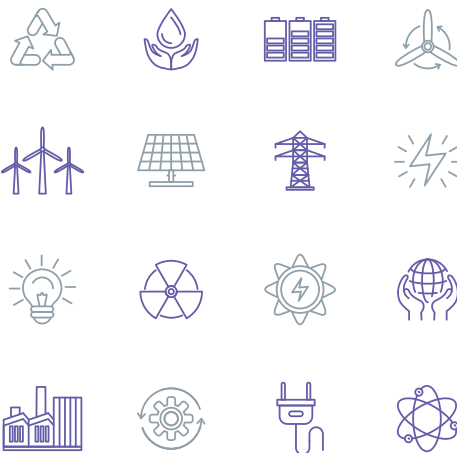


KEEI

MONTHLY
KOREA ENERGY
TRENDS



COAL 1.2%
PETROLEUM 8.8%
LNG 2.7%
NUCLEAR 2.0%
NEW & RENEWABLE 6.7%
AUGUST. 2021

**This publication is derived from Energy Demand & Supply
Statistics and Energy Price Statistics issued until August 2021**



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1. The Economy and the Industry

- **The mining & manufacturing production index in August posted a year-on-year growth of 9.7% as production in all sectors increased with signs of recovery across all industries**
 - Semiconductor production index skyrocketed by 36.8% year-on-year as the demand for both memory and non-memory products grew with economic recovery and the production and export of semiconductors showed a dramatic increase
 - As the demand for products needed for 'contact-free' lifestyle such as personal hygiene items, packaging materials and medical latex, the demand for petrochemical products including synthetic resins went up. As a result, the basic chemical material production index soared by 10.5% year-on-year
 - This decent recovery across many steel-demand industries drove the steel production index rise by 14.7%
 - Despite of the imbalance between supply and demand of automobile semiconductors and the shutdown of major plants, the automobile production index rose by 6.2% thanks to the upswing in exports
- **Despite weak production in the food&accommodation sector, the service production index showed a year-on-year growth of 4.2% due to an increase in the production in the wholesale&retail sector**
 - With the fourth wave of COVID-19 pandemic, Social Distancing regulations were enhanced, putting limits on the business hours of restaurants and private gatherings. Consequently, the production index for the food & accommodation sector, which focuses on offering face-to-face services, dropped by 5.3%
 - The wholesale & retail sectors also showed a year-on-year growth of 5.3% as National Relief fund from the government promoted an increase in consumption

► Major economic and industrial indicators

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
GDP (trillion won)	1 836.9 (-0.9)	893.5 (-0.6)	- -	928.9 (4.0)	476.5 (6.0)	- -	- -
Total export (\$billion, customs clearance basis)	512.5 (-5.5)	322.8 (-10.6)	39.5 (-10.3)	411.8 (27.6)	54.8 (39.7)	55.5 (29.7)	53.2 (34.7)
Industrial production index (2015=100)	106.3 (-0.3)	103.2 (-1.4)	99.6 (-3.7)	112.0 (8.5)	116.3 (11.5)	115.8 (7.8)	109.3 (9.7)
Semi-conductors	230.6 (22.6)	219.3 (27.3)	237.6 (20.4)	279.7 (27.6)	299.8 (25.8)	306.9 (34.7)	325.0 (36.8)
Basic chemical products	102.3 (-6.0)	103.5 (-4.7)	105.2 (-8.1)	109.3 (5.6)	105.0 (10.1)	114.2 (10.0)	116.2 (10.5)
Iron&Steel	92.1 (-6.3)	90.4 (-8.9)	86.2 (-9.9)	97.7 (8.1)	98.3 (20.9)	102.6 (19.3)	98.9 (14.7)
Cars	84.1 (-9.9)	79.0 (-15.5)	68.9 (-10.6)	88.9 (12.5)	95.5 (20.4)	90.0 (-3.4)	73.2 (6.2)
Service production index (2015=100)	106.2 (-2.0)	104.5 (-2.3)	104.1 (-3.8)	108.7 (4.0)	113.5 (4.9)	111.0 (4.0)	108.5 (4.2)
Wholesale & Retail	101.9 (-2.6)	99.8 (-3.6)	96.8 (-5.7)	104.3 (4.5)	107.4 (3.5)	106.1 (5.5)	101.9 (5.3)
Restaurant & Accommodation	79.5 (-18.5)	81.5 (-15.7)	84.6 (-16.9)	76.6 (-5.9)	84.2 (-0.6)	83.2 (-8.0)	80.1 (-5.3)

Note: Figures are based on the real price of 2015, P means provisional, () is year-on-year growth rates (%)
Source: Korea International Trade Association, Korea Statistical Information Service

2. Energy Prices¹

Global Energy Prices

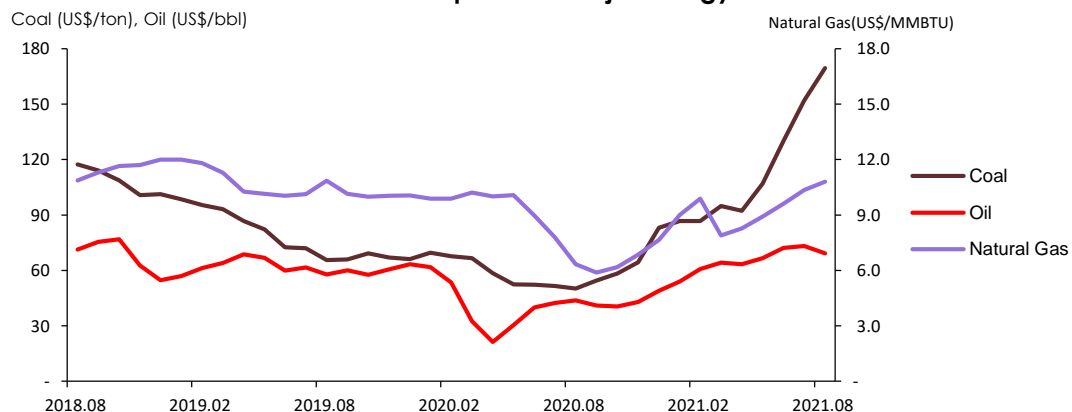
- In August, the global average crude oil price declined by 5.4% month-on-month as several factors including another wave of COVID-19 pandemic, the U.S. asking to increase oil production and the prospect of tapering to be implemented by the Fed came into play
 - In addition to a rapid spread of COVID-19 delta variant, the Biden administration asked OPEC+ to pump more oil upon concerns about deepening inflation. Also, there was a chance that the Fed might begin tapering earlier than expected. In response, the global oil price in August started to drop
 - Australian coal price soared by 11.6% month-on-month, maintaining a steep upward trend as the demand for electricity rapidly rose driven by sweltering heat and economic recovery, and the supply and demand of coal failed to hit the right balance due to China's decision not to import coal from Australia
 - The price for natural gas rose by 4.3% month-on-month due to a mix-up in supply and demand, continuing to show an upward trend since March

