

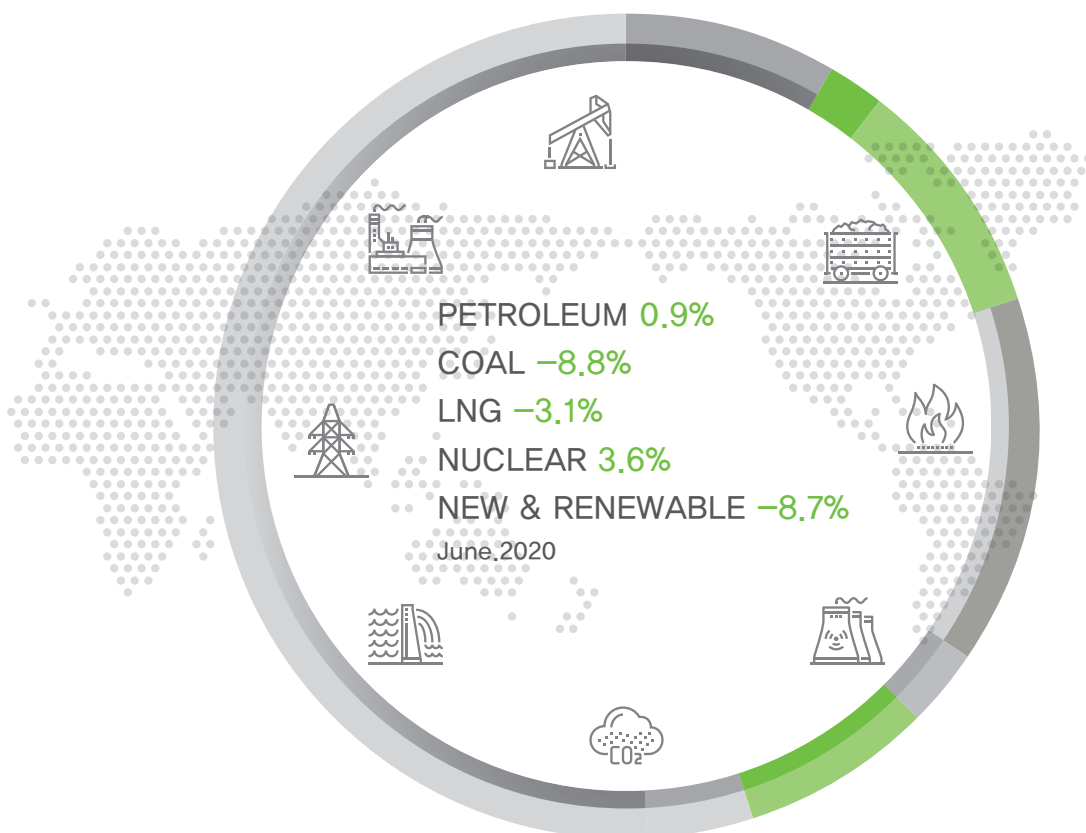
KEEI

MONTHLY KOREA ENERGY TRENDS



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

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1. The Economy and the Industry

- ☐ **Gross Domestic Product("GDP") contracted by 2.7% in 2Q compared to the same period a year earlier due to the growing impact of COVID-19, and in particular, private consumption declined sharply.**
 - Private consumption dropped by 4.0% year-on-year despite the government's relief grants, driving down the GDP growth, although construction investment remained flat and facility investment continuously increased (4.1%) on a year-on-year basis.
- ☐ **The mining & manufacturing production index fell more slowly in June, as the index grew in the semiconductor sector and declined more slowly in the automobile sector, although it continued to drop in other major industries.**
 - The production index of semiconductors maintained the rapid growth, posting a year-on-year growth of 23.9% in June, while its export value was flat despite the increased export of system semiconductors, because the export of memory semiconductors declined.
 - The production index of basic chemical materials fell by 7.2% year-on-year in June, as the export volume declined due to weak global demand from downstream industries such as automobiles and smartphones and affected by the shutdown of some manufacturing facilities (e.g. Lotte Chemical's).
 - The production index of iron & steel products was down 18.0% year-on-year in June, as domestic demand decreased due to a slowdown in automobile and shipbuilding industries, although its export volume decreased at much slower rate backed by growing export to China.
 - The production index of automobiles dropped by 13.4% year-on-year in June due to a sharp drop in the number of automobiles exported, though the decline was slower than the previous month, as domestic sales surged (41.0%) partly due to the special consumption tax cut.
- ☐ **After the eased 'distancing in daily life' measure was imposed in May, the service production index slid by 0.1% year-on-year (in June)**
 - The service production index was almost flat on a year-on-year basis, as the production fell more slowly in the wholesale & retail and restaurant & accommodations sectors amid a slowdown in the spread of COVID-19.

► **Major economic and industrial indicators**

	2019p			2020p			
		M1~6	M6	M1~6	M4	M5	M6
GDP (trillion won)	1 849.0 (2.0)	898.4 (1.9)	461.3 (2.1)	891.9 (-0.7)	- -	- -	448.7 (-2.7)
Total export (\$billion, customs clearance basis)	539.9 (-10.7)	271.1 (-8.6)	44.0 (-13.8)	240.6 (-11.3)	36.3 (-25.6)	34.8 (-23.8)	39.2 (-10.8)
Industrial production index (2015=100)	106.3 (-0.0)	103.5 (-1.4)	105.6 (-2.0)	103.3 (-0.2)	101.5 (-5.0)	97.6 (-9.8)	105.1 (-0.5)
Semi-conductors	188.1 (11.7)	164.4 (5.3)	195.1 (7.3)	217.8 (32.5)	192.8 (17.3)	225.8 (27.1)	241.8 (23.9)
Basic chemical products	107.5 (-2.6)	105.4 (-5.4)	100.5 (-8.8)	101.3 (-3.9)	95.9 (-6.7)	94.5 (-8.5)	93.3 (-7.2)
Iron&Steel	98.3 (-2.2)	99.2 (-2.0)	98.6 (-2.8)	91.3 (-7.9)	92.5 (-7.7)	85.2 (-16.3)	80.9 (-18.0)
Cars	93.1 (-0.9)	94.6 (2.2)	93.2 (-1.5)	78.6 (-17.0)	81.7 (-19.7)	65.0 (-35.7)	80.7 (-13.4)
Service production index (2015=100)	108.4 (1.4)	106.6 (1.1)	108.2 -	104.2 (-2.3)	101.1 (-6.1)	105.1 (-4.0)	108.1 (-0.1)
Wholesale & Retail	104.6 (-0.4)	103.8 (-0.5)	103.8 (-1.2)	100.0 (-3.7)	97.6 (-7.5)	103.2 (-4.5)	103.4 (-0.4)
Restaurant & Accommodation	97.5 (-1.0)	95.3 (-1.0)	96.4 (-1.1)	79.4 (-16.7)	72.4 (-24.6)	86.7 (-13.9)	84.6 (-12.2)

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

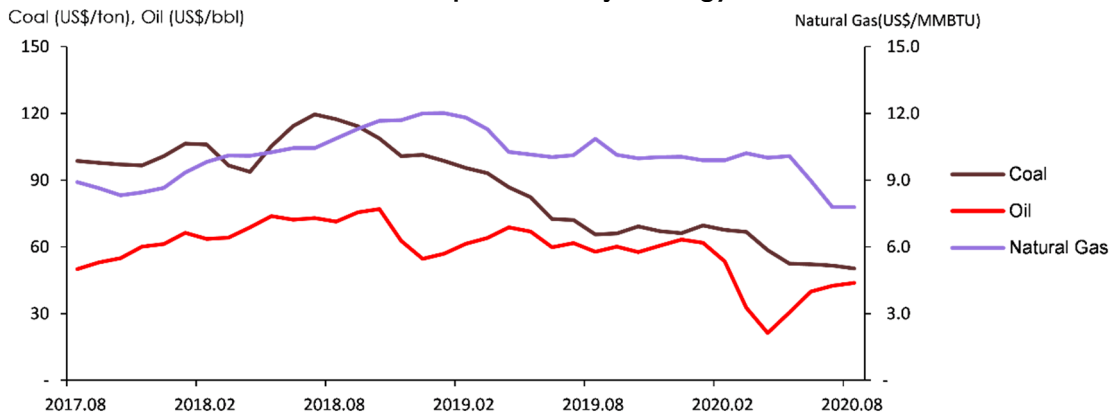
- **Global oil price was up 3.2% in August from the previous month as a result of the petroleum demand recovery and output reduction, although it was down 24.2% on a year-on-year basis.**
 - Global oil price increased in August compared to the previous month, due to the increased demand and import from China and disrupted production at facilities located in the US Gulf Coast, although it was partly offset by concerns over signs of another wave of COVID-19.

► Global energy prices

	2018	2019				2020		
			M6	M7	M8	M6	M7	M8
Crude oil (US\$/bbl)	68.6 (29.5)	61.6 (-10.2)	59.8 (-17.2)	61.7 (-15.4)	57.8 (-19.0)	40.0 (-33.2)	42.4 (-31.2)	43.8 (-24.2)
Natural gas (US\$/MMBTU)	10.7 (24.0)	10.6 (-1.1)	10.0 (-3.8)	10.1 (-3.0)	10.9 (-0.1)	9.0 (-10.7)	7.8 (-23.1)	7.8 (-28.3)
Coal (US\$/ton)	107.0 (20.9)	77.9 (-27.3)	72.5 (-36.6)	72.1 (-39.7)	65.6 (-44.1)	52.2 (-28.0)	51.6 (-28.5)	50.3 (-23.2)

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 were nearly the same as the previous month in August, but on a year-on-year basis, the prices maintained a downward trend, posting around 10% drop.**
 - The average prices of gasoline and diesel at gas stations had rapidly increased since May, but the prices were steady in August, despite global oil price increase, posting no more than 0.1% growth respectively from a month ago.
 - Bunker-C oil price was up 13.4% in July from the previous month, which was affected by global oil price increase. On a year-on-year basis, however, it dropped by 32.4% due to the ongoing impact of weak demand that was resulted from the International Maritime Organization's environmental regulation.
- **Propane and butane prices were flat in August compared to the previous month. On a year-on-year basis, the prices fell by 1.9% and 3.2% respectively.**
 - Saudi Aramco's propane and butane prices increased in July (2.9%, 3.0% respectively), but domestic prices remained the same as the previous month in August, as domestic LPG suppliers didn't change their prices to ease economic burdens of customers.

