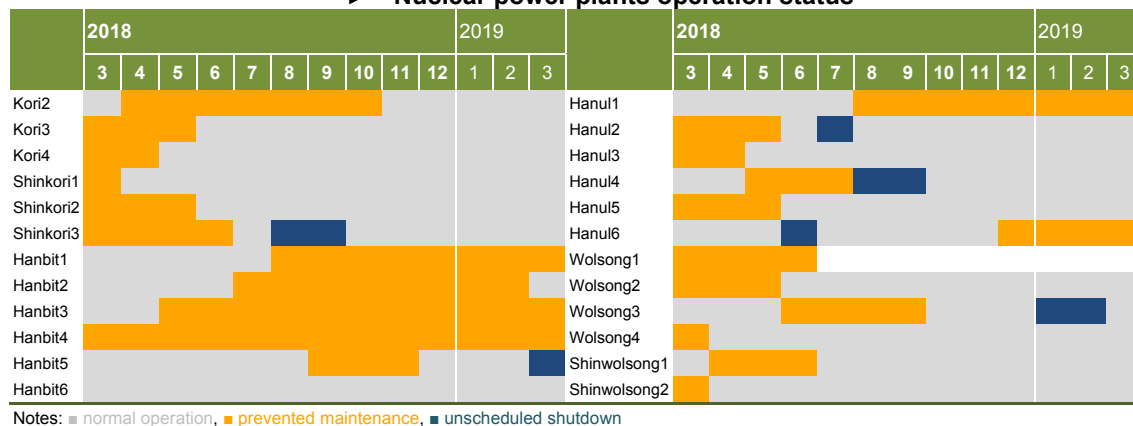
► The growth rate of electricity consumption in manufacturing industry



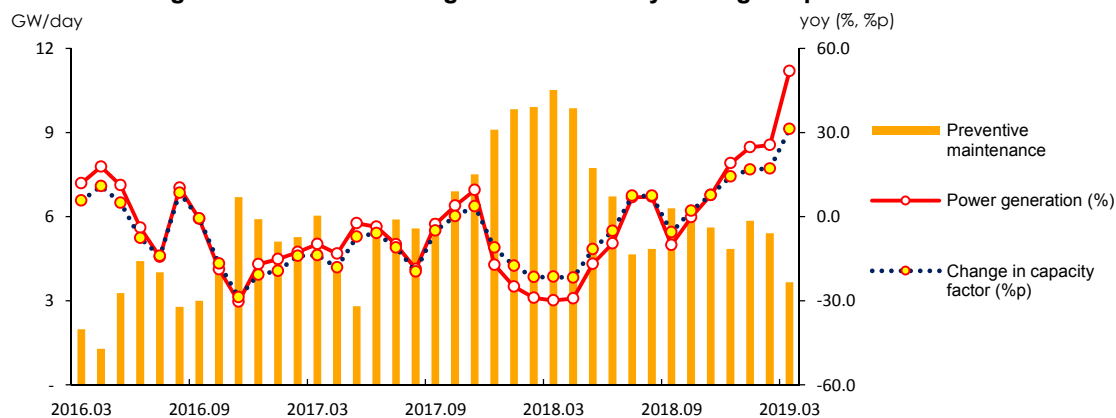
9. Nuclear

- The total nuclear generation surged by 51.8% year-on-year in March due to base effect and along with increased capacity factors.
- The average capacity factor grew by 31.2%p year-on-year to 86.3% despite unscheduled shutdown of Hanbit unit5, as the number of reactors under maintenance decreased.
- Nuclear share of the total generation went up by 10.2%p to 29.8% on a year-on-year basis.

► Nuclear power plants operation status



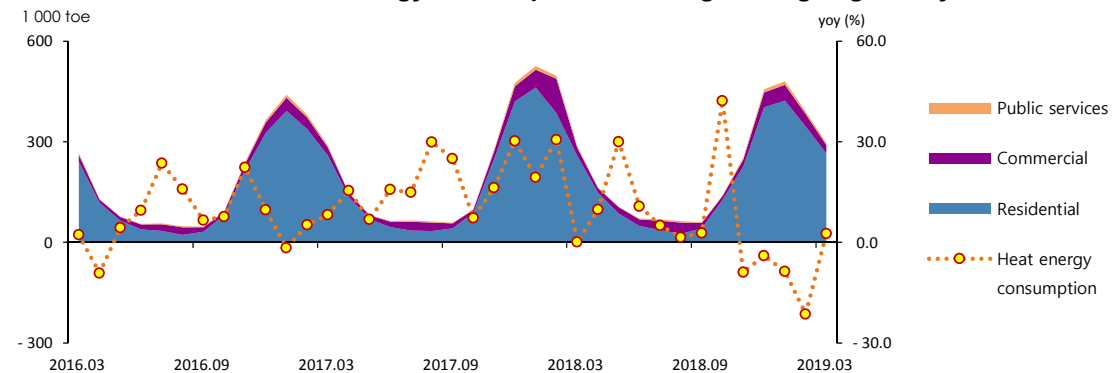
► The growth rate of nuclear generation & daily average of preventive maintenance