► Global energy prices

	2019	2020			2021			
			M6	M7	M8	M6	M7	M8
Crude oil (US\$/bbl)	61.6	41.6	40.0	42.4	43.8	72.1	73.2	69.2
	(-10.2)	(-32.4)	(-33.2)	(-31.2)	(-24.2)	(80.5)	(72.6)	(58.1)
Natural gas (US\$/MMBTU)	10.6	8.3	9.0	7.8	6.3	9.6	10.4	10.8
	(-1.1)	(-21.3)	(-10.7)	(-23.1)	(-41.6)	(7.2)	(33.0)	(70.3)
Coal (US\$/ton)	77.8	60.8	52.2	51.6	50.1	130.0	152.0	169.6
	(-27.3)	(-21.9)	(-28.0)	(-28.5)	(-23.5)	(148.9)	(194.7)	(238.2)

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



¹ This report presents the energy price trend of the month for which energy consumed data is available. For more on the latest price trend, see *Energy Supply and Demand Brief*

Domestic energy prices

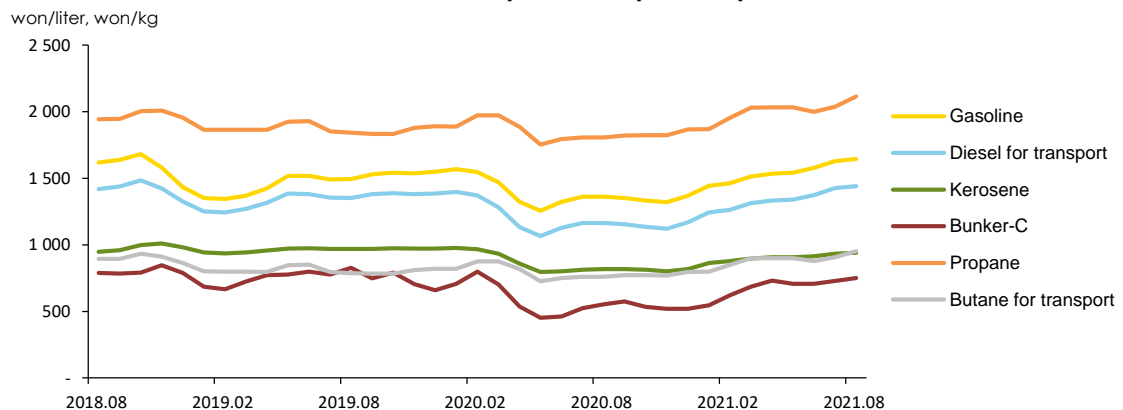
- **In spite of a fell in global oil price, the prices for gasoline and diesel increased by 1.0% and 1.1% month-on-month, respectively**
 - Despite of a decline in global oil price, the average prices of gasoline and diesel at gas stations posted a month-on-month increase as the fluctuations in global oil price takes time to be reflected in the domestic market. In terms of the year-on-year basis, the prices soared by 20.9% and 23.8%, respectively, driven by a base effect from the plunge in oil price last year
 - The bunker-C oil price showed a month-on-month growth of 3.0% and a year-on-year growth of 35.5%
- **Propane and butane prices in August went up by 3.8% and 5.1% month-on-month, as the supply price was marked up to reflect an increase in the global price in July**
 - As Saudi Aramco increased the global propane and butane prices in July, LPG providers marked up the supply prices by 80KRW/kg

► Domestic petroleum product prices

	2019	2020				2021		
			M6	M7	M8	M6	M7	M8
Gasoline (won/liter)	1 472.6 (-6.9)	1 381.2 (-6.2)	1 322.9 (-12.8)	1 360.3 (-8.8)	1 361.1 (-8.9)	1 577.3 (19.2)	1 629.3 (19.8)	1 645.8 (20.9)
Diesel for transport (won/liter)	1 340.6 (-3.7)	1 189.5 (-11.3)	1 127.9 (-18.3)	1 162.9 (-14.0)	1 163.6 (-13.9)	1 374.4 (21.9)	1 425.5 (22.6)	1 440.5 (23.8)
Bunker-C (won/liter)	744.5 (1.3)	572.9 (-23.0)	462.8 (-42.1)	524.7 (-32.4)	553.7 (-33.1)	706.4 (52.6)	728.4 (38.8)	750.1 (35.5)
Propane (won/kg)	1 869.6 (-2.6)	1 850.3 (-1.0)	1 794.5 (-7.0)	1 806.0 (-2.5)	1 806.0 (-1.9)	1 999.6 (11.4)	2 036.4 (12.8)	2 114.5 (17.1)
Butane for transport (won/liter)	806.3 (-7.8)	790.8 (-1.9)	749.5 (-12.0)	759.9 (-4.6)	760.4 (-3.2)	878.5 (17.2)	906.3 (19.3)	952.3 (25.2)

Note: Gasoline, diesel and butane is based on charging station prices, Bunker-C is based on dealership prices, propane is based on sales shop prices. () is year-on-year growth rates (%)
Source: www.opinet.co.kr

► Domestic petroleum product prices



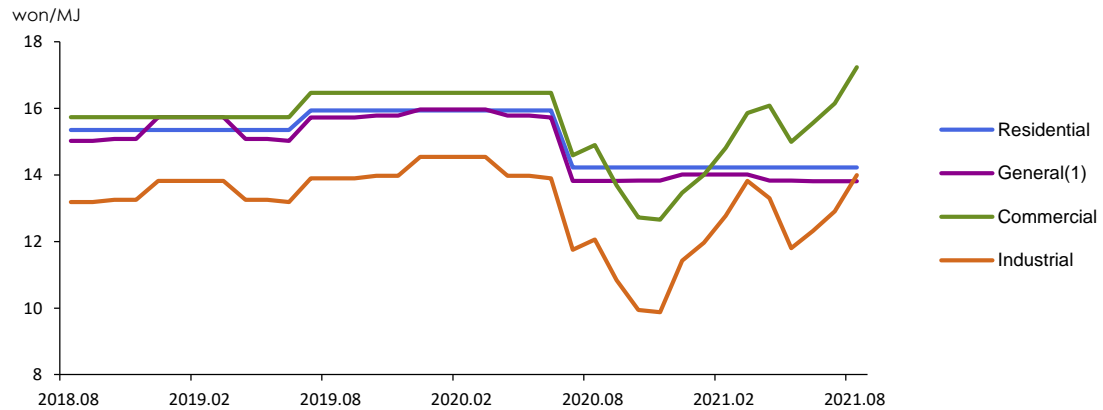
□ **In August, city gas prices for commercial use and industrial use were marked up by 6.7% and 8.4%, respectively, on a month-on-month basis**

- The prices for commercial and industrial city gas uses, adjusted every month under Fuel Adjustment Mechanism (FAM), showed a month-on-month rise due to the mark up of city gas wholesale price. In contrast, the prices for residential and general uses, which respond to civilian demands, were frozen

□ **After Fuel Adjustment Mechanism (FAM) was implemented, the electricity price in August was frozen for the third quarter as well, staying the same for eight months in a row**

