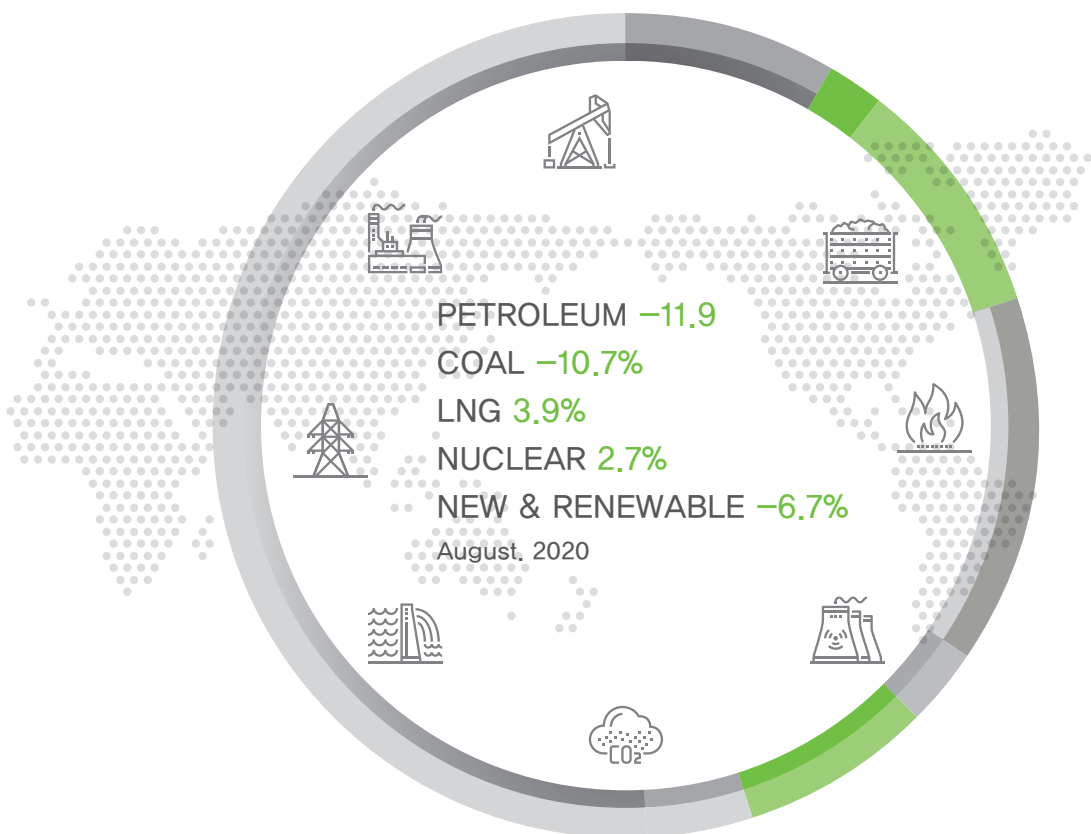


KEEI

MONTHLY KOREA ENERGY TRENDS



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

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1. The Economy and the Industry

☐ **The mining & manufacturing production index dropped by 2.6% year-on-year in August, even though the index of semiconductors increased, as it continued to decline in other major industries.**

- The production index of semiconductors posted a year-on-year growth of 21.2%, and its export value was up 2.8%, led by system semiconductors thanks to growing demand of foundry and fabless companies, although that of memory semiconductors decreased.
- The production index of basic chemical materials fell by 7.3%, which was affected by the shutdown of Lotte Chemical's Daesan factories following an accident and the maintenance at some facilities. The export value of petrochemical products was down 21.4% despite a recovery in downstream industries, owing to an oversupply and decreased unit prices.
- The production index of iron & steel products declined but at a slower pace (-8.6%) compared with the previous month when it declined by double-digit percentages, because the export volume just slightly declined amid growing export to China and the stagnant domestic demand improved, though other major markets in ASEAN countries and the U.S. are still sluggish.
- The production index of automobiles fell by 11.4% year-on-year; the number of automobiles produced decreased (-6.4%) because major Hyundai·Kia factories stopped operation to prepare production lines for new models, and the export & domestic demand decreased.

☐ **The service production index fell by 3.8% year-on-year (in August) due to the prolonged rainy season and a faster drop in demand for face-to-face services amid the COVID-19 pandemic.**

- The rainy season lasted unusually long in August, and the social distancing measure was raised to the 2nd level amid repeated outbreaks of COVID-19. As a result, the service production index dropped more rapidly especially in the sectors where face-to-face service is provided, such as wholesale·retail (-5.8%), restaurant·accommodations (-16.9%) and art·sports·leisure (-36.8%) businesses.

► **Major economic and industrial indicators**

	2019p			2020p			
		M1~8	M8	M1~8	M6	M7	M8
GDP (trillion won)	1 849.0 (2.0)	898.4 (1.9)	- -	891.9 (-0.7)	448.7 (-2.7)	- -	- -
Total export (\$billion, customs clearance basis)	539.9 (-10.7)	358.9 (-10.2)	44.0 (-14.0)	322.9 (-10.0)	39.2 (-10.9)	42.8 (-2.2)	39.5 (-10.2)
Industrial production index (2015=100)	106.3 (-0.0)	104.3 (-1.1)	103.0 (-2.4)	103.5 (-0.8)	105.0 (-0.6)	107.5 (-2.4)	100.3 (-2.6)
Semi-conductors	188.1 (11.7)	172.4 (6.2)	197.4 (13.1)	221.8 (28.7)	241.8 (23.9)	228.4 (17.0)	239.2 (21.2)
Basic chemical products	107.5 (-2.6)	107.3 (-4.1)	112.8 (-0.1)	101.8 (-5.1)	93.3 (-7.2)	102.1 (-10.0)	104.6 (-7.3)
Iron&Steel	98.3 (-2.2)	99.2 (-2.1)	95.7 (-4.1)	90.3 (-9.0)	80.9 (-18.0)	86.9 (-15.1)	87.5 (-8.6)
Cars	93.1 (-0.9)	93.2 (2.0)	77.0 (-12.0)	78.9 (-15.3)	79.6 (-14.6)	93.0 (-7.8)	68.2 (-11.4)
Service production index (2015=100)	108.4 (1.4)	106.9 (1.3)	108.2 (2.3)	104.5 (-2.3)	108.2 -	106.7 (-1.2)	104.1 (-3.8)
Restaurant & Accommodation	97.5 (-1.0)	96.6 (-1.1)	101.8 (-0.4)	81.4 (-15.7)	84.6 (-12.2)	90.4 (-9.1)	84.6 (-16.9)
Wholesale & Retail	104.6 (-0.4)	103.6 (-0.3)	102.8 (1.4)	99.8 (-3.7)	103.7 (-0.1)	100.6 (-2.0)	96.8 (-5.8)
Restaurant & Accommodation	97.5 (-1.0)	96.6 (-1.1)	101.8 (-0.4)	81.4 (-15.7)	84.6 (-12.2)	90.4 (-9.1)	84.6 (-16.9)

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

2. Energy Prices

Global energy prices

□ **Global oil price fell by 1.0% in October from the previous month and by 29.6% from the same month last year amid the Covid-19 spread in the U.S. and Europe.**

- Global oil price fell from the previous month, owing to lockdown measures in response to a surge in confirmed coronavirus cases in the U.S. and Europe and Libya's growing petroleum production, although there were several factors that could have driven up oil prices, e.g., the recovery of the US president Donald Trump from Covid-19, the ongoing strike by labor unions in Norway and the oil output reduction by OPEC+ countries.

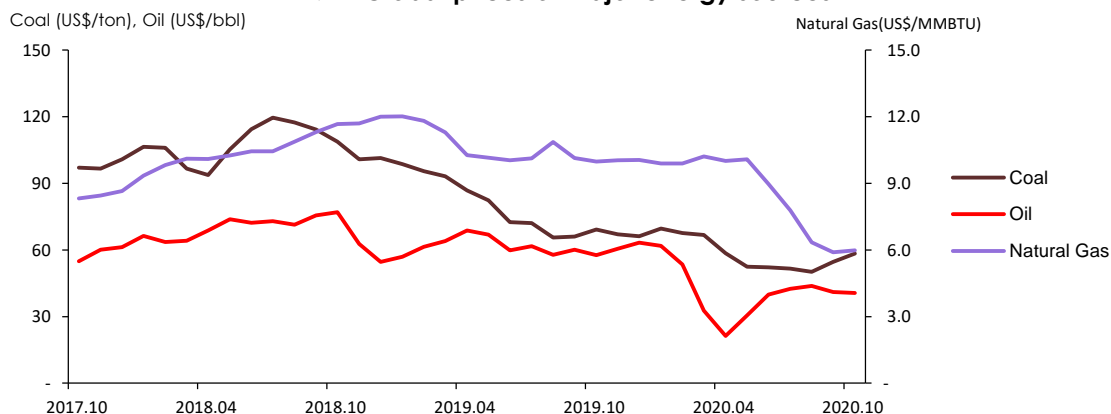
► Global energy prices

	2018	2019				2020		
			M8	M9	M10	M8	M9	M10
Crude oil (US\$/bbl)	68.6 (29.5)	61.6 (-10.2)	57.8 (-19.0)	60.1 (-20.3)	57.7 (-25.0)	43.8 (-24.2)	41.0 (-31.8)	40.6 (-29.6)
Natural gas (US\$/MMBTU)	10.7 (24.0)	10.6 (-1.1)	10.9 (-0.1)	10.1 (-10.3)	10.0 (-14.4)	6.3 (-41.6)	5.9 (-41.9)	6.0 (-40.1)
Coal (US\$/ton)	107.0 (20.9)	77.9 (-27.3)	65.6 (-44.1)	66.0 (-42.2)	69.2 (-36.4)	50.1 (-23.5)	54.6 (-17.2)	58.4 (-15.6)

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 decreased slightly in October than a month ago. On a year-on-year basis, however, it continued to fall by over 10%.**

- The prices of gasoline and diesel at gas stations dropped by 1.4% and 1.8% respectively than the prior month, which continuously reflects the global oil price decrease that started in early September.
- Bunker-C oil price was up 3.8% in September than a month ago, affected by global oil price increase, however it was down 23.0% on a year-on-year basis due to the ongoing impact of weak demand that was resulted from the International Maritime Organization's environmental regulation.

□ **Propane and butane prices remained at the previous month's level in October, and went down by 0.6% and 1.6% respectively on a year-on-year basis.**

- In September, Saudi Aramco set propane price at the same level as the previous month, and butane price was raised by 2.9%, but domestic prices remained flat, as domestic LPG suppliers didn't change the prices partly due to a drop in exchange rates.

