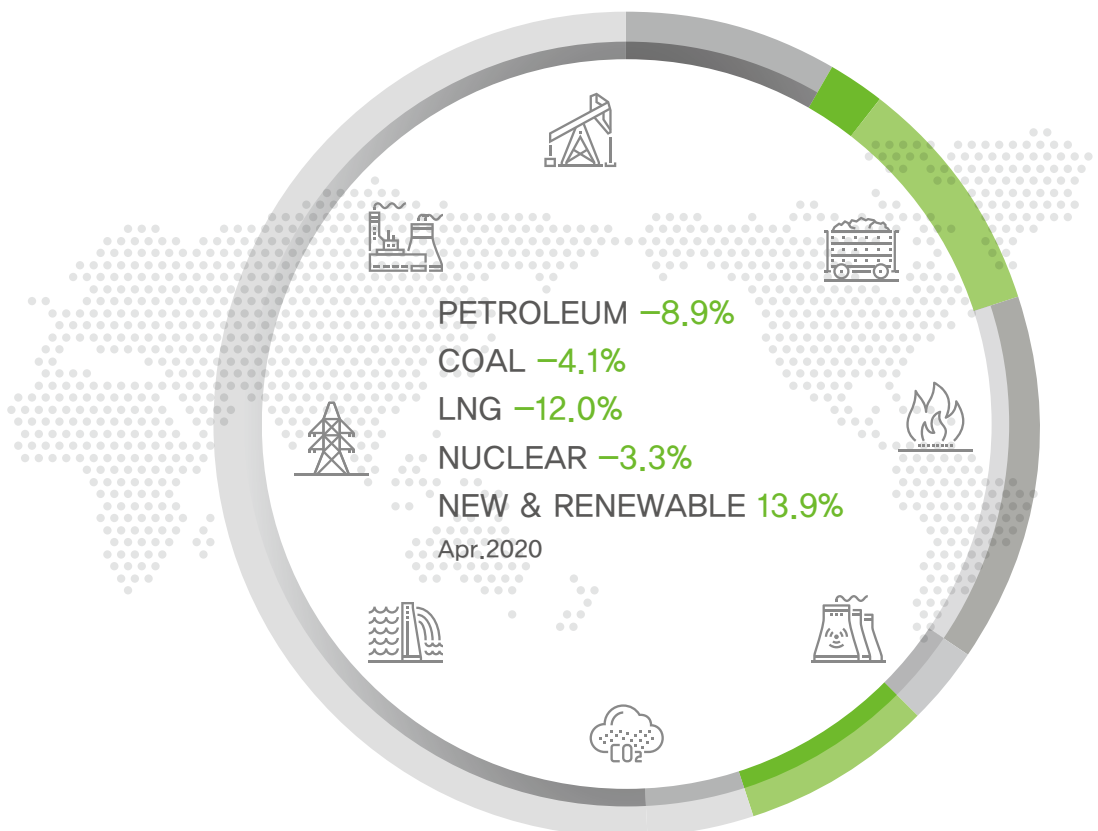


KEEI

MONTHLY KOREA ENERGY TRENDS

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**This publication is derived from Energy Demand & Supply
Statistics issued until April 2020 and Energy Price Statistics
issued until June 2020.**

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1. The Economy and the Industry

- ☐ **The mining & manufacturing production index dropped by 5.1% year-on-year in April, as the production declined in all major industries except the semiconductor sector due to the COVID-19 pandemic.**
 - The semiconductor production index posted a year-on-year growth of 17.3% in April, though the growth rate was much lower than the previous month, while its export volume declined (-12.0%) due to the global economic slowdown triggered by the COVID-19 pandemic.
 - The production index of basic chemical materials dropped by 6.7% year-on-year in April, as their export volume was driven down by weak global demand amid the COVID-19 outbreak.
 - The production index of refined petroleum products fell by 13.5% year-on-year in April, because oil refiners conducted more regular maintenance due to a sharp drop in global petroleum demand as a result of the COVID-19 outbreak.
 - The iron & steel production index was down 7.7% year-on-year in April, owing to the weak performance of those industries that are major source of demand (automobile, construction, shipbuilding), and accordingly plunging export volume (-16.3%).
 - The automobile production index declined by 19.5% year-on-year in April, as the number of automobiles exported fell by 44.6% due to the lockdown measures in major markets such as the US and Europe.
- ☐ **The service production index went down by 6.1% year-on-year in April due to the impact of COVID-19 especially in the sectors where face-to-face service is necessary.**
 - The service production index dropped faster than the previous month amid the spreading covid-19, led by the restaurant & accommodation (-24.6%), wholesale & retail (-7.6%) and art & sports & leisure (-45.4%) and education (-7.5%) sectors.

► Major economic and industrial indicators

	2019p			2020p			
		M1~4	M4	M1~4	M2	M3	M4
GDP (trillion won)	1 849.0	437.2	-	443.2	-	443.2	-
	(2.0)	(1.8)	-	(1.4)	-	(1.4)	-
Total export (\$billion, customs clearance basis)	539.9	181.4	48.8	166.6	40.9	46.3	36.3
	(-10.7)	(-6.9)	(-2.1)	(-8.2)	(3.5)	(-1.6)	(-25.5)
Industrial production index (2015=100)	106.3	101.8	106.8	104.3	99.7	113.8	101.4
	(-0.0)	(-1.7)	(0.4)	(2.4)	(11.3)	(7.7)	(-5.1)
Semi-conductors	188.1	153.4	164.4	209.7	207.4	231.6	192.8
	(11.7)	(2.9)	(1.2)	(36.7)	(46.8)	(45.3)	(17.3)
Basic compound	107.5	107.2	102.8	105.0	106.4	104.6	95.9
	(-2.6)	(-3.3)	(-7.4)	(-2.0)	(4.0)	(-4.3)	(-6.7)
Steel	98.3	98.7	100.2	95.5	95.2	99.3	92.5
	(-2.2)	(-1.6)	(-0.9)	(-3.3)	(6.6)	(-2.1)	(-7.7)
Cars	93.1	93.3	101.7	81.5	65.0	101.7	81.9
	(-0.9)	(2.9)	(3.7)	(-12.7)	(-15.9)	(4.1)	(-19.5)
Service production index (2015=100)	108.4	105.4	107.7	102.9	100.6	103.3	101.1
	(1.4)	(1.1)	(1.5)	(-2.3)	(1.2)	(-5.0)	(-6.1)
Wholesale & Retail	104.6	102.8	105.5	98.4	92.1	100.9	97.5
	(-0.4)	(-0.8)	(-0.8)	(-4.3)	(-0.4)	(-6.5)	(-7.6)
Restaurant & Accommodation	97.5	93.7	96.0	76.3	73.8	64.2	72.4
	(-1.0)	(-1.1)	(-0.9)	(-18.5)	(-14.9)	(-32.5)	(-24.6)

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 rose by 31.1% in June than the prior month as a result of the extended oil output reduction. On a year-on-year basis, however, it fell by 33.2%.**

- Global oil price continued to increase in June, as the OPEC+ members agreed to extend production cuts until July at the same level as in May and June, and there was expectation that the petroleum demand would recover in China, India and elsewhere.
- However, the growth was partially offset by growing concerns over repeated waves of COVID-19; the number of confirmed cases surpassed 2 million in the US after the travel ban was eased, and it amounted to 300,000 just within a week in the last week of June.

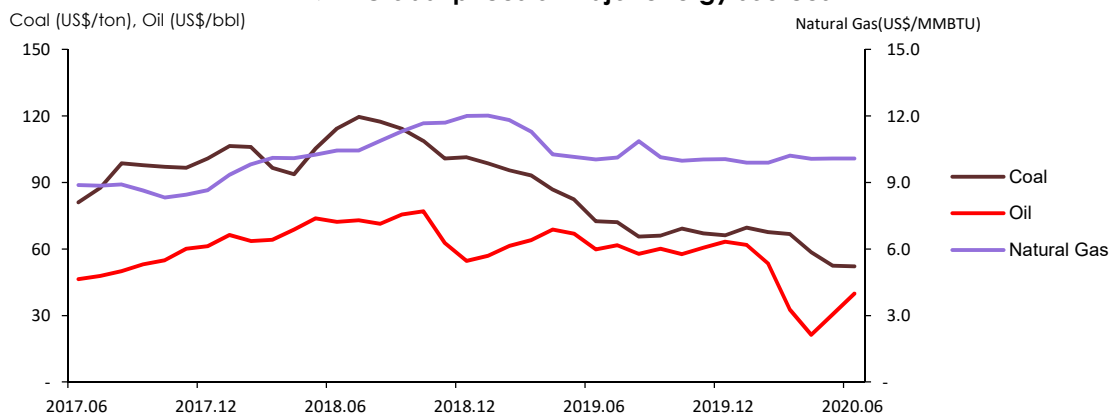
► Global energy prices

	2018	2019				2020			
			M4	M5	M6		M4	M5	M6
Crude oil (US\$/bbl)	68.6	61.6	68.8	66.9	59.8	21.2	30.5	40.0	
	(29.5)	(-10.2)	(0.0)	(-9.4)	(-17.2)	(-69.1)	(-54.4)	(-33.2)	
Natural gas (US\$/MMBTU)	10.7	10.6	10.3	10.1	10.0	10.1	10.1	10.1	
	(24.0)	(-1.1)	(1.7)	(-1.0)	(-3.8)	(-2.0)	(-0.7)	(0.3)	
Coal (US\$/ton)	107.0	77.9	86.8	82.3	72.5	58.6	52.5	52.2	
	(20.9)	(-27.3)	(-7.4)	(-21.8)	(-36.6)	(-32.5)	(-36.2)	(-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, World Bank(Commodity Markets)

► Global prices of major energy sources



Domestic energy prices

- **Gasoline and diesel prices rose by around 5% in June from the previous month in the midst of the global oil price increase, but the prices fell by over 10% on a year-on-year basis.**
 - The average prices of gasoline and diesel at gas stations grew by 5.4% and 5.8% respectively in June than the prior month, as their global prices increased, affect by oil production countries' compliance with the production cuts and recovery in petroleum demand.
 - In May, bunker-C price dropped by 15.9% from the previous month and 41.9% from the same month last year due to the global oil price decline amid the COVID-19 pandemic and weak demand as a result of the International Maritime Organization (IMO)'s environmental regulation.
- **Propane and butane prices increased in June compared to the previous month in line with the global price trend, while they declined on a year-on-year basis.**
 - Domestic prices of propane and butane rose by 2.3% and 3.4% respectively in June than a month ago, as domestic LPG suppliers increased their prices (KRW55~56/kg) reflecting the growth in Saudi Aramco's propane and butane prices in May (47.8%, 41.7%).