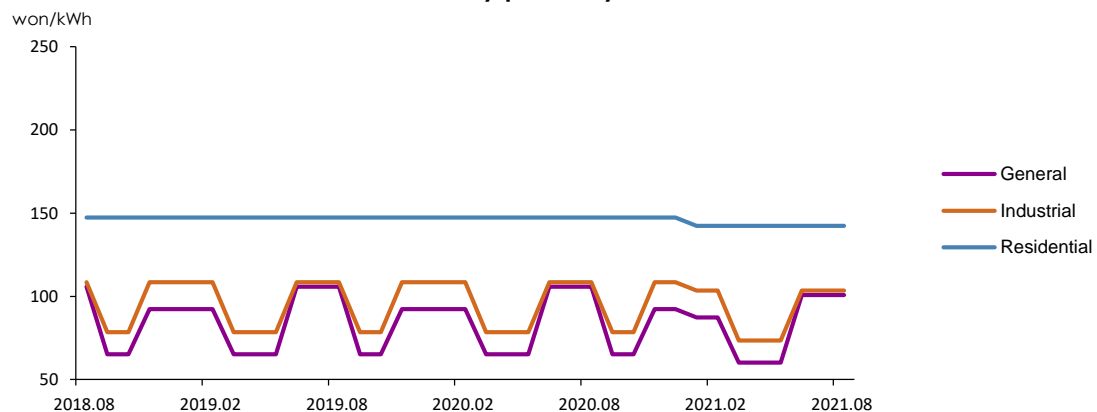
- Although the increase in global oil price could be a factor to cause a price rise, it was decided to freeze the electricity price to stabilize the living of the people as COVID-19 pandemic became prolonged and a strong increase in prices took place since the second quarter

► City gas prices by end-use sectors



Source: Seoulgas

► Electricity prices by end-use sectors



Note: The electricity prices by end-use sectors refer to the prices for residential use ([high voltage], the 2nd stage price), general use ([A], low voltage) and Industrial use ([B], high voltage B middle load), including Climate Environmental Price

Source: KEPCO

3. Energy Supply

- **The total energy import volume rose by 18.3% year-on-year with the imports of all energy sources growing**
 - The import volume of crude oil increased by 4.9% year-on-year due to a growth in the crude oil fed into refineries (3.5%) and a base effect from a drop-in import a year earlier (-18.7%). The share of the middle eastern crude oil decreased by 11.4%p year-on-year to reach 57.4%
 - As for the import volume of petroleum products, LPG ended up increasing by 0.2% due to a consumption decline. However, the imports of naphtha and bunker-C, which skyrocketed by 46.0% and 57.8% year-on-year thanks to increased demand in the industrial sector, drove the overall petroleum product import to post a year-on-year growth of 34.9%
 - The import volume of bituminous coal climbed up by 18.5% year-on-year as the import of coking coal and steam coal both went up
 - Due to a rise in import volume by Korea Gas Corporation, the LNG import volume showed a dramatic year-on-year increase of 77.8%

► Import and domestic production of energy

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
Import volume							
Crude oil (Mbbbl)	980.3 (-8.6)	664.3 (-8.7)	78.9 (-18.7)	629.1 (-5.3)	80.2 (7.4)	78.0 (-9.7)	82.8 (4.9)
Petroleum product (Mbbbl)	347.4 (-1.4)	245.3 (8.0)	25.7 (-27.0)	254.1 (3.6)	33.0 (10.9)	36.9 (15.9)	34.7 (34.9)
Bituminous coal (Mton)	115.5 (-13.0)	75.4 (-12.9)	9.2 (-27.1)	72.1 (-4.5)	8.5 (-7.8)	11.4 (6.0)	10.4 (12.4)
Anthracite (Mton)	6.3 (-8.3)	4.1 (-19.0)	0.6 (-16.8)	4.3 (4.9)	0.4 (-25.4)	0.6 (5.3)	0.7 (18.5)
LNG (Mton)	40.0 (-1.9)	25.4 (-4.3)	2.0 (-45.5)	30.6 (20.8)	3.1 (21.3)	4.0 (70.6)	3.5 (77.8)
Import volume (Mtoe)	325.4 (-6.8)	217.7 (-5.8)	24.9 (-21.7)	221.1 (1.6)	26.1 (2.7)	30.5 (12.6)	29.5 (18.3)
Import value (billion US\$, CIF)	86.6 (-31.7)	60.2 (-30.1)	6.0 (-48.3)	80.9 (34.4)	10.3 (106.8)	12.2 (89.5)	12.0 (100.6)
Energy share of total import value (%)	18.4	19.5	16.7	20.7	20.5	22.6	23.3
Foreign energy dependence (%)*	92.9	92.9	92.3	92.6	92.3	92.6	92.7
Domestic production							
Hydropower (TWh)	7.1 (14.4)	4.9 (16.5)	1.1 (78.8)	4.7 (-3.5)	0.7 (33.9)	0.7 (16.3)	0.6 (-43.6)
Anthracite (Mton)	1.0 (-6.0)	0.7 (-4.8)	0.1 (-20.0)	0.6 (-12.2)	0.1 (-10.9)	0.1 (-8.1)	0.1 (-10.3)
Natural gas (Mton)	0.1 (-28.6)	0.1 (-21.7)	0.0 (-41.5)	0.0 (-72.3)	0.0 (-90.5)	0.0 (-83.6)	0.0 (-88.2)
Renewable energy (Mtoe)	18.4 (4.3)	12.3 (3.1)	1.6 (-1.4)	13.5 (9.4)	1.6 (9.9)	1.7 (16.3)	1.7 (6.7)