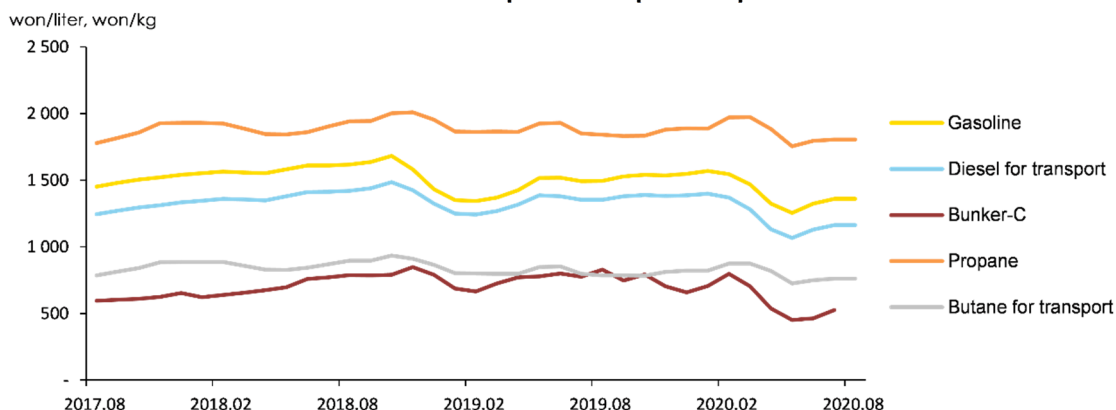
► Domestic petroleum product prices

	Domestic petroleum product prices					2020		
	2018	2019						
			M6	M7	M8	M6	M7	M8
Gasoline (won/liter)	1 581.4 (6.0)	1 472.3 (-6.9)	1 517.5 (-5.7)	1 491.5 (-7.4)	1 493.7 (-7.7)	1 322.9 (-12.8)	1 360.3 (-8.8)	1 361.1 (-8.9)
Diesel for transport (won/liter)	1 392.0 (8.5)	1 340.4 (-3.7)	1 379.8 (-2.1)	1 352.8 (-4.2)	1 351.9 (-4.7)	1 127.9 (-18.3)	1 162.9 (-14.0)	1 163.6 (-13.9)
Bunker-C (won/liter)	735.2 (18.7)	744.2 (1.2)	799.2 (5.2)	776.5 (0.6)	827.4 (4.9)	462.8 (-42.1)	524.7 (-32.4)	- (-100.0)
Propane (won/kg)	1 920.5 (4.7)	1 869.6 (-2.7)	1 929.0 (3.7)	1 851.4 (-2.7)	1 841.1 (-5.2)	1 794.5 (-7.0)	1 806.0 (-2.5)	1 806.0 (-1.9)
Butane for transport (won/liter)	874.6 (5.8)	806.2 (-7.8)	851.6 (0.9)	796.8 (-8.3)	785.4 (-12.2)	749.5 (-12.0)	759.9 (-4.6)	760.4 (-3.2)

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

Source: www.opinet.co.kr

► Domestic petroleum product prices



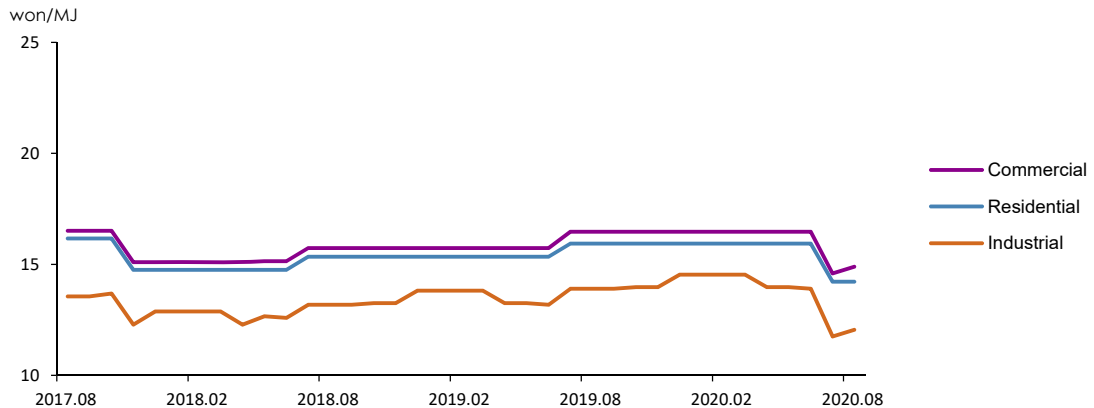
□ **City gas price for commercial and industrial use went up by 2.1% and 2.6% respectively, and that for residential use remained flat compared to the prior month.**

- City gas prices for commercial and industrial use increased from the previous month, as global oil price increased and the prices that had been adjusted in odd numbered months now adjusted every month. In the case of the residential use, the price that is still adjusted in odd-numbered months was the same as the previous month.

□ **Heat energy price was down 2.8% in July for the first time in 11 months in line with decreased city gas price.**

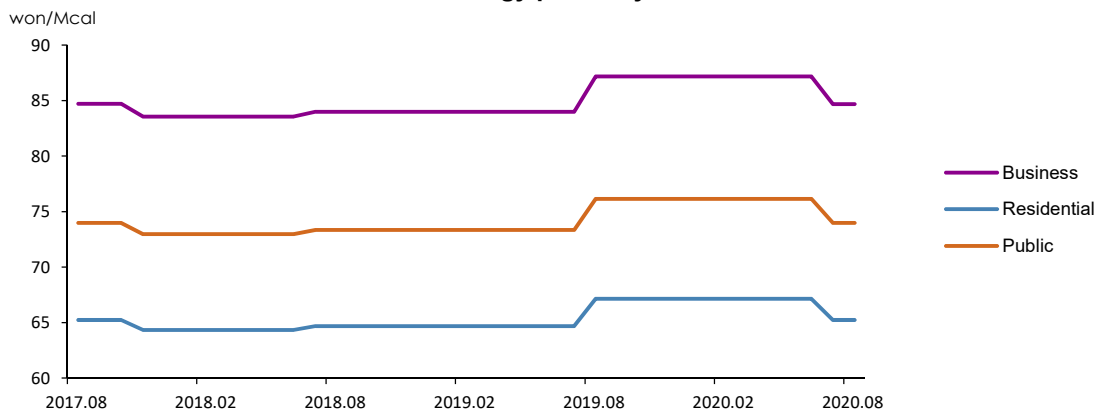
- Heat energy price declined, reflecting decreased city gas price, actual fuel cost and increased fixed cost, though the cut was less than that of city gas.

► 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



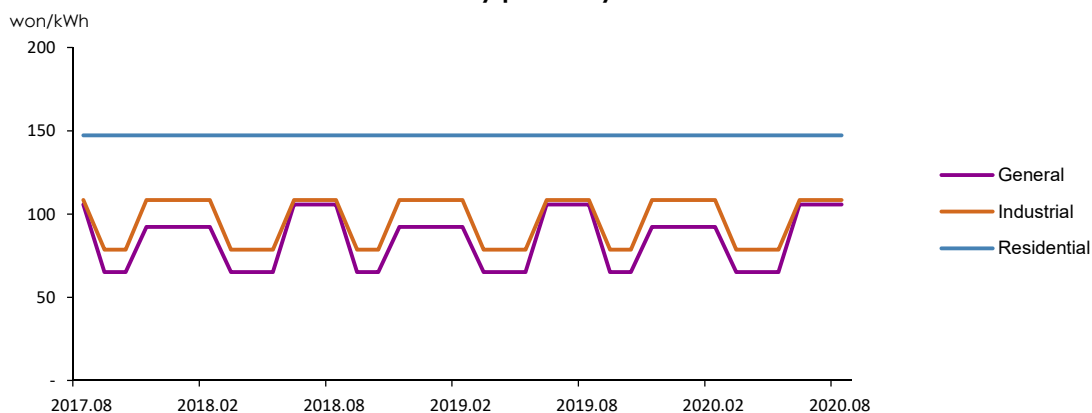
□ **Electricity prices for general and industrial use remained flat after the price adjustment to the summer season in June, and the residential electricity price was also the same as the previous month.**

- 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) season.
- Residential electricity price has been flat since the progressive pricing scheme was restructured from six to three stages in December 2016.

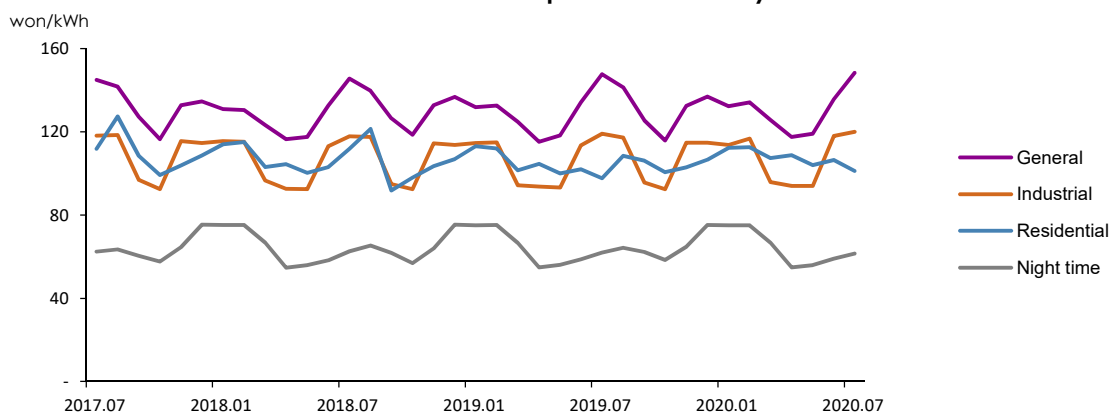
□ **The unit sales price of electricity for general and industrial use increased in July from the prior month, while that for residential use decreased, as electricity use ceilings in the progressive pricing scheme were temporarily revised upward.**

- The unit sales price of electricity for residential use dropped by 4.8% in July from the previous month despite increased sales volume, as electricity use ceilings in the progressive pricing scheme were raised between July and August, and consequently, sales revenue decreased.
- The unit sales price of electricity for industrial and general use rose by 1.7% and 9.3% respectively than the previous month, following the price adjustment to the summer season (June-August) along with increased sales revenue.

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



► **Unit sales price of electricity**



3. Energy Supply

- **The total energy import volume fell by 6.3% year-on-year in June, as the import of crude oil and LNG declined.**
 - The import volume of crude oil and bituminous coal fell by 12.9% and 2.8% respectively in own unit of energy.
 - The import volume of LNG was down 19.5% due to weak demand from the city gas production sector, though its demand increased in the power generation sector.
 - The import volume of petroleum products was up 5.0% year-on-year, led by surging LPG import.
- **Renewable and ‘other’ energy generation recorded a year-on-year growth of 8.7%, with solar PV and wind power taking the lead.**
 - Solar PV and wind power generation increased by 38.3% and 52.5% respectively on a year-on-year basis, backed by growth in installed capacity.
 - Renewable generation, except ‘other’ and waste energy, rose by 20.2% than the same month last year.