10. Heat and Renewable energy

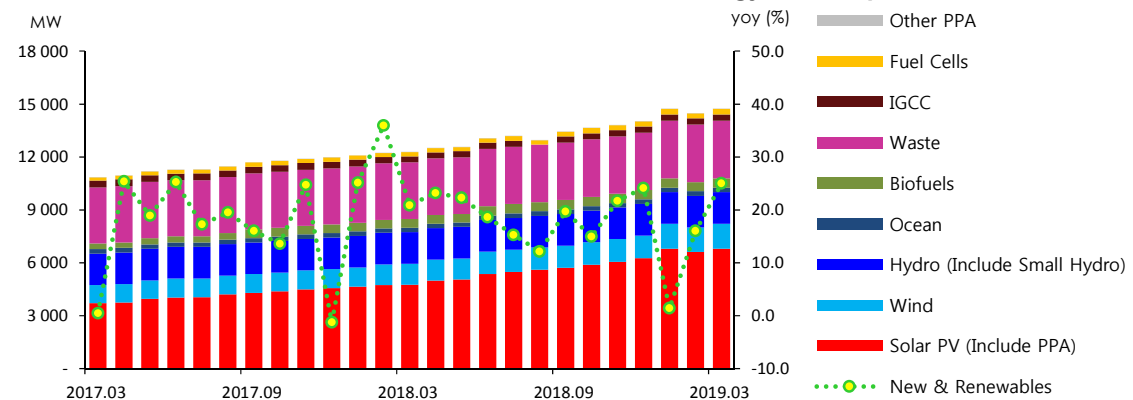
- **Heat energy consumption rose by 2.6% year-on-year in March owing to the lower temperature and increased heat energy supply.**
 - Heat energy consumption increased for the first time in five months due to the increased number of heating degree days (19.4, 6.3%) amid falling temperatures and the operation of a new heat supply facility (a fuel cell power plant in Dongtan, 2019.1, 8.8Gcal/h).
- **Renewable & other energy consumption was up 5.2% year-on-year (in March), baked by increased renewable generation, although the final use of those energy sources was flat.**
 - Renewable generation posted a year-on-year growth of 20.7%, with solar PV, waste-to energy and fuel cells taking the lead, even though an IGCC plant has been offline.
 - Renewable energy use declined in the buildings sector and increased in the industrial and transport sectors, and consequently, the total final renewable energy use was flat.

► Heat energy consumption & heating/cooling degree days



Note: The total heat energy consumption is estimated based on the total supply from district heating & cooling companies (KEA's collective energy business). Previously, the figure reflected the monthly supply data of only three energy companies (KDHC, GS Power, SH Corp.).

► Trend in renewable and other energy consumption



11. Industry

□ Industrial energy use grew by mere 0.2% in March on a year-on-year basis owing to the sluggish production activity and decreased number of work days.

- Industrial energy consumption was stagnant, as private spending slowed and exports declined amid the economic slowdown which led to a sluggish industrial production, and as the number of work days (-1.0) decreased on a year-on-year basis.

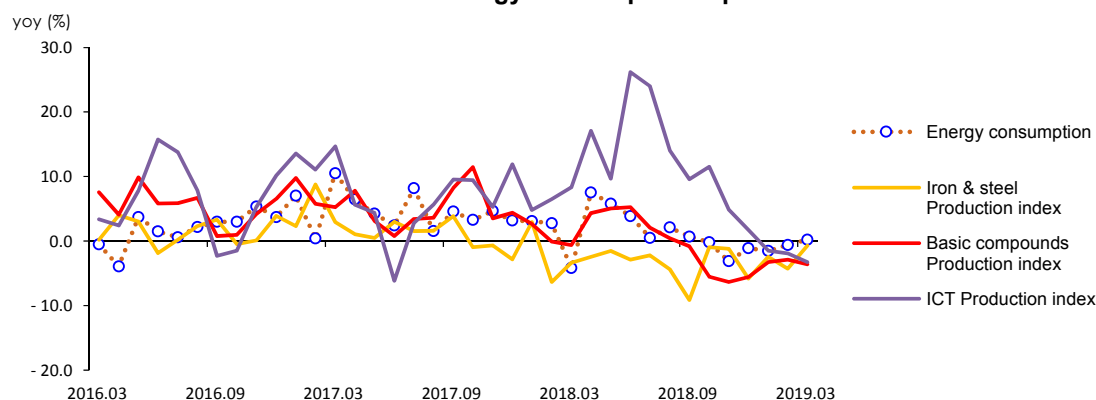
► Trend in the industrial energy consumption

	2017	2018p	2019p				
			M1~3	M3	M1~3	M2	M3
Industry (Mtoe)	144.3	146.3	36.4	12.0	36.1	11.5	12.0
	(4.7)	(1.4)	(0.5)	(-4.2)	(-0.7)	(-0.6)	(0.2)
Petrochemical	70.4	71.4	17.9	5.8	17.5	5.6	5.7
	(6.7)	(1.4)	(0.6)	(-5.5)	(-1.8)	(-3.0)	(-1.6)
- Naphtha	56.2	55.3	14.0	4.5	13.6	4.4	4.4
	(6.6)	(-1.6)	(-2.2)	(-9.3)	(-2.7)	(-2.7)	(-3.6)
Iron & Steel	35.0	30.4	7.4	2.5	7.2	2.3	2.5
	(24.4)	(-13.1)	(-14.3)	(-14.8)	(-3.6)	(-3.4)	(-0.7)
-Coking coal	25.3	25.7	6.2	2.1	6.0	1.9	2.0
	(8.0)	(1.6)	(0.0)	(0.2)	(-3.9)	(-2.6)	(-1.9)
Fabricated metal	10.8	11.5	3.0	1.0	3.0	0.9	1.0
	(1.9)	(6.2)	(6.5)	(2.7)	(-0.3)	(-3.4)	(0.4)
Share of feedstock (%)	59.9	58.6	58.0	58.1	57.2	57.3	56.8

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

Source: Monthly Energy Statistics

► Industrial energy consumption & production index



12. Transport

□ **Transport energy use went up by 2.0% year-on-year in March, led by the road transport sector that accounts for a large share of the total transport energy use.**

- Energy use in the road transport sector has been up for five months in a row, because petroleum product prices fell sharply thanks to the government's tax relief.
- Energy use in the aviation sector rebounded despite decreased number of domestic flights (-1.2%), as that of international flights rose drastically (8.5%).
- Energy use in the domestic navigation sector continued to fall sharply by around 10%, owing to the dramatic decrease in costal trade volume (-16.6%), although the maritime import & export volume increased.