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

4. Energy Consumption

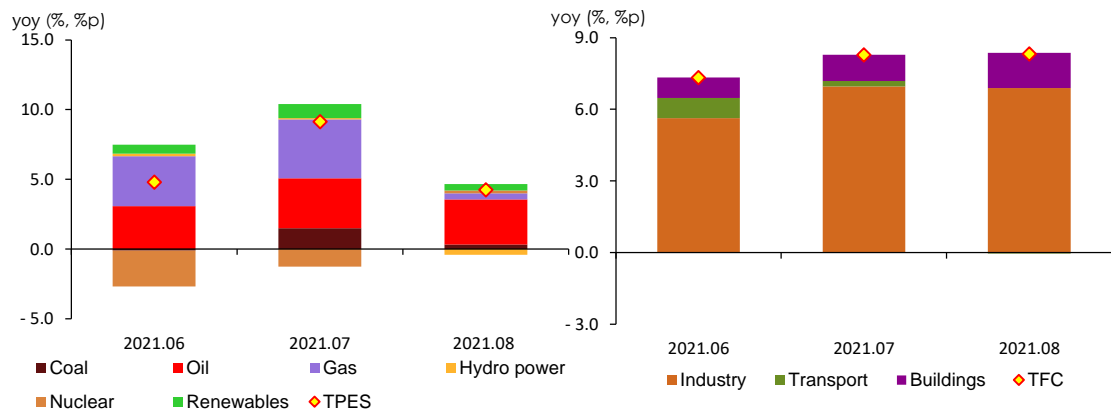
- **Total Primary Energy Supply (“TPES”) in August dropped by 4.2% year-on-year as the growth in gas and coal use slowed down massively, mainly in the power generation sector**
 - Petroleum consumption in the transport sector became stagnant. However, the petroleum use in the petrochemical sector stepped up as the sector set a record high in monthly export value thanks to the economic recovery in major countries. Other factors including expansion of petrochemical facilities and a base effect also contributed to the increased consumption. As a result, the overall petroleum use increased by 8.8% year-on-year
 - The industrial gas use rose rapidly (11.5%) while the gas consumption in the building sector declined by 9.6% and the growth in the power generation sector, which soared dramatically (50%) last month, slowed down greatly (4.3%) due to an increase in nuclear power generation. Consequently, the overall gas consumption grew by 2.7%
 - Industrial coal use continued to rise (6.4%) thanks to the business recovery of steel demand industries such as construction, home appliance and shipbuilding. However, the coal use in the power generation sector, which posted a rapid rise (5.4%) last month, switched to a fall (-1.7%). As a result, the total coal consumption inched up by 1.2% year-on-year
- **Driven by economic recovery as well as the industrial and building sectors, Total Final Consumption (“TFC”) soared by 8.3% year-on-year**
 - The energy consumption in the industrial sector posted a year-on-year growth of 10.7% as working days increased (0.5 day) and the production index of the manufacturing industry rose by 10.2% with the domestic and global economies recovering rapidly from the impact of COVID-19
 - The energy use in the transport sector inched down by 0.2% year-on-year due to a decline in travel demand amidst another wave of COVID-19 pandemic
 - The energy use in the building sector stepped up by 8.9%. Nevertheless, the growth in the commercial sector’s energy use was held back by a drop-in city gas consumption, resulting from extension of Social Distancing measures. On the other side, the energy use in the residential sector rapidly grew with increased home office hours, mainly driven by electricity consumption

► Energy consumption

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
TPES (Mtoe)	291.5	193.6	24.4	201.4	23.8	25.9	25.5
	(-3.8)	(-4.5)	(-6.5)	(4.1)	(4.8)	(9.1)	(4.2)
- Non-energy oil&coal excluded	212.0	139.9	17.7	144.1	16.8	18.4	17.9
	(-3.5)	(-4.9)	(-6.7)	(3.0)	(3.7)	(8.6)	(1.1)
TFC (Mtoe)	221.7	147.5	17.6	154.9	18.2	19.0	19.1
	(-4.2)	(-4.6)	(-8.9)	(5.0)	(7.3)	(8.3)	(8.3)

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

□ Despite of a drop in the power generation sector, coal use in August grew by 1.2% year-on-year driven by an increase in the industrial sector

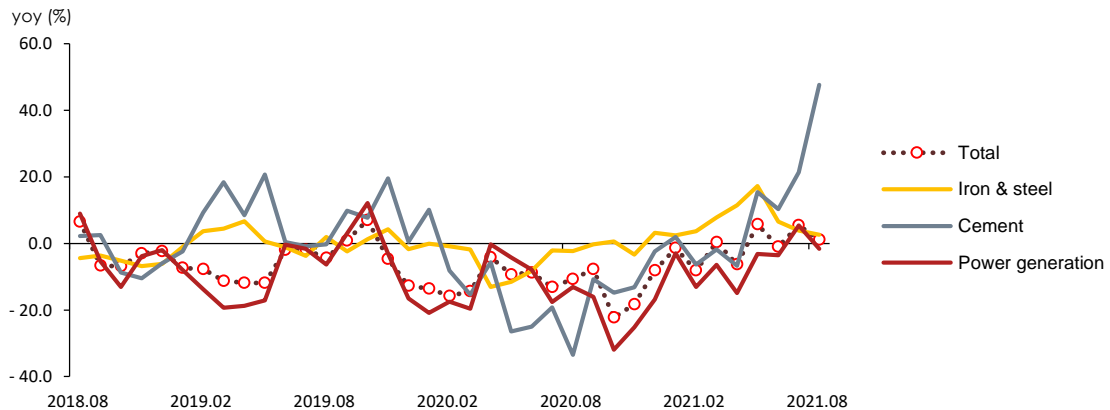
- Industrial coal use, rising by 6.4% year-on-year, put on speed with increased working days (0.5 day) and a growth in production activity in the steel and cement manufacturing industries
- Coal use in the power generation sector decreased by 1.7% year-on-year driven by several factors, such as a cap on coal-fired generation, an increase in generating efficiency and reduction of generation capacity

► Coal consumption

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
Coal (Mton)	116.6	78.0	11.3	77.7	9.5	11.3	11.5
	(-12.4)	(-11.4)	(-10.7)	(-0.4)	(-1.0)	(5.4)	(1.2)
Industry	45.3	29.5	3.9	31.4	3.7	4.0	4.2
	(-4.7)	(-7.7)	(-5.6)	(6.4)	(3.5)	(5.5)	(6.4)
-Coking-coal	33.8	22.1	2.9	23.6	2.8	3.0	3.0
	(-3.3)	(-5.0)	(-2.3)	(6.8)	(6.5)	(3.9)	(2.6)
Buildings	0.5	0.2	0.0	0.2	0.0	0.0	0.0
	(-20.8)	(-23.5)	(-49.6)	(-15.6)	(-14.3)	(20.0)	(50.0)
Power generation	70.7	48.2	7.4	46.1	5.8	7.3	7.3
	(-16.6)	(-13.5)	(-13.1)	(-4.5)	(-3.6)	(5.4)	(-1.7)

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

► The growth rate of coal consumption by use



6. Petroleum

□ Although the transport sector witnessed a decline, the total petroleum use in August rose by 8.8% year-on-year thanks to an increase in the industrial and building sectors

- Petroleum use in the industrial sector soared by 13.6% year-on-year as facilities were newly built and expanded to boost to naphtha consumption
- Since the retail price shot up, the LPG consumption in the road sector went down. Accordingly, the petroleum use in the transport sector showed a year-on-year decline of 0.5%
- Petroleum use in the building sector went up by 13.4% year-on-year as the commercial sector showed an increase in diesel consumption and the residential sector stepped up in kerosene use, driven by a base effect from a plunge in petroleum use amidst COVID-19 pandemic last year

► Petroleum product consumption by end-use sectors

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
Petroleum (Mbbbl)	872.3	585.0	71.6	609.3	76.8	78.9	77.9
	(-5.9)	(-4.8)	(-12.0)	(4.2)	(8.1)	(9.0)	(8.8)
Industry	543.9	370.3	45.6	390.3	48.7	51.6	51.8
	(-4.0)	(-0.3)	(-6.5)	(5.4)	(9.0)	(11.8)	(13.6)
-Naphtha	405.3	279.9	34.1	293.9	34.9	38.5	39.8
	(-7.6)	(-4.3)	(-10.5)	(5.0)	(3.9)	(9.6)	(16.9)
Transport	277.2	182.8	23.3	184.2	24.6	24.0	23.2
	(-8.6)	(-10.8)	(-19.2)	(0.8)	(4.9)	(1.8)	(-0.5)
Buildings	44.7	28.3	2.2	29.5	3.0	2.5	2.5
	(-8.9)	(-11.7)	(-28.6)	(4.3)	(17.0)	(10.6)	(13.4)
Power generation	6.6	3.6	0.5	5.3	0.5	0.7	0.4
	(-23.2)	(-42.8)	(-25.8)	(47.9)	(30.0)	(132.8)	(-21.2)