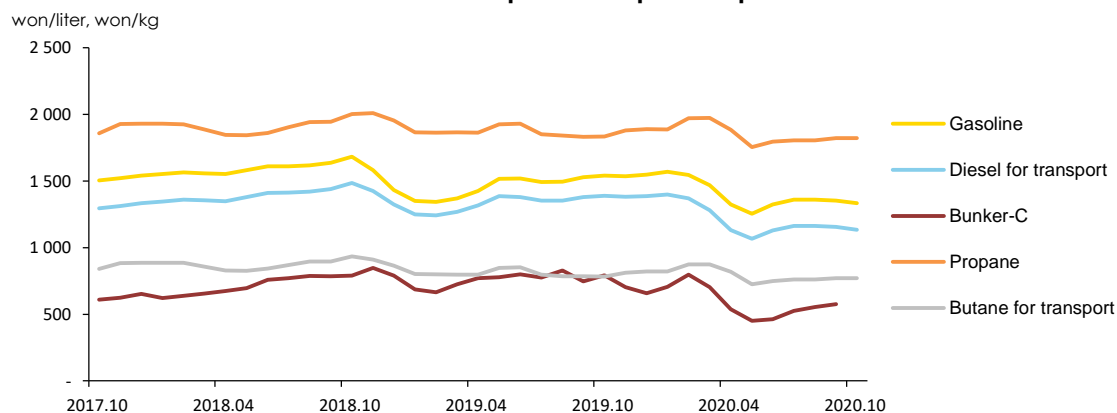
► Domestic petroleum product prices

	2018	2019	2020			2020		
			M8	M9	M10	M8	M9	M10
Gasoline (won/liter)	1 581.4 (6.0)	1 472.3 (-6.9)	1 493.7 (-7.7)	1 529.3 (-6.6)	1 540.5 (-8.4)	1 361.1 (-8.9)	1 352.5 (-11.6)	1 333.3 (-13.5)
Diesel for transport (won/liter)	1 392.0 (8.5)	1 340.4 (-3.7)	1 351.9 (-4.7)	1 379.8 (-4.1)	1 387.7 (-6.6)	1 163.6 (-13.9)	1 154.5 (-16.3)	1 134.0 (-18.3)
Bunker-C (won/liter)	735.2 (18.7)	744.2 (1.2)	827.4 (4.9)	747.4 (-4.7)	791.4 (0.1)	553.7 (-33.1)	575.2 (-23.0)	-
Propane (won/kg)	1 920.5 (4.7)	1 869.6 (-2.7)	1 841.1 (-5.2)	1 831.9 (-5.8)	1 833.6 (-8.4)	1 806.0 (-1.9)	1 821.0 (-0.6)	1 822.1 (-0.6)
Butane for transport (won/liter)	874.6 (5.8)	806.2 (-7.8)	785.4 (-12.2)	784.7 (-12.4)	783.7 (-16.1)	760.4 (-3.2)	771.5 (-1.7)	771.4 (-1.6)

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



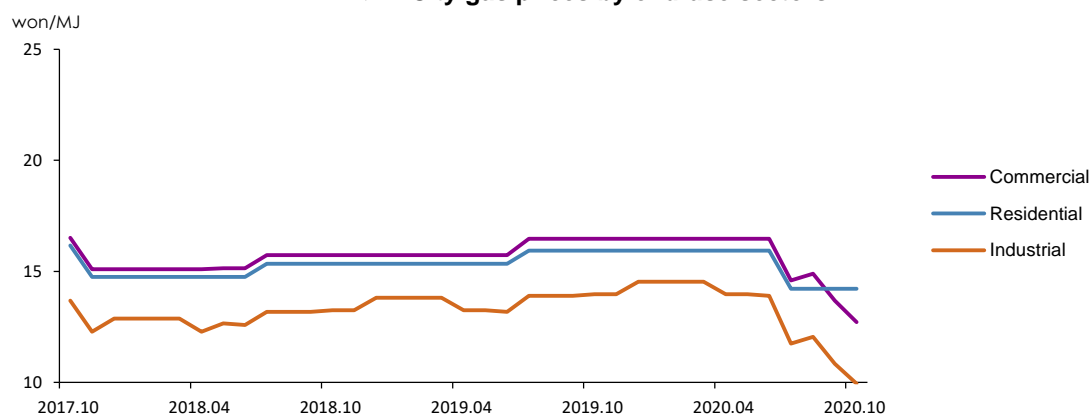
□ **City gas price for commercial and industrial use went down by 7.0% and 8.3% respectively, and that for residential use remained flat compared to the prior month.**

- City gas prices for commercial and industrial use, which are adjusted every month, fell by 7.0% and 8.3% respectively as a result of a drop in global oil price and LNG importing price in addition to the impact of COVID-19, while city gas price for residential use was the same as the previous month.

□ **Heat energy price has been flat for four consecutive months until October since the price reduction in July, but it was down 2.8% on a year-on-year basis.**

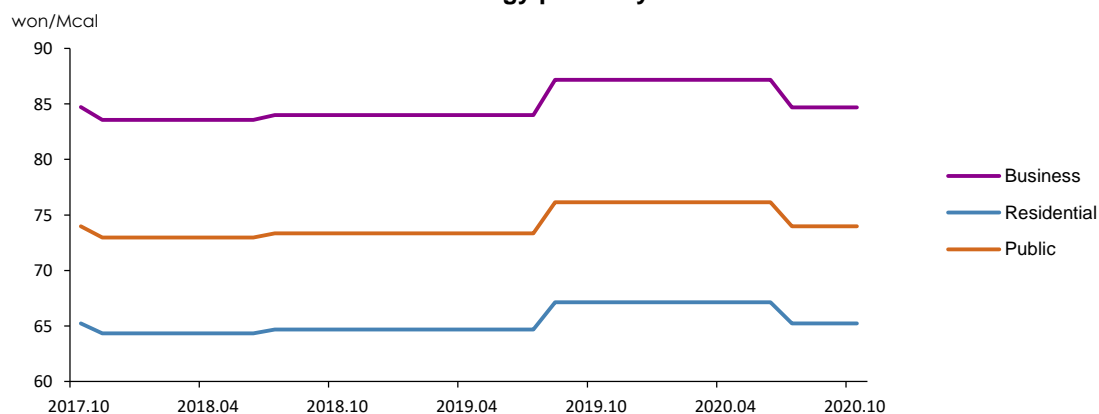
- Heat energy price was cut in July in line with the city gas price cut, though the cut was less than that of city gas, as it reflected actual fuel cost and increased fixed cost.

► City gas prices by end-use sectors



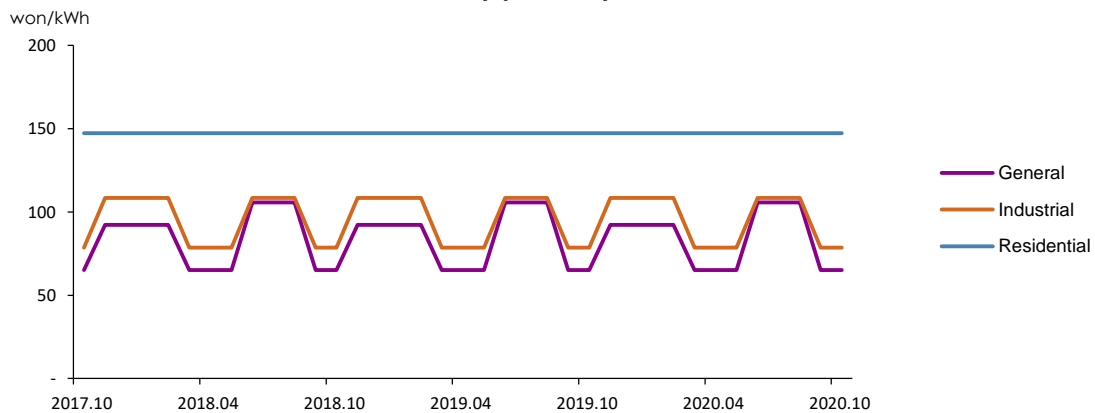
Note: Instead of volume(M³), calorie (MJ) has been used as the unit of measurement in the city gas pricing system since July 2012. Figures before that are converted based on standard calorie (additional tax, base charge excluded).

► Heat energy prices by end-use sectors

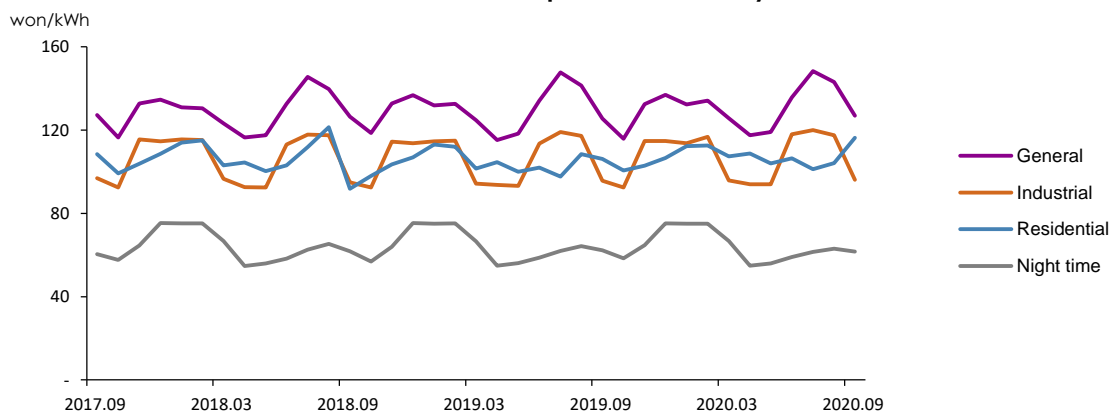


- **Electricity prices for general and industrial use went down after the price adjustment to the spring/autumn season, and the residential electricity price was the same as the previous month.**
 - Electricity prices for general and industrial use, which are based on time-of-use pricing, went down by 38.3% and 27.6% respectively after the price adjustment from summer (June-Aug) to spring/autumn (Mar-May, Sept-Oct) season.
 - Residential electricity price has been flat since the progressive pricing scheme was restructured from six to three stages in December 2016.
- **The unit sales prices of electricity for general and industrial use declined in September than a month ago, while that for residential use increased due to growing electricity consumption.**
 - The unit sales price of residential electricity, that is progressively priced, rose by 11.7% in September from the previous month, as electricity sales volume was higher than in August when power demand is usually high with more time spent at home amid another wave of Covid-19 infections.
 - The unit sales prices of electricity for general and industrial use declined by 11.3% and 18.2% respectively than a month ago, following the price adjustment to the spring/autumn season.

► Electricity prices by end-use sectors



► Unit sales price of electricity



3. Energy Supply

- **The total energy import volume dropped by 21.7% year-on-year in August, as the import of all major energy sources declined.**
 - The import volume of crude oil and petroleum products were down 18.7%, 26.9% year-on-year respectively.
 - The import volume of bituminous coal and LNG fell by 10.8% and 21.5% in own unit of energy, as coal and gas-fired generation declined due to weak power demand.
- **Renewable and 'other' energy generation went down by 6.7% (in August) from the same month last year, owing to a drop in transport energy use and a slowdown in power generation during the rainy season.**
 - An unusually long rainy season dampened travel demand, and accordingly, biofuel use plunged in the transport sector. Solar PV generation grew by no more than 19.1% due to less sunlight, despite increased installed capacity. Meanwhile, wind power generation rose by 73.3% thanks to favorable wind conditions, and hydro generation (except pumped-storage) surged by 179.9% year-on-year with much increased amount of rainfall (186.9%).