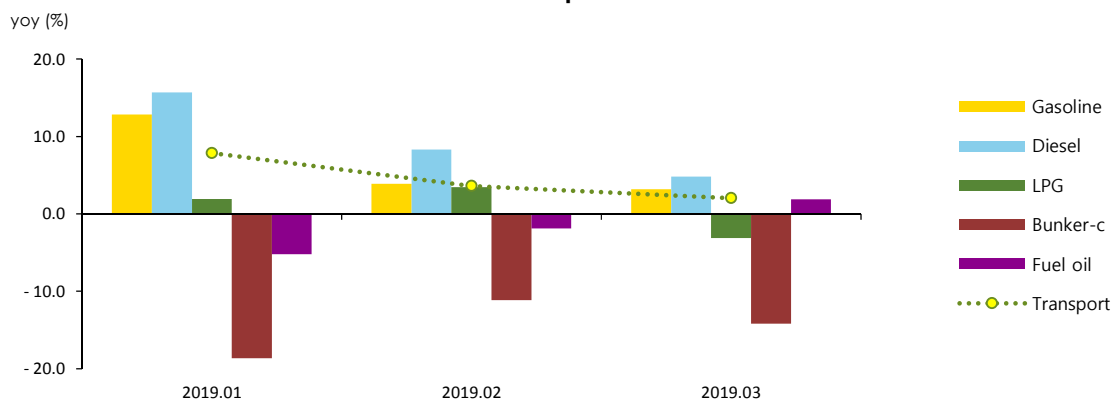
► The growth rate of petroleum consumption in the transport sector

	2017	2018p	2019p				
			M1~3	M3	M1~3	M2	M3
Transport (Mtoe)	42.8 (1.2)	42.6 (-0.5)	10.2 (0.6)	3.6 (-0.9)	10.7 (4.5)	3.2 (3.6)	3.6 (2.0)
Road	34.1 (0.5)	34.1 (-0.1)	8.0 (0.7)	2.8 (-0.4)	8.6 (7.2)	2.6 (5.8)	2.9 (3.3)
Navigation	3.5 (5.8)	3.1 (-11.5)	0.8 (-12.1)	0.3 (-18.3)	0.7 (-11.7)	0.2 (-8.9)	0.2 (-10.3)
Aviation	4.8 (3.2)	5.0 (4.4)	1.2 (9.7)	0.4 (9.3)	1.2 (-1.9)	0.4 (-2.0)	0.4 (1.8)
Rail	0.3 (2.5)	0.4 (3.6)	0.1 (7.6)	0.0 (4.9)	0.1 (-2.1)	0.0 (-4.2)	0.0 (-2.6)

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

Source: Monthly Energy Statistics

► The growth rate of energy consumption in the transport sector & major petroleum products



13. Buildings

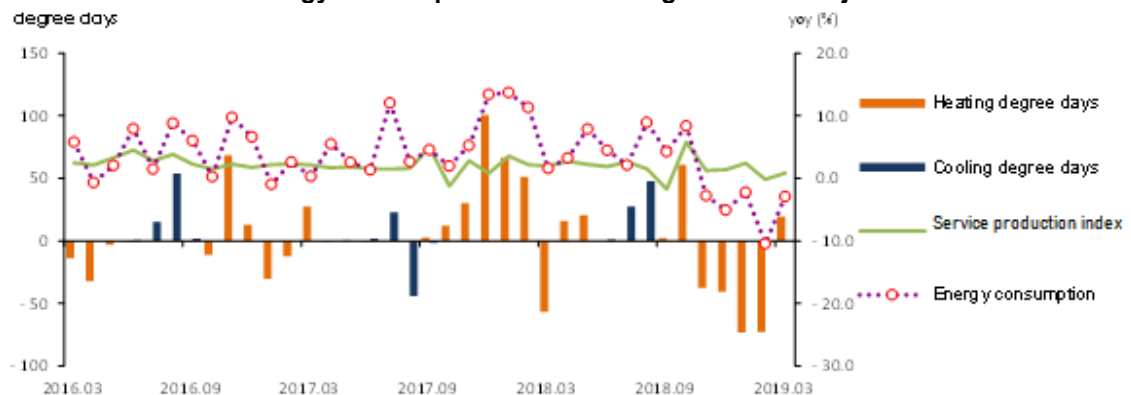
- The total energy use in buildings decreased by 2.9% year-on-year in March even at lower temperatures, due to decreased use of petroleum and city gas.
 - Energy use in buildings has been down for five consecutive months, as city gas and petroleum use declined due to increased prices despite the increased number of heating degree days, and as power use also fell by 1.8%.
 - Energy use in residential buildings dropped by 4.8%; the use of city gas, diesel and briquette decreased (-5.6%, -32.6%, -35.0%), while electricity and heat energy use increased (0.5%, 2.6%).
 - Energy use in commercial buildings fell by 1.2%, especially electricity and LPG (-3.1%, -3.3%), owing to the sluggish production in the wholesale & retail and restaurant & accommodation sectors, though city gas use increased (2.6%).