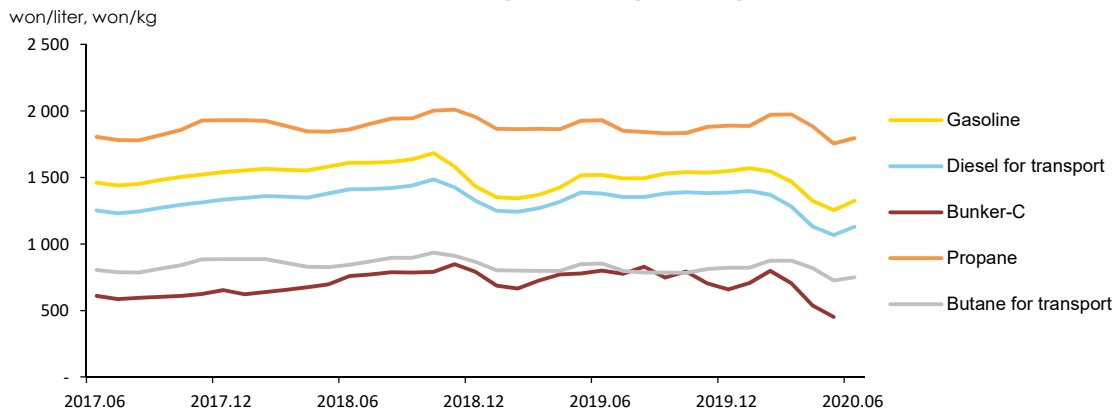
► Domestic petroleum product prices

	2018	2019				2020		
			M4	M5	M6		M4	M5
Gasoline (won/liter)	1 581.4 (6.0)	1 472.3 (-6.9)	1 424.4 (-8.2)	1 517.2 (-4.0)	1 517.5 (-5.7)	1 323.7 (-7.1)	1 255.1 (-17.3)	1 322.9 (-12.8)
Diesel for transport (won/liter)	1 392.0 (8.5)	1 340.4 (-3.7)	1 316.4 (-2.4)	1 385.3 (0.4)	1 379.8 (-2.1)	1 132.4 (-14.0)	1 065.8 (-23.1)	1 127.9 (-18.3)
Bunker-C (won/liter)	735.2 (18.7)	744.2 (1.2)	771.1 (14.3)	777.0 (11.7)	799.2 (5.2)	536.7 (-30.4)	451.3 (-41.9)	-
Propane (won/kg)	1 920.5 (4.7)	1 869.6 (-2.7)	1 863.6 (1.0)	1 924.1 (4.4)	1 929.0 (3.7)	1 885.5 (1.2)	1 753.8 (-8.9)	1 794.5 (-7.0)
Butane for transport (won/liter)	874.6 (5.8)	806.2 (-7.8)	796.5 (-3.9)	847.6 (2.5)	851.6 (0.9)	818.4 (2.8)	725.0 (-14.5)	749.5 (-12.0)

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

Source: www.opinet.co.kr

► Domestic petroleum product prices



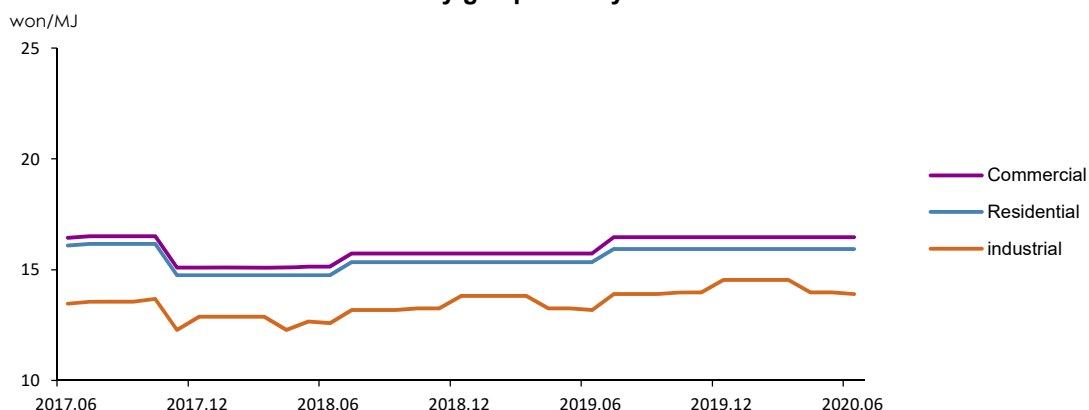
☐ **City gas price has been flat for the past twelve months until June, since it was raised in July, 2019.**

- City gas price had been fixed since July 2018 despite the upward trend in global LPG price in order to alleviate economic burdens on people. The price, however, was raised in July 2019 for the first time in a year to collect accounts receivable that were accumulated during the price-fixing period.

☐ **Heat energy price has been flat for eleven consecutive months until June, since it was raised in August 2019.**

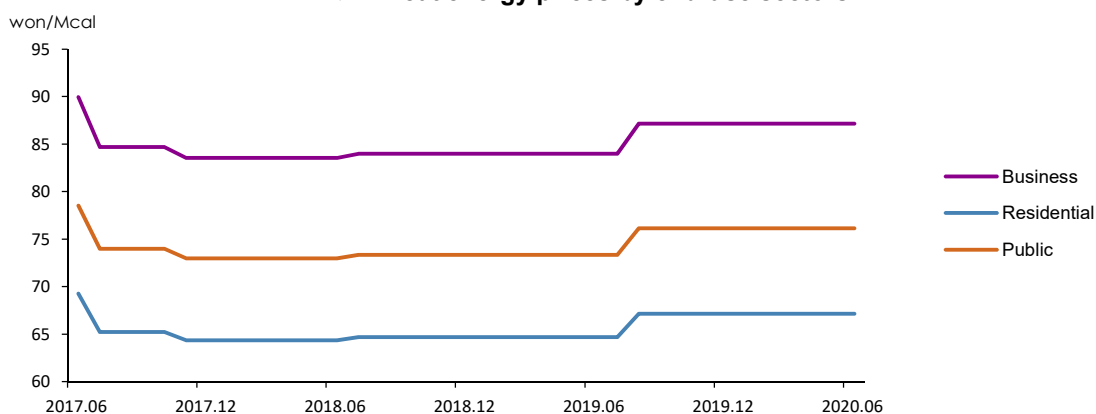
- Heat energy price was raised in August 2019 for the first time in 13 months (since July 2018), reflecting the city gas price increase in July and the energy tax reform.

► **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 pricing system since July 2012. Figures before that are converted based on standard calorie (additional tax, base charge excluded)

► **Heat energy prices by end-use sectors**



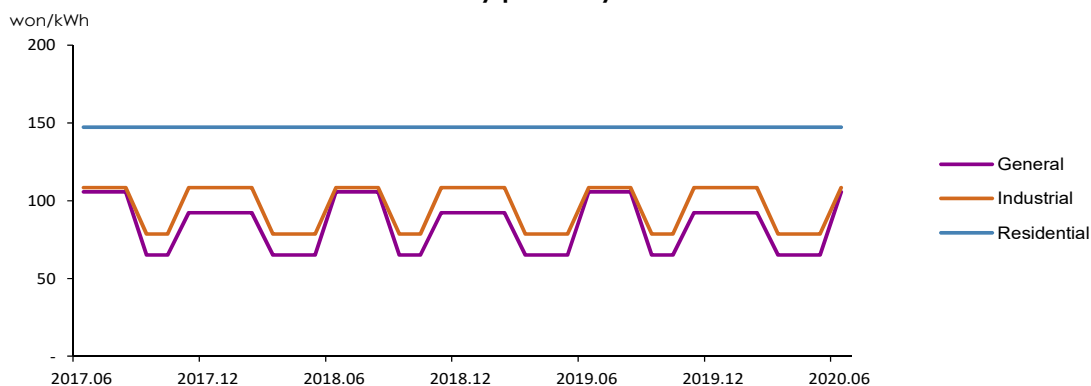
□ **Electricity prices¹ for general and industrial use increased in June due to the price adjustment of the summer season, and the residential electricity price was the same as the previous month.**

- Electricity prices for general and industrial use, which are based on time-of-use pricing, remained the same after the price adjustment from spring/autumn (Mar-May, Sept-Oct) to summer (June-Aug).
- Residential electricity price has been flat since the progressive pricing scheme was restructured from six to three stages in December 2016.

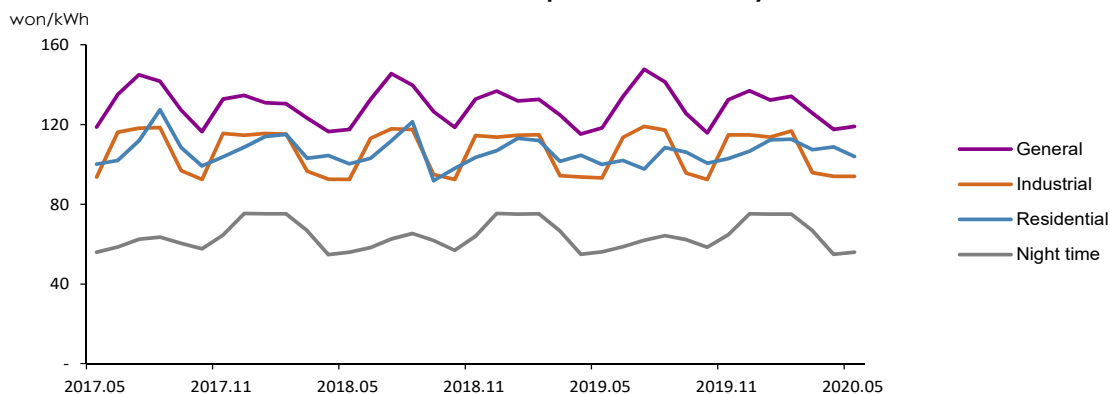
□ **The unit sales price of electricity for residential use declined in May from the previous month, while that for industrial and general use increased.**

- The unit sales price of residential electricity, which is subject to the progressive pricing scheme, fell by 4.3% in May from the previous month, as electricity consumption declined due to holidays.
- The unit sales price of electricity for industrial and general use slightly increased (0.1%, 1.4%), even though the electricity sales volume declined from a month ago.

► **Electricity prices by end-use sectors**



► **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 was down 6.9% year-on-year in April, as the import of all energy resources declined except anthracite.**
 - The import volume of petroleum products dropped by 5.2% year-on-year in April, led by a sharp drop in naphtha import (-16.5%).
 - The LNG import had been growing rapidly due to the increased gas use for power generation, but it started a downward trend (in April) along with decreased gas-fired generation.
- **Power generation from renewable & “the other” energy sources posted a year-on-year growth of 13.9%, led by a surge in solar PV and wind power generation.**
 - Renewable generation, except “the other” energy (waste), grew by 59.0% on a year-on-year basis.