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

□ **Despite a drop in the building sector, the gas use posted a year-on-year growth of 2.7% with rising gas consumption in the industrial and power generation sectors amidst business recovery**

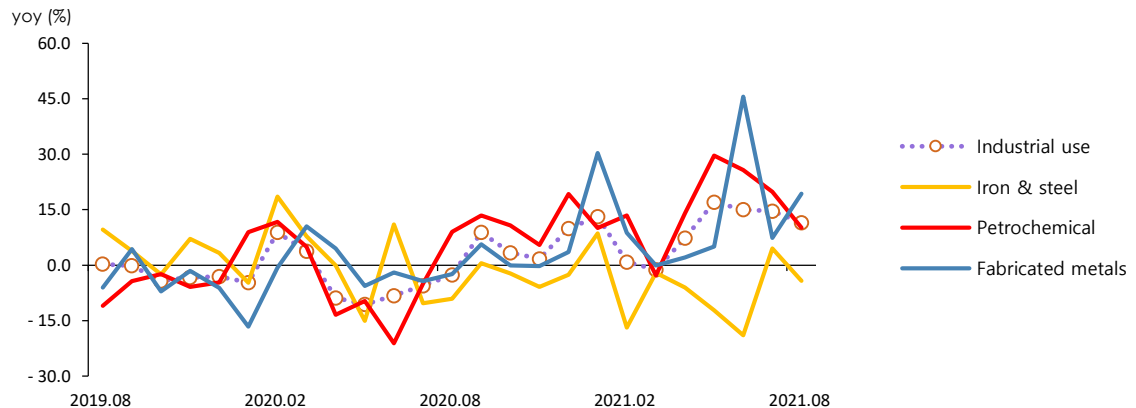
- In August the growth in gas consumption slowed down significantly as the nuclear power started increasing (2.0%) for the first time in five months
- Gas use in the industrial sector showed a rapid increase of more than 10% for four months in a row as the fabricated metal sector continued to rise rapidly in its gas use thanks to strong semiconductor production and the petrochemical sector also experienced a growth due to new and expanded facilities
- The gas use in the commercial building sector continued to drop (-5.0%) with business hour limits as a part of Social Distancing measures and the residential building sector witnessed a dramatic fall (-15.0)

► Natural gas and city gas consumption

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
LNG (Mton)	42.1	26.9	3.0	30.6	3.1	3.4	3.1
	(2.7)	(-0.8)	(6.6)	(14.0)	(25.6)	(29.1)	(2.7)
Power generation	18.6	11.8	1.7	14.8	1.7	2.0	1.8
	(3.7)	(-0.0)	(9.4)	(25.5)	(40.0)	(50.0)	(4.3)
City gas production	18.2	11.6	0.9	12.6	1.0	1.0	0.9
	(-3.1)	(-7.1)	(-3.7)	(8.1)	(14.1)	(7.7)	(4.9)
Industry(Direct private importer)	2.8	1.8	0.3	1.8	0.2	0.3	0.2
	(23.8)	(25.1)	(14.4)	(-0.5)	(3.7)	(8.9)	(-1.4)
City gas (Bm³)	25.9	17.2	1.4	18.2	1.6	1.5	1.4
	(-0.6)	(-3.5)	(-0.3)	(6.1)	(11.8)	(7.5)	(2.9)
Industry(including directly imported)	11.1	7.2	0.8	7.8	0.9	1.0	0.9
	(-0.3)	(-3.5)	(-2.6)	(9.3)	(15.0)	(14.6)	(11.5)
Buildings	13.8	9.3	0.5	9.7	0.6	0.5	0.4
	(-0.0)	(-3.0)	(5.9)	(4.4)	(9.5)	(-2.8)	(-9.6)
Transport.	1.1	0.7	0.1	0.7	0.1	0.1	0.1
	(-9.6)	(-8.8)	(-9.1)	(-4.4)	(-3.9)	(-3.4)	(-5.8)

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

► The growth rate of gas(city gas+directly imported LNG)consumption by major industries



8. Electricity

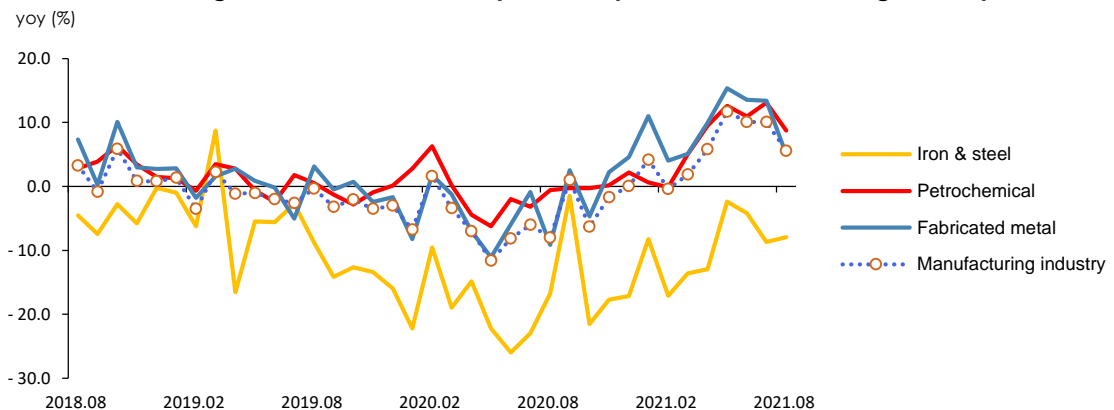
- **Electricity use in August rose by 9.7% year-on-year as the industry sector, thanks to business recovery, and building sector went up in their power consumption**
 - The electricity use in the petrochemical and fabricated metal industries shot up as working days increased (0.5 day) and major front industries enjoyed business recovery. Against this backdrop, the industrial power consumption climbed up by 6.9% year-on-year
 - The electricity use in the building sector rose by 12.7% year-on-year, driving the growth in total power consumption