► Energy consumption trend in the buildings sector

	2017	2018p			2019p		
			M1~3	M3	M1~3	M2	M3
Buildings (Mtoe)	46.8	49.1	17.3	4.7	16.4	5.5	4.5
	(4.2)	(4.8)	(9.3)	(1.6)	(-5.3)	(-10.4)	(-2.9)
Residential	22.5	23.5	9.6	2.5	8.9	3.0	2.4
	(3.7)	(4.7)	(10.0)	(1.9)	(-6.7)	(-11.4)	(-4.8)
Commercial	17.4	18.1	5.6	1.5	5.3	1.8	1.5
	(2.2)	(4.1)	(8.2)	(-0.3)	(-5.2)	(-11.4)	(-1.2)
Public · others	6.9	7.4	2.1	0.6	2.1	0.7	0.6
	(11.0)	(6.6)	(9.3)	(4.9)	(0.3)	(-3.3)	(-0.0)
Heating degree days	2 517.1	2 597.8	1 437.2	305.6	1 310.4	437.0	325.0
	(5.5)	(3.2)	(4.4)	(-15.7)	(-8.8)	(-14.3)	(6.3)
Cooling degree days	132.7	209.0	-	-	-	-	-
	(-13.9)	(57.5)	-	-	-	-	-

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

► Energy consumption in the buildings sector & major indicators



14. Transformation

- The total energy input for power generation went down by 1.7% year-on-year in March despite a surge in nuclear generation, as coal and gas-fired generation all declined.
 - Gas consumption dramatically decreased in the transformation sector while electricity consumption was flat on a year-on-year basis, as baseload generation (nuclear + coal) took a larger share (3.6%p) of the total generation; coal-fired generation declined, but nuclear generation increased.
 - The average capacity factors at nuclear, coal and gas power plants stood at 86.3%, 60.5%, 43.2% respectively.

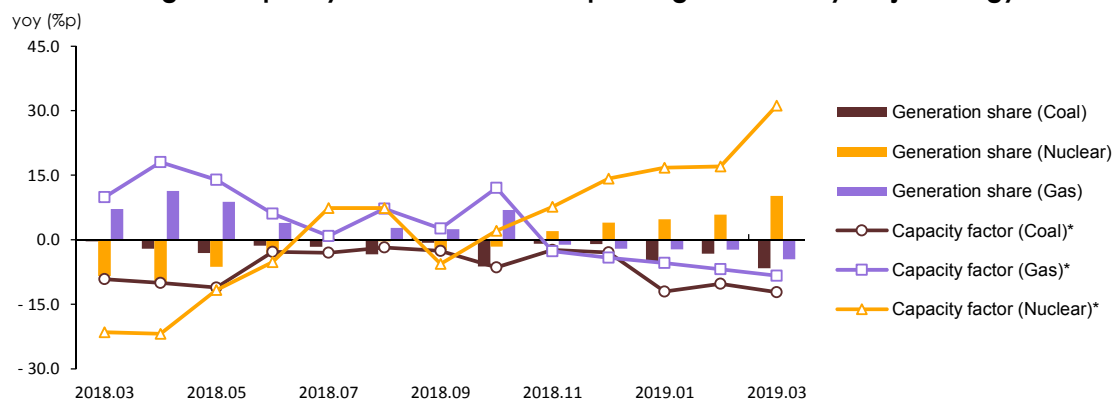
► Energy consumption in the power generation sector

	2017	2018p			2019p		
			M1~3	M3	M1~3	M2	M3
Input (Mtoe)	111.2	113.3	29.1	9.3	28.4	8.8	9.2
	(0.2)	(1.9)	(1.9)	(0.4)	(-2.6)	(-4.2)	(-1.7)
Coal	52.8	54.2	14.8	4.6	12.8	4.2	3.7
	(7.4)	(2.7)	(11.5)	(7.4)	(-13.5)	(-13.9)	(-19.5)
Oil	1.2	1.3	0.6	0.2	0.3	0.0	0.2
	(-59.5)	(4.0)	(13.8)	(124.4)	(-45.3)	(-68.9)	(4.1)
Gas	20.7	23.9	6.6	2.2	5.9	1.8	1.8
	(0.9)	(15.6)	(20.9)	(24.9)	(-10.7)	(-6.3)	(-17.2)
Nuclear	31.6	28.4	5.9	2.0	7.9	2.4	3.0
	(-7.5)	(-10.1)	(-27.9)	(-29.8)	(34.0)	(25.5)	(51.8)
Hydro/other renewables	4.8	5.4	1.2	0.4	1.4	0.4	0.5
	(19.3)	(11.9)	(7.9)	(7.8)	(16.4)	(10.9)	(21.8)