► Import and domestic production of energy

	2019p			2020p			
		M1~8	M8	M1~8	M6	M7	M8
Import volume							
Crude oil (Mbbbl)	1 071.9	727.7	97.1	664.3	74.7	86.4	78.9
	(-4.0)	(-2.9)	(2.2)	(-8.7)	(-12.9)	(0.1)	(-18.7)
Petroleum product (Mbbbl)	352.1	227.1	35.3	245.3	29.7	31.8	25.8
	(3.1)	(1.3)	(30.7)	(8.0)	(5.0)	(-0.9)	(-26.9)
Bituminous coal (Mton)	132.7	86.6	12.6	75.4	9.2	10.7	9.2
	(0.9)	(-1.3)	(14.6)	(-12.9)	(-2.7)	(-10.8)	(-27.1)
Anthracite (Mton)	6.9	5.1	0.7	4.1	0.5	0.5	0.6
	(-15.6)	(-7.3)	(-7.5)	(-19.6)	(-12.7)	(-12.7)	(-16.8)
LNG (Mton)	40.8	26.5	3.6	25.4	2.6	2.4	2.0
	(-7.4)	(-6.4)	(24.0)	(-4.3)	(-19.8)	(-21.7)	(-45.5)
Import volume (Mtoe)	349.2	231.2	31.8	217.8	25.5	27.1	24.9
	(-1.5)	(-0.9)	(12.2)	(-5.8)	(-6.3)	(-9.3)	(-21.7)
Import value (billion US\$, CIF)	126.7	86.2	11.6	60.1	4.9	6.4	6.0
	(-13.2)	(-8.7)	(-7.7)	(-30.3)	(-52.3)	(-37.8)	(-48.3)
Energy share of total import value (%)	25.2	25.5	27.3	19.5	13.8	16.5	16.7
Foreign energy dependence (%)*	93.3	93.2	93.1	92.6	92.4	92.8	92.1
Domestic production							
Hydropower (TWh)	6.2	4.2	0.6	4.9	0.5	0.6	1.1
	(-14.1)	(-14.9)	(-14.2)	(16.5)	(6.7)	(8.0)	(78.8)
Anthracite (Mton)	1.1	0.7	0.1	0.7	0.1	0.1	0.1
	(-9.7)	(-16.3)	(-4.5)	(-4.8)	(8.2)	-	(-20.0)
Natural gas (Mton)	0.2	0.1	0.0	0.1	0.0	0.0	0.0
	(-21.5)	(-19.0)	(-12.4)	(-13.5)	(-21.4)	(-35.0)	(-41.5)
Renewable energy (Mtoe)	18.3	12.4	1.6	12.8	1.6	1.5	1.7
	(6.7)	(9.0)	(6.2)	(3.0)	(4.9)	(-0.8)	(2.2)

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

4. Energy Consumption

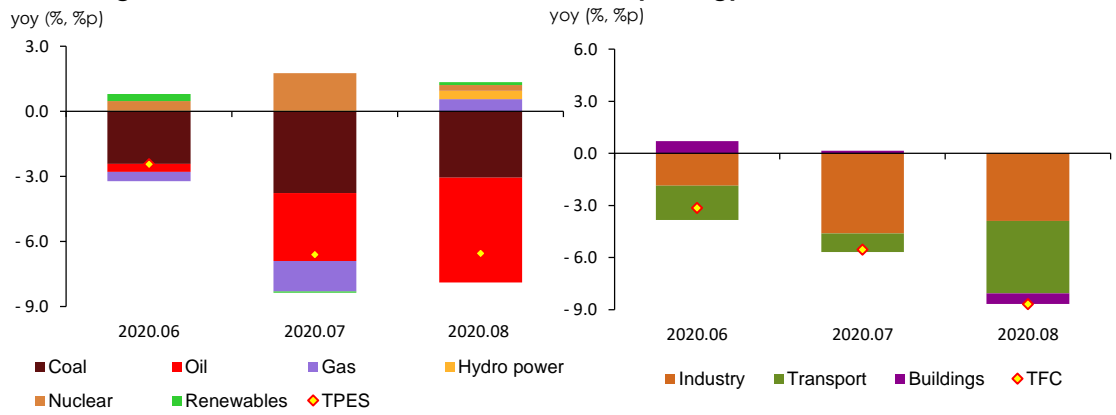
- **Total Primary Energy Supply (“TPES”) fell by 7.1% year-on-year in August, as coal, gas and petroleum use all declined.**
 - Petroleum use fell by 11.9% year-on-year as a result of a sharp drop (-10.5%) in industrial use of naphtha as feedstock and decreased fuel use for road transport and aviation during the long rainy season and another wave of Covid-19 infections.
 - Coal use dropped by 10.7% year-on-year, led by the industrial and power generation sectors; crude steel output fell by 2.2% amid sluggish iron & steel production, and coal-fired generation was down 10.0%.
 - Gas use grew by 3.9% year-on-year, as gas-fired generation rose by 6.0% to meet the summertime peak demand, and the use of LNG for power generation was up 10.1%.
- **Total Final Consumption (“TFC”) went down by 8.7% year-on-year (in August), with the industrial and transport sectors leading the downward trend.**
 - Industrial energy use posted a year-on-year drop of 6.2% despite increased semiconductor output in the fabricated metals sector, as that of automobile and communications equipment decreased.
 - Transport energy use fell by 19.7% year-on-year, as road and air passengers’ travel demand contracted due to frequent rains and another wave of Covid-19. Buildings’ energy use was down 3.8% year-on-year, led by residential (-1.8%) and commercial (-5.2%) buildings as a result of falling air-conditioning demand.

► Energy consumption

	2019p			2020p			
		M1~8	M8	M1~8	M6	M7	M8
TPES (Mtoe)	303.6	203.1	26.1	193.5	22.7	23.7	24.4
	(-1.3)	(-1.0)	(-0.2)	(-4.7)	(-2.4)	(-6.6)	(-6.6)
- Non-energy oil&coal excluded	220.1	147.6	19.0	139.9	16.2	16.9	17.7
	(-1.3)	(-0.7)	(-0.7)	(-5.2)	(-3.1)	(-6.1)	(-6.8)
TFC (Mtoe)	231.0	154.5	19.3	147.3	16.9	17.5	17.6
	(-0.8)	(-0.6)	(1.5)	(-4.6)	(-3.1)	(-5.5)	(-8.7)

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 declined by 10.7% year-on-year in August, which was attributed to sluggish production in major coal consuming industries and weak coal demand from the power generation sector.

- Industrial coal use decreased in August compared to the same month last year, as the production further declined in the iron & steel business—one of the major coal consuming industries—amid repeated outbreaks of COVID-19.
- Coal use fell by 13.1% year-on-year in August in the power generation sector, and coal-fired generation dropped by 10.0%, as electricity consumption decreased by 6.2% from the same period last year.

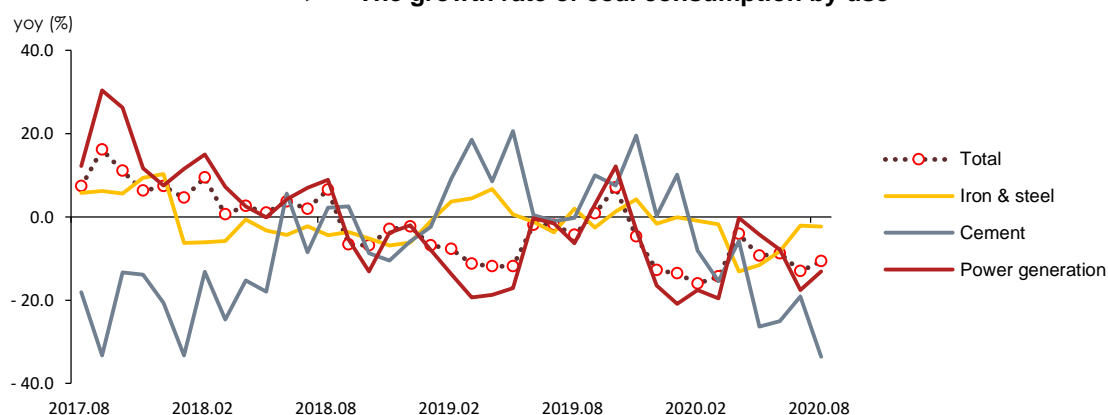
► Coal consumption

	2019p	2020p		2020p			
		M1~8	M8	M1~8	M6	M7	M8
Coal (Mton)	133.0	88.1	12.7	78.0	9.6	10.7	11.3
	(-5.7)	(-7.1)	(-4.3)	(-11.5)	(-8.8)	(-13.1)	(-10.7)
Industry	47.6	32.0	4.1	29.5	3.6	3.8	3.9
	(-1.6)	(-0.5)	(0.3)	(-7.7)	(-10.3)	(-3.5)	(-5.5)
-Coking-coal	35.0	23.3	3.0	22.1	2.6	2.9	2.9
	(1.0)	(1.3)	(2.0)	(-5.0)	(-8.3)	(-2.1)	(-2.3)
Buildings	0.6	0.3	0.012	0.2	0.007	0.005	0.006
	(-29.2)	(-29.9)	(-25.0)	(-23.5)	(-12.5)	(-28.6)	(-50.0)
Power generation	84.8	55.8	8.6	48.2	6.0	6.9	7.4
	(-7.6)	(-10.3)	(-6.4)	(-13.5)	(-7.8)	(-17.6)	(-13.1)

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 11.9% year-on-year in August, as the consumption decreased in the industrial and transport and all other sectors.**

- Industrial petroleum use declined by 6.6% year-on-year, as the use of naphtha that takes up a large share of the total petroleum use fell by 10.5%.
- Petroleum use fell by 20.3% in the transport sector, which was affected by weather conditions and another wave of Covid-19 outbreak.
- Petroleum use in buildings decreased by 14.2% year-on-year, as energy use for heating and cooking declined due to sweltering weather.