► Import and domestic production of energy

	2019p			2020p			
		M1~6	M6	M1~6	M4	M5	M6
Import volume							
Crude oil (Mbbl)	1 071.9	544.3	85.7	498.9	82.3	78.8	74.7
	(-4.0)	(-2.4)	(-12.5)	(-8.3)	(-14.0)	(-6.3)	(-12.9)
Petroleum product (Mbbl)	352.1	159.7	28.3	187.7	24.8	30.4	29.7
	(3.1)	(-5.3)	(-1.0)	(17.5)	(-5.2)	(6.7)	(5.0)
Bituminous coal (Mton)	132.7	61.9	9.4	55.5	9.9	9.1	9.2
	(0.9)	(-6.1)	(-7.4)	(-10.3)	(-1.6)	(-14.0)	(-2.8)
Anthracite (Mton)	6.9	3.7	0.6	2.9	0.6	0.4	0.5
	(-15.6)	(-8.8)	(-19.0)	(-21.2)	(6.0)	(-33.3)	(-12.7)
LNG (Mton)	40.8	19.9	3.2	21.1	3.1	3.0	2.6
	(-7.4)	(-12.3)	(-13.9)	(5.9)	(-7.3)	(0.2)	(-19.5)
Import volume (Mtoe)	349.1	169.5	27.2	166.1	26.0	26.1	25.5
	(-1.5)	(-3.8)	(-6.1)	(-2.0)	(-7.0)	(-6.4)	(-6.3)
Import value (billion US\$, CIF)	126.7	64.3	10.3	47.7	6.4	4.9	4.9
	(-13.2)	(-7.6)	(-19.2)	(-25.8)	(-41.8)	(-54.2)	(-52.3)
Energy share of total import value (%)	25.2	25.6	25.7	20.5	17.0	14.2	13.8
Foreign energy dependence (%)*	93.3	93.2	92.9	92.7	91.9	92.6	92.2
Domestic production							
Hydropower (TWh)	6.2	3.0	0.5	3.2	0.5	0.6	0.5
	(-14.1)	(-11.5)	(-34.4)	(5.7)	(-3.5)	(4.2)	(6.7)
Anthracite (Mton)	1.1	0.6	0.1	0.5	0.1	0.1	0.1
	(-9.5)	(-19.4)	(-25.4)	(-3.4)	(-12.5)	(-12.0)	(8.2)
Natural gas (Mton)	0.2	0.1	0.0	0.1	0.0	0.0	0.0
	(-21.5)	(-22.7)	(-9.2)	(-4.4)	(-23.2)	(-17.6)	(-21.4)
Renewable energy (Mtoe)	18.3	9.2	1.5	9.6	1.7	1.6	1.6
	(6.7)	(10.0)	(7.9)	(3.5)	(11.0)	(-1.6)	(8.7)

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

4. Energy Consumption

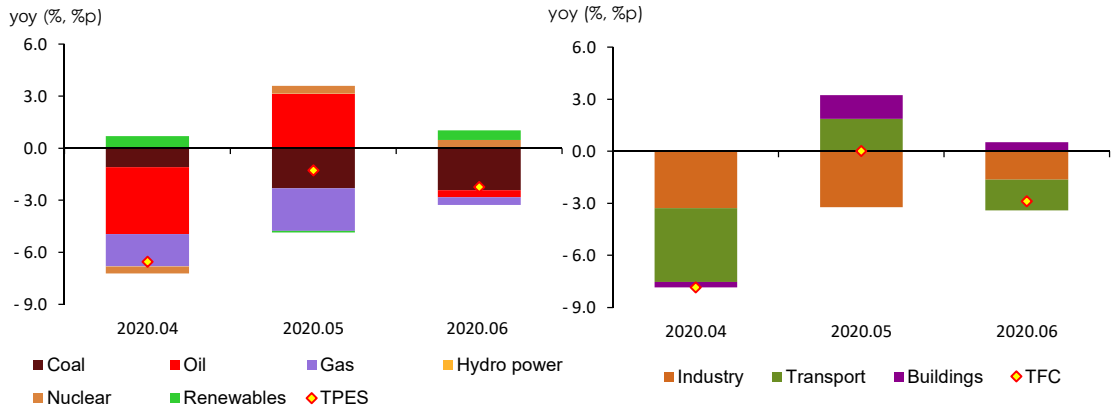
- **Total Primary Energy Supply (“TPES”) declined by 2.2% year-on-year in June, as coal, petroleum and gas consumption all declined.**
 - Coal consumption fell by 8.8% year-on-year; the industrial use of bituminous coal fell by over 10% due to reduced production in large coal consuming businesses amid the COVID-19 pandemic, and coal use also dropped by almost 8% in the transformation sector along with falling power generation.
 - Petroleum consumption was down 0.9% year-on-year despite the eased COVID-19 prevention guidelines, as its use declined in the transport sector owing to the increased consumer prices of fuels for transport use amid global oil price hike.
 - Gas consumption went down by 3.1% year-on-year, as gas demand for city gas production dropped by 12.6% due to a drop in its industrial demand, although gas use for power generation grew by 6.8%.
- **Total Final Consumption (“TFC”) posted a year-on-year drop of 2.9% in June, with the transport and industrial sectors leading the downward trend.**
 - Transport energy use decreased by 8.5% year-on-year amid concerns over another wave of COVID-19 pandemic.
 - Industrial energy use dropped by 2.5% year-on-year, as ongoing negative impact of COVID-19 outbreak hinders a recovery in export markets and the production index stays at low level
 - Buildings’ energy use increased by 3.5% year-on-year, as it increased in residential, commercial and public buildings all together after the government relaxed the COVID-19 prevention guidelines, though energy use grew more slowly in residential buildings.

► Energy consumption

	2019p			2020p			
		M1~6	M6	M1~6	M4	M5	M6
TPES (Mtoe)	303.8	151.5	23.2	145.7	22.8	23.2	22.7
	(-1.2)	(-1.0)	(-2.0)	(-3.8)	(-6.5)	(-1.3)	(-2.2)
- Non-energy oil&coal excluded	220.0	110.5	16.7	105.2	16.5	16.4	16.2
	(-1.3)	(-0.5)	(-0.6)	(-4.8)	(-6.3)	(-0.9)	(-2.8)
TFC (Mtoe)	231.2	116.7	17.5	112.6	17.6	17.9	17.0
	(-0.6)	(-1.0)	(-3.1)	(-3.6)	(-7.8)	(0.0)	(-2.9)

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 continued the downward trend of the previous month in June (-8.8%) due to the impact of the COVID-19 outbreak.**

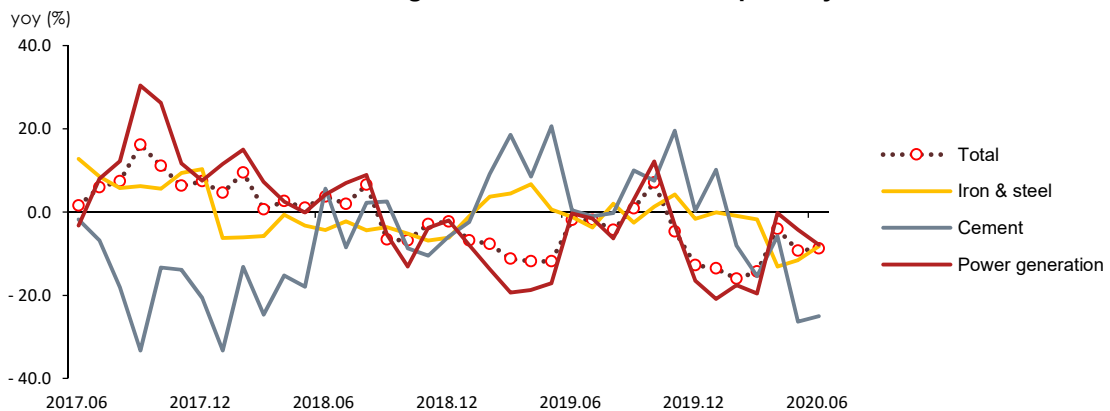
- Bituminous coal use plunged, as the production index dropped by 18.0% and 10.8% year-on-year in the iron & steel and cement production sectors that are large coal consuming businesses amid the prolonged impact of COVID-19 pandemic.
- Electricity consumption fell by 2.1% year-on-year in June, which led to a 5.9% drop in coal-fired generation and a 7.8% drop in coal consumption in the power generation sector.

► Coal consumption

	2019p	2020p		2020p			
		M1~6	M6	M1~6	M4	M5	M6
Coal (Mton)	133.0	63.0	10.5	55.9	8.9	8.6	9.6
	(-5.7)	(-8.5)	(-1.9)	(-11.3)	(-4.1)	(-9.3)	(-8.8)
Industry	47.6	23.9	4.0	21.8	3.6	3.4	3.6
	(-1.6)	(-0.3)	(-4.3)	(-8.8)	(-9.2)	(-16.1)	(-10.3)
-Coking-coal	35.0	17.3	2.9	16.3	2.5	2.6	2.6
	(1.0)	(2.1)	(-1.2)	(-6.0)	(-13.1)	(-11.6)	(-8.3)
Buildings	0.6	0.2	0.0	0.2	0.0	0.0	0.0
	(-29.8)	(-30.8)	(-42.9)	(-21.0)	(-3.7)	(-15.4)	(-12.5)
Power generation	84.8	38.9	6.5	33.9	5.3	5.2	6.0
	(-7.6)	(-12.8)	(-0.3)	(-12.8)	(-0.3)	(-4.3)	(-7.8)

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 use decreased by 0.9% year-on-year in June, as it declined in the transport sector due to global oil price increase

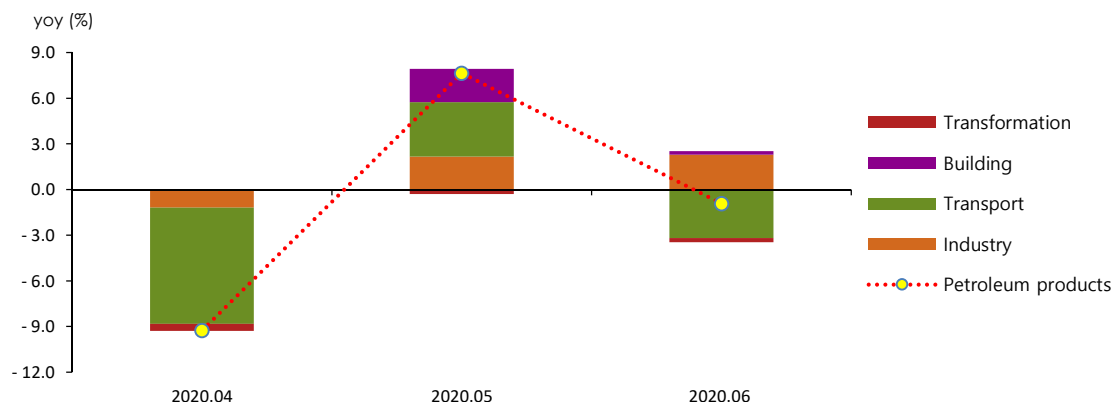
- Industrial petroleum use grew by 3.8% year-on-year as the use of naphtha, a substitute for LPG, was up 0.4%, even though LPG use grew at much slower rate of 2.6% (-17.2%p from the previous month) due to higher prices.
- Although the eased COVID-19 guidelines were still implemented in June, which are factors that could drive up social activities and travel, petroleum use fell by 9.0%, as consumer prices of fuel increased amid the global oil price hike. Meanwhile, petroleum use in buildings grew by 5.9%.