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

	2016	2017			2018				2019
			3Q	4Q	1Q		3Q	4Q	1Q
GDP (trillion won)	1 706.9 (2.9)	1 760.8 (3.2)	443.7 (3.9)	461.8 (2.8)	428.7 (2.8)	1 807.7 (2.7)	453.0 (2.1)	475.2 (2.9)	435.8 (1.7)
Private consumption	825.7 (2.6)	848.6 (2.8)	213.0 (3.0)	218.2 (3.2)	218.8 (3.6)	872.3 (2.8)	217.8 (2.3)	223.5 (2.4)	222.8 (1.9)
Facilities investment	146.2 (2.6)	170.3 (16.5)	41.1 (17.4)	44.0 (10.4)	44.1 (10.2)	166.2 (-2.4)	37.3 (-9.4)	41.7 (-5.3)	36.4 (-17.4)
Construction investment	263.7 (10.0)	282.9 (7.3)	74.5 (6.9)	75.6 (3.1)	57.1 (1.2)	270.9 (-4.3)	68.0 (-8.7)	71.3 (-5.7)	53.0 (-7.2)
Consumer price index (2015=100)	101.0	102.9	103.3	103.0	103.9	104.5	104.8	104.8	104.5
USD to KRW exchange rate (won)	1 160.8	1 131.0	1 132.3	1 107.5	1 072.7	1 100.2	1 121.5	1 127.4	1 125.1
Benchmark rate (%)	1.4	1.3	1.3	1.4	1.5	1.5	1.5	1.7	1.8
Coincident composite index (2015=100)	103.3	107.2	107.6	108.2	108.7	109.4	109.6	109.8	109.9
Mining & manufacturing production index (2015=100)	102.2	104.7	105.1	105.4	102.3	106.1	105.2	109.9	100.2
Manufacturing operation ratio index (2015=100)	98.9	98.1	98.9	97.1	94.6	98.4	97.0	101.3	92.8
Average temperature	13.6	13.1	24.1	7.3	2.0	13.0	24.8	7.4	3.4
- year-on-year difference	0.2	- 0.5	- 0.4	- 1.6	- 0.7	- 0.1	0.7	0.1	1.4
Heating degree days	2 386.8 (3.9)	2 517.1 (5.5)	2.9 (1350.0)	993.9 (16.8)	1 437.2 (4.4)	2 597.8 (3.2)	5.0 (72.4)	975.9 (-1.8)	1 310.4 (-8.8)
Cooling degree days	154.1 (87.2)	132.7 (-13.9)	130.3 (-15.1)	-	-	209.0 (57.5)	205.5 (57.7)	-	-
Energy intensity	0.17 (-0.5)	0.17 (-0.2)	0.17 (-0.7)	0.17 (1.3)	0.19 (-0.3)	0.17 (-0.9)	0.17 (0.0)	0.17 (-3.9)	0.18 (-3.5)
Per capita consumption									
oil (bbl)	18.0 (7.5)	18.2 (1.5)	4.6 (2.2)	4.8 (0.7)	4.6 (-0.1)	18.0 (-1.3)	4.5 (-1.6)	4.5 (-5.6)	4.5 (-0.8)
Electricity (MWh)	9.7 (2.4)	9.9 (1.9)	2.5 (3.4)	2.4 (2.2)	2.7 (3.9)	10.2 (3.1)	2.7 (4.4)	2.5 (0.9)	2.6 (-1.6)
City gas (1 000 m ³)	0.4 (1.9)	0.4 (6.0)	0.1 (4.9)	0.1 (10.7)	0.2 (9.6)	0.5 (6.7)	0.1 (7.9)	0.1 (1.9)	0.2 (-6.5)
Total energy (toe)	5.7 (2.0)	5.9 (2.7)	1.4 (2.9)	1.5 (3.9)	1.6 (2.0)	6.0 (1.2)	1.5 (1.7)	1.5 (-1.6)	1.5 (-2.1)

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

(2015=100)

2015=100

	2017	2018					2019			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Industrial production index										
All industry	105.7 (2.6)	107.2 (1.4)	103.6 (1.1)	103.9 (4.6)	97.7 (-0.8)	109.1 (-0.5)	103.1 (-0.5)	104.8 (0.9)	95.8 (-1.9)	108.6 (-0.5)
Mining & manufacturing	104.7 (2.5)	106.1 (1.3)	102.3 (-1.1)	105.7 (5.1)	93.1 (-5.7)	108.1 (-2.5)	100.2 (-2.0)	105.5 (-0.2)	89.6 (-3.8)	105.6 (-2.3)
Iron & steel	102.9 (1.7)	99.8 (-3.1)	99.5 (-2.2)	105.6 (2.9)	91.7 (-6.3)	101.2 (-3.3)	97.1 (-2.4)	103.0 (-2.5)	87.8 (-4.3)	100.5 (-0.7)
Cement	110.0 (1.7)	100.1 (-9.0)	87.2 (-14.8)	79.1 (-8.4)	74.4 (-19.6)	108.1 (-15.7)	81.5 (-6.5)	80.0 (1.1)	66.0 (-11.3)	98.5 (-8.9)
Basic compound	110.4 (5.5)	110.4 -	110.7 (0.7)	116.5 (2.6)	103.9 (-0.1)	111.7 (-0.6)	107.1 (-3.3)	112.7 (-3.3)	100.9 (-2.9)	107.7 (-3.6)
Transport equipment	95.0 (-2.7)	93.7 (-1.4)	88.0 (-10.1)	88.9 (1.9)	76.9 (-19.3)	98.2 (-11.6)	90.2 (2.5)	96.3 (8.3)	77.1 (0.3)	97.3 (-0.9)
Electric & electronic	105.5 (2.6)	105.2 (-0.3)	99.7 (-0.4)	100.8 (7.7)	92.2 (-5.2)	106.2 (-3.1)	96.1 (-3.6)	99.3 (-1.5)	86.1 (-6.6)	102.9 (-3.1)
Service	104.5 (1.8)	106.7 (2.1)	103.4 (2.5)	103.0 (3.5)	99.6 (2.2)	107.7 (2.0)	104.5 (1.0)	105.5 (2.4)	99.4 (-0.2)	108.6 (0.8)
Operating ratio index										
Manufacturing	98.1 (-0.9)	98.4 (0.3)	94.6 (-2.3)	97.0 (3.6)	85.8 (-7.1)	100.9 (-3.4)	92.8 (-1.8)	97.3 (0.3)	82.6 (-3.7)	98.6 (-2.3)
Iron & steel	102.3 (1.5)	98.8 (-3.4)	98.4 (-2.5)	104.8 (2.9)	90.6 (-6.8)	99.8 (-3.9)	97.2 (-1.2)	103.1 (-1.6)	87.8 (-3.1)	100.7 (0.9)
Cement	107.4 (0.4)	108.9 (1.4)	90.3 (-9.7)	79.2 (-6.3)	74.5 (-17.6)	117.2 (-6.3)	95.8 (6.1)	105.4 (33.1)	73.7 (-1.1)	108.3 (-7.6)
Basic compound	107.1 (3.6)	104.9 (-2.0)	105.4 (-1.9)	111.1 (0.1)	99.0 (-2.6)	106.2 (-3.3)	101.4 (-3.9)	106.7 (-4.0)	95.5 (-3.5)	101.9 (-4.0)
Transport equipment	87.6 (-6.6)	90.2 (2.9)	83.5 (-8.0)	83.7 (3.2)	72.2 (-18.6)	94.6 (-7.8)	89.6 (7.3)	96.2 (14.9)	76.5 (6.0)	96.0 (1.5)
Electric & electronic	102.5 (0.7)	100.3 (-2.1)	96.3 (-2.5)	97.7 (5.3)	88.6 (-7.6)	102.6 (-4.6)	93.6 (-2.8)	96.0 (-1.7)	84.2 (-5.0)	100.6 (-1.9)