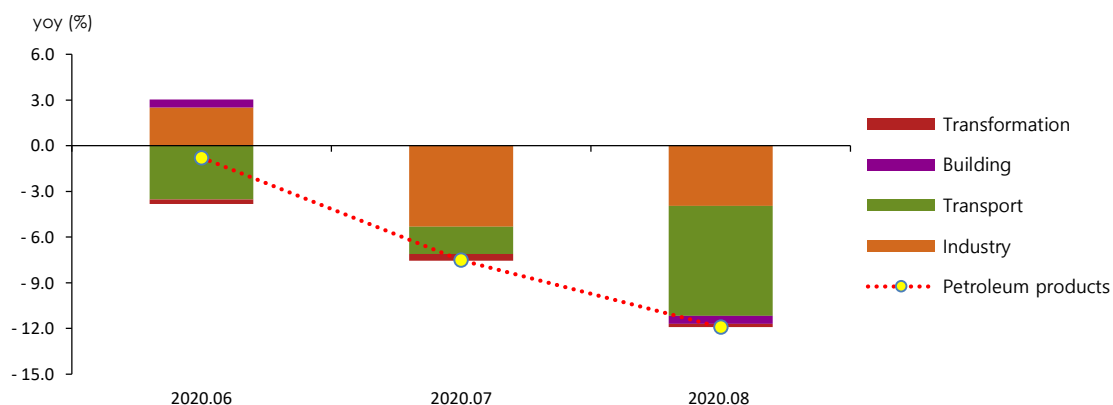
► Petroleum product consumption by end-use sectors

	2019p			2020p			
		M1~8	M8	M1~8	M6	M7	M8
Petroleum (Mbbl)	927.1	614.6	81.3	585.6	71.1	72.5	71.7
	(-0.5)	(-1.2)	(4.5)	(-4.7)	(-0.8)	(-7.5)	(-11.9)
Industry	566.2	371.3	48.8	369.3	44.7	46.2	45.6
	(0.4)	(-1.5)	(4.0)	(-0.6)	(4.2)	(-8.3)	(-6.6)
-Naphtha	438.6	292.3	38.1	279.9	33.6	35.2	34.1
	(-2.8)	(-3.4)	(0.3)	(-4.2)	(0.4)	(-9.6)	(-10.5)
Transport	303.3	204.9	28.9	180.5	23.2	23.3	23.0
	(0.3)	(1.8)	(7.2)	(-12.0)	(-9.8)	(-5.7)	(-20.3)
Buildings	49.1	32.1	3.1	32.6	3.0	2.7	2.6
	(-8.6)	(-6.7)	(3.9)	(1.7)	(14.5)	(0.9)	(-14.2)
Power generation	8.6	6.3	0.6	3.3	0.3	0.3	0.5
	(-26.9)	(-32.1)	(-40.5)	(-47.5)	(-41.3)	(-55.2)	(-26.8)

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

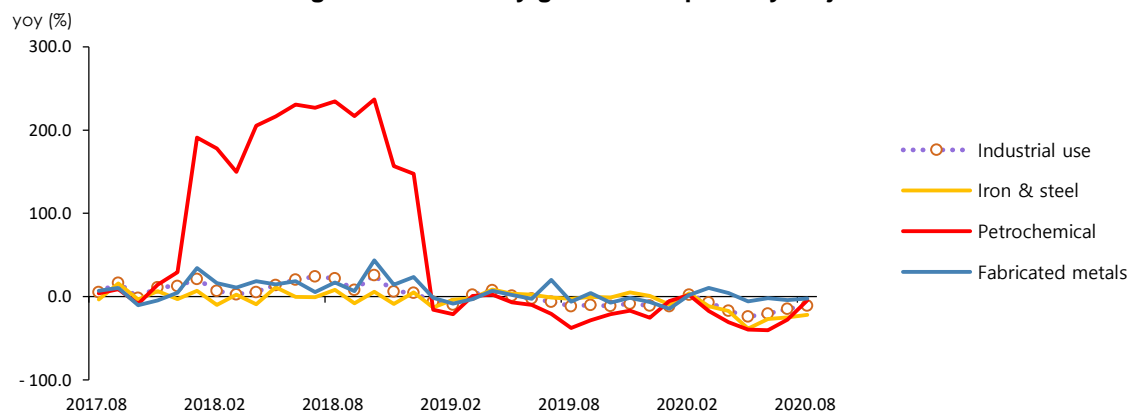
- **Natural gas use went up by 3.9% in August from the same period last year, as its use surged in the power generation sector despite decrease electricity use during summer.**
 - Gas-fired generation grew by 6.0% year-on-year as a result of a sharp drop in coal-fired generation, and gas use for power generation rose by 9.6%, although electricity use fell by 6.2% amid the Covid-19 pandemic and lower temperatures in summer.
- **Final use of gas fell by 2.5% in August, which was a slower pace than the same month last year due to growing gas use in buildings.**
 - Industrial (city) gas use has been on a downward trend due to a slowdown in manufacturing, but the rate of decline slowed on a year-on-year basis, as the use of natural gas that is directly imported by private companies started to recover in the chemical industry.
 - (City) gas use continued to decline in commercial and public buildings due to the impact of Covid-19.

► Natural gas and city gas consumption

	2019p			2020p			
		M1~8	M8		M1~8	M6	M7
LNG (Mton)	40.9	27.1	2.8	26.4	2.4	2.6	2.9
	(-3.2)	(-4.6)	(-1.8)	(-2.6)	(-3.2)	(-9.6)	(3.9)
Power generation	18.4	12.2	1.7	12.3	1.3	1.4	1.8
	(-2.7)	(-7.3)	(-1.4)	(1.3)	(6.7)	(-11.1)	(9.6)
City gas production	20.5	13.6	1.0	12.8	1.0	1.0	1.0
	(-2.1)	(0.0)	(-0.3)	(-5.6)	(-12.6)	(-5.9)	(-3.2)
City gas (bm³)	25.4	17.3	1.3	16.4	1.3	1.3	1.3
	(-1.1)	(0.5)	(0.1)	(-5.2)	(-10.5)	(-7.6)	(-2.5)
Industry	10.4	7.0	0.8	6.4	0.7	0.7	0.7
	(2.3)	(5.7)	(-3.1)	(-7.7)	(-17.5)	(-10.2)	(-8.1)
Buildings	13.8	9.6	0.5	9.3	0.5	0.5	0.5
	(-3.6)	(-2.9)	(6.9)	(-3.2)	(-0.3)	(-3.2)	(6.0)

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 dropped by 6.2% year-on-year in August, as the consumption fell more sharply in the industrial sector and started to decrease in the buildings sector.

- Industrial electricity consumption has been down for six consecutive months, from March to September, partly due to the economic slowdown amid the ongoing Covid-19 pandemic.
- Electricity consumption plummeted in commercial and residential buildings as a result of another wave of Covid-19 cases, the rainy season and typhoons.

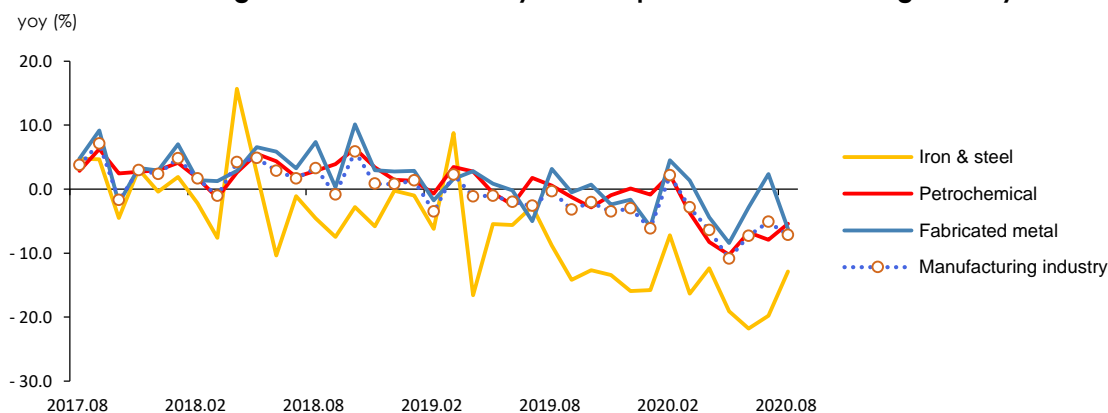
► Electricity consumption by end-use sectors

	2019p			2020p			
		M1~8	M8	M1~8	M6	M7	M8
Electricity (TWh)	520.5	350.4	47.6	338.9	39.8	42.1	44.6
	(-1.1)	(-1.4)	(-4.0)	(-3.3)	(-2.1)	(-2.1)	(-6.2)
Industry	279.8	188.0	24.3	177.9	21.2	22.4	22.5
	(-1.4)	(-0.7)	(-0.9)	(-5.4)	(-6.7)	(-4.9)	(-7.1)
Transport	2.9	2.0	0.3	1.8	0.2	0.2	0.3
	(-2.0)	(-0.9)	(-3.3)	(-8.5)	(-7.2)	(-10.3)	(-9.9)
Buildings	237.8	160.4	23.0	159.2	18.4	19.5	21.8
	(-0.7)	(-2.1)	(-7.1)	(-0.7)	(3.8)	(1.5)	(-5.3)
Residential	70.5	47.0	7.6	48.8	5.8	6.0	7.2
	(-0.3)	(-2.0)	(-11.8)	(3.8)	(8.8)	(6.7)	(-5.5)
Commercial	135.2	91.8	12.6	89.7	10.2	10.9	11.9
	(-0.9)	(-2.3)	(-4.9)	(-2.3)	(2.2)	(-0.2)	(-5.9)

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

Source: Monthly Energy Statistics

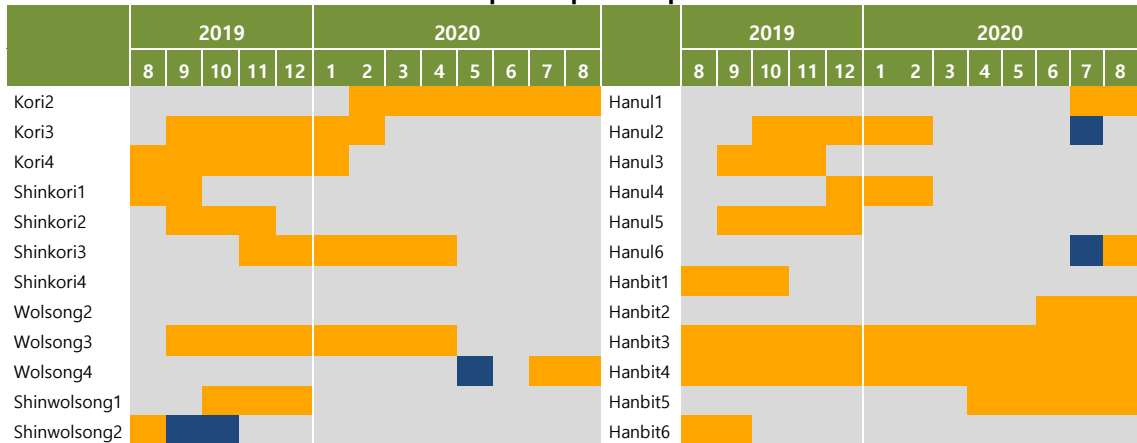
► The growth rate of electricity consumption in manufacturing industry