Import and domestic production of energy

	2019p			2020p			
		M1~4	M4	M1~4	M2	M3	M4
Import volume							
Crude oil (Mbbbl)	1 071.9 (-4.0)	374.4 (2.8)	95.7 (9.8)	345.4 (-7.7)	86.3 (-12.3)	84.1 (-3.5)	82.3 (-14.0)
Petroleum product (Mbbbl)	352.1 (3.1)	103.0 (-8.1)	26.2 (-2.7)	127.6 (23.9)	31.7 (40.2)	31.7 (32.1)	24.8 (-5.2)
Bituminous coal (Mton)	132.7 (0.9)	41.8 (-8.5)	10.1 (-17.7)	37.2 (-11.1)	8.4 (-21.7)	8.6 (5.5)	9.9 (-1.6)
Anthracite (Mton)	6.9 (-15.6)	2.5 (-1.7)	0.5 (-27.0)	2.0 (-20.4)	0.3 (-62.8)	0.5 (-25.8)	0.6 (6.0)
LNG (Mton)	40.8 (-7.4)	13.7 (-15.2)	3.3 (4.3)	15.5 (13.2)	4.7 (24.9)	3.5 (28.1)	3.1 (-7.3)
Import volume (Mtoe)	349.1 (-1.5)	114.4 (-3.8)	28.0 (-3.3)	114.2 (-0.1)	28.8 (1.9)	27.9 (7.1)	26.0 (-6.9)
Import value (billion US\$, CIF)	126.7 (-13.2)	43.3 (-4.5)	11.1 (2.9)	38.3 (-11.5)	10.7 (-3.9)	8.9 (-9.3)	6.5 (-41.6)
Energy share of total import value (%)	25.2	25.8	24.6	23.9	28.9	21.2	17.1
Foreign energy dependence (%)*	93.4	93.6	93.2	92.9	93.2	92.5	91.9
Domestic production							
Hydropower (TWh)	6.2 (-14.3)	2.0 (5.7)	0.5 (6.0)	2.1 (5.9)	0.5 (12.2)	0.5 (18.6)	0.5 (-3.3)
Anthracite (Mton)	1.1 (-9.5)	0.4 (-18.3)	0.1 (-11.9)	0.4 (-4.0)	0.1 (11.1)	0.1 (10.0)	0.1 (-12.5)
Natural gas (Mton)	0.2 (-21.5)	0.1 (-29.0)	0.0 (-6.9)	0.1 (5.4)	0.0 (-9.7)	0.0 (-12.4)	0.0 (-23.2)
Renewable energy (Mtoe)	17.9 (4.7)	6.0 (6.1)	1.5 (2.1)	6.4 (6.2)	1.5 (10.3)	1.7 (6.5)	1.7 (13.9)

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

4. Energy Consumption

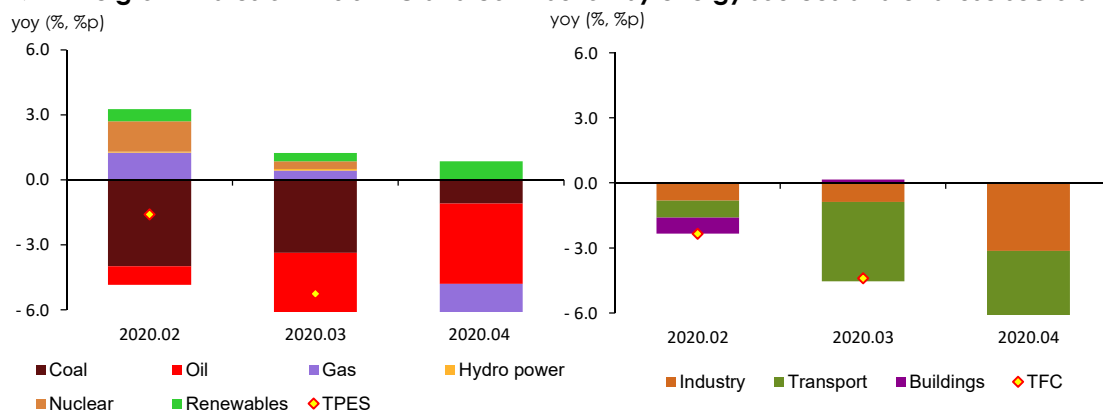
- **Total Primary Energy Supply (“TPES”) was down 6.5% year-on-year in April, as the use of petroleum and gas fell sharply.**
 - Petroleum use dropped by 8.9% year-on-year, as COVID-19 dealt a blow to not only the transport sector, but also the industrial production, causing a drop in naphtha use and a slower growth in LPG use as feedstock.
 - Gas use fell by 12.0% year-on-year, as gas-fired generation, which is a close substitute for coal, dropped by 19.6%. Instead, coal-fired generation grew by 1.7%, after the seasonal fine dust management period ended.
 - Coal use dropped by 4.1% year-on-year, despite a sharp drop in its industrial demand (-9.1%), as it fell by mere 0.3% in the transformation sector.
- **Total Final Consumption (“TFC”) declined by 7.7% year-on-year (in April) due to the impact of the COVID-19 outbreak, and it slightly increased only in the residential sector.**
 - Transport energy consumption posted a year-on-year drop of 21.3%, as travel demand has continuously plunged in the road transport and aviation sectors since March and until April, affected by the COVID-19 pandemic.
 - Industrial energy consumption was down 5.2% year-on-year, as the impact of COVID-19 was felt in the sector, and the manufacturing operating ratio index fell by 9.1% on a year-on-year basis.
 - The social distancing measure against the COVID-19 outbreak continued to have a contrasting impact in buildings’ energy consumption; energy consumption grew by 4.5% in residential buildings while it fell by 8.2% in commercial and public buildings.

► Energy consumption

	2019p			2020p			
		M1~4	M4		M1~4	M2	M3
Total energy (Mtoe)	303.4	104.6	24.3	99.2	24.8	24.4	22.8
	(-1.3)	(-0.4)	(1.3)	(-5.2)	(-1.6)	(-5.3)	(-6.5)
- Non-energy oil&coal excluded	219.7	77.1	17.6	72.3	18.2	17.7	16.5
	(-1.5)	(-0.2)	(3.2)	(-6.2)	(-2.0)	(-6.4)	(-6.3)
Final energy (Mtoe)	231.2	81.3	19.1	77.4	19.4	18.9	17.7
	(-0.6)	(0.1)	(1.5)	(-4.8)	(-2.3)	(-4.4)	(-7.7)

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

► The growth rates of TPES & TFC and contribution by energy sources and end-use sectors



5. Coal

□ Coal consumption fell more slowly by 4.1% in April, as the consumption returned to the level of the same month last year in the power generation sector.

- Industrial coal use posted a year-on-year decline of 9.1%, led by a sharp decline in bituminous coal use for steelmaking, although the cement sector's bituminous coal use decreased at slower pace, and anthracite use increased.
- Coal use for power generation was almost flat in April compared to the same month last year, even though electricity demand fell sharply by 4.6%, because the seasonal fine dust management period ended, and it led to the increased outputs and capacity factors at coal-fired power plants.
- Coal use in buildings fell by 3.7% year-on-year in April, as heating demand usually declines at this time of year, and the service sector slowed down, although the number of heating degree days grew by 18.1% on a year-on-year basis.

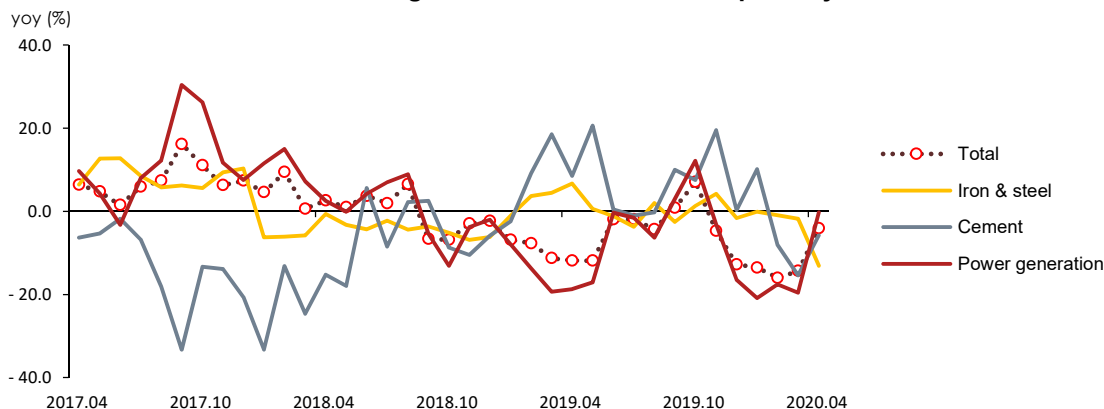
► Coal consumption

	2019p			2020p			
		M1~4	M4	M1~4	M2	M3	M4
Coal (Mton)	133.0	43.0	9.3	37.7	9.3	8.9	8.9
	(-5.7)	(-9.3)	(-11.9)	(-12.3)	(-16.0)	(-14.3)	(-4.1)
Industry	47.6	15.9	4.0	14.8	3.4	3.8	3.6
	(-1.6)	(1.6)	(-0.6)	(-6.6)	(-13.3)	(-6.5)	(-9.1)
-Coking-coal	35.0	11.5	2.9	11.1	2.7	2.9	2.5
	(1.0)	(3.4)	(6.7)	(-4.0)	(-0.9)	(-1.8)	(-13.1)
Buildings	0.6	0.2	0.0	0.2	0.0	0.0	0.0
	(-29.8)	(-30.0)	(-18.2)	(-21.7)	(-15.8)	(-2.6)	(-3.7)
Power generation	84.8	27.0	5.3	22.7	5.8	5.0	5.3
	(-7.6)	(-14.5)	(-18.7)	(-15.7)	(-17.5)	(-19.6)	(-0.3)

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 was down 8.9% year-on-year in April, as the consumption was stagnant or declined in all end-use sectors due to the COVID-19 pandemic.**

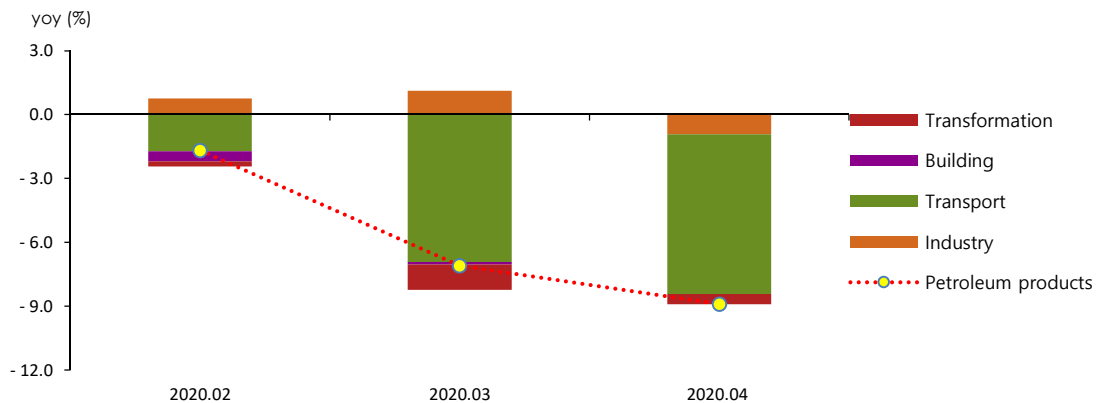
- Industrial petroleum consumption dropped by 1.6% in April from the same month last year, especially naphtha (-8.2%), although LPG consumption rose by 26.9%.
- Transport petroleum consumption was down 21.6% year-on-year in April as a result of decreased travel demand during the COVID-19 outbreak, even though domestic retail price of gasoline continuously declined to a 12-year low of around KRW 1,200 in line with the global oil price decline.