► Electricity consumption by end-use sectors

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
Electricity (TWh)	509.3	338.9	44.6	356.7	42.0	46.0	48.9
	(-2.2)	(-3.3)	(-6.2)	(5.2)	(5.7)	(9.3)	(9.7)
Industry	267.1	176.6	22.3	187.7	23.0	24.4	23.9
	(-4.5)	(-6.0)	(-7.9)	(6.3)	(9.7)	(10.3)	(6.9)
Transport	2.7	1.8	0.3	1.8	0.2	0.2	0.3
	(-5.9)	(-8.5)	(-9.9)	(-1.4)	(7.2)	(2.8)	(2.3)
Buildings	239.4	160.5	22.0	167.2	18.8	21.3	24.8
	(0.7)	(0.0)	(-4.4)	(4.2)	(1.3)	(8.2)	(12.7)
Residential	74.1	48.8	7.2	52.5	5.8	6.8	9.0
	(5.1)	(3.8)	(-5.5)	(7.6)	(1.4)	(13.0)	(25.8)
Commercial	136.3	92.4	12.2	94.0	10.6	11.9	13.1
	(0.8)	(0.6)	(-2.9)	(1.8)	(0.3)	(5.8)	(7.0)

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

► The growth rate of electricity consumption in manufacturing industry

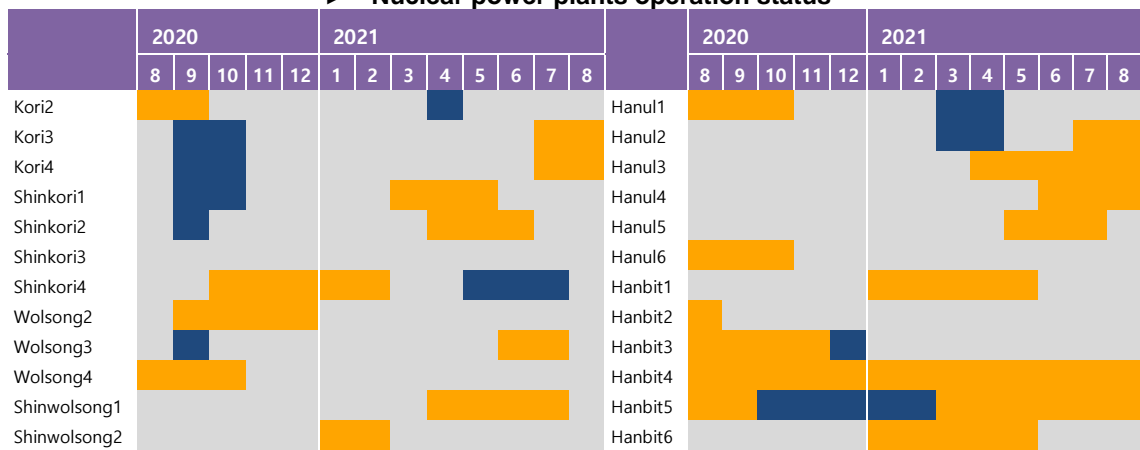


9. Nuclear

□ Nuclear power generation in August grew by 2.0% year-on-year as less units in nuclear power plants were in planned preventive maintenance mode to make generation facility utilization rate rise

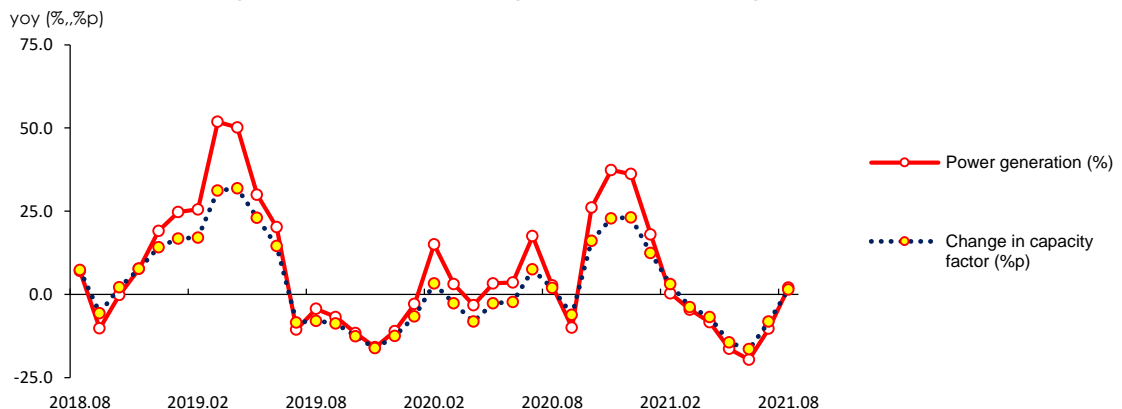
- The number of units in planned preventive maintenance mode declined by 1 and a couple of units with relatively large installed capacity started operating to give a boost to the utilization rate. As a result, nuclear power generation increased by 1.5%p year-on-year
- The share of nuclear power in the total generation mix declined gradually since it recorded -2.1%p year-on-year in March, 2021. However, nuclear power accounted for 24.7% in August, inching up by 0.1%p year-on-year

► Nuclear power plants operation status



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

► The growth rate of nuclear generation & average capacity factor

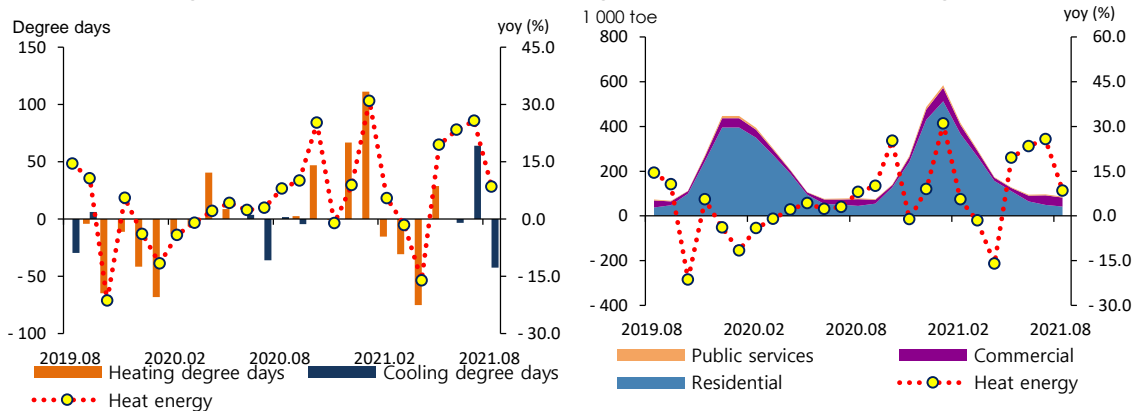


Note: Capacity factor = Ratio of actual power generated to possible power generation when utilizing 100% of available facility. Facility capacity values are based on end-of-the-month data