► Petroleum product consumption by end-use sectors

	2019p			2020p			
		M1~6	M6	M1~6	M4	M5	M6
Petroleum (Mbbbl)	928.4	454.6	71.8	443.2	68.6	78.2	71.1
	(-0.4)	(-2.6)	(-4.9)	(-2.5)	(-9.3)	(7.6)	(-0.9)
Industry	567.2	272.3	43.0	279.3	43.4	47.8	44.7
	(0.6)	(-3.5)	(-6.6)	(2.5)	(-2.0)	(3.4)	(3.8)
-Naphtha	438.6	215.3	33.5	210.7	31.8	35.7	33.6
	(-2.8)	(-4.9)	(-7.5)	(-2.2)	(-8.2)	(-2.1)	(0.4)
Transport	300.3	150.2	25.4	134.0	20.5	25.5	23.2
	(-0.7)	(1.2)	(-1.1)	(-10.8)	(-22.0)	(11.3)	(-9.0)
Buildings	52.8	27.5	2.8	27.4	4.3	4.6	3.0
	(-1.7)	(-4.6)	(-9.7)	(-0.2)	(0.3)	(52.6)	(5.9)
Power generation	8.1	4.6	0.5	2.6	0.4	0.3	0.3
	(-30.8)	(-35.9)	(-17.6)	(-44.4)	(-49.7)	(-43.6)	(-38.5)

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 fell more slowly by 3.1% year-on-year in June, owing to the growing demand from the power generation sector.

- Gas use for power generation posted a year-on-year growth of 6.8%, because the LNG import price decreased at the beginning of the year, and gas-fired generation increased as a result of reduced generation from other energy sources except nuclear energy.

☐ City gas use was down 10.5% year-on-year (in June), as its industrial use fell more sharply.

- Industrial city gas use plunged by over 40%, as it fell by 27.0% and 2.0% in the primary metals and fabricated metals sectors, and petrochemical production dropped sharply despite growing export demand due to weak domestic demand.
- Amid the impact of COVID-19, city gas use dropped by 5.6% in commercial buildings but rose by 3.3% and 14.8% in residential and public buildings. Total city gas use in buildings fell by 0.3% on a year-on-year basis.

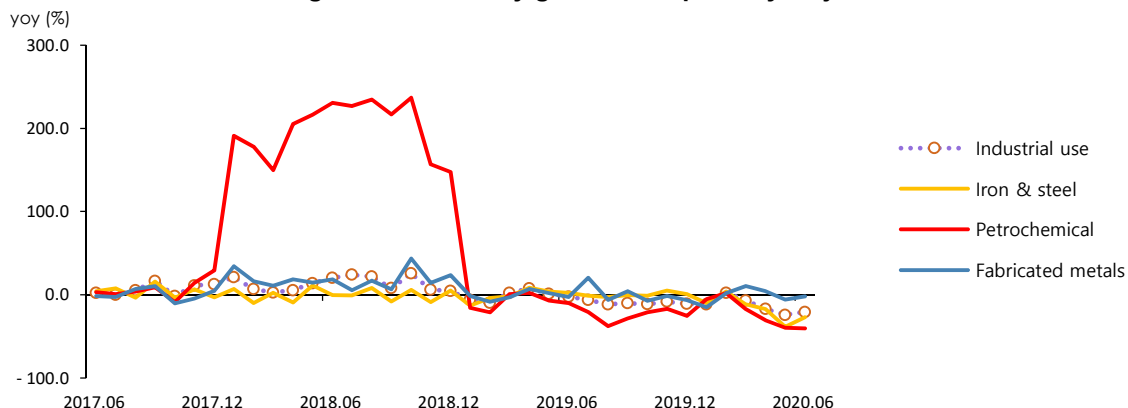
► Natural gas and city gas consumption

	2019p			2020p			
		M1~6	M6	M1~6	M4	M5	M6
LNG (Mton)	40.9	21.4	2.4	20.9	3.0	2.3	2.4
	(-3.2)	(-5.2)	(-11.9)	(-2.6)	(-10.5)	(-16.1)	(-3.1)
Power generation	18.4	8.9	1.2	9.1	1.2	1.1	1.3
	(-2.7)	(-8.9)	(-21.6)	(1.9)	(-19.3)	(-21.2)	(6.8)
City gas production	20.5	11.4	1.1	10.8	1.6	1.1	1.0
	(-2.1)	(-0.0)	(3.0)	(-5.7)	(-4.6)	(-9.4)	(-12.6)
City gas (bm³)	25.4	14.6	1.4	13.9	2.1	1.6	1.3
	(-1.1)	(0.5)	(2.2)	(-5.1)	(-6.9)	(-7.0)	(-10.5)
Industry	10.4	5.4	0.8	5.0	0.8	0.7	0.7
	(2.4)	(7.8)	(4.8)	(-7.0)	(-11.2)	(-14.5)	(-17.5)
Buildings	13.8	8.6	0.5	8.3	1.2	0.8	0.5
	(-3.5)	(-3.5)	(-0.8)	(-3.7)	(-3.0)	(2.6)	(-0.3)

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 fell by 2.1% year-on-year in June, led by the industrial sector, though it increased in the buildings sector.

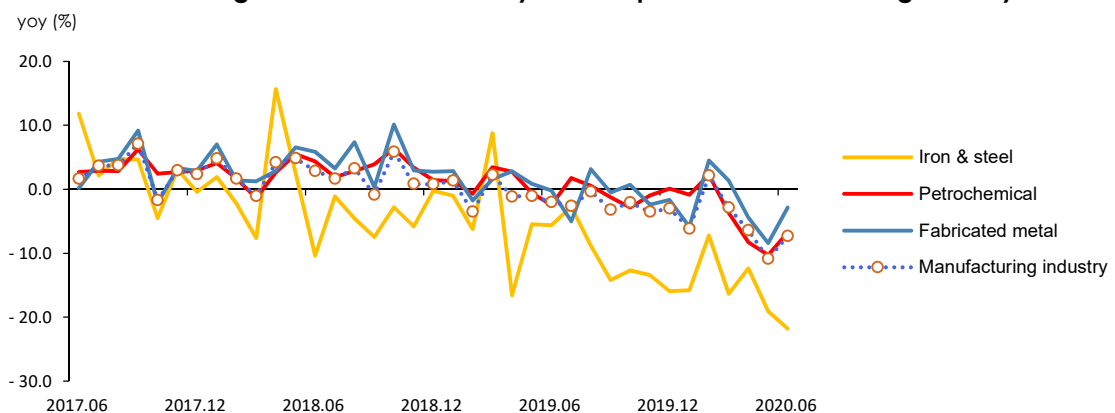
- Industrial electricity consumption declined at slower pace compared to the previous month(-3.4%p), because the mining and manufacturing production fell more slowly amid a moderate growth in new COVID-19 cases, though it still fell by 6.7% on a year-on-year basis.
- Electricity consumption in residential buildings continued the rapid growth, as more people refrained from outdoor activities due to coronavirus, and the consumption rebounded in commercial buildings as service businesses were improving amid a moderate growth in COVID-19 cases.

► Electricity consumption by end-use sectors

	2019p			2020p			
		M1~6	M6		M1~6	M4	M5
Electricity (TWh)	520.5	259.9	40.6	252.3	40.5	38.3	39.8
	(-1.1)	(-0.7)	(-1.0)	(-2.9)	(-4.6)	(-5.8)	(-2.1)
Industry	279.8	140.2	22.7	133.0	21.9	20.8	21.2
	(-1.4)	(-0.4)	(-1.6)	(-5.2)	(-6.2)	(-10.1)	(-6.7)
Transport	2.9	1.4	0.2	1.3	0.2	0.2	0.2
	(-2.0)	(-0.2)	(0.8)	(-7.9)	(-4.0)	(-15.9)	(-7.2)
Buildings	237.8	118.2	17.7	117.9	18.4	17.3	18.4
	(-0.7)	(-1.0)	(-0.3)	(-0.2)	(-2.8)	(0.1)	(3.8)
Residential	70.5	33.8	5.3	35.7	5.9	5.6	5.8
	(-0.3)	(1.0)	(0.6)	(5.3)	(5.8)	(6.7)	(8.8)
Commercial	135.2	68.3	10.0	66.9	10.1	9.5	10.2
	(-0.9)	(-1.8)	(-0.5)	(-2.0)	(-5.1)	(-2.4)	(2.2)

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

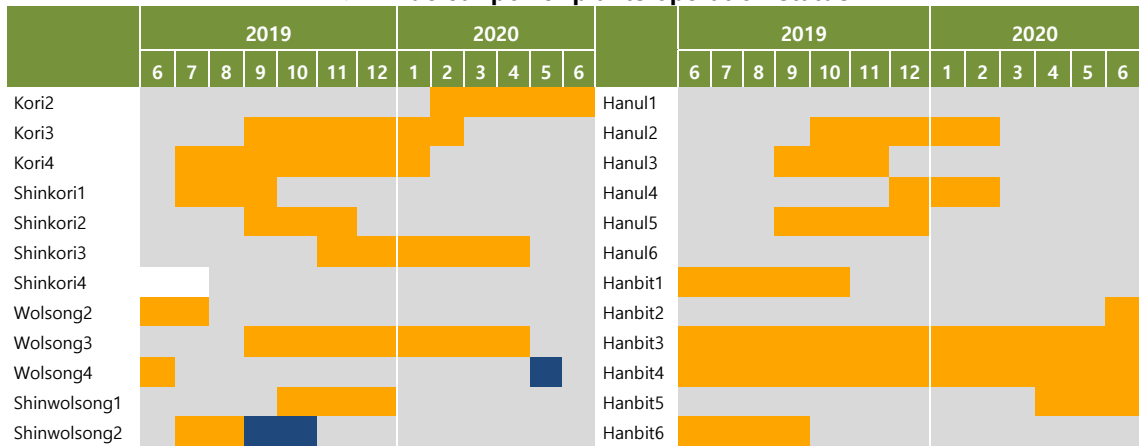
► The growth rate of electricity consumption in manufacturing industry