► Petroleum product consumption by end-use sectors

	2019p	M1~4		2020p			
			M4	M1~4	M2	M3	M4
Petroleum (Mbbbl)	928.4	310.1	75.6	292.6	71.9	71.1	68.9
	(-0.4)	(-0.9)	(-1.1)	(-5.6)	(-1.7)	(-7.1)	(-8.9)
Industry	567.2	183.1	44.3	185.6	44.8	45.9	43.6
	(0.6)	(-2.1)	(-6.1)	(1.4)	(1.3)	(1.9)	(-1.6)
-Naphtha	438.6	145.4	34.6	141.4	35.5	34.6	31.8
	(-2.8)	(-4.0)	(-7.9)	(-2.8)	(-0.1)	(-3.0)	(-8.2)
Transport	300.3	101.8	26.3	85.4	21.8	20.3	20.7
	(-0.7)	(4.3)	(5.9)	(-16.1)	(-5.4)	(-20.7)	(-21.6)
Buildings	52.8	21.6	4.3	19.7	4.9	4.5	4.3
	(-1.7)	(-2.4)	(7.3)	(-8.9)	(-6.8)	(-2.1)	(0.0)
Power generation	8.1	3.6	0.7	1.9	0.4	0.4	0.3
	(-30.8)	(-40.9)	(61.2)	(-45.9)	(-28.3)	(-69.2)	(-51.0)

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

► The growth rates of petroleum product consumption & contribution(%p) by end-use sectors



7. Gas

□ **Natural gas consumption fell by 12.0% year-on-year in April, as it declined in both of the city gas production and power generation sectors.**

- Gas use for power generation dropped by 22.7% year-on-year partly due to lower power demand (-4.6%), and as baseload generation accounted for a larger share of the total generation after the seasonal fine dust management finished at coal-fired power plants.

□ **City gas consumption decreased by 6.8% year-on-year (in April), with the industrial and buildings sectors leading the downward trend.**

- Industrial city gas use fell by 10.9% year-on-year; it declined in the petrochemical (-13.7%) and primary metals (-10.6%) sectors, and it increased only in the fabricated metals sector (4.4%).
- City gas use rose by 2.6% in residential buildings and fell by 22.0% and 15.7% in commercial and public buildings after social distancing and stay-at-home measures were promoted to curb the spread of the coronavirus, and consequently, the total city gas use in buildings fell by 3.0% on a year-on-year basis.

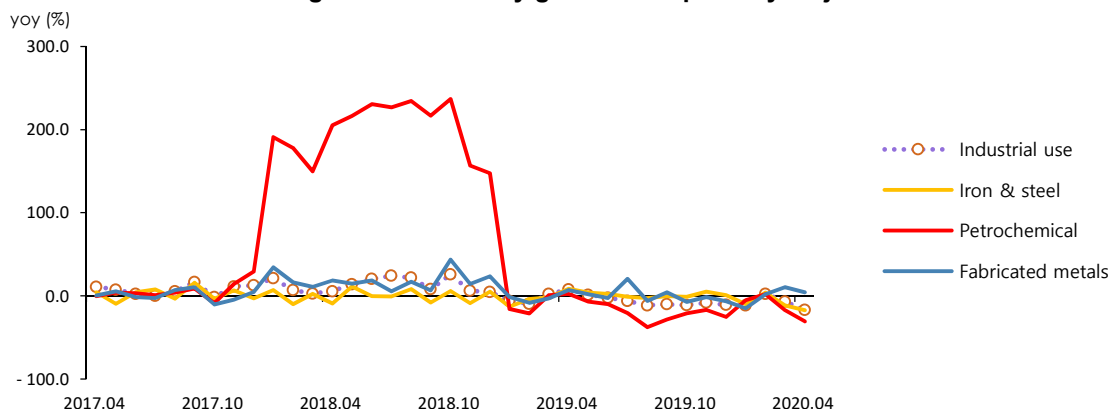
► Natural gas and city gas consumption

	2019p			2020p			
		M1~4	M4	M1~4	M2	M3	M4
LNG (Mton)	40.9	16.3	3.3	16.0	4.3	3.9	2.9
	(-3.2)	(-4.0)	(2.2)	(-1.5)	(5.9)	(2.2)	(-12.0)
Power generation	18.4	6.3	1.5	6.5	1.7	1.7	1.2
	(-2.7)	(-5.7)	(-7.0)	(2.3)	(16.9)	(8.2)	(-22.7)
City gas production	20.5	9.1	1.7	8.7	2.4	2.0	1.6
	(-2.1)	(-0.6)	(16.1)	(-4.1)	(0.3)	(-2.5)	(-4.4)
City gas (bm³)	25.4	11.5	2.2	11.0	3.0	2.6	2.1
	(-1.1)	(-0.2)	(15.2)	(-4.0)	(-1.1)	(-0.6)	(-6.8)
Industry	10.4	3.7	0.9	3.6	0.9	0.9	0.8
	(2.4)	(8.7)	(19.9)	(-2.4)	(6.3)	(0.9)	(-10.9)
Buildings	13.8	7.4	1.2	7.0	2.0	1.6	1.2
	(-3.5)	(-4.1)	(13.4)	(-4.6)	(-4.3)	(-0.7)	(-3.0)

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 use was down 4.6% year-on-year in April, as it declined in both of the industrial and buildings sectors due to the impact of COVID-19.

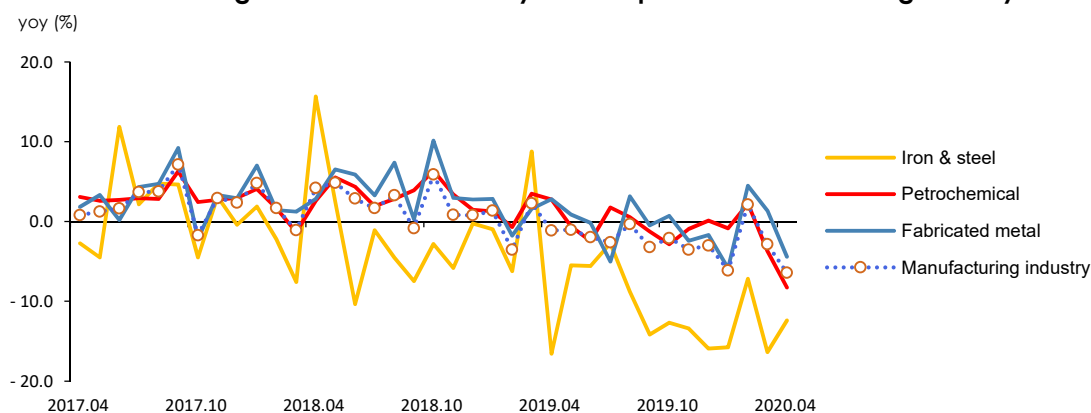
- Industrial electricity use recorded a year-on-year decline of 6.2%, which was attributed to a sharp output reduction in the mining and manufacturing sector amid the COVID-19 crisis.
- Buildings' electricity use went down by 2.8% year-on-year, as it plunged in commercial buildings that account for a large share of the total energy use in buildings, although electricity use continued to grow rapidly in residential buildings owing to the decreased outdoor activities during the social distancing period.

► Electricity consumption by end-use sectors

	2019p			2020p			
		M1~4	M4		M1~4	M2	M3
Electricity (TWh)	520.5	178.5	42.4	174.2	44.5	42.9	40.5
	(-1.1)	(-0.9)	(1.0)	(-2.4)	(0.3)	(-0.5)	(-4.6)
Industry	279.8	94.3	23.3	91.0	22.4	23.1	21.9
	(-1.4)	(-0.1)	(-0.7)	(-3.6)	(1.4)	(-2.8)	(-6.2)
Transport	2.9	1.0	0.2	0.9	0.2	0.2	0.2
	(-2.0)	(-0.9)	(2.0)	(-6.2)	(-7.0)	(-4.2)	(-4.0)
Buildings	237.8	83.2	18.9	82.3	21.8	19.5	18.4
	(-0.7)	(-1.7)	(3.0)	(-1.1)	(-0.7)	(2.4)	(-2.8)
Residential	70.5	23.3	5.6	24.3	6.3	5.9	5.9
	(-0.3)	(0.9)	(2.8)	(4.3)	(2.1)	(9.8)	(5.8)
Commercial	135.2	48.6	10.7	47.2	12.7	11.1	10.1
	(-0.9)	(-2.8)	(3.0)	(-2.8)	(-2.1)	(0.9)	(-5.1)

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

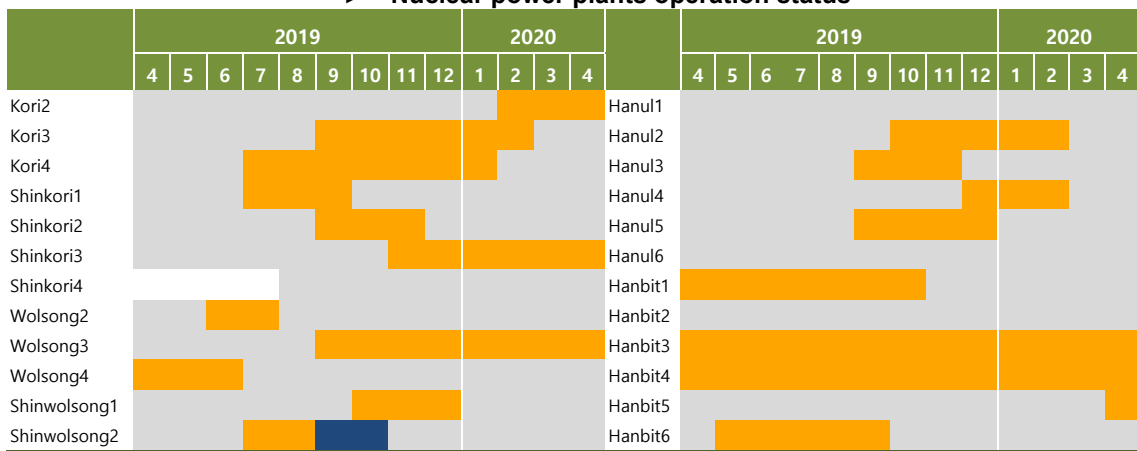
► The growth rate of electricity consumption in manufacturing industry