9. Nuclear

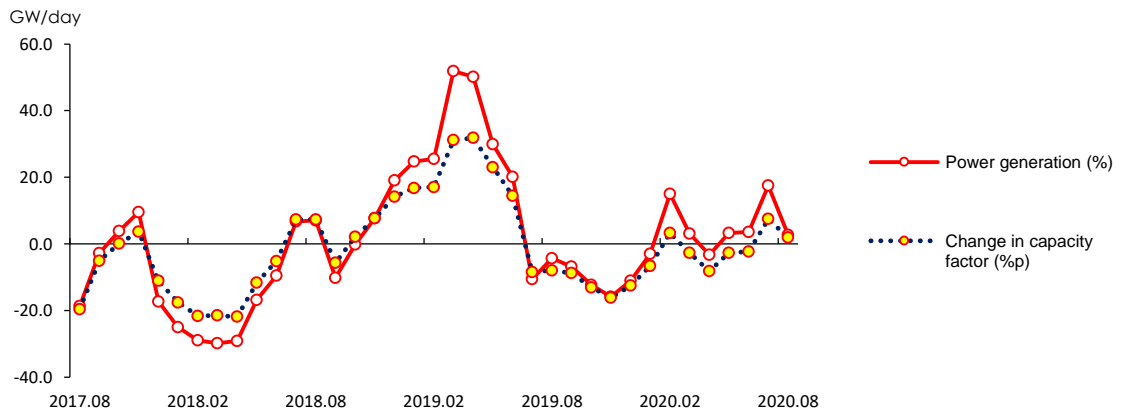
- **The total nuclear generation posted a year-on-year growth of 2.7% in August, although the installed capacity remained unchanged from the same month last year, as its capacity factor increased.**
 - The nuclear capacity factor increased by 2.7%p year-on-year to 72.4%.
 - As the nuclear generation increased, its share of the total power generation went up by 0.9%p year-on-year to 24.5%.

► Nuclear power plants operation status



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

► The growth rate of nuclear generation & average capacity factor



10. Heat and Renewable energy

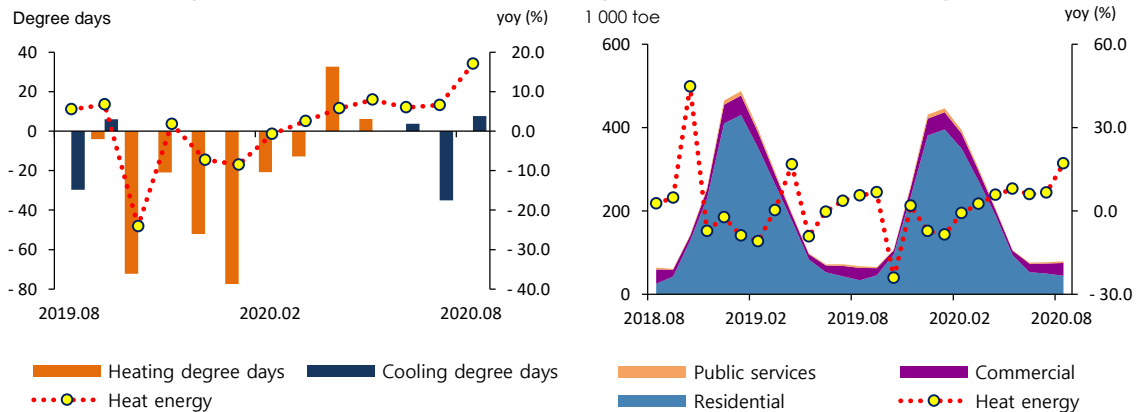
☐ **Heat energy use grew by 17.1% year-on-year in August, led by the residential sector owing to the impact of another wave of Covid-19 infections and typhoons.**

- The residential (31.4%) and commercial (4.2%) sectors led the growth in heat energy use, as people spent more time at home following the adoption of Level 2 social distancing measures, and the amount of rainfall almost doubled due to the long rainy season and Typhoon Bavi.

☐ **Renewable energy generation posted a year-on-year growth of 3.6% despite the exclusion of waste energy from the renewable category, as hydropower generation surged.**

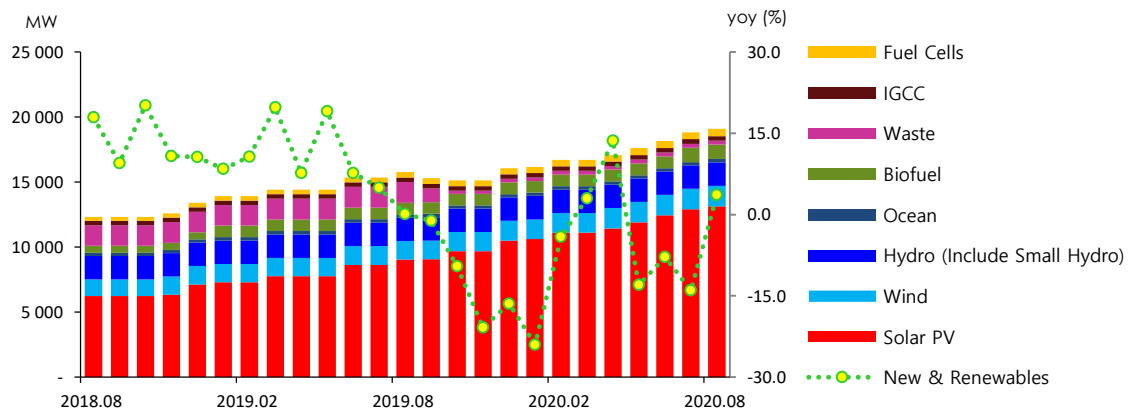
- The total renewable generation increased, led by a surge in hydropower, wind and fuel cell generation, although the installed capacity of and power generation from waste energy plunged after it was excluded in the renewable category (Oct. 2019), and solar PV generation grew more slowly.

► 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

□ Energy use started a downward slide in the fabricated metals sector, and the total industrial energy use dropped by 6.2% year-on-year in August.

- Industrial energy use maintained a downward trend of the previous month in August, and energy use started to decline in the fabricated metals sector, but the decline rate was lower than in July (-7.0%), as the pace of decline in energy use slowed in the petrochemical sector.

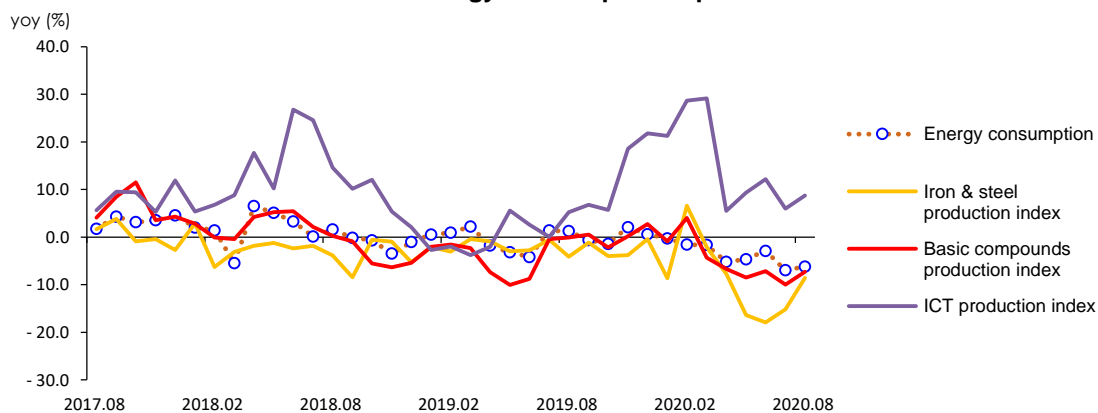
► Industrial energy consumption

	2019p			2020p			
		M1~8	M8	M1~8	M6	M7	M8
Industry (Mtoe)	142.6	94.7	12.1	91.3	10.9	11.4	11.4
	(-0.2)	(-0.4)	(1.3)	(-3.7)	(-2.9)	(-7.0)	(-6.2)
Petrochemical	72.0	47.5	6.2	46.8	5.5	5.8	5.9
	(-0.2)	(-1.2)	(2.2)	(-1.6)	(-1.1)	(-8.4)	(-5.8)
- Naphtha	53.8	35.8	4.7	34.3	4.1	4.3	4.2
	(-2.8)	(-3.4)	(0.3)	(-4.2)	(0.4)	(-9.6)	(-10.5)
Iron & Steel	28.8	19.3	2.4	18.0	2.1	2.3	2.4
	(-0.0)	(0.5)	(0.7)	(-6.6)	(-10.1)	(-4.8)	(-4.0)
-Coking coal	24.4	16.2	2.1	15.4	1.8	2.0	2.0
	(1.0)	(1.3)	(2.0)	(-5.0)	(-8.3)	(-2.1)	(-2.3)
Fabricated metal	11.4	7.6	1.0	7.5	0.9	0.9	0.9
	(-0.1)	(0.5)	(1.7)	(-2.2)	(-2.4)	(1.9)	(-4.9)
Share of feedstock (%)	58.5	58.4	59.1	58.6	59.3	59.0	59.2

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

Source: Monthly Energy Statistics

► Industrial energy consumption & production index



12. Transport

□ Transport energy use fell by 19.7% year-on-year in August owing to the impact of another wave of Coronavirus infections.

- Energy use dropped by 18.3% year-on-year in the road transport sector, as travel demand plummeted after the government announced the enhanced Level 2 social distancing measures for 8 days amid growing concerns over further spread of the coronavirus, which was triggered by a demonstration held on National Liberation Day (Aug. 15) along with the impact of a month-long rainy season.
- Energy use plunged by 53.2% in the Aviation industry due to the ongoing impact of the Covid-19 pandemic.

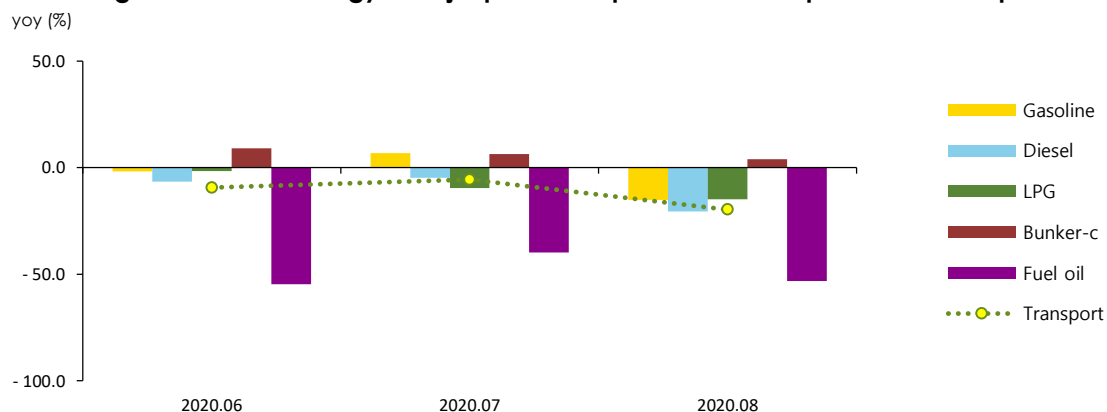
► The growth rate of petroleum consumption in the transport sector

	2019p			2020p			
		M1~8	M8	M1~8	M6	M7	M8
Transport (Mtoe)	43.0	29.1	4.1	25.7	3.3	3.3	3.3
	(0.0)	(1.6)	(6.4)	(-11.7)	(-9.4)	(-5.6)	(-19.7)
Road	35.1	23.7	3.5	21.7	2.8	2.8	2.9
	(1.9)	(3.6)	(11.9)	(-8.6)	(-4.9)	(-2.3)	(-18.3)
Navigation	2.6	1.9	0.2	2.0	0.3	0.3	0.2
	(-17.1)	(-11.9)	(-16.6)	(6.5)	(17.0)	(12.7)	(12.3)
Aviation	4.9	3.2	0.4	1.8	0.2	0.2	0.2
	(-1.7)	(-3.1)	(-19.3)	(-45.2)	(-54.7)	(-39.8)	(-53.2)
Rail	0.3	0.2	0.0	0.2	0.0	0.0	0.0
	(-2.8)	(-1.9)	(-4.2)	(-9.7)	(-7.6)	(-13.0)	(-16.8)

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 went down by 3.8% year-on-year in August amid repeated Covid-19 outbreaks and the impact of a typhoon.