9. Nuclear

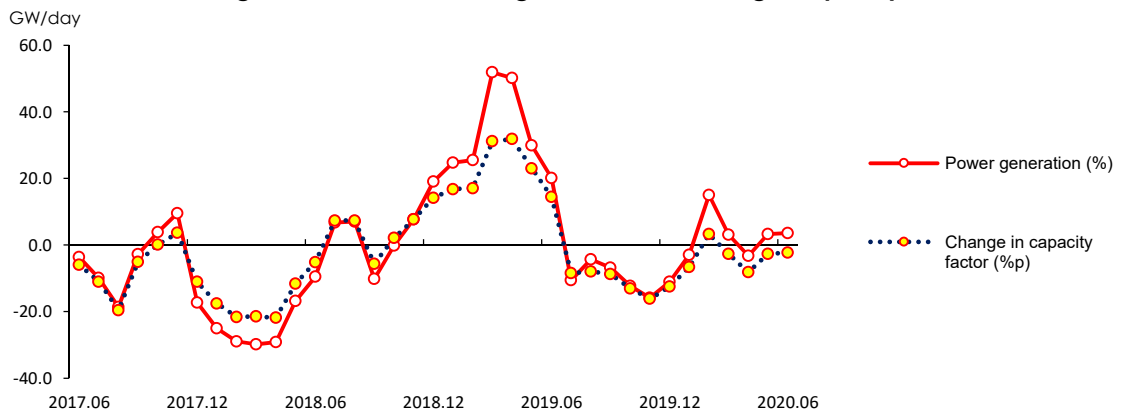
- The total nuclear generation posted a year-on-year growth of 3.6% in June, despite a drop in capacity factor, as a result of increased installed capacity.
 - Nuclear capacity factor fell by 2.3%p to 84.0%, while its installed capacity rose by 6.4% with the commissioning of Shinkori unit 4 (1.4GW, Aug. 2019).
 - As nuclear generation increased, its share of the total power generation was up 1.1%p to 32.1% on a year-on-year basis.

► 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

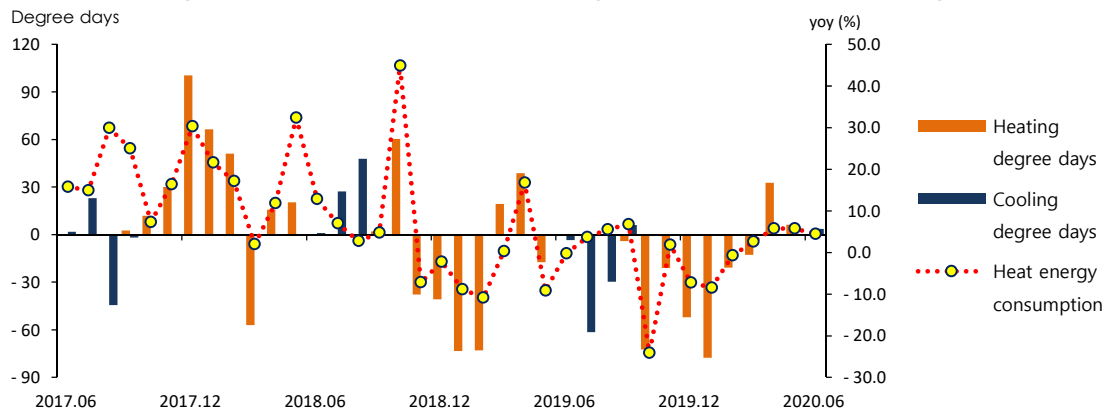
□ Heat energy use grew by 4.4% in June compared to the same month last year, as the sluggish production activity alleviated in the commercial sector, and the number of cooling degree days increased.

- Heat energy use increased, led by the commercial sector (24.1%), because service businesses that had been sluggish due to COVID-19 started to improve after the eased 'distancing in daily life' measure was put in place in May, and more heat energy was used for cooling amid the increased number of cooling degree days (3.7 degree days).

□ Renewable energy generation was down 7.8% year-on-year in June as a result of the exclusion of some energy sources and a drop in power generation from bioenergy.

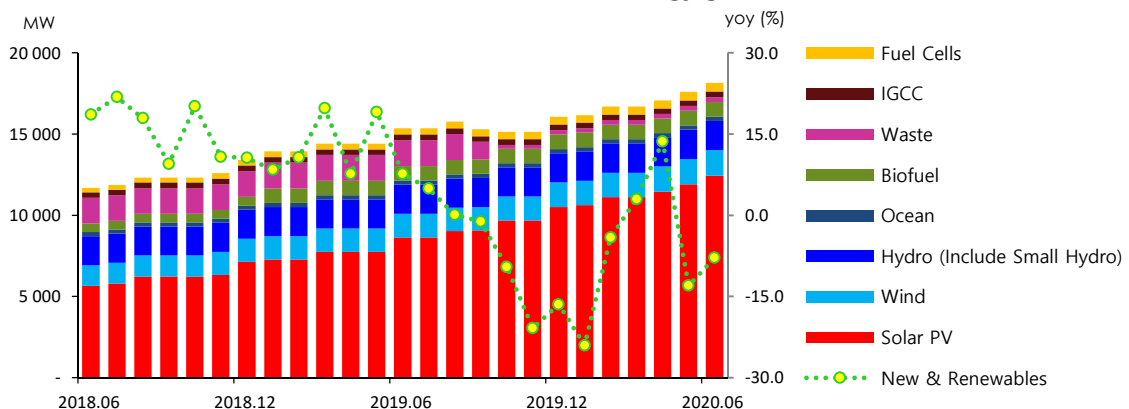
- The total renewable generation decreased for two consecutive months, as the installed capacity of and power generation from waste energy plunged after it was excluded from the renewable category (Oct.2019), the IGCC plant was under planned preventive maintenance, and bioenergy generation decreased.

► 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 consumption decreased by 2.5% year-on-year in June in the midst of the ongoing COVID-19 spread.

- Industrial energy consumption maintained the downward slide, although the domestic COVID-19 crisis appears to be subsiding as a result of aggressive prevention efforts, as the virus is still spreading fast in many countries around the world, which led to sluggish export markets and a slowdown in domestic demand.

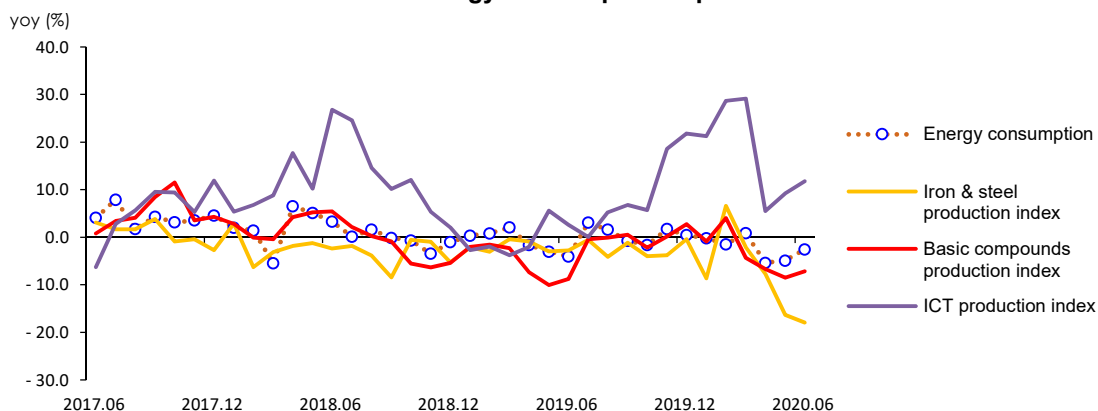
► Industrial energy consumption

	2019p			2020p			
		M1~6	M6	M1~6	M4	M5	M6
Industry (Mtoe)	142.7	70.4	11.2	68.8	11.0	11.2	11.0
	(-0.1)	(-0.9)	(-4.1)	(-2.3)	(-5.4)	(-4.9)	(-2.5)
Petrochemical	72.2	34.9	5.5	35.4	5.5	5.9	5.5
	(0.1)	(-2.8)	(-5.7)	(1.4)	(-3.6)	(0.3)	(-1.2)
- Naphtha	53.8	26.4	4.1	25.8	3.9	4.4	4.1
	(-2.8)	(-4.9)	(-7.5)	(-2.2)	(-8.2)	(-2.1)	(0.4)
Iron & Steel	28.8	14.4	2.4	13.4	2.1	2.1	2.1
	(-0.0)	(1.1)	(-1.4)	(-7.2)	(-12.6)	(-13.3)	(-10.2)
-Coking coal	24.4	12.1	2.0	11.3	1.8	1.8	1.8
	(1.0)	(2.1)	(-1.2)	(-6.0)	(-13.1)	(-11.6)	(-8.3)
Fabricated metal	11.4	5.8	0.9	5.6	0.9	0.9	0.9
	(-0.0)	(0.9)	(-0.5)	(-2.6)	(-3.0)	(-7.7)	(-2.2)
Share of feedstock (%)	58.5	58.1	58.0	58.6	56.8	60.4	59.0

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

Source: Monthly Energy Statistics

► Industrial energy consumption & production index



12. Transport

□ **Transport energy use dropped by 8.5% year-on-year in June, as energy use for road transport declined due to the impact of COVID-19.**

- Passenger transport by road that had been contained due to COVID-19 temporarily surged in May, but after the holidays (from Labor Day to Children Day) the virus's further spread was reported, driving down travel demand. Consequently, energy use for road transport fell by 4.0% on a year-on-year basis.
- Energy use in the aviation sector decreased by 54.7% year-on-year because restrictions on flights continued due to the COVID-19 pandemic.
- Energy use in the navigation sector surged by 19.6% year-on-year, as the impact of COVID-19 was relatively weak in the sector.