9. Nuclear

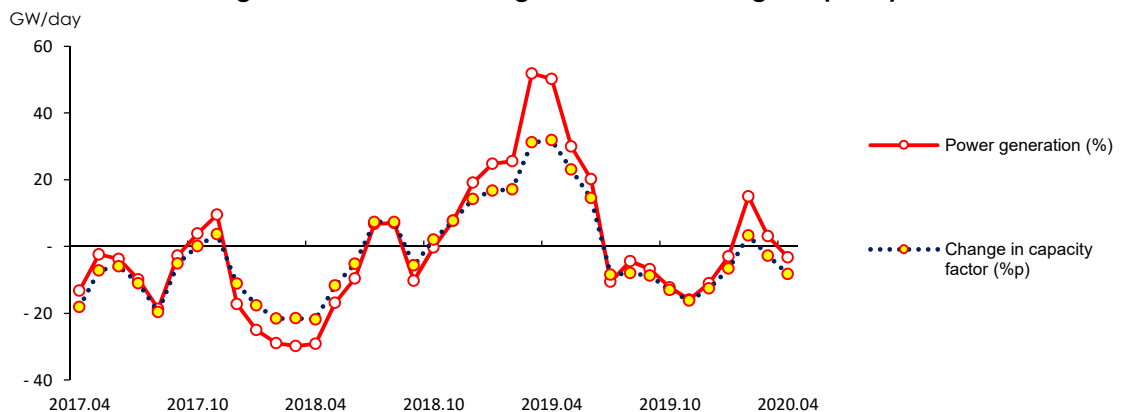
- **The total nuclear generation slid by 3.3% year-on-year in April, despite an increase in its installed capacity, as capacity factors decreased.**
 - The average capacity factor at nuclear power plants fell by 8.2%p to 81.8%, owing to the increased number of reactors that were under maintenance and the high base effect of the same month last year (31.9%p).
 - Nuclear energy's share of the total generation was up 0.1%p to 32.3% despite a drop in nuclear generation, because electricity consumption also plunged (-4.7%) and the total power generation declined as well (-3.7%).

► **Nuclear power plants operation status**



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

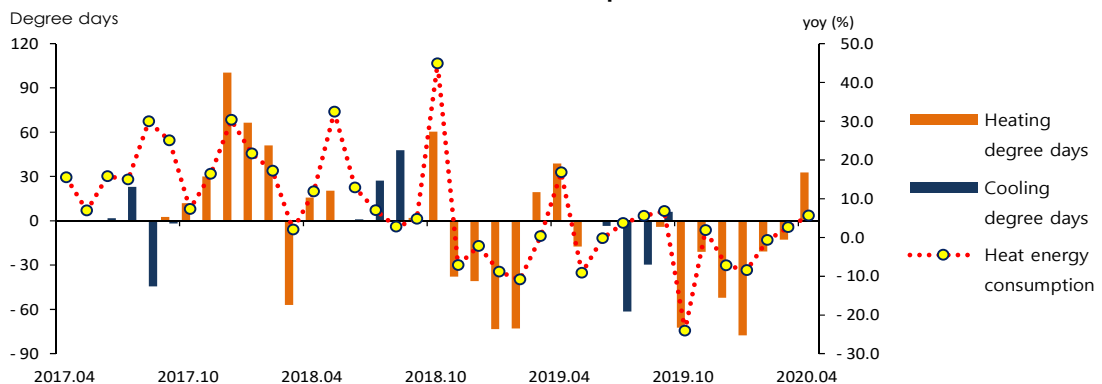
► **The growth rate of nuclear generation & average capacity factor**



10. Heat and Renewable energy

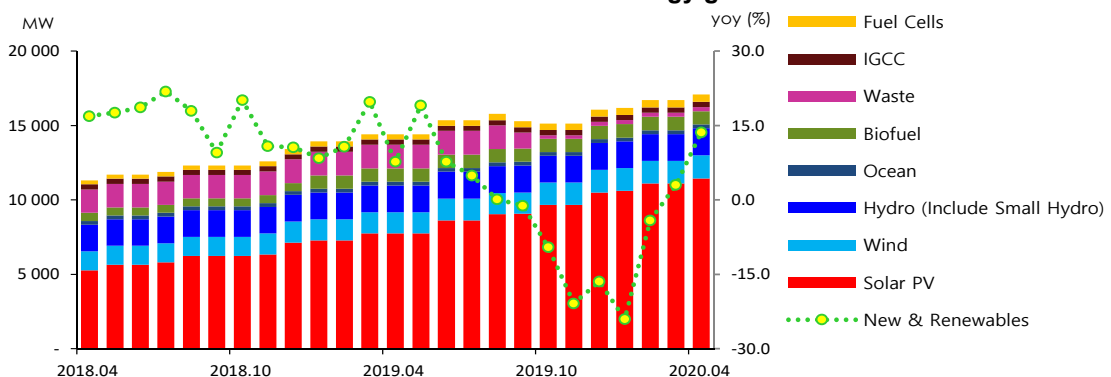
- **Heat energy use posted a year-on-year growth of 5.6%, led by the residential sector, which can be attributed to the growth in the number of heating degree days and long hours spent at home.**
 - Heat energy use grew faster, led by the residential sector (7.1%), as the number of heating degree days increased and people spent more time at home, although it declined in commercial and public sectors, hit by the COVID-19 pandemic.
- **The total renewable generation rose by 16.8% year-on-year in April, with solar PV and wind power leading the upward trend, even though some energy sources were excluded from the renewable category.**
 - The total renewable generation surged on the back of unusually fast growth in solar PV and wind power generation, although the installed capacity of and power generation from non-renewable waste energy fell sharply, after it was excluded from the renewable category (2019.10).

► Heat energy consumption by sector and the growth rate of total heat energy consumption



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.).

► New & renewable energy generation capacity by source and the growth rate of total new & renewable energy generation



11. Industry

- Industrial energy use decreased by 5.2% year-on-year in April, as the production declined amid the COVID-19 pandemic.
 - Industrial energy use dropped faster, as the import and export decreased in major industries such as oil refining, petrochemical and iron & steel, and the growth of the ICT production slowed down in the midst of the global economic recession triggered by the COVID-19 pandemic.

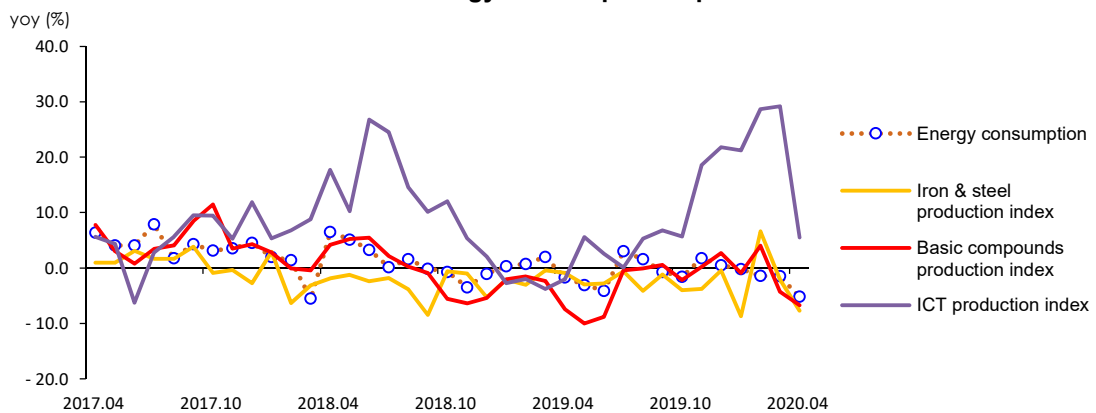
► Industrial energy consumption

	2019p	M1~4		2020p			
			M4	M1~4	M2	M3	M4
Industry (Mtoe)	142.7	47.3	11.6	46.4	11.2	11.7	11.0
	(-0.1)	(0.3)	(-1.7)	(-2.0)	(-1.4)	(-1.5)	(-5.2)
Petrochemical	72.2	23.5	5.7	23.8	5.8	5.9	5.5
	(0.1)	(-1.3)	(-3.7)	(1.3)	(3.1)	(1.4)	(-3.2)
- Naphtha	53.8	17.8	4.2	17.3	4.4	4.2	3.9
	(-2.8)	(-4.0)	(-7.9)	(-2.8)	(-0.1)	(-3.0)	(-8.2)
Iron & steel	28.8	9.6	2.4	9.1	2.2	2.4	2.1
	(-0.0)	(2.1)	(3.7)	(-4.9)	(-1.1)	(-3.7)	(-12.6)
-Coking coal	24.4	8.0	2.0	7.7	1.9	2.0	1.8
	(1.0)	(3.4)	(6.7)	(-4.0)	(-0.9)	(-1.8)	(-13.1)
Fabricated metal	11.4	4.0	0.9	3.9	1.0	1.0	0.9
	(-0.0)	(1.1)	(4.0)	(-1.5)	(3.8)	(3.1)	(-3.0)
Share of feedstock (%)	58.5	57.9	57.9	57.7	58.9	57.2	56.7

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

Source: Monthly Energy Statistics

► Industrial energy consumption & production index



12. Transport

□ Transport energy use went down by 21.3% year-on-year in April, as the global impact of COVID-19 was getting more severe.

- Transport energy use fell by 21.3% year-on-year in April due to a sharp drop in passengers' travel demand amid the continuing 'enhanced social distancing' measures aimed at preventing the further spread of the virus. Energy use only increased in the domestic navigation sector where goods are mostly transported.