Note: p means provisional
Source: Monthly Energy Statistics

International Energy Prices

	2017	2018					2019			
			M1~5	M3	M4	M5	M1~5	M3	M4	M5
Crude oil (USD/bbl)										
WTI	51.0 (17.6)	64.8 (27.1)	65.0 (27.2)	62.8 (26.4)	66.3 (29.8)	70.0 (44.2)	57.9 (-10.9)	58.2 (-7.3)	63.9 (-3.7)	60.9 (-13.0)
Dubai	53.2 (28.9)	69.4 (30.5)	66.9 (27.5)	62.7 (22.5)	68.3 (30.5)	74.4 (46.7)	66.2 (-1.0)	66.9 (6.7)	70.9 (3.9)	69.4 (-6.8)
Brent	54.8 (21.7)	71.5 (30.5)	70.1 (30.1)	66.7 (27.0)	71.8 (33.3)	77.0 (49.9)	66.7 (-4.8)	67.0 (0.5)	71.6 (-0.2)	70.3 (-8.7)
Unit value of import (C&F)	53.3 (29.9)	71.4 (34.0)	66.8 (25.2)	64.9 (19.6)	66.2 (25.8)	71.2 (36.0)	66.1 (-1.1)	65.3 (0.7)	68.9 (4.0)	71.3 (0.0)
LNG										
From Indonesia (USD/MMBTU)	8.6 (16.7)	10.7 (24.0)	9.9 (16.6)	10.1 (22.6)	10.1 (15.1)	10.3 (12.7)	11.1 (12.1)	11.3 (11.7)	10.3 (1.8)	10.3 (0.2)
Unit value of import (USD/ton, CIF)	416.3 (16.7)	526.3 (26.4)	490.7 (18.0)	488.5 (19.8)	484.5 (18.5)	510.1 (17.9)	546.1 (11.3)	565.5 (15.8)	481.9 (-0.6)	481.9 (-5.5)
Bituminous coal (USD/ton)										
From Australia	88.5 (33.9)	107.0 (20.9)	101.6 (26.2)	96.7 (19.5)	93.7 (12.0)	105.3 (41.5)	91.2 (-10.2)	93.1 (-3.7)	86.8 (-7.4)	82.3 (-21.8)
Unit value of import (CIF)	104.3 (51.5)	113.6 (8.9)	114.0 (6.4)	119.5 (8.2)	113.7 (11.1)	114.8 (1.8)	109.9 (-3.6)	113.0 (-5.4)	107.7 (-5.3)	111.8 (-2.6)
Petroleum product (USD/bbl)										
Gasoline	68.1 (21.2)	79.9 (17.4)	80.4 (19.5)	77.1 (20.0)	81.5 (20.3)	87.6 (35.2)	71.8 (-10.7)	74.4 (-3.5)	80.8 (-0.8)	76.3 (-12.9)
Kerosene	65.3 (23.6)	84.8 (29.8)	83.0 (30.4)	79.0 (27.6)	85.2 (33.2)	89.9 (47.3)	78.7 (-5.2)	79.8 (1.1)	82.6 (-3.0)	81.5 (-9.3)
Diesel	66.4 (25.2)	84.9 (27.9)	82.6 (27.7)	78.4 (24.2)	84.3 (29.6)	90.5 (46.0)	79.7 (-3.5)	81.0 (3.4)	83.3 (-1.2)	82.7 (-8.6)
Bunker-C	49.7 (40.2)	65.2 (31.3)	60.4 (24.8)	57.0 (23.4)	61.0 (27.1)	68.1 (43.7)	63.8 (5.7)	66.2 (16.2)	66.8 (9.5)	64.4 (-5.3)
Propane	467.5 (44.6)	542.1 (16.0)	514.0 (14.7)	480.0 -	475.0 (10.5)	500.0 (29.9)	480.0 (-6.6)	490.0 (2.1)	515.0 (8.4)	525.0 (5.0)
Butane	501.7 (41.0)	539.2 (7.5)	503.0 (-2.3)	465.0 (-22.5)	470.0 (-4.1)	505.0 (29.5)	495.0 (-1.6)	520.0 (11.8)	535.0 (13.8)	530.0 (5.0)
Naphtha	53.8 (26.6)	67.0 (24.5)	66.3 (26.0)	62.9 (24.1)	66.9 (28.2)	74.5 (53.2)	58.3 (-12.2)	60.1 (-4.5)	63.2 (-5.4)	60.0 (-19.5)