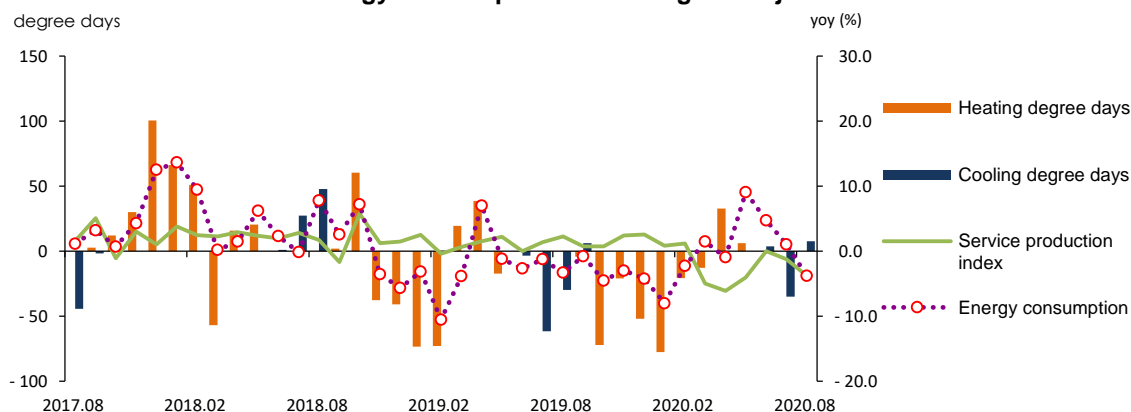
- Energy use declined in all types of buildings following the adoption of Level 2 social distancing measures and due to outages caused by Typhoon Bavi, the season's eighth typhoon.
- Energy use in residential buildings fell by 1.8%, as electricity use dropped by 5.5% as a result of power cuts and supply disruptions because of Typhoon Bavi, and petroleum use was also down 23.3%, although city gas and heat energy use surged (24.3%, 31.4%) due to more hours spent at home, the rainy season and typhoons.
- Energy use in commercial and public buildings fell by 4.9% year-on-year, and demand for all energy sources declined, as floating population and service production declined owing to the impact of Level 2 social distancing measures and harsh weather conditions such as the rainy season and typhoons.

► Energy consumption in buildings

	2019p			2020p			
		M1~8	M8	M1~8	M6	M7	M8
Buildings (Mtoe)	45.4	30.7	3.1	30.4	2.7	2.7	3.0
	(-3.2)	(-3.1)	(-3.3)	(-0.9)	(4.8)	(1.1)	(-3.8)
Residential	22.5	15.2	1.1	15.2	1.0	1.0	1.1
	(-4.1)	(-3.1)	(-3.0)	(0.4)	(6.2)	(4.9)	(-1.9)
Commercial	17.5	11.8	1.5	11.5	1.3	1.3	1.4
	(-2.3)	(-3.4)	(-4.7)	(-2.7)	(4.1)	(-1.2)	(-5.2)
Public others	5.4	3.7	0.5	3.6	0.4	0.4	0.4
	(-2.4)	(-2.4)	(0.8)	(-0.9)	(3.1)	(-0.4)	(-3.9)
Heating degree days	2 342.9	1 511.5	-	1 439.3	-	-	-
	(-9.8)	(-6.5)		(-4.8)			
Cooling degree days	120.4	114.3	74.8	90.6	3.7	4.5	82.4
	(-42.4)	(-45.3)	(-28.4)	(-20.7)		(-88.6)	(10.2)

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

► Energy consumption in buildings & major indicators



14. Transformation

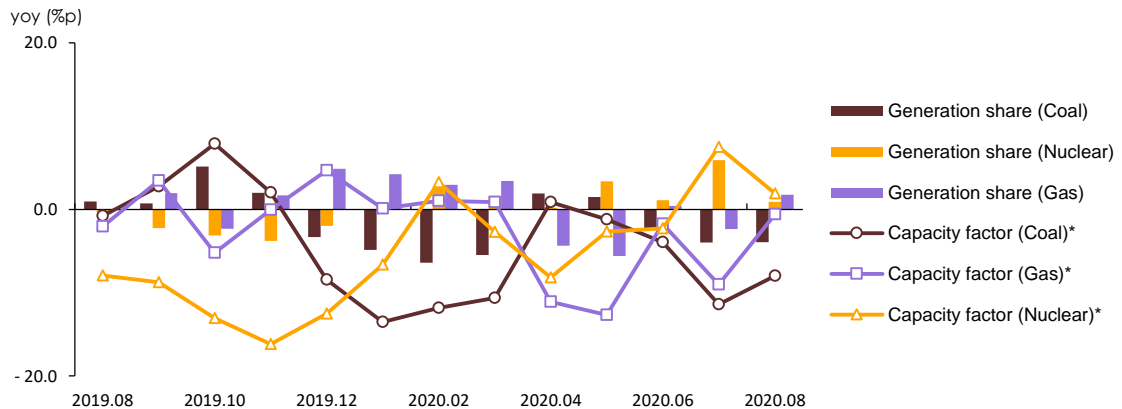
- The energy input for power generation fell by 3.5% year-on-year in August, as electricity consumption decreased due to the impact of COVID-19 and typhoons.
 - Electricity consumption declined in all end-use sectors (-6.2%, yoy) as a result of another wave of Covid-19, the prolonged rainy season and typhoons. Accordingly, the total power generation fell by 1.2%.

► Energy consumption in the power generation sector

	2019p			2020p			
		M1~8	M8	M1~8	M6	M7	M8
Input (Mtoe)	116.7	78.7	10.9	75.6	9.2	9.8	10.6
	(-1.7)	(-1.4)	(-4.3)	(-3.9)	(-0.4)	(-6.6)	(-2.2)
Coal	50.1	33.0	5.1	28.5	3.5	4.1	4.4
	(-7.6)	(-10.4)	(-6.4)	(-13.5)	(-7.9)	(-17.6)	(-13.1)
Oil	0.8	0.6	0.1	0.2	0.0	0.0	0.1
	(-35.7)	(-39.1)	(-54.1)	(-66.1)	(-59.6)	(-70.1)	(-24.3)
Gas	24.4	16.1	2.2	16.4	1.7	1.9	2.4
	(-2.9)	(-7.4)	(-1.5)	(1.4)	(7.0)	(-10.5)	(10.0)
Nuclear	31.1	22.1	2.6	23.1	3.0	2.9	2.7
	(9.3)	(20.9)	(-4.4)	(4.4)	(3.6)	(17.5)	(2.7)
Hydro/other renewables	10.2	6.9	0.9	7.5	0.9	0.9	1.1
	(7.2)	(9.9)	(10.4)	(8.2)	(10.2)	(1.0)	(15.9)

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			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
GDP (trillion won)	1 812.0 (2.9)	1 849.0 (2.0)	898.4 (1.9)	461.3 (2.1)	- (-)	- (-)	891.9 (-0.7)	448.7 (-2.7)	- (-)	- (-)
Private consumption	875.6 (3.2)	890.2 (1.7)	439.4 (1.6)	216.7 (1.8)	- (-)	- (-)	420.1 (-4.4)	208.1 (-4.0)	- (-)	- (-)
Facilities investment	166.3 (-2.3)	153.9 (-7.5)	76.6 (-12.3)	40.1 (-7.0)	- (-)	- (-)	80.9 (5.6)	41.7 (4.1)	- (-)	- (-)
Construction investment	269.8 (-4.6)	262.9 (-2.5)	124.4 (-5.2)	72.1 (-3.0)	- (-)	- (-)	126.6 (1.7)	72.1 (-0.1)	- (-)	- (-)
Consumer price index (2015=100)	104.5	104.9	104.7	104.9	104.6	104.8	105.3	104.9	104.9	105.5
USD to KRW exchange rate (won)	1 100.2	1 165.4	1 157.4	1 175.6	1 175.3	1 209.0	1 203.5	1 210.0	1 198.9	1 186.9
Benchmark rate (%)	1.5	1.6	1.7	1.8	1.5	1.5	0.8	0.5	0.5	0.5
Coincident composite index (2015=100)	110.1	111.7	111.3	111.6	111.7	112.1	111.7	110.5	111.0	111.6
Mining & manufacturing production index (2015=100)	106.4	106.3	104.3	105.6	110.1	103.0	103.5	105.0	107.5	100.3
Manufacturing operation ratio index (2015=100)	98.8	98.5	97.3	98.9	103.6	96.2	93.2	94.7	97.4	89.6
Average temperature	13.0	13.5	14.1	21.3	24.9	26.2	14.4	22.8	22.7	26.6
- year-on-year difference	- 0.1	0.5	- 0.0	- 0.9	- 2.0	- 1.1	0.2	1.5	- 2.2	0.5
Heating degree days	2 597.8 (3.2)	2 342.9 (-9.8)	1 511.5 (-6.5)	- (-)	- (-)	- (-)	1 439.3 (-4.8)	- (-)	- (-)	- (-)
Cooling degree days	209.0 (57.5)	120.4 (-42.4)	114.3 (-45.3)	- (-100.0)	39.5 (-60.9)	74.8 (-28.4)	90.6 (-20.7)	3.7 (-)	4.5 (-88.6)	82.4 (10.2)
Energy intensity	0.17 (-1.0)	0.17 (-3.2)	0.17 (-2.8)	0.15 (-3.4)			0.16 (-3.6)	0.15 (-0.7)		
Per capita consumption										
oil (bbl)	18.1 (-1.0)	17.9 (-0.7)	11.9 (-1.4)	1.4 (-5.3)	1.5 (1.0)	1.6 (4.3)	11.3 (-4.8)	1.4 (-0.9)	1.4 (-7.6)	1.4 (-12.0)
Electricity (MWh)	10.2 (3.1)	10.1 (-1.3)	6.8 (-1.6)	0.8 (-1.2)	0.8 (-2.6)	0.9 (-4.2)	6.5 (-3.4)	0.8 (-2.3)	0.8 (-2.2)	0.9 (-6.4)
City gas (1 000 m ³)	0.5 (6.9)	0.5 (-4.3)	0.3 (-3.1)	0.0 (-1.7)	0.0 (-3.6)	0.0 (-4.2)	0.3 (-6.8)	0.0 (-11.2)	0.0 (-9.6)	0.0 (-2.9)
Total energy (toe)	6.0 (1.3)	5.9 (-1.5)	3.9 (-1.2)	0.4 (-2.3)	0.5 (-2.0)	0.5 (-0.4)	3.7 (-4.8)	0.4 (-2.6)	0.5 (-6.7)	0.5 (-6.7)