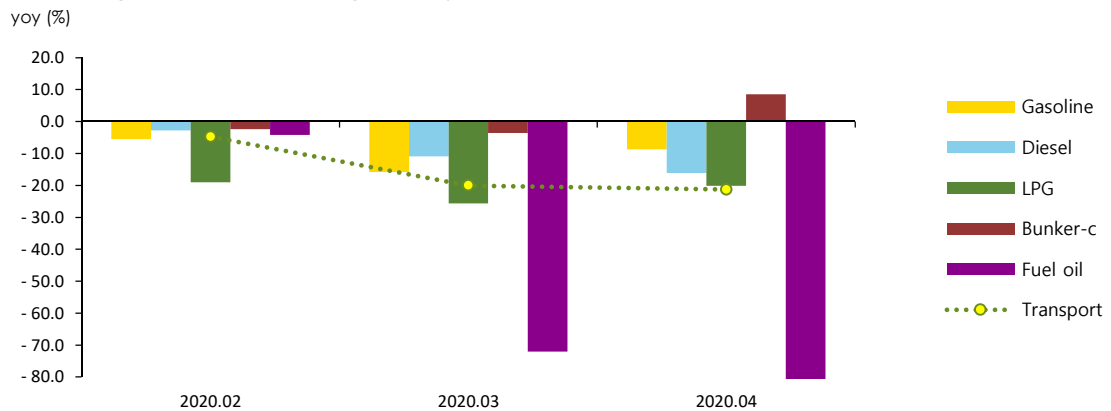
► The growth rate of petroleum consumption in the transport sector

	2019p			2020p			
		M1~4	M4	M1~4	M2	M3	M4
Transport (Mtoe)	42.6	14.4	3.7	12.1	3.1	2.9	2.9
	(-0.9)	(4.0)	(5.7)	(-15.8)	(-4.8)	(-20.0)	(-21.3)
Road	34.7	11.7	3.1	10.1	2.5	2.5	2.6
	(0.9)	(6.7)	(8.8)	(-13.9)	(-5.5)	(-14.5)	(-14.6)
Navigation	2.6	1.0	0.2	1.0	0.2	0.2	0.2
	(-19.6)	(-15.0)	(-20.3)	(3.8)	(2.1)	(1.8)	(7.0)
Aviation	4.9	1.6	0.4	1.0	0.4	0.1	0.1
	(-1.7)	(-0.6)	(2.9)	(-40.8)	(-4.1)	(-72.0)	(-85.4)
Rail	0.3	0.1	0.0	0.1	0.0	0.0	0.0
	(-2.9)	(-1.8)	(-0.5)	(-7.3)	(-7.1)	(-5.0)	(-3.2)

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

Source: Monthly Energy Statistics

► The growth rates of energy & major petroleum product consumption in the transport sector



13. Buildings

□ Buildings' energy use dropped by 1.7% year-on-year in April during the ongoing COVID-19 pandemic, with the commercial and public sectors leading the downward trend

- Energy use declined in commercial and public buildings, especially electricity and city gas, amid the spreading COVID-19, while it increased in residential buildings due to the increased number of heating degree days and longer hours at home, and consequently, buildings' total energy use declined.
- Energy use in residential buildings posted a year-on-year growth of 4.5%, as people followed enhanced social distancing guidelines during the COVID-19 outbreak, refraining from outdoor activities or gatherings and staying at and working from home.
- The use of all major energy resources declined in commercial and public buildings (city gas -21.9%, electricity -6.4%, petroleum -3.7%, heat -8.4%) because of weak production, as businesses were temporarily closed or were open for shorter hours due to the COVID-19 pandemic, especially where face-to-face contact is necessary.

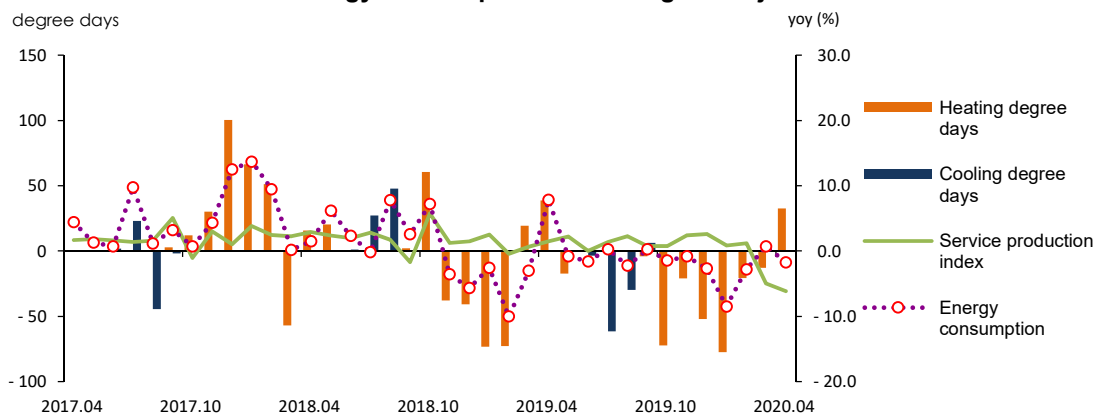
► Energy consumption in buildings

	2019p			2020p			
		M1~4	M4	M1~4	M2	M3	M4
Buildings (Mtoe)	46.0	19.6	3.8	18.9	5.2	4.4	3.7
	(-2.0)	(-3.0)	(7.8)	(-3.6)	(-2.8)	(0.7)	(-1.7)
Residential	22.6	10.9	1.9	10.6	2.9	2.5	2.0
	(-3.6)	(-3.5)	(11.1)	(-2.1)	(-2.8)	(4.1)	(4.5)
Commercial	17.8	6.7	1.4	6.3	1.7	1.5	1.3
	(-0.3)	(-1.7)	(6.7)	(-6.3)	(-4.4)	(-3.9)	(-8.9)
Public · others	5.5	2.0	0.4	1.9	0.5	0.5	0.4
	(-1.2)	(-5.1)	(-1.5)	(-2.5)	(3.0)	(-1.6)	(-6.0)
Heating degree days	2 342.9	1 491.2	180.8	1 412.8	416.2	312.2	213.5
	(-9.8)	(-5.6)	(27.2)	(-5.3)	(-4.8)	(-3.9)	(18.1)
Cooling degree days	120.4	-	-	-	-	-	-
	(-42.4)	-	-	-	-	-	-

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

Source: Monthly Energy Statistics

► Energy consumption in buildings & major indicators



14. Transformation

□ The total power generation and fuel input decreased by 3.7% and 4.1% respectively in April on a year-on-year basis along with decreased electricity consumption.

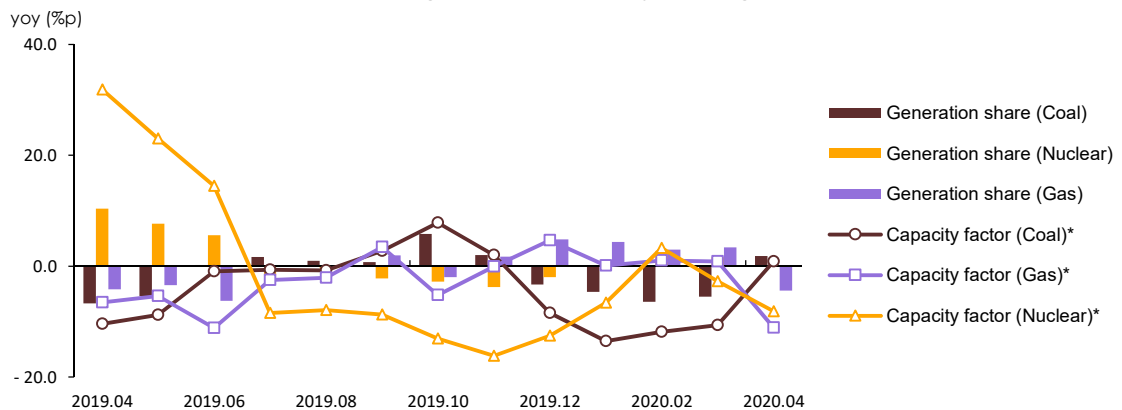
- The baseload generation was flat compared to the same month last year (-0.7%), while gas-fired power generation fell by 19.6%.
- As for the nation's power mix, coal, nuclear, gas and renewable energy (including hydro) accounted for 34.7%, 32.3%, 22.3% and 8.6% respectively.

► Energy consumption in the power generation sector

	2019p			2020p			
		M1~4	M4	M1~4	M2	M3	M4
Input (Mtoe)	116.3	38.9	9.0	37.0	9.3	9.3	8.6
	(-2.0)	(-0.8)	(1.6)	(-4.7)	(0.5)	(-4.8)	(-4.1)
Coal	50.1	15.9	3.1	13.4	3.4	3.0	3.1
	(-7.6)	(-14.6)	(-18.9)	(-15.6)	(-17.6)	(-19.5)	(-0.2)
Oil	0.8	0.4	0.1	0.1	0.0	0.0	0.0
	(-39.3)	(-41.6)	(47.3)	(-70.9)	(-63.6)	(-88.7)	(-73.1)
Gas	24.4	8.4	2.0	8.6	2.3	2.2	1.5
	(-2.9)	(-5.8)	(-6.8)	(2.1)	(16.5)	(7.9)	(-22.5)
Nuclear	31.1	11.0	3.0	11.2	2.7	3.1	2.9
	(9.3)	(38.1)	(50.2)	(2.5)	(15.0)	(3.1)	(-3.3)
Hydro/other renewables	9.9	3.2	0.8	3.7	0.9	1.0	1.0
	(3.6)	(6.1)	(-1.3)	(14.6)	(18.1)	(17.0)	(29.6)

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

► Power generation by major energy sources



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

Major Statistics & Indicators of the Economy

	2018	2019					2020			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
GDP (trillion won)	1 812.0 (2.9)	1 849.0 (2.0)	437.2 (1.8)	- (-)	437.2 (1.8)	- (-)	443.2 (1.4)	- (-)	443.2 (1.4)	- (-)
Private consumption	875.6 (3.2)	890.2 (1.7)	222.6 (1.4)	- (-)	222.6 (1.4)	- (-)	212.0 (-4.8)	- (-)	212.0 (-4.8)	- (-)
Facilities investment	166.3 (-2.3)	153.9 (-7.5)	36.5 (-17.4)	- (-)	36.5 (-17.4)	- (-)	39.2 (7.3)	- (-)	39.2 (7.3)	- (-)
Construction investment	269.8 (-4.6)	262.9 (-2.5)	52.3 (-8.1)	- (-)	52.3 (-8.1)	- (-)	54.5 (4.2)	- (-)	54.5 (4.2)	- (-)
Consumer price index (2015=100)	104.5	104.9	104.6	104.7	104.5	104.9	105.5	105.8	105.5	105.0
USD to KRW exchange rate (won)	1 100.2	1 165.4	1 129.0	1 122.5	1 130.7	1 141.0	1 200.8	1 193.8	1 220.1	1 225.2
Benchmark rate (%)	1.5	1.6	1.8	1.8	1.8	1.8	1.0	1.3	0.8	0.8
Coincident composite index (2015=100)	110.1	111.7	110.8	110.6	110.8	111.0	112.6	113.3	112.2	110.9
Mining & manufacturing production index (2015=100)	106.4	106.3	101.8	89.6	105.7	106.8	104.3	99.7	113.8	101.4
Manufacturing operation ratio index (2015=100)	98.8	98.5	94.4	82.4	98.3	100.1	94.1	90.2	103.4	91.1
Average temperature	13.0	13.5	5.5	2.4	7.5	12.0	6.3	3.6	7.9	10.9
- year-on-year difference	- 0.1	0.5	0.8	2.6	- 0.6	- 1.3	0.8	1.3	0.4	- 1.1
Heating degree days	2 597.8 (3.2)	2 342.9 (-9.8)	1 491.2 (-5.6)	437.0 (-14.3)	325.0 (6.3)	180.8 (27.2)	1 412.8 (-5.3)	416.2 (-4.8)	312.2 (-3.9)	213.5 (18.1)
Cooling degree days	209.0 (57.5)	120.4 (-42.4)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
Energy intensity	0.17 (-1.0)	0.16 (-3.3)	0.18 (-2.6)	- (-)	0.18 (-2.6)	- (-)	0.17 (-6.0)	- (-)	0.17 (-6.0)	- (-)
Per capita consumption										
oil (bbl)	18.1 (-1.0)	18.0 (-0.6)	6.0 (-1.1)	1.4 (-2.5)	1.5 (-1.7)	1.5 (-1.3)	5.7 (-5.8)	1.4 (-1.8)	1.4 (-7.2)	1.3 (-9.0)
Electricity (MWh)	10.2 (3.1)	10.1 (-1.3)	3.5 (-1.1)	0.9 (-5.3)	0.8 (0.2)	0.8 (0.8)	3.4 (-2.6)	0.9 (0.2)	0.8 (-0.6)	0.8 (-4.8)
City gas (1 000 m ³)	0.5 (6.9)	0.5 (-4.3)	0.2 (-3.6)	0.1 (-11.0)	0.0 (-2.8)	0.0 (10.3)	0.2 (-5.9)	0.1 (-2.6)	0.0 (-3.1)	0.0 (-8.8)
Total energy (toe)	6.0 (1.3)	5.9 (-1.5)	2.0 (-0.6)	0.5 (-2.5)	0.5 (0.1)	0.5 (1.1)	1.9 (-5.3)	0.5 (-1.7)	0.5 (-5.4)	0.4 (-6.6)