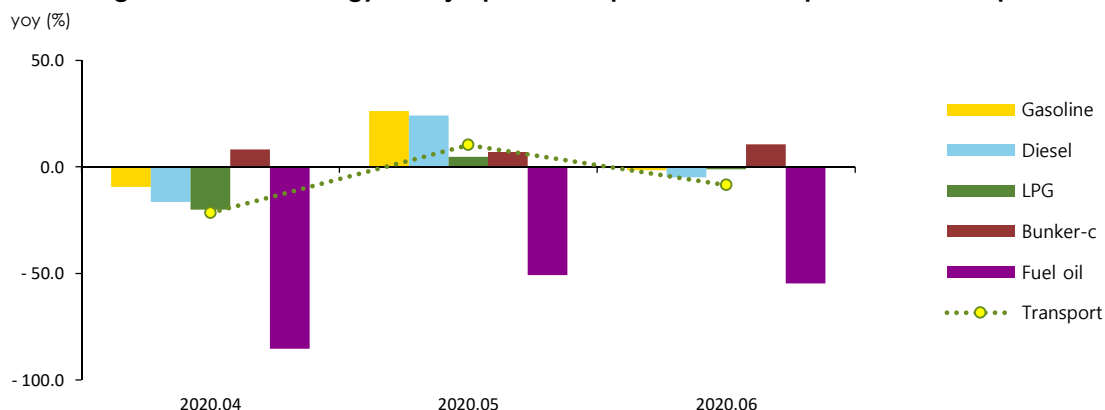
► The growth rate of petroleum consumption in the transport sector

	2019p	2020p		2020p			
		M1~6	M6	M1~6	M4	M5	M6
Transport (Mtoe)	42.6	21.3	3.6	19.1	2.9	3.6	3.3
	(-0.9)	(1.0)	(-1.1)	(-10.6)	(-21.7)	(10.2)	(-8.5)
Road	34.7	17.2	3.0	16.0	2.6	3.1	2.8
	(0.9)	(2.5)	(-1.2)	(-7.1)	(-15.0)	(20.6)	(-4.0)
Navigation	2.6	1.4	0.2	1.5	0.2	0.3	0.3
	(-19.6)	(-13.2)	(-10.6)	(7.1)	(6.7)	(8.9)	(19.6)
Aviation	4.9	2.5	0.4	1.4	0.1	0.2	0.2
	(-1.7)	(0.5)	(5.4)	(-44.9)	(-85.4)	(-50.8)	(-54.7)
Rail	0.3	0.2	0.0	0.2	0.0	0.0	0.0
	(-2.9)	(-1.2)	(-0.5)	(-7.9)	(-3.2)	(-10.5)	(-7.6)

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 up by 3.5% year-on-year in June, as the number of cooling degree days increased, and the eased 'distancing in daily life' measure was adopted.**

- Buildings' energy use increased for two months in a row, as it grew in all sectors, which is attributed to longer hours spent at home due to COVID-19, increased number of cooling degree days, and the implementation of 'distancing in daily life' measure.
- Energy use in residential buildings grew by 4.7% year-on-year, mostly electricity and city gas, because people stayed at home for longer and the number of cooling degree days increased.
- Energy use in commercial & public buildings was up 2.7% year-on-year, as the use of major energy sources increased (electricity 1.7%, petroleum 12.1%) except city gas (-5.3%), following the implementation of eased 'distancing in daily life' measure along with the slower growth in new COVID-19 cases.

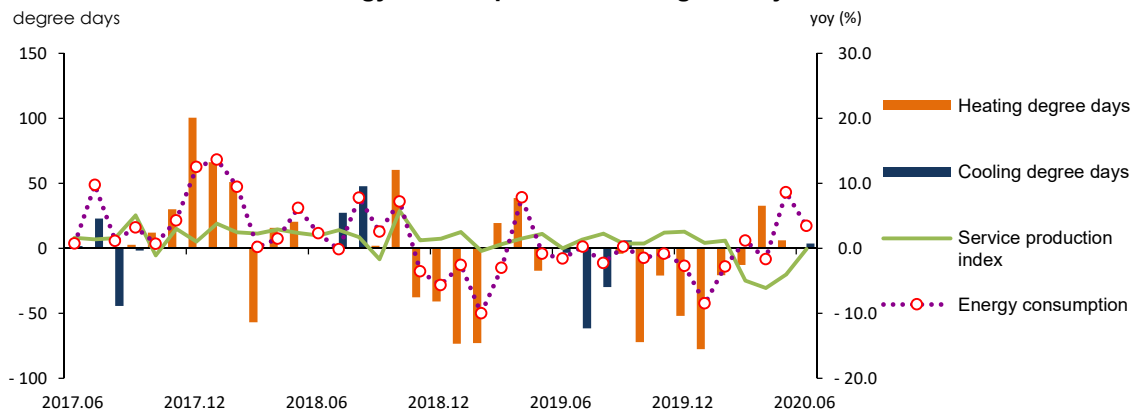
► Energy consumption in buildings

	2019p	2020p		2020p			
		M1~6	M6	M1~6	M4	M5	M6
Buildings (Mtoe)	46.0	25.1	2.6	24.7	3.7	3.1	2.7
	(-2.0)	(-2.6)	(-1.6)	(-1.4)	(-1.7)	(8.6)	(3.5)
Residential	22.6	13.1	1.0	13.2	2.0	1.5	1.0
	(-3.6)	(-3.2)	(-1.6)	(0.3)	(4.9)	(17.5)	(4.7)
Commercial	17.8	9.2	1.2	8.8	1.3	1.2	1.3
	(-0.3)	(-1.5)	(-1.5)	(-4.1)	(-9.2)	(0.2)	(2.7)
Public-others	5.5	2.8	0.4	2.8	0.4	0.4	0.4
	(-1.2)	(-3.9)	(-1.9)	(-0.4)	(-6.1)	(6.4)	(2.7)
Heating degree days	2 342.9	1 511.5	-	1 439.3	213.5	26.5	-
	(-9.8)	(-6.5)	n.a	(-4.8)	(18.1)	(30.5)	n.a
Cooling degree days	120.4	-	-	3.7	-	-	3.7
	(-42.4)	(-100.0)	(-100.0)	n.a	n.a	n.a	n.a

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 use of power generation fuels decreased much slowly in June, as electricity consumption declined at slower pace.
 - The total power generation and use of power generation fuels fell by 6.2% and 4.6% respectively in May but the pace of decline slowed to 0.0% and -0.3% in June, as the decline in electricity consumption eased by over 3%p than the previous month.
 - Nuclear energy and gas's share of the total generation went up by 1.1%p and 0.4%p respectively, while the share of coal went down by 2.4%p.

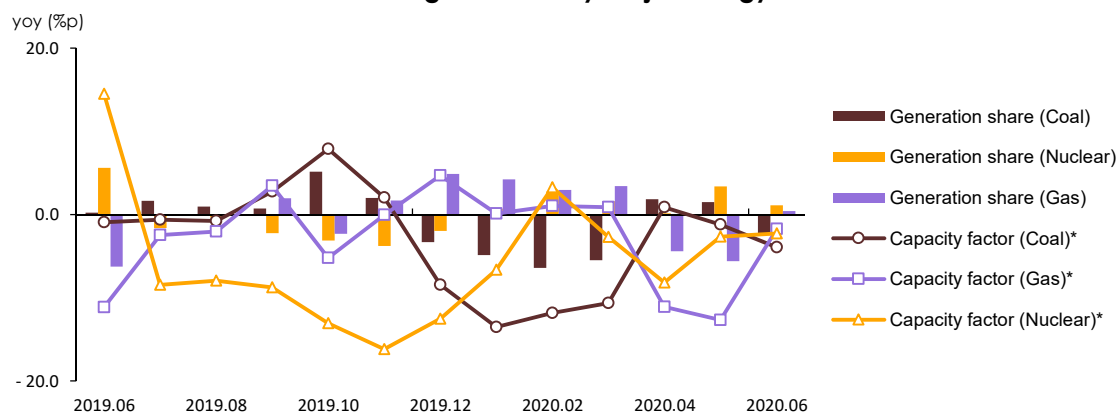
► Energy consumption in the power generation sector

	2019p	2020p		2020p			
		M1~6	M6	M1~6	M4	M5	M6
Input (Mtoe)	116.6	57.4	9.2	55.2	8.7	8.7	9.2
	(-1.7)	(-0.2)	(0.5)	(-3.8)	(-3.7)	(-4.6)	(-0.3)
Coal	50.1	23.0	3.8	20.0	3.1	3.1	3.5
	(-7.6)	(-12.9)	(-0.4)	(-12.8)	(-0.2)	(-4.3)	(-7.9)
Oil	0.8	0.5	0.0	0.1	0.0	0.0	0.0
	(-39.3)	(-38.8)	(-32.3)	(-68.8)	(-71.4)	(-68.1)	(-56.8)
Gas	24.4	11.8	1.6	12.0	1.6	1.4	1.7
	(-2.9)	(-9.0)	(-21.7)	(1.8)	(-19.2)	(-20.6)	(7.0)
Nuclear	31.1	17.0	2.9	17.5	2.9	3.2	3.0
	(9.3)	(33.1)	(20.2)	(2.8)	(-3.3)	(3.3)	(3.6)
Hydro/other renewables	10.2	5.1	0.8	5.5	1.0	0.9	0.9
	(7.2)	(11.1)	(5.8)	(8.0)	(23.3)	(1.8)	(10.2)

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			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
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	105.1	104.9	105.3	105.0	104.7	104.9
USD to KRW exchange rate (won)	1 100.2	1 165.4	1 145.8	1 141.0	1 183.3	1 175.6	1 207.0	1 225.2	1 228.7	1 210.0
Benchmark rate (%)	1.5	1.6	1.8	1.8	1.8	1.8	0.8	0.8	0.5	0.5
Coincident composite index (2015=100)	110.1	111.7	111.0	111.0	111.4	111.6	111.8	110.9	110.1	110.6
Mining & manufacturing production index (2015=100)	106.4	106.3	103.5	106.8	108.2	105.6	103.3	101.5	97.6	105.1
Manufacturing operation ratio index (2015=100)	98.8	98.5	96.4	100.1	101.8	98.9	93.1	91.0	87.5	94.9
Average temperature	13.0	13.5	10.4	12.0	18.6	21.3	11.0	10.9	17.7	22.8
- year-on-year difference	- 0.1	0.5	0.5	- 1.3	0.8	- 0.9	0.6	- 1.1	- 0.9	1.5
Heating degree days	2 597.8 (3.2)	2 342.9 (-9.8)	1 511.5 (-6.5)	180.8 (27.2)	20.3 (-46.0)	- -	1 439.3 (-4.8)	213.5 (18.1)	26.5 (30.5)	- -
Cooling degree days	209.0 (57.5)	120.4 (-42.4)	- (-100.0)	- -	- -	- (-100.0)	3.7 -	- -	- -	3.7 -
Energy intensity	0.17 (-1.0)	0.17 (-3.2)	0.17 (-2.9)	- -	- -	0.15 (-3.3)	0.16 (-3.3)	- -	- -	0.15 (-0.7)
Per capita consumption										
oil (bbl)	18.1 (-1.0)	18.0 (-0.6)	8.8 (-2.8)	1.5 (-1.3)	1.4 (-7.3)	1.4 (-5.1)	8.6 (-2.6)	1.3 (-9.4)	1.5 (7.5)	1.4 (-1.1)
Electricity (MWh)	10.2 (3.1)	10.1 (-1.3)	5.0 (-0.9)	0.8 (0.8)	0.8 (0.2)	0.8 (-1.2)	4.9 (-3.1)	0.8 (-4.8)	0.7 (-6.0)	0.8 (-2.3)
City gas (1 000 m ³)	0.5 (6.9)	0.5 (-4.3)	0.3 (-2.9)	0.0 (10.3)	0.0 (1.3)	0.0 (-1.7)	0.2 (-6.9)	0.0 (-8.8)	0.0 (-10.6)	0.0 (-11.2)
Total energy (toe)	6.0 (1.3)	5.9 (-1.4)	2.9 (-1.2)	0.5 (1.3)	0.5 (-3.5)	0.4 (-2.2)	2.8 (-4.0)	0.4 (-6.7)	0.4 (-1.4)	0.4 (-2.4)