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 Ratio & Output by Sectors

(2015=100)

2013=100

	2018	2019					2020			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Industrial production index										
All industry	107.5 (1.6)	108.1 (0.5)	106.2 (-0.0)	109.4 (-0.9)	108.3 (0.9)	106.0 (0.2)	104.9 (-1.3)	110.2 (0.7)	106.7 (-1.5)	102.4 (-3.4)
Mining & manufacturing	106.4 (1.5)	106.3 (-0.0)	104.3 (-1.1)	105.6 (-2.0)	110.1 (1.6)	103.0 (-2.4)	103.5 (-0.8)	105.0 (-0.6)	107.5 (-2.4)	100.3 (-2.6)
Semiconductor	168.4 (21.2)	188.1 (11.7)	172.4 (6.2)	195.1 (7.3)	195.2 (4.1)	197.4 (13.1)	221.8 (28.7)	241.8 (23.9)	228.4 (17.0)	239.2 (21.2)
Iron & steel	100.5 (-2.7)	98.3 (-2.2)	99.2 (-2.1)	98.6 (-2.8)	102.4 (-0.6)	95.7 (-4.1)	90.3 (-9.0)	80.9 (-18.0)	86.9 (-15.1)	87.5 (-8.6)
Cement	100.0 (-8.8)	93.8 (-6.2)	93.8 (-5.6)	102.5 (-11.3)	95.5 (-7.0)	91.1 (1.3)	82.5 (-12.1)	91.8 (-10.4)	80.5 (-15.7)	72.1 (-20.9)
Basic compound	110.4 (0.1)	107.5 (-2.6)	107.3 (-4.1)	100.5 (-8.8)	113.4 (-0.4)	112.8 (-0.1)	101.8 (-5.1)	93.3 (-7.2)	102.1 (-10.0)	104.6 (-7.3)
Transport equipment	93.9 (-1.2)	93.1 (-0.9)	93.2 (2.0)	93.2 (-1.5)	100.9 (14.3)	77.0 (-12.0)	78.9 (-15.3)	79.6 (-14.6)	93.0 (-7.8)	68.2 (-11.4)
Electric & electronic	106.5 (-0.2)	107.7 (1.2)	104.6 (0.4)	106.2 (-0.4)	110.1 (5.0)	102.4 (-4.5)	101.2 (-3.2)	106.6 (0.4)	108.9 (-1.1)	96.9 (-5.4)
Service	106.9 (2.2)	108.4 (1.4)	106.9 (1.3)	108.2 -	108.0 (1.4)	108.2 (2.3)	104.5 (-2.3)	108.2 -	106.7 (-1.2)	104.1 (-3.8)
Wholesale and retail	105.0 (1.8)	104.6 (-0.4)	103.6 (-0.3)	103.8 (-1.2)	102.7 (-0.6)	102.8 (1.4)	99.8 (-3.7)	103.7 (-0.1)	100.6 (-2.0)	96.8 (-5.8)
Food & Accommodation	98.5 (-1.9)	97.5 (-1.0)	96.6 (-1.1)	96.4 (-1.1)	99.4 (-2.5)	101.8 (-0.4)	81.4 (-15.7)	84.6 (-12.2)	90.4 (-9.1)	84.6 (-16.9)
Operating ratio index										
Iron & steel - Pig iron	47 124.3 (0.1)	47 520.7 (0.8)	31 679.1 (1.6)	3 909.8 (-2.2)	4 005.1 (-2.3)	4 102.0 (1.5)	29 465.7 (-7.0)	3 482.2 (-10.9)	3 905.6 (-2.5)	4 090.6 (-0.3)
Iron & steel - Crude steel	72 464.0 (2.0)	71 411.9 (-1.5)	47 953.4 (-0.8)	5 949.3 (-2.7)	6 026.4 (-2.4)	5 904.9 (-3.2)	43 792.0 (-8.7)	5 089.2 (-14.5)	5 525.9 (-8.3)	5 773.4 (-2.2)
Petrochemical - Basic oil	31 139.2 (1.9)	31 804.1 (2.1)	20 914.2 (0.0)	2 427.5 (-7.4)	2 878.2 (7.0)	2 804.0 (4.3)	20 837.1 (-0.4)	2 490.8 (2.6)	2 559.3 (-11.1)	2 572.1 (-8.3)
Petrochemical - Intermediate raw material	16 981.8 (2.9)	16 014.0 (-5.7)	10 633.6 (-5.3)	1 169.4 (-10.5)	1 361.3 (-8.1)	1 464.9 (-1.0)	10 505.0 (-1.2)	1 236.0 (5.7)	1 287.5 (-5.4)	1 261.9 (-13.9)
Petrochemical - 3 major products	21 793.6 (-1.1)	21 584.7 (-1.0)	14 572.8 (-0.7)	1 702.9 (-4.2)	1 928.8 (3.9)	1 909.0 (1.5)	14 313.5 (-1.8)	1 665.2 (-2.2)	1 745.3 (-9.5)	1 806.5 (-5.4)
The number of cars	4 028.7 (-2.1)	3 950.6 (-1.9)	2 637.3 (1.1)	332.8 (-1.0)	359.6 (17.4)	249.4 (-15.9)	2 206.7 (-16.3)	297.1 (-10.7)	345.7 (-3.8)	233.4 (-6.4)

Note: p means provisional
Source: Monthly Energy Statistics

International Energy Prices

	2018	2019					2020			
			M1~10	M8	M9	M10	M1~10	M8	M9	M10
Crude oil (USD/bbl)										
WTI	64.8 (27.1)	57.0 (-11.9)	56.8 (-15.5)	54.8 (-19.2)	57.0 (-18.7)	54.0 (-23.7)	38.4 (-32.3)	42.4 (-22.7)	39.6 (-30.4)	39.6 (-26.8)
Dubai	69.4 (30.5)	63.5 (-8.5)	63.6 (-10.5)	59.1 (-18.4)	61.1 (-20.8)	59.4 (-25.2)	41.3 (-35.0)	44.0 (-25.6)	41.5 (-32.1)	40.7 (-31.5)
Brent	71.5 (30.5)	64.2 (-10.3)	64.2 (-12.6)	59.5 (-19.4)	62.3 (-21.3)	59.6 (-26.0)	42.4 (-33.9)	45.0 (-24.3)	41.9 (-32.8)	41.5 (-30.4)
Unit value of import (C&F)	71.4 (34.0)	65.5 (-8.3)	65.6 (-8.1)	64.5 (-14.2)	63.1 (-17.4)	64.1 (-19.0)	40.5 (-38.3)	44.7 (-30.8)	44.5 (-29.5)	- -
LNG										
From Indonesia (USD/MMBTU)	10.7 (24.0)	10.6 (-1.0)	10.7 (2.2)	10.9 (-0.1)	10.1 (-10.3)	10.0 (-14.4)	8.5 (-20.3)	6.3 (-41.6)	5.9 (-41.9)	6.0 (-40.1)
Unit value of import (USD/ton, CIF)	526.3 (26.4)	505.4 (-4.0)	515.5 (-0.0)	479.2 (-10.0)	509.9 (-9.3)	479.0 (-17.4)	414.8 (-19.5)	317.3 (-33.8)	262.8 (-48.5)	- -
Bituminous coal (USD/ton)										
From Australia	107.0 (20.9)	77.9 (-27.2)	80.1 (-25.9)	65.6 (-44.1)	66.0 (-42.2)	69.2 (-36.4)	58.2 (-27.4)	50.1 (-23.5)	54.6 (-17.2)	58.4 (-15.6)
Unit value of import (CIF)	113.6 (8.9)	100.7 (-11.3)	103.6 (-8.9)	103.6 (-5.9)	85.0 (-26.9)	92.1 (-19.4)	79.7 (-23.1)	70.7 (-31.8)	68.4 (-19.5)	- -
Petroleum product (USD/bbl)										
Gasoline	79.9 (17.4)	72.5 (-9.3)	71.9 (-13.5)	70.1 (-17.4)	74.7 (-16.6)	74.0 (-15.6)	46.0 (-36.1)	48.2 (-31.2)	47.2 (-36.8)	46.0 (-37.9)
Kerosene	84.8 (29.8)	77.3 (-8.9)	77.4 (-10.3)	74.6 (-14.5)	77.7 (-15.2)	75.4 (-20.8)	43.7 (-43.5)	43.3 (-42.0)	39.3 (-49.4)	41.6 (-44.8)
Diesel	84.9 (27.9)	78.2 (-7.9)	78.3 (-9.7)	75.4 (-14.8)	78.1 (-16.8)	77.1 (-20.7)	49.0 (-37.5)	49.5 (-34.4)	44.2 (-43.4)	43.9 (-43.0)
Bunker-C	65.2 (31.3)	57.5 (-11.8)	60.8 (-7.6)	54.5 (-21.1)	61.3 (-13.2)	47.4 (-38.3)	37.9 (-37.6)	42.2 (-22.5)	39.6 (-35.4)	41.2 (-13.0)
Propane	542.1 (16.0)	434.6 (-19.8)	434.5 (-21.3)	370.0 (-36.2)	350.0 (-41.7)	420.0 (-35.9)	388.5 (-10.6)	365.0 (-1.4)	365.0 (4.3)	375.0 (-10.7)
Butane	539.2 (7.5)	441.7 (-18.1)	440.0 (-20.4)	360.0 (-39.5)	360.0 (-43.3)	435.0 (-33.6)	394.5 (-10.3)	345.0 (-4.2)	355.0 (-1.4)	380.0 (-12.6)
Naphtha	67.0 (24.5)	56.9 (-15.1)	56.0 (-19.5)	50.6 (-29.3)	54.0 (-28.1)	56.8 (-23.9)	39.7 (-29.1)	42.9 (-15.1)	43.0 (-20.4)	41.7 (-26.6)