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

Industrial Production Index & Operating Ratio Index

(2015=100)

	[2015=100]									
	2018	2019					2020			
		M1~4	M2	M3	M4	M1~4	M2	M3	M4	
Industrial production index										
All industry	107.5 (1.6)	108.1 (0.5)	104.3 (-0.5)	95.9 (-2.2)	108.4 (-1.0)	107.8 (0.7)	104.1 (-0.1)	100.6 (4.9)	109.4 (0.9)	102.1 (-5.3)
Mining & manufacturing	106.4 (1.5)	106.3 (-0.0)	101.8 (-1.7)	89.6 (-4.1)	105.7 (-2.5)	106.8 (0.4)	104.3 (2.4)	99.7 (11.3)	113.8 (7.7)	101.4 (-5.1)
Semiconductor	168.4 (21.2)	188.1 (11.7)	153.4 (2.9)	141.3 (3.9)	159.4 (0.4)	164.4 (1.2)	209.7 (36.7)	207.4 (46.8)	231.6 (45.3)	192.8 (17.3)
Iron & steel	100.5 (-2.7)	98.3 (-2.2)	98.7 (-1.6)	89.3 (-3.0)	101.4 (-0.4)	100.2 (-0.9)	95.5 (-3.3)	95.2 (6.6)	99.3 (-2.1)	92.5 (-7.7)
Cement	100.0 (-8.8)	93.8 (-6.2)	88.6 (-4.8)	66.3 (-10.8)	99.1 (-8.2)	106.2 (-4.4)	82.1 (-7.3)	71.6 (8.0)	92.8 (-6.4)	97.3 (-8.4)
Basic compound	110.4 (0.1)	107.5 (-2.6)	107.2 (-3.3)	102.3 (-1.5)	109.3 (-2.3)	102.8 (-7.4)	105.0 (-2.0)	106.4 (4.0)	104.6 (-4.3)	95.9 (-6.7)
Transport equipment	93.9 (-1.2)	93.1 (-0.9)	93.3 (2.9)	77.3 (0.3)	97.7 (-0.7)	101.7 (3.7)	81.5 (-12.7)	65.0 (-15.9)	101.7 (4.1)	81.9 (-19.5)
Electric & electronic	106.5 (-0.2)	107.7 (1.2)	102.2 (-0.0)	88.8 (-4.9)	107.1 (-1.1)	108.5 (3.8)	100.7 (-1.4)	95.4 (7.4)	110.7 (3.4)	99.7 (-8.1)
Service	106.9 (2.2)	108.4 (1.4)	105.4 (1.1)	99.4 (-0.4)	108.7 (0.6)	107.7 (1.5)	102.9 (-2.3)	100.6 (1.2)	103.3 (-5.0)	101.1 (-6.1)
Wholesale and retail	105.0 (1.8)	104.6 (-0.4)	102.8 (-0.8)	92.5 (-3.9)	107.9 (-1.6)	105.5 (-0.8)	98.4 (-4.3)	92.1 (-0.4)	100.9 (-6.5)	97.5 (-7.6)
Food & accommodation	98.5 (-1.9)	97.5 (-1.0)	93.7 (-1.1)	86.7 (-2.1)	95.1 (-2.9)	96.0 (-0.9)	76.3 (-18.5)	73.8 (-14.9)	64.2 (-32.5)	72.4 (-24.6)
Operating ratio index										
Iron & steel - Pig iron	47 124.3 (0.1)	47 520.7 (0.8)	15 592.6 (1.1)	3 661.5 (-0.5)	4 063.6 (5.0)	3 853.9 (3.5)	14 503.6 (-7.0)	3 575.2 (-2.4)	3 678.5 (-9.5)	3 290.0 (-14.6)
Iron & steel - Crude steel	72 464.0 (2.0)	71 411.9 (-1.5)	23 798.3 (0.4)	5 270.8 (-2.6)	6 274.6 (2.9)	6 001.3 (1.8)	22 019.7 (-7.5)	5 417.4 (2.8)	5 783.6 (-7.8)	5 078.9 (-15.4)
Petrochemical - Basic petrochemicals	31 139.2 (1.9)	31 804.1 (2.1)	10 352.1 (1.8)	2 538.6 (5.6)	2 597.5 (4.2)	2 395.8 (-7.9)	10 645.2 (2.8)	2 629.0 (3.6)	2 618.9 (0.8)	2 483.2 (3.6)
Petrochemical – Intermediary materials	16 981.8 (2.9)	16 014.0 (-5.7)	5 411.4 (-3.0)	1 347.1 (-1.0)	1 314.6 (-5.8)	1 255.1 (-7.7)	5 451.7 (0.7)	1 367.9 (1.5)	1 337.7 (1.8)	1 286.6 (2.5)
Petrochemical - 3 major products	21 793.6 (-1.1)	21 584.7 (-1.0)	7 212.6 (-2.3)	1 731.4 (0.3)	1 864.2 (-1.3)	1 648.7 (-10.7)	7 337.8 (1.7)	1 811.3 (4.6)	1 861.6 (-0.1)	1 753.9 (6.4)
The number of cars produced	4 028.7 (-2.1)	3 950.6 (-1.9)	1 329.3 (0.9)	257.3 (-7.1)	345.8 (-4.9)	371.9 (5.0)	1 099.4 (-17.3)	189.2 (-26.4)	369.1 (6.7)	289.5 (-22.2)

Note: p means provisional
Source: Monthly Energy Statistics

International Energy Prices

	2018	2019					2020			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Crude oil (USD/bbl)										
WTI	64.8 (27.1)	57.0 (-11.9)	57.4 (-12.3)	63.9 (-3.7)	60.9 (-13.0)	54.7 (-18.7)	37.0 (-35.5)	16.7 (-73.9)	28.5 (-53.1)	38.3 (-30.0)
Dubai	69.4 (30.5)	63.5 (-8.5)	65.5 (-3.7)	70.9 (3.9)	69.4 (-6.8)	61.8 (-16.1)	40.7 (-37.9)	20.4 (-71.3)	30.5 (-56.1)	40.8 (-34.0)
Brent	71.5 (30.5)	64.2 (-10.3)	66.1 (-6.9)	71.6 (-0.2)	70.3 (-8.7)	63.0 (-17.0)	42.1 (-36.3)	26.6 (-62.8)	32.4 (-53.9)	40.8 (-35.3)
Unit value of import (C&F)	71.4 (34.0)	65.5 (-8.3)	66.4 (-2.5)	68.9 (4.0)	71.1 (-0.2)	68.3 (-8.1)	46.0 (-30.7)	34.1 (-50.6)	26.2 (-63.2)	29.7 (-56.5)
LNG										
From Indonesia (USD/MMBTU)	10.7 (24.0)	10.6 (-1.0)	10.9 (9.2)	10.3 (1.7)	10.1 (-1.0)	10.0 (-3.8)	10.0 (-8.2)	10.1 (-2.0)	10.1 (-0.7)	10.1 (0.3)
Unit value of import (USD/ton, CIF)	526.3 (26.4)	505.4 (-4.0)	533.1 (7.9)	481.9 (-0.6)	481.5 (-5.6)	470.3 (-7.7)	460.8 (-13.6)	478.1 (-0.8)	467.0 (-3.0)	441.1 (-6.2)
Bituminous coal (USD/ton)										
From Australia	107.0 (20.9)	77.9 (-27.2)	88.1 (-15.1)	86.8 (-7.4)	82.3 (-21.8)	72.5 (-36.6)	61.2 (-30.5)	58.6 (-32.5)	52.5 (-36.2)	52.2 (-28.0)
Unit value of import (CIF)	113.6 (8.9)	100.7 (-11.3)	109.8 (-3.8)	107.7 (-5.3)	111.8 (-2.6)	109.4 (-4.3)	84.8 (-22.7)	89.6 (-16.8)	83.6 (-25.3)	75.4 (-31.1)
Petroleum product (USD/bbl)										
Gasoline	79.9 (17.4)	72.5 (-9.3)	71.1 (-12.2)	80.8 (-0.8)	76.3 (-12.9)	67.6 (-19.2)	44.1 (-38.0)	20.5 (-74.6)	30.8 (-59.7)	40.9 (-39.5)
Kerosene	84.8 (29.8)	77.3 (-8.9)	78.0 (-6.7)	82.6 (-3.0)	81.5 (-9.3)	74.6 (-14.2)	44.9 (-42.5)	21.3 (-74.3)	28.9 (-64.6)	41.2 (-44.8)
Diesel	84.9 (27.9)	78.2 (-7.9)	78.9 (-5.4)	83.3 (-1.2)	82.7 (-8.6)	75.1 (-14.0)	50.3 (-36.2)	31.4 (-62.3)	36.1 (-56.4)	46.6 (-38.0)
Bunker-C	65.2 (31.3)	57.5 (-11.8)	63.1 (2.0)	66.8 (9.5)	64.4 (-5.3)	59.5 (-14.0)	36.1 (-42.7)	23.3 (-65.1)	26.7 (-58.6)	36.9 (-38.0)
Propane	542.1 (16.0)	434.6 (-19.8)	471.7 (-9.6)	515.0 (8.4)	525.0 (5.0)	430.0 (-23.2)	403.3 (-14.5)	230.0 (-55.3)	340.0 (-35.2)	350.0 (-18.6)
Butane	539.2 (7.5)	441.7 (-18.1)	481.7 (-6.0)	535.0 (13.8)	530.0 (5.0)	415.0 (-25.9)	420.8 (-12.6)	240.0 (-55.1)	340.0 (-35.8)	330.0 (-20.5)
Naphtha	67.0 (24.5)	56.9 (-15.1)	57.2 (-14.7)	63.2 (-5.4)	60.0 (-19.5)	51.7 (-26.9)	37.7 (-34.1)	17.3 (-72.6)	26.3 (-56.1)	39.0 (-24.6)

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)