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)

2015=100

	2018	2019					2020			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Industrial production index										
All industry	107.5 (1.6)	108.1 (0.5)	105.9 (-0.2)	107.8 (0.7)	109.1 (1.4)	109.4 (-0.9)	105.0 (-0.9)	102.2 (-5.2)	102.9 (-5.7)	110.2 (0.7)
Mining & manufacturing	106.4 (1.5)	106.3 (-0.0)	103.5 (-1.4)	106.8 (0.4)	108.2 (0.7)	105.6 (-2.0)	103.3 (-0.2)	101.5 (-5.0)	97.6 (-9.8)	105.1 (-0.5)
Semiconductor	168.4 (21.2)	188.1 (11.7)	164.4 (5.3)	164.4 (1.2)	177.7 (12.1)	195.1 (7.3)	217.8 (32.5)	192.8 (17.3)	225.8 (27.1)	241.8 (23.9)
Iron & steel	100.5 (-2.7)	98.3 (-2.2)	99.2 (-2.0)	100.2 (-0.9)	101.8 (-3.0)	98.6 (-2.8)	91.3 (-7.9)	92.5 (-7.7)	85.2 (-16.3)	80.9 (-18.0)
Cement	100.0 (-8.8)	93.8 (-6.2)	93.9 (-6.4)	106.2 (-4.4)	106.7 (-6.6)	102.5 (-11.3)	84.4 (-10.1)	97.3 (-8.4)	86.7 (-18.7)	91.4 (-10.8)
Basic compound	110.4 (0.1)	107.5 (-2.6)	105.4 (-5.4)	102.8 (-7.4)	103.3 (-10.0)	100.5 (-8.8)	101.3 (-3.9)	95.9 (-6.7)	94.5 (-8.5)	93.3 (-7.2)
Transport equipment	93.9 (-1.2)	93.1 (-0.9)	94.6 (2.2)	101.7 (3.7)	101.1 (3.3)	93.2 (-1.5)	78.6 (-17.0)	81.7 (-19.7)	65.0 (-35.7)	80.7 (-13.4)
Electric & electronic	106.5 (-0.2)	107.7 (1.2)	104.1 (0.5)	108.5 (3.8)	109.5 (3.5)	106.2 (-0.4)	100.3 (-3.6)	101.0 (-6.9)	93.2 (-14.9)	104.7 (-1.4)
Service	106.9 (2.2)	108.4 (1.4)	106.6 (1.1)	107.7 (1.5)	109.5 (2.2)	108.2 -	104.2 (-2.3)	101.1 (-6.1)	105.1 (-4.0)	108.1 (-0.1)
Wholesale and retail	105.0 (1.8)	104.6 (-0.4)	103.8 (-0.5)	105.5 (-0.8)	108.1 (1.2)	103.8 (-1.2)	100.0 (-3.7)	97.6 (-7.5)	103.2 (-4.5)	103.4 (-0.4)
Food & Accommodation	98.5 (-1.9)	97.5 (-1.0)	95.3 (-1.0)	96.0 (-0.9)	100.7 (-0.5)	96.4 (-1.1)	79.4 (-16.7)	72.4 (-24.6)	86.7 (-13.9)	84.6 (-12.2)
Operating ratio index										
Iron & steel - Pig iron	47 124.3 (0.1)	47 520.7 (0.8)	23 572.0 (2.4)	3 853.9 (3.5)	4 069.6 (12.6)	3 909.8 (-2.2)	21 469.5 (-8.9)	3 290.0 (-14.6)	3 483.6 (-14.4)	3 482.2 (-10.9)
Iron & steel - Crude steel	72 464.0 (2.0)	71 411.9 (-1.5)	36 022.1 (-0.1)	6 001.3 (1.8)	6 274.5 (0.7)	5 949.3 (-2.7)	32 492.2 (-9.8)	5 078.9 (-15.4)	5 383.9 (-14.2)	5 088.6 (-14.5)
Petrochemical - Basic oil	31 139.2 (1.9)	31 804.1 (2.1)	15 232.0 (-1.9)	2 395.8 (-7.9)	2 452.4 (-10.2)	2 427.5 (-7.4)	15 525.4 (1.9)	2 483.2 (3.6)	2 566.3 (4.6)	2 313.9 (-4.7)
Petrochemical - Intermediate raw material	16 981.8 (2.9)	16 014.0 (-5.7)	7 807.4 (-5.6)	1 255.1 (-7.7)	1 226.6 (-11.4)	1 169.4 (-10.5)	7 776.5 (-0.4)	1 286.6 (2.5)	1 267.9 (3.4)	1 056.9 (-9.6)
Petrochemical - 3 major products	21 793.6 (-1.1)	21 584.7 (-1.0)	10 735.1 (-1.9)	1 648.7 (-10.7)	1 819.5 (2.0)	1 702.9 (-4.2)	10 777.9 (0.4)	1 753.9 (6.4)	1 768.9 (-2.8)	1 674.1 (-1.7)
The number of cars	4 028.7 (-2.1)	3 950.6 (-1.9)	2 028.3 (1.2)	371.9 (5.0)	366.2 (4.1)	332.8 (-1.0)	1 627.6 (-19.8)	289.5 (-22.2)	231.1 (-36.9)	297.1 (-10.7)

Note: p means provisional
Source: Monthly Energy Statistics

International Energy Prices

	2018	2019					2020			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Crude oil (USD/bbl)										
WTI	64.8 (27.1)	57.0 (-11.9)	57.1 (-14.0)	54.7 (-18.7)	57.6 (-18.5)	54.8 (-19.2)	38.2 (-33.1)	38.3 (-30.0)	40.8 (-29.2)	42.4 (-22.7)
Dubai	69.4 (30.5)	63.5 (-8.5)	64.4 (-6.9)	61.8 (-16.1)	63.3 (-13.5)	59.1 (-18.4)	41.4 (-35.7)	40.8 (-34.0)	43.3 (-31.6)	44.0 (-25.6)
Brent	71.5 (30.5)	64.2 (-10.3)	65.0 (-9.5)	63.0 (-17.0)	64.2 (-14.3)	59.5 (-19.4)	42.6 (-34.5)	40.8 (-35.3)	43.2 (-32.7)	45.0 (-24.3)
Unit value of import (C&F)	71.4 (34.0)	65.5 (-8.3)	66.1 (-5.3)	68.3 (-8.1)	65.9 (-12.2)	64.5 (-14.2)	39.4 (-40.4)	29.8 (-56.3)	39.2 (-40.5)	- (-100.0)
LNG										
From Indonesia (USD/MMBTU)	10.7 (24.0)	10.6 (-1.0)	10.8 (6.4)	10.0 (-3.8)	10.1 (-3.0)	10.9 (-0.1)	9.3 (-13.8)	9.0 (-10.7)	7.8 (-23.1)	7.8 (-28.3)
Unit value of import (USD/ton, CIF)	526.3 (26.4)	505.4 (-4.0)	520.7 (3.8)	470.3 (-7.7)	488.3 (-6.0)	479.2 (-10.0)	433.3 (-16.8)	442.2 (-6.0)	382.2 (-21.7)	317.1 (-33.8)
Bituminous coal (USD/ton)										
From Australia	107.0 (20.9)	77.9 (-27.2)	83.3 (-22.5)	72.5 (-36.6)	72.1 (-39.7)	65.6 (-44.1)	58.6 (-29.6)	52.2 (-28.0)	51.6 (-28.5)	50.3 (-23.2)
Unit value of import (CIF)	113.6 (8.9)	100.7 (-11.3)	107.4 (-5.3)	109.4 (-4.3)	96.6 (-14.1)	103.6 (-5.9)	80.9 (-24.7)	75.4 (-31.1)	68.8 (-28.8)	69.5 (-32.9)
Petroleum product (USD/bbl)										
Gasoline	79.9 (17.4)	72.5 (-9.3)	71.3 (-12.7)	67.6 (-19.2)	73.7 (-11.3)	70.1 (-17.4)	45.8 (-35.7)	45.3 (-32.9)	46.6 (-36.7)	48.2 (-31.2)
Kerosene	84.8 (29.8)	77.3 (-8.9)	77.7 (-8.2)	74.6 (-14.2)	78.4 (-10.2)	74.6 (-14.5)	44.5 (-42.6)	41.2 (-44.8)	43.9 (-44.0)	43.3 (-42.0)
Diesel	84.9 (27.9)	78.2 (-7.9)	78.5 (-7.1)	75.1 (-14.0)	78.8 (-9.3)	75.4 (-14.8)	50.2 (-36.0)	46.6 (-38.0)	50.2 (-36.4)	49.5 (-34.4)
Bunker-C	65.2 (31.3)	57.5 (-11.8)	62.4 (-2.2)	59.5 (-14.0)	66.1 (-6.1)	54.5 (-21.1)	37.3 (-40.2)	36.9 (-38.0)	39.4 (-40.5)	42.2 (-22.5)
Propane	542.1 (16.0)	434.6 (-19.8)	446.9 (-16.2)	430.0 (-23.2)	375.0 (-32.4)	370.0 (-36.2)	393.1 (-12.0)	350.0 (-18.6)	360.0 (-4.0)	365.0 (-1.4)
Butane	539.2 (7.5)	441.7 (-18.1)	450.6 (-15.0)	415.0 (-25.9)	355.0 (-37.7)	360.0 (-39.5)	401.3 (-11.0)	330.0 (-20.5)	340.0 (-4.2)	345.0 (-4.2)
Naphtha	67.0 (24.5)	56.9 (-15.1)	56.1 (-17.7)	51.7 (-26.9)	55.6 (-22.9)	50.6 (-29.3)	39.1 (-30.4)	39.0 (-24.6)	43.5 (-21.8)	42.9 (-15.1)

Note: 1.() is year-on-year growth rates(%)

2.Gasoline type is 95RON, diesel is 0.001%, Bunker-C is high-sulfur oil(180cst/3.5%), for propane and butane, CP is reference value