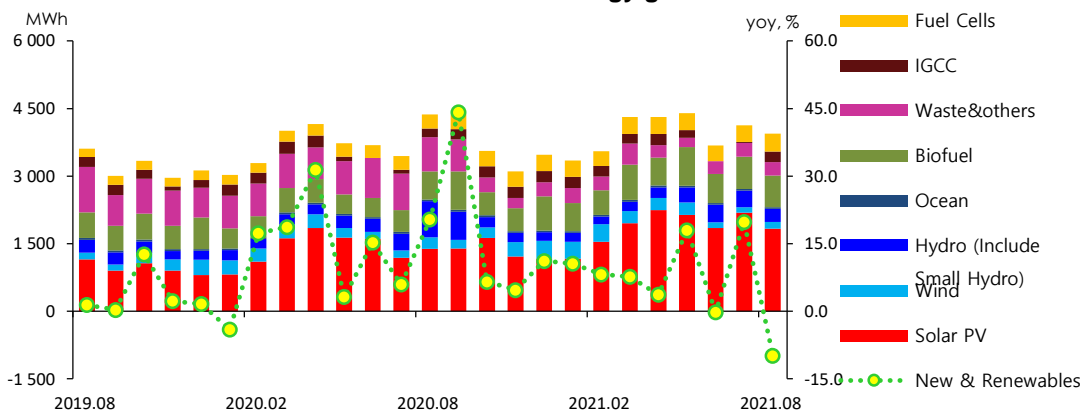
10. Heat and Renewable energy

- **In spite of a decline in the residential sector, the total heat energy use in August posted a year-on-year growth of 8.4% thanks to increased consumption in the commercial & public sector**
 - In the residential sector, heat energy use declined by 7.1% year-on-year as a base effect took place due to a rise last year. The commercial & public sector witnessed a dramatic year-on-year rise of 28.4% driven by a growth in production of the service sector (an increase of 4.2% in production index)
- **Renewable and other energy power generation² dropped by 9.8% year-on-year as water, wind and waste & others witnessed a massive decline**
 - Although solar PV, fuel cell and bio energy sources posted an increase, the renewable and other energy power generation declined by 9.8% year-on-year as the electricity generated from water, wind and waste & others fell due to precipitation reduction, decreased facility capacity, etc

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



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



² Installed capacity and power generation data for renewable energy sources is from Renewable & Other energy section of KEPCO's Monthly Electricity Statistics. As of March 2021, Waste Energy was integrated into Other Energy section; renaming the section to Waste & Other Energy. In Energy Balance, hydropower was excluded from renewable and other energy generation data

11. Industry

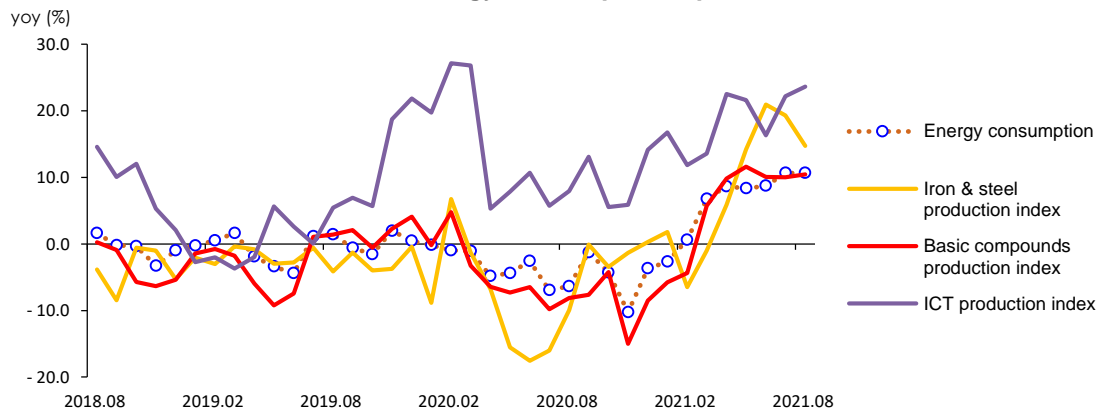
- **Energy use in the industrial sector stepped up by 10.7% year-on-year as the production indexes of major industries continued to grow**
 - Even in the face of another wave of COVID-19 pandemic, the domestic and global economies recovered from the impact of COVID-19 pandemic faster than expected with a year-on-year increase in working days (0.5 day). Against this backdrop, the energy use showed a rapid growth of more than 10% for two consecutive months

► Industrial energy consumption

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
Industry (Mtoe)	137.3	91.6	11.4	97.4	11.9	12.7	12.6
	(-3.9)	(-3.4)	(-6.4)	(6.3)	(8.7)	(10.6)	(10.7)
Petrochemical	69.4	47.2	5.9	50.2	6.1	6.7	6.7
	(-3.6)	(-0.8)	(-4.8)	(6.5)	(10.3)	(13.0)	(13.6)
- Naphtha	49.7	34.3	4.2	36.0	4.3	4.7	4.9
	(-7.6)	(-4.3)	(-10.5)	(5.0)	(3.9)	(9.6)	(16.9)
Iron & Steel	28.2	18.5	2.4	19.3	2.3	2.5	2.5
	(-4.5)	(-6.1)	(-4.1)	(4.2)	(3.3)	(3.0)	(1.1)
-Coking coal	23.6	15.4	2.0	16.4	2.0	2.1	2.1
	(-3.3)	(-5.0)	(-2.3)	(6.8)	(6.5)	(3.9)	(2.6)
Fabricated metal	11.1	7.3	0.9	8.1	1.0	1.0	0.9
	(-2.7)	(-4.7)	(-7.8)	(10.7)	(18.4)	(12.8)	(6.3)
Share of feedstock (%)	57.8	58.4	59.0	58.7	58.3	58.7	59.8

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

► Industrial energy consumption & production index



12. Transport

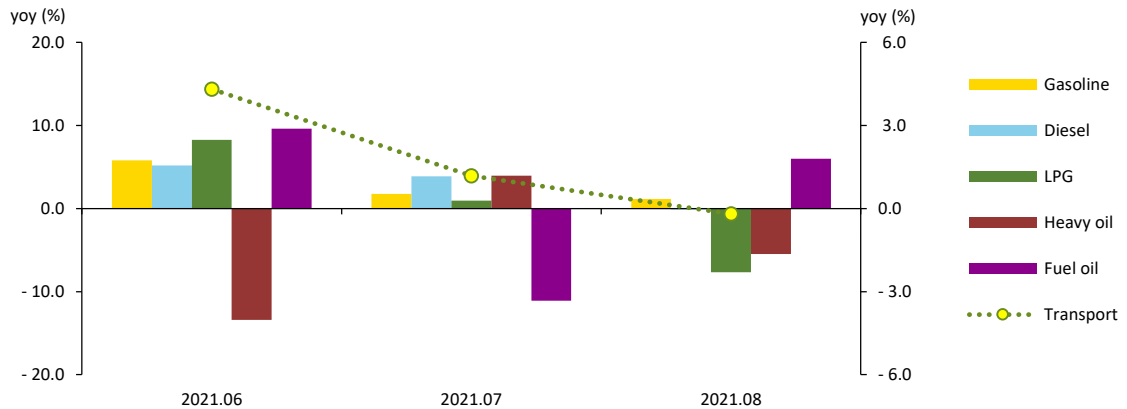
- **Energy use in the transport sector inched down by 0.2% year-on-year as the road transport sector experienced a decline amidst another wave of COVID-19 pandemic**
 - Energy use in the road transport sector slight went down by 0.2% year-on-year as the travel demand fell due to COVID-19 pandemic and the retail price for LPG zoomed up
 - Although the price of international jet fuel climbed up, the energy use in the air transport sector grew by 6.0% year-on-year with the number of flights increasing
 - Despite of increased volume of import and export, the energy use in the marine transport sector declined by 4.6% year-on-year as consumption of both diesel and heavy oil diminished