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)

	2017	2018p					2019p			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Coal (Mton)	139.8 (8.1)	143.2 (2.5)	37.4 (6.3)	13.5 (6.1)	12.1 (11.0)	11.9 (2.2)	33.6 (-10.2)	12.3 (-8.6)	11.0 (-9.3)	10.3 (-13.0)
- Coking coal excluded	103.5 (7.9)	106.4 (2.8)	28.5 (8.5)	10.3 (8.2)	9.3 (14.8)	8.9 (2.8)	25.0 (-12.2)	9.4 (-9.0)	8.3 (-11.3)	7.4 (-16.8)
Oil (Mbbbl)	937.1 (1.7)	929.3 (-0.8)	235.8 (0.4)	83.8 (4.9)	74.7 (0.1)	77.4 (-3.9)	234.5 (-0.6)	84.9 (1.3)	73.1 (-2.0)	76.5 (-1.2)
- Non-energy oil excluded	443.7 (-2.5)	444.4 (0.2)	115.2 (3.6)	41.1 (7.5)	36.1 (0.1)	38.0 (2.9)	115.6 (0.4)	42.6 (3.7)	35.0 (-2.8)	38.0 (-0.2)
LNG (Mton)	36.4 (4.3)	40.9 (12.4)	13.6 (16.1)	5.3 (24.0)	4.4 (11.9)	3.9 (11.2)	12.4 (-8.8)	4.9 (-8.6)	3.9 (-10.3)	3.6 (-7.5)
Hydro (TWh)	7.0 (5.5)	7.3 (4.0)	1.4 (-10.0)	0.5 (-8.9)	0.4 (-13.4)	0.5 (-7.6)	1.5 (6.2)	0.6 (14.6)	0.5 (6.7)	0.4 (-3.1)
Nuclear (TWh)	148.4 (-8.4)	133.5 (-10.1)	27.9 (-27.9)	9.8 (-25.0)	8.8 (-29.0)	9.2 (-29.8)	37.3 (34.0)	12.3 (24.7)	11.0 (25.5)	14.0 (51.8)
Others (Mtoe)	15.8 (16.7)	17.5 (10.5)	4.3 (9.8)	1.4 (7.5)	1.4 (12.9)	1.5 (9.1)	4.8 (11.2)	1.6 (11.2)	1.6 (9.1)	1.6 (13.3)
TPES (Mtoe)	302.1 (2.9)	307.3 (1.7)	81.3 (2.4)	29.5 (6.3)	26.0 (2.6)	25.8 (-1.8)	79.8 (-1.9)	29.0 (-1.7)	25.2 (-3.2)	25.6 (-0.7)
- Non-energy oil excluded	240.7 (2.2)	247.1 (2.7)	66.4 (3.7)	24.2 (7.2)	21.2 (3.2)	20.9 (0.3)	65.0 (-2.0)	23.8 (-1.9)	20.4 (-3.8)	20.8 (-0.5)
- Non-energy oil&coal excluded	215.4 (1.6)	221.4 (2.8)	60.1 (4.1)	22.1 (8.0)	19.3 (3.6)	18.8 (0.3)	59.0 (-1.9)	21.8 (-1.4)	18.5 (-3.9)	18.7 (-0.3)

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

Share of TPES by Sources

(unit: %)

	2017	2018p					2019p			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Coal	28.5	28.7	28.3	28.0	28.7	28.4	25.9	26.0	26.9	24.9
- Coking coal excluded	20.2	20.3	20.6	20.6	21.1	20.3	18.4	19.0	19.3	16.9
Oil	39.5	38.4	36.9	36.2	36.4	38.2	37.4	37.1	36.9	38.1
- non-energy oil excluded	19.2	18.9	18.5	18.3	18.0	19.2	18.9	19.1	18.1	19.4
LNG	15.7	17.4	21.8	23.5	21.9	19.8	20.3	21.9	20.3	18.5
Hydro	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Nuclear	10.5	9.3	7.3	7.1	7.2	7.6	10.0	9.0	9.3	11.7
Others	5.2	5.7	5.3	4.9	5.6	5.6	6.1	5.5	6.3	6.4
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)