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

Total Primary Energy Supply (TPES)

	2018	2019p	2020p				2020p			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Coal (Mton)	141.0 (0.9)	133.0 (-5.7)	63.0 (-8.5)	9.3 (-11.9)	9.5 (-11.9)	10.5 (-1.9)	55.9 (-11.3)	8.9 (-4.1)	8.6 (-9.3)	9.6 (-8.8)
- Coking coal excluded	106.4 (2.8)	98.0 (-7.8)	45.7 (-12.0)	6.4 (-18.4)	6.6 (-16.4)	7.6 (-2.2)	39.6 (-13.3)	6.4 (0.0)	6.0 (-8.4)	6.9 (-9.0)
Oil (Mbbbl)	931.8 (-0.6)	928.4 (-0.4)	454.6 (-2.6)	75.6 (-1.1)	72.6 (-7.1)	71.8 (-4.9)	443.2 (-2.5)	68.6 (-9.3)	78.2 (7.6)	71.1 (-0.9)
- Non-energy oil excluded	445.5 (0.4)	451.8 (1.4)	221.9 (-0.8)	37.8 (5.7)	33.1 (-8.6)	35.4 (-2.6)	210.3 (-5.3)	32.7 (-13.4)	38.3 (15.4)	33.8 (-4.4)
LNG (Mton)	42.3 (16.2)	40.9 (-3.2)	21.4 (-5.2)	3.3 (2.2)	2.7 (-6.0)	2.4 (-11.8)	20.9 (-2.6)	3.0 (-10.5)	2.3 (-16.1)	2.4 (-3.1)
Hydro (TWh)	7.3 (3.9)	6.2 (-14.1)	3.0 (-11.5)	0.5 (6.3)	0.5 (-31.8)	0.5 (-34.4)	3.2 (5.7)	0.5 (-3.5)	0.6 (4.2)	0.5 (6.7)
Nuclear (TWh)	133.5 (-10.1)	145.9 (9.3)	79.8 (33.1)	14.1 (50.2)	14.8 (29.9)	13.6 (20.2)	82.1 (2.8)	13.7 (-3.3)	15.3 (3.3)	14.1 (3.6)
Others (Mtoe)	17.1 (8.0)	18.3 (6.7)	9.2 (10.0)	1.5 (5.1)	1.6 (14.8)	1.5 (7.9)	9.6 (3.5)	1.7 (11.0)	1.6 (-1.6)	1.6 (8.7)
TPES (Mtoe)	307.5 (1.8)	303.8 (-1.2)	151.5 (-1.0)	24.4 (1.5)	23.5 (-3.3)	23.2 (-2.0)	145.7 (-3.8)	22.8 (-6.5)	23.2 (-1.3)	22.7 (-2.2)
- Non-energy oil excluded	247.1 (2.6)	244.4 (-1.1)	122.6 (-0.3)	19.7 (3.8)	18.6 (-2.7)	18.7 (-0.7)	116.6 (-4.9)	18.3 (-7.0)	18.2 (-2.1)	18.1 (-3.4)
- Non-energy oil&coal excluded	222.9 (3.5)	220.0 (-1.3)	110.5 (-0.5)	17.6 (3.4)	16.5 (-3.1)	16.7 (-0.6)	105.2 (-4.8)	16.5 (-6.3)	16.4 (-0.9)	16.2 (-2.8)

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

Share of TPES by Sources

(unit: %)

	2018	2019p	2020p				2020p			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Coal	28.2	27.0	25.7	23.7	25.1	27.8	23.8	24.2	23.1	26.0
- Coking coal excluded	20.3	19.0	17.7	15.3	16.5	19.3	16.0	16.4	15.4	17.9
Oil	38.5	38.7	38.1	39.4	39.1	39.2	38.5	38.1	42.8	39.7
- non-energy oil excluded	18.9	19.2	19.0	20.1	18.2	19.7	18.5	18.3	21.2	19.2
LNG	18.0	17.6	18.5	17.8	15.1	13.7	18.7	17.0	12.9	13.6
HydrE	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5
Nuclear	9.2	10.2	11.2	12.4	13.4	12.4	12.0	12.8	14.0	13.2
Others	5.6	6.0	6.1	6.3	6.8	6.4	6.6	7.5	6.7	7.1
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			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Industry	142.9 (0.7)	142.7 (-0.1)	70.4 (-0.9)	11.6 (-1.7)	11.8 (-3.0)	11.2 (-4.1)	68.8 (-2.3)	11.0 (-5.4)	11.2 (-4.9)	11.0 (-2.5)
Transport	43.0 (0.4)	42.6 (-0.9)	21.3 (1.0)	3.7 (5.7)	3.3 (-8.3)	3.6 (-1.1)	19.1 (-10.6)	2.9 (-21.7)	3.6 (10.2)	3.3 (-8.5)
Residential	23.5 (4.4)	22.6 (-3.6)	13.1 (-3.2)	1.9 (11.1)	1.3 (-1.9)	1.0 (-1.6)	13.2 (0.3)	2.0 (4.9)	1.5 (17.5)	1.0 (4.7)
Commercial	17.9 (2.9)	17.8 (-0.3)	9.2 (-1.5)	1.4 (6.7)	1.2 (-0.1)	1.2 (-1.5)	8.8 (-4.1)	1.3 (-9.2)	1.2 (0.2)	1.3 (2.7)
Public	5.6 (2.0)	5.5 (-1.2)	2.8 (-3.9)	0.4 (-1.5)	0.4 (0.5)	0.4 (-1.9)	2.8 (-0.4)	0.4 (-6.1)	0.4 (6.4)	0.4 (2.7)
TFC	232.7 (1.2)	231.2 (-0.6)	116.7 (-1.0)	19.1 (1.5)	17.9 (-3.7)	17.5 (-3.1)	112.6 (-3.6)	17.6 (-7.8)	17.9 (0.0)	17.0 (-2.9)
Coal (Mton)	49.2 (-2.3)	48.2 (-2.1)	24.1 (-0.8)	4.0 (-0.8)	4.1 (-3.8)	4.0 (-4.5)	22.0 (-9.0)	3.6 (-9.2)	3.4 (-16.1)	3.6 (-10.3)
Oil (Mbbbl)	920.0 (-0.7)	920.3 (0.0)	450.0 (-2.1)	74.9 (-1.5)	72.1 (-7.2)	71.3 (-4.8)	440.6 (-2.1)	68.3 (-8.9)	77.9 (8.0)	70.8 (-0.7)
Electricity (TWh)	526.1 (3.6)	520.5 (-1.1)	259.9 (-0.7)	42.4 (1.0)	40.7 (0.4)	40.6 (-1.0)	252.3 (-2.9)	40.5 (-4.6)	38.3 (-5.8)	39.8 (-2.1)
City gas (Bm ³)	24.3 (7.4)	23.3 (-4.1)	13.6 (-2.7)	2.1 (10.6)	1.5 (1.5)	1.3 (-1.5)	12.7 (-6.8)	1.9 (-8.6)	1.4 (-10.5)	1.1 (-11.1)
Heat-others (1 000 toe)	11.8 (6.4)	11.9 (0.9)	6.3 (2.8)	1.0 (8.5)	0.9 (2.6)	0.8 (1.2)	6.2 (-1.1)	1.0 (-1.9)	0.9 (-3.5)	0.9 (6.7)

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			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Industry	61.4	61.7	60.3	60.7	65.8	64.3	61.1	62.3	62.5	64.5
Transport	18.5	18.4	18.3	19.6	18.3	20.7	16.9	16.6	20.2	19.5
Residential	10.1	9.8	11.2	10.0	7.0	5.7	11.7	11.4	8.2	6.1
Commercial	7.7	7.7	7.9	7.4	6.8	7.0	7.8	7.3	6.8	7.4
Public	2.4	2.4	2.4	2.3	2.2	2.3	2.4	2.3	2.3	2.4
Final energy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Coal	13.9	13.8	13.7	13.9	15.0	15.1	13.0	13.6	12.8	14.0
Oil	50.2	50.4	48.9	49.7	50.8	51.7	49.5	48.9	55.1	52.8
Electricity	19.4	19.4	19.1	19.1	19.5	20.0	19.3	19.7	18.4	20.1
City gas	11.4	11.3	12.9	12.1	9.7	8.5	12.7	12.2	9.0	7.8
Heat-others	5.1	5.1	5.4	5.2	4.9	4.8	5.5	5.6	4.8	5.2

Note: p means provisional
Source: Monthly Energy Statistics

Statistics on Energy Production Facilities

	2017	2018	2019				2020p		
				M4	M5	M6	M4	M5	M6
Total capacity (GW)	116.9 (10.4)	119.1 (1.9)	125.3 (5.2)	119.8 (2.6)	119.8 (1.7)	121.1 (3.4)	126.3 (5.4)	126.8 (5.8)	127.3 (5.1)
Nuclear	22.5 (-2.5)	21.9 (-3.0)	23.3 (6.4)	21.9 (-3.0)	21.9 (-3.0)	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 (0.8)	36.4 (0.3)	36.4 (0.3)	36.5 (0.1)	36.5 (0.1)	36.5 (0.1)
Gas	37.9 n.a	37.9 (-0.0)	39.6 (4.5)	37.9 (1.5)	37.9 (0.2)	38.3 (1.2)	41.2 (8.5)	41.2 (8.5)	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		
				M4	M5	M6	M4	M5	M6
The number of household 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)	19.7 (2.4)	19.8 (2.5)
Registered cars (mil)	22.5 (3.3)	23.2 (3.0)	23.7 (2.0)	23.3 (2.6)	23.4 (2.5)	23.4 (2.5)	23.9 (2.2)	23.9 (2.3)	24.0 (2.5)
- gasoline	10.4 (2.7)	10.6 (2.5)	11.0 (3.1)	10.7 (2.4)	10.8 (2.5)	10.8 (2.5)	11.1 (3.5)	11.2 (3.7)	11.2 (4.1)
- diesel	9.6 (4.4)	9.9 (3.7)	10.0 (0.3)	10.0 (2.7)	10.0 (2.4)	10.0 (2.1)	9.9 (-0.1)	9.9 (-0.1)	10.0 (-0.2)
- LPG	2.1 (-2.9)	2.0 (-3.3)	2.0 (-1.5)	2.0 (-3.1)	2.0 (-2.9)	2.0 (-2.8)	2.0 (-0.6)	2.0 (-0.6)	2.0 (-0.5)
- hybrid	0.3 (37.6)	0.4 (30.9)	0.5 (26.1)	0.4 (29.9)	0.4 (29.5)	0.4 (29.4)	0.5 (24.3)	0.5 (24.9)	0.6 (25.9)

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

KEEI

MONTHLY **KOREA ENERGY TRENDS** (2020, NO.101)



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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