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			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Coal (Mton)	141.0 (0.9)	133.0 (-5.7)	88.1 (-7.1)	10.5 (-1.9)	12.4 (-1.9)	12.7 (-4.3)	78.0 (-11.5)	9.6 (-8.8)	10.7 (-13.1)	11.3 (-10.7)
- Coking coal excluded	106.4 (2.8)	98.0 (-7.8)	64.8 (-9.7)	7.6 (-2.2)	9.4 (-1.3)	9.7 (-6.1)	55.9 (-13.8)	6.9 (-9.0)	7.8 (-16.5)	8.4 (-13.3)
Oil (Mbbbl)	931.8 (-0.6)	927.1 (-0.5)	614.6 (-1.2)	71.7 (-5.1)	78.4 (1.2)	81.3 (4.5)	585.6 (-4.7)	71.1 (-0.8)	72.5 (-7.5)	71.7 (-11.9)
- Non-energy oil excluded	445.5 (0.4)	451.8 (1.4)	298.9 (0.7)	35.3 (-2.8)	36.2 (1.1)	40.5 (8.6)	278.5 (-6.8)	33.8 (-4.1)	34.4 (-5.0)	34.1 (-15.9)
LNG (Mton)	42.3 (16.2)	40.9 (-3.2)	27.1 (-4.6)	2.4 (-11.8)	2.8 (-2.5)	2.8 (-1.8)	26.4 (-2.6)	2.4 (-3.2)	2.6 (-9.6)	2.9 (3.9)
Hydro (TWh)	7.3 (3.9)	6.2 (-14.1)	4.2 (-14.9)	0.5 (-34.4)	0.6 (-29.9)	0.6 (-14.2)	4.9 (16.5)	0.5 (6.7)	0.6 (8.0)	1.1 (78.8)
Nuclear (TWh)	133.5 (-10.1)	145.9 (9.3)	103.7 (20.9)	13.6 (20.2)	11.7 (-10.5)	12.2 (-4.4)	108.3 (4.4)	14.1 (3.6)	13.7 (17.5)	12.5 (2.7)
Others (Mtoe)	17.1 (8.0)	18.3 (6.7)	12.4 (9.0)	1.5 (7.9)	1.5 (6.1)	1.6 (6.2)	12.8 (3.0)	1.6 (4.9)	1.5 (-0.8)	1.7 (2.2)
TPES (Mtoe)	307.5 (1.8)	303.6 (-1.3)	203.1 (-1.0)	23.2 (-2.1)	25.4 (-1.8)	26.1 (-0.2)	193.5 (-4.7)	22.7 (-2.4)	23.7 (-6.6)	24.4 (-6.6)
- Non-energy oil excluded	247.1 (2.6)	244.5 (-1.0)	163.8 (-0.5)	18.7 (-0.7)	20.1 (-2.6)	21.1 (-0.5)	155.3 (-5.2)	18.0 (-3.7)	19.0 (-5.7)	19.7 (-6.3)
- Non-energy oil&coal excluded	222.9 (3.5)	220.1 (-1.3)	147.6 (-0.7)	16.7 (-0.7)	18.0 (-2.5)	19.0 (-0.7)	139.9 (-5.2)	16.2 (-3.1)	16.9 (-6.1)	17.7 (-6.8)

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

Share of TPES by Sources

(unit: %)

	2018	2019p					2020p			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Coal	28.2	27.1	26.8	27.9	30.0	29.9	25.0	26.1	28.1	28.7
- Coking coal excluded	20.3	19.0	18.8	19.3	21.9	21.9	17.0	18.0	19.5	20.3
Oil	38.5	38.6	38.4	39.2	39.0	39.3	38.1	39.8	38.4	36.9
- non-energy oil excluded	18.9	19.2	19.0	19.6	18.3	19.9	18.4	19.2	18.5	17.7
LNG	18.0	17.6	17.4	13.7	14.6	14.1	17.8	13.6	14.1	15.7
Hydro	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.9
Nuclear	9.2	10.2	10.9	12.4	9.8	9.9	11.9	13.2	12.3	10.9
Others	5.6	6.0	6.1	6.4	6.1	6.3	6.6	6.9	6.5	6.8
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			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Industry	142.9 (0.7)	142.6 (-0.2)	94.7 (-0.4)	11.2 (-4.2)	12.3 (1.4)	12.1 (1.3)	91.3 (-3.7)	10.9 (-2.9)	11.4 (-7.0)	11.4 (-6.2)
Transport	43.0 (0.4)	43.0 (0.0)	29.1 (1.6)	3.7 (-0.2)	3.5 (-4.6)	4.1 (6.4)	25.7 (-11.7)	3.3 (-9.4)	3.3 (-5.6)	3.3 (-19.7)
Residential	23.5 (4.4)	22.5 (-4.1)	15.2 (-3.1)	1.0 (-2.7)	0.9 (-2.2)	1.1 (-3.0)	15.2 (0.4)	1.0 (6.2)	1.0 (4.9)	1.1 (-1.9)
Commercial	17.9 (2.9)	17.5 (-2.3)	11.8 (-3.4)	1.2 (-2.8)	1.3 (-2.2)	1.5 (-4.7)	11.5 (-2.7)	1.3 (4.1)	1.3 (-1.2)	1.4 (-5.2)
Public	5.6 (2.0)	5.4 (-2.4)	3.7 (-2.4)	0.4 (-2.2)	0.4 (4.0)	0.5 (0.8)	3.6 (-0.9)	0.4 (3.1)	0.4 (-0.4)	0.4 (-3.9)
TFC	232.7 (1.2)	231.0 (-0.8)	154.5 (-0.6)	17.5 (-3.1)	18.5 (-0.2)	19.3 (1.5)	147.3 (-4.6)	16.9 (-3.1)	17.5 (-5.5)	17.6 (-8.7)
Coal (Mton)	49.2 (-2.3)	48.2 (-2.1)	32.3 (-0.9)	4.0 (-4.5)	4.0 (-2.6)	4.1 (0.2)	29.7 (-7.9)	3.6 (-10.3)	3.8 (-3.5)	3.9 (-5.6)
Oil (Mbbbl)	920.0 (-0.7)	918.6 (-0.2)	608.4 (-0.7)	71.2 (-5.0)	77.8 (1.7)	80.7 (5.2)	582.3 (-4.3)	70.8 (-0.5)	72.2 (-7.1)	71.2 (-11.8)
Electricity (TWh)	526.1 (3.6)	520.5 (-1.1)	350.4 (-1.4)	40.6 (-1.0)	43.0 (-2.4)	47.6 (-4.0)	338.9 (-3.3)	39.8 (-2.1)	42.1 (-2.1)	44.6 (-6.2)
City gas (Bm³)	24.3 (7.4)	23.3 (-4.1)	16.0 (-2.9)	1.3 (-1.5)	1.2 (-3.4)	1.1 (-4.0)	14.9 (-6.7)	1.1 (-11.1)	1.1 (-9.4)	1.1 (-2.8)
Heat-others (1 000 toe)	11.8 (6.4)	11.9 (0.9)	8.1 (2.2)	0.8 (1.2)	0.9 (1.8)	0.9 (-1.3)	8.0 (-0.6)	0.8 (0.0)	0.9 (-0.7)	0.9 (-0.2)

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			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Industry	61.4	61.7	61.3	64.2	66.3	62.8	61.9	64.4	65.3	64.5
Transport	18.5	18.6	18.8	20.9	19.1	21.2	17.4	19.6	19.1	18.6
Residential	10.1	9.7	9.8	5.6	5.0	5.8	10.3	6.2	5.6	6.2
Commercial	7.7	7.6	7.7	6.9	7.3	7.8	7.8	7.5	7.6	8.1
Public	2.4	2.4	2.4	2.3	2.3	2.4	2.5	2.5	2.5	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	13.9	13.9	13.9	15.1	14.4	14.3	13.5	14.1	14.7	14.8
Oil	50.2	50.3	49.9	51.6	53.1	52.9	49.8	53.0	51.9	50.8
Electricity	19.4	19.4	19.5	20.0	20.0	21.2	19.8	20.2	20.7	21.8
City gas	11.4	11.3	11.5	8.5	7.8	7.1	11.5	7.9	7.7	7.5
Heat-others	5.1	5.2	5.2	4.8	4.7	4.6	5.4	4.9	5.0	5.0

Note: p means provisional
Source: Monthly Energy Statistics

Statistics on Energy Production Facilities

	2017	2018	2019				2020p		
				M5	M6	M7	M5	M6	M7
Total capacity (GW)	116.9 (10.4)	119.1 (1.9)	125.3 (5.2)	119.8 (1.7)	121.1 (3.4)	121.1 (3.1)	126.8 (5.8)	127.3 (5.1)	127.8 (5.5)
Nuclear	22.5 (-2.5)	21.9 (-3.0)	23.3 (6.4)	21.9 (-3.0)	21.9 -	21.9 -	23.3 (6.4)	23.3 (6.4)	23.3 (6.4)
Bituminous coal	36.1 (16.8)	36.4 (0.7)	36.4 (0.1)	36.4 (0.3)	36.4 (0.3)	36.4 (0.1)	36.5 (0.1)	36.5 (0.1)	36.5 (0.1)
Gas	37.9 (-0.0)	37.9 (-0.0)	39.6 (4.5)	37.9 (0.2)	38.3 (1.2)	38.3 (1.2)	41.2 (8.5)	41.2 (7.5)	41.2 (7.5)
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		
				M5	M6	M7	M5	M6	M7
The number of households demanding city gas (mil)	18.6 (3.3)	19.1 (3.1)	19.7 (2.8)	19.3 (2.8)	19.3 (2.8)	19.3 (2.8)	19.7 (2.4)	19.8 (2.5)	19.8 (2.6)
Registered cars (mil)	22.5 (3.3)	23.2 (3.0)	23.7 (2.0)	23.4 (2.5)	23.4 (2.5)	23.5 (2.4)	23.9 (2.3)	24.0 (2.5)	24.1 (2.5)
- gasoline	10.4 (2.7)	10.6 (2.5)	11.0 (3.1)	10.8 (2.5)	10.8 (2.5)	10.8 (2.6)	11.2 (3.7)	11.2 (4.1)	11.3 (4.3)
- diesel	9.6 (4.4)	9.9 (3.7)	10.0 (0.3)	10.0 (2.4)	10.0 (2.1)	10.0 (1.9)	9.9 (-0.1)	10.0 (-0.2)	10.0 (-0.3)
- LPG	2.1 (-2.9)	2.0 (-3.3)	2.0 (-1.5)	2.0 (-2.9)	2.0 (-2.8)	2.0 (-2.6)	2.0 (-0.6)	2.0 (-0.5)	2.0 (-0.6)
- hybrid	0.3 (37.6)	0.4 (30.9)	0.5 (26.1)	0.4 (29.5)	0.4 (29.4)	0.4 (29.4)	0.5 (24.9)	0.6 (25.9)	0.6 (26.6)

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

Source: Monthly Energy Statistics

KEEI

MONTHLY **KOREA ENERGY TRENDS** (2020, NO.104)



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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