	2017	2018p					2019p			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Industry	144.3 (4.7)	146.3 (1.4)	36.4 (0.5)	12.8 (3.1)	11.6 (2.7)	12.0 (-4.2)	36.1 (-0.7)	12.6 (-1.5)	11.5 (-0.6)	12.0 (0.2)
Transport	42.8 (1.2)	42.6 (-0.5)	10.2 (0.6)	3.5 (7.1)	3.1 (-4.3)	3.6 (-0.9)	10.7 (4.5)	3.8 (7.8)	3.2 (3.6)	3.6 (2.0)
Residential-commercial	39.9 (3.0)	41.7 (4.4)	15.2 (9.4)	5.7 (13.9)	5.4 (11.5)	4.0 (1.0)	14.3 (-6.1)	5.6 (-3.0)	4.8 (-11.4)	3.9 (-3.4)
Public	6.9 (11.0)	7.4 (6.6)	2.1 (9.3)	0.7 (12.5)	0.7 (10.1)	0.6 (4.9)	2.1 (0.3)	0.8 (4.0)	0.7 (-3.3)	0.6 (-0.0)
TFC	233.9 (3.9)	237.9 (1.7)	63.9 (2.7)	22.8 (6.5)	20.9 (3.9)	20.2 (-2.3)	63.2 (-1.1)	22.7 (-0.3)	20.3 (-2.9)	20.1 (-0.2)
Coal (Mton)	50.4 (2.7)	51.5 (2.2)	12.4 (-2.3)	4.4 (-3.7)	3.9 (3.5)	4.1 (-6.1)	12.0 (-3.9)	3.9 (-10.0)	3.9 (-0.0)	4.1 (-1.3)
Oil (Mbbbl)	926.6 (3.0)	917.8 (-0.9)	230.4 (-0.1)	81.8 (4.8)	72.8 (-0.1)	75.8 (-5.0)	231.6 (0.5)	83.9 (2.6)	72.5 (-0.4)	75.2 (-0.8)
Electricity (TWh)	507.7 (2.2)	526.1 (3.6)	138.0 (4.4)	48.4 (7.0)	46.7 (5.2)	42.9 (0.9)	136.1 (-1.4)	48.6 (0.6)	44.4 (-5.1)	43.1 (0.4)
City gas (Bm ³)	22.6 (6.3)	24.2 (7.2)	9.3 (10.1)	3.5 (16.6)	3.2 (10.2)	2.6 (2.0)	8.8 (-6.3)	3.4 (-4.6)	2.9 (-11.0)	2.5 (-2.6)
Heat-others (1 000 toe)	15.0 (14.0)	16.4 (9.3)	4.8 (10.9)	1.7 (9.8)	1.7 (16.7)	1.4 (6.3)	4.9 (3.5)	1.7 (4.0)	1.6 (-0.6)	1.5 (7.6)

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

Share of the Total Final Consumption by Sources

(unit: %)

	2017	2018p					2019p			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Industry	61.7	61.5	57.0	56.2	55.6	59.3	57.2	55.5	56.9	59.5
Transport	18.3	17.9	16.0	15.4	15.0	17.6	16.9	16.6	16.0	18.0
Residential-commercial	17.1	17.5	23.8	25.2	26.0	19.9	22.6	24.5	23.7	19.3
Public	3.0	3.1	3.3	3.2	3.4	3.2	3.3	3.4	3.4	3.2
Final energy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Coal	14.3	14.3	12.9	12.6	12.5	13.6	12.5	11.5	12.8	13.4
Oil	50.4	49.0	45.7	45.5	44.0	47.6	46.5	46.8	45.3	47.4
Electricity	18.7	19.0	18.6	18.2	19.2	18.3	18.5	18.4	18.8	18.4
City gas	10.3	10.9	15.4	16.3	16.3	13.4	14.7	15.7	15.0	13.1
Heat-others	6.4	6.9	7.4	7.3	7.9	7.1	7.8	7.6	8.1	7.6

Note: p means provisional
Source: Monthly Energy Statistics

Statistics on Energy Production Facilities

	2016	2017	2018				2019p		
				M1	M2	M3	M1	M2	M3
Total capacity (GW)	105.9	116.9	119.1	116.4	116.4	116.7	119.4	119.4	119.8
	-	(10.4)	(1.9)	(9.6)	(8.7)	(6.6)	(2.5)	(2.5)	(2.6)
Nuclear	23.1	22.5	21.9	22.5	22.5	22.5	21.9	21.9	21.9
	-	(-2.5)	(-3.0)	(-2.5)	(-2.5)	(-2.5)	(-3.0)	(-3.0)	(-3.0)
Bituminous coal	30.9	36.1	36.4	36.1	36.1	36.1	36.5	36.5	36.5
	-	(16.8)	(0.7)	(16.5)	(16.5)	(14.3)	(1.0)	(1.0)	(1.0)
Gas	32.6	37.9	37.9	37.4	37.4	37.4	37.9	37.9	37.9
	-	(16.0)	(-0.0)	(14.6)	(11.7)	(6.2)	(1.3)	(1.3)	(1.3)
Refinery capacity (mil BPSD)	3.1	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	(0.2)	(1.3)	(3.2)	(3.2)	(3.2)	(3.2)	-	-	-

Note: () is year-on-year growth rates (%)
Source: The monthly report on major electric power statistics

Statistics on Energy Consumption

	2016	2017	2018				2019p		
				M1	M2	M3	M1	M2	M3
The number of household demanding city gas (mil)	18.0	18.6	19.1	18.7	18.7	18.8	19.3	19.2	19.2
	(3.4)	(3.3)	(3.1)	(3.4)	(3.3)	(3.3)	(3.3)	(2.7)	(2.6)
Registered cars (mil)	21.8	22.5	23.2	22.6	22.6	22.7	23.3	23.3	23.3
	n.a	(3.3)	(3.0)	(3.2)	(3.2)	(3.2)	(3.0)	(2.9)	(2.8)
- gasoline	10.1	10.4	10.6	10.4	10.4	10.4	10.7	10.7	10.7
	n.a	(2.7)	(2.5)	(2.6)	(2.7)	(2.6)	(2.5)	(2.4)	(2.4)
- diesel	9.2	9.6	9.9	9.6	9.6	9.7	10.0	10.0	10.0
	n.a	(4.4)	(3.7)	(4.3)	(4.2)	(4.1)	(3.7)	(3.6)	(3.2)
- LPG	2.2	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0
	n.a	(-2.9)	(-3.3)	(-3.0)	(-3.0)	(-3.0)	(-3.3)	(-3.3)	(-3.2)
- hybrid	0.2	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4
	n.a	(37.6)	(30.9)	(37.6)	(37.7)	(38.1)	(30.7)	(30.3)	(29.5)

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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