	2018	2019p					2020p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Coal (Mton)	141.0 (0.9)	133.0 (-5.7)	43.0 (-9.3)	11.0 (-7.7)	10.4 (-11.3)	9.3 (-11.9)	37.7 (-12.3)	9.3 (-16.0)	8.9 (-14.3)	8.9 (-4.1)
- Coking coal excluded	106.4 (2.8)	98.0 (-7.8)	31.5 (-13.1)	8.3 (-10.9)	7.4 (-16.2)	6.4 (-18.4)	26.7 (-15.4)	6.6 (-21.0)	6.0 (-19.3)	6.4 (0.1)
Oil (Mbbbl)	931.8 (-0.6)	928.4 (-0.4)	310.1 (-0.9)	73.1 (-2.3)	76.5 (-1.5)	75.6 (-1.1)	292.6 (-5.6)	71.9 (-1.7)	71.1 (-7.1)	68.9 (-8.9)
- Non-energy oil excluded	445.5 (0.4)	451.8 (1.4)	153.5 (1.5)	35.0 (-3.0)	38.0 (-0.5)	37.8 (5.7)	138.5 (-9.8)	33.7 (-3.7)	33.4 (-12.2)	33.0 (-12.7)
LNG (Mton)	42.3 (16.2)	40.9 (-3.2)	16.3 (-4.0)	4.1 (-6.1)	3.8 (-3.9)	3.3 (2.2)	16.0 (-1.5)	4.3 (5.9)	3.9 (2.2)	2.9 (-12.0)
Hydro (TWh)	7.3 (3.9)	6.2 (-14.3)	2.0 (5.7)	0.5 (7.0)	0.5 (-2.8)	0.5 (6.0)	2.1 (5.9)	0.5 (12.2)	0.5 (18.6)	0.5 (-3.3)
Nuclear (TWh)	133.5 (-10.1)	145.9 (9.3)	51.5 (38.1)	11.0 (25.5)	14.0 (51.8)	14.1 (50.2)	52.7 (2.5)	12.7 (15.0)	14.5 (3.1)	13.7 (-3.3)
Others (Mtoe)	17.1 (8.0)	17.9 (4.7)	6.0 (6.1)	1.4 (2.5)	1.6 (11.5)	1.5 (2.1)	6.4 (6.2)	1.5 (10.3)	1.7 (6.5)	1.7 (13.9)
TPES (Mtoe)	307.5 (1.8)	303.4 (-1.3)	104.6 (-0.4)	25.2 (-2.3)	25.8 (0.3)	24.3 (1.3)	99.2 (-5.2)	24.8 (-1.6)	24.4 (-5.3)	22.8 (-6.5)
- Non-energy oil excluded	247.1 (2.6)	244.0 (-1.2)	85.1 (0.2)	20.5 (-2.5)	21.0 (0.9)	19.6 (3.5)	80.0 (-6.0)	20.1 (-1.9)	19.8 (-6.0)	18.3 (-7.0)
- Non-energy oil&coal excluded	222.9 (3.5)	219.7 (-1.5)	77.1 (-0.2)	18.6 (-3.1)	19.0 (0.5)	17.6 (3.2)	72.3 (-6.2)	18.2 (-2.0)	17.7 (-6.4)	16.5 (-6.3)

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

Share of TPES by Sources

(unit: %)

	2018	2019p					2020p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Coal	28.2	27.0	25.4	26.9	24.8	23.8	23.6	23.3	22.7	24.2
- Coking coal excluded	20.3	19.0	17.7	19.3	16.9	15.4	15.8	15.6	14.5	16.4
Oil	38.5	38.7	37.7	36.8	37.8	39.5	37.1	36.5	36.6	38.3
- non-energy oil excluded	18.9	19.2	19.1	18.1	19.2	20.1	17.8	17.5	17.4	18.5
LNG	18.0	17.6	20.3	21.2	19.3	17.8	21.1	22.8	20.8	16.8
Hydro	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Nuclear	9.2	10.2	10.5	9.3	11.6	12.4	11.3	10.9	12.6	12.8
Others	5.6	5.9	5.7	5.4	6.1	6.1	6.4	6.1	6.8	7.5
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)

	2018	2019p					2020p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Industry	142.9 (0.7)	142.7 (-0.1)	47.3 (0.3)	11.4 (0.7)	11.8 (2.0)	11.6 (-1.7)	46.4 (-2.0)	11.2 (-1.4)	11.7 (-1.5)	11.0 (-5.2)
Transport	43.0 (0.4)	42.6 (-0.9)	14.4 (4.0)	3.2 (2.7)	3.6 (0.8)	3.7 (5.7)	12.1 (-15.8)	3.1 (-4.8)	2.9 (-20.0)	2.9 (-21.3)
Residential-commercial	41.3 (3.7)	40.5 (-2.2)	17.6 (-2.8)	4.8 (-9.8)	3.9 (-2.7)	3.3 (9.2)	17.0 (-3.7)	4.7 (-3.4)	3.9 (1.0)	3.3 (-1.2)
Public	5.6 (2.0)	5.5 (-1.2)	2.0 (-5.1)	0.5 (-11.9)	0.5 (-5.8)	0.4 (-1.5)	1.9 (-2.5)	0.5 (3.0)	0.5 (-1.6)	0.4 (-6.0)
TFC	232.7 (1.2)	231.2 (-0.6)	81.3 (0.1)	19.9 (-2.1)	19.8 (0.6)	19.1 (1.5)	77.4 (-4.8)	19.4 (-2.3)	18.9 (-4.4)	17.7 (-7.7)
Coal (Mton)	49.2 (-2.3)	48.2 (-2.1)	16.1 (1.0)	4.0 (5.4)	4.1 (4.4)	4.0 (-0.8)	15.0 (-6.8)	3.5 (-13.3)	3.9 (-6.4)	3.6 (-9.1)
Oil (Mbbbl)	920.0 (-0.7)	920.3 (0.0)	306.5 (-0.1)	72.5 (-0.6)	75.2 (-1.1)	74.9 (-1.5)	290.7 (-5.2)	71.5 (-1.5)	70.7 (-6.0)	68.6 (-8.5)
Electricity (TWh)	526.1 (3.6)	520.5 (-1.1)	178.5 (-0.9)	44.4 (-5.1)	43.1 (0.4)	42.4 (1.0)	174.2 (-2.4)	44.5 (0.3)	42.9 (-0.5)	40.5 (-4.6)
City gas (Bm ³)	24.3 (7.4)	23.3 (-4.1)	10.8 (-3.4)	2.9 (-10.8)	2.5 (-2.6)	2.1 (10.6)	10.2 (-5.8)	2.8 (-2.5)	2.4 (-3.0)	1.9 (-8.6)
Heat others (1 000 toe)	11.8 (6.4)	11.9 (0.9)	4.6 (2.6)	1.1 (-3.6)	1.1 (7.0)	1.0 (8.2)	4.5 (-2.2)	1.2 (1.7)	1.1 (-1.8)	1.0 (-2.3)

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

Share of the Total Final Consumption by Sources

(unit: %)

	2018	2019p					2020p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Industry	61.4	61.7	58.2	57.0	59.8	60.7	59.9	57.6	61.6	62.3
Transport	18.5	18.4	17.7	16.3	18.3	19.6	15.7	15.9	15.3	16.7
Residential-commercial	17.8	17.5	21.7	24.2	19.6	17.4	21.9	23.9	20.7	18.7
Public	2.4	2.4	2.4	2.5	2.3	2.3	2.5	2.6	2.4	2.3
Final energy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Coal	13.9	13.8	13.1	13.1	13.8	13.9	12.9	12.0	13.6	13.6
Oil	50.2	50.4	47.9	46.2	48.2	49.7	47.3	46.3	46.9	49.0
Electricity	19.4	19.4	18.9	19.2	18.7	19.1	19.4	19.7	19.5	19.7
City gas	11.4	11.3	14.5	15.8	13.7	12.1	14.7	16.0	14.3	12.2
Heat others	5.1	5.1	5.6	5.7	5.6	5.2	5.8	6.0	5.7	5.5

Note: p means provisional
Source: Monthly Energy Statistics

Statistics on Energy Production Facilities

	2017	2018	2019	2020p			M2	M3	M4
				M2	M3	M4			
Total capacity (GW)	116.9 (10.4)	119.1 (1.9)	125.3 (5.2)	119.4 (2.5)	119.8 (2.6)	119.8 (2.6)	125.9 (5.5)	125.9 (5.1)	126.3 (5.4)
Nuclear	22.5 (3.8)	21.9 (-3.0)	23.3 (6.4)	21.9 (-3.0)	21.9 (-3.0)	21.9 (-3.0)	23.3 (6.4)	23.3 (6.4)	23.3 (6.4)
Bituminous coal	36.1 (43.9)	36.4 (0.7)	36.4 (0.1)	36.4 (0.8)	36.4 (0.8)	36.4 (0.8)	36.5 (0.1)	36.5 (0.1)	36.5 (0.1)
Gas	37.9 (17.4)	37.9 (-0.0)	39.6 (4.5)	37.9 (1.5)	37.9 (1.5)	37.9 (1.5)	41.2 (8.5)	41.2 (8.5)	41.2 (8.5)
Refinery capacity (mil BPSD)	3.1 (1.3)	3.2 (3.2)	3.2 -	3.2 -	3.2 -	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

	2017	2018	2019	2020p			M2	M3	M4
				M2	M3	M4			
The number of household demanding city gas (mil)	18.6 (3.3)	19.1 (3.1)	19.7 (2.8)	19.3 (3.0)	19.3 (3.0)	19.3 (2.8)	19.8 (2.4)	19.8 (2.4)	19.7 (2.4)
Registered cars (mil)	22.5 (3.3)	23.2 (3.0)	23.7 (2.0)	23.3 (2.9)	23.3 (2.8)	23.3 (2.6)	23.7 (1.9)	23.8 (2.0)	23.9 (2.2)
- gasoline	10.4 (2.7)	10.6 (2.5)	11.0 (3.1)	10.7 (2.4)	10.7 (2.4)	10.7 (2.4)	11.0 (3.1)	11.0 (3.3)	11.1 (3.5)
- diesel	9.6 (4.4)	9.9 (3.7)	10.0 (0.3)	10.0 (3.6)	10.0 (3.2)	10.0 (2.7)	10.0 (-0.1)	10.0 (-0.1)	9.9 (-0.1)
- LPG	2.1 (-2.9)	2.0 (-3.3)	2.0 (-1.5)	2.0 (-3.3)	2.0 (-3.2)	2.0 (-3.1)	2.0 (-1.0)	2.0 (-0.7)	2.0 (-0.6)
- hybrid	0.3 (37.6)	0.4 (30.9)	0.5 (26.1)	0.4 (30.3)	0.4 (29.5)	0.4 (29.9)	0.5 (24.3)	0.5 (24.2)	0.5 (24.3)

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

Source: Monthly Energy Statistics

KEEI

MONTHLY **KOREA ENERGY TRENDS** (2020, NO.100)



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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