► The growth rate of petroleum consumption in the transport sector

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
Transport (Mtoe)	39.40	26.03	3.32	26.19	3.50	3.41	3.31
	(-8.3)	(-10.5)	(-18.8)	(0.6)	(4.3)	(1.2)	(-0.2)
Road	33.41	21.95	2.88	22.38	3.04	2.91	2.87
	(-4.7)	(-7.5)	(-17.6)	(2.0)	(5.9)	(2.3)	(-0.2)
Navigation	3.11	2.08	0.25	2.02	0.23	0.26	0.24
	(17.5)	(11.3)	(16.9)	(-2.9)	(-16.1)	(0.6)	(-4.6)
Aviation	2.56	1.78	0.17	1.58	0.21	0.21	0.18
	(-48.1)	(-45.2)	(-53.1)	(-11.2)	(9.6)	(-11.1)	(6.0)
Rail	0.32	0.21	0.03	0.20	0.03	0.03	0.03
	(-7.5)	(-9.7)	(-16.7)	(-4.0)	(5.9)	(0.1)	(3.4)

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

□ **Despite of a decrease in cooling degree days, the energy use in the building sector rose by 8.9% year-on-year**

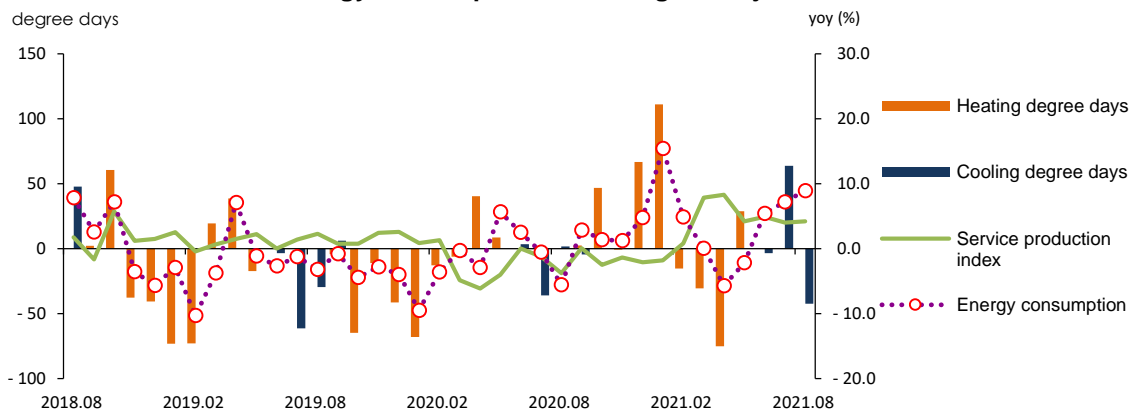
- The energy consumption growth in the commercial & public sector slowed down to a certain degree because of another wave of COVID-19 pandemic while the consumption in residential sector experienced an increase of 13.1% driven by a base effect and increased working time from home. As a result, the energy use in the building sector rose by 8.9% year-on-year
- Although city gas and heat energy consumption declined, the energy use in the residential building sector soared up by 13.1% year-on-year with a surge in electricity use
- The energy use in the commercial & public sector posted a year-on-year 6.5% due to several factors increased working days (0.5 day), an increase in service sector production (4.2% increase in production index) and a base effect. However, the growth became dull amidst another wave of COVID-19 pandemic

► Energy consumption in buildings

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
Buildings (Mtoe)	45.0	29.9	2.9	31.3	2.8	2.9	3.2
	(-1.0)	(-2.8)	(-5.6)	(4.8)	(5.4)	(7.2)	(8.9)
Residential	23.0	15.1	1.1	15.8	1.1	1.0	1.2
	(1.8)	(-1.1)	(-4.6)	(4.7)	(5.5)	(5.0)	(13.1)
Commercial	17.0	11.4	1.4	12.0	1.3	1.4	1.5
	(-2.8)	(-3.4)	(-5.2)	(4.7)	(6.3)	(8.8)	(6.6)
Public-others	5.0	3.3	0.4	3.5	0.4	0.4	0.4
	(-6.6)	(-8.1)	(-9.3)	(5.8)	(2.3)	(7.4)	(5.9)
Heating degree days	2 448.0	1 473.4	-	1 492.3	-	-	-
	(3.3)	(-2.5)	-	(1.3)	-	-	-
Cooling degree days	85.2	83.5	76.5	101.3	-	67.3	34.0
	(-29.2)	(-26.9)	(2.3)	(21.3)	(-100.0)	(1 822.9)	(-55.6)

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

► Energy consumption in buildings & major indicators



14. Transformation

- While the total power generation went up by 1.5% year-on-year due to increase electricity consumption, energy input for generation inched down by 0.1%
 - With electricity use increasing, the base load generation grew by 2.1% as nuclear and coal-fired generation went up slightly. On the other side, gas power generation for peak load climbed up by 4.0%

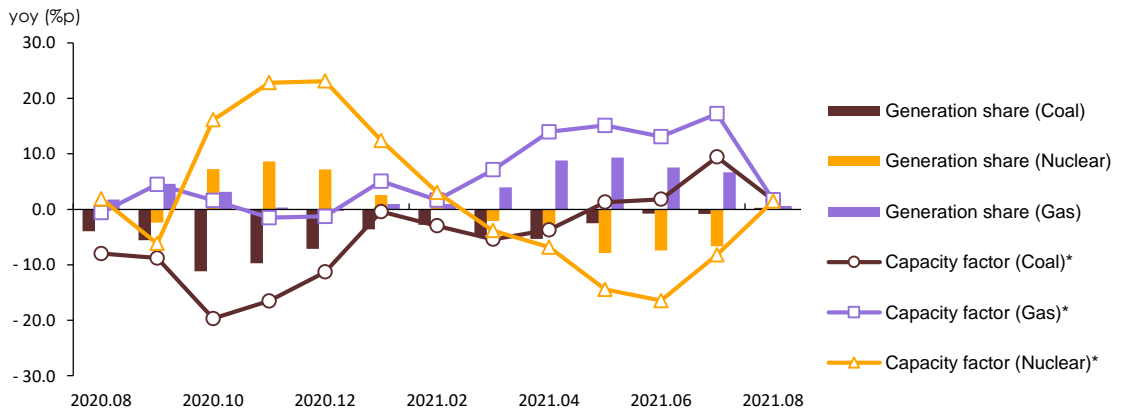
► Electricity Generation in the power generation sector

	2020			2021p			
		M1~8	M8	M1~8	M6	M7	M8
Electricity Generation (TWh)	552.2	367.9	51.1	384.7	45.5	54.1	51.8
	(-1.9)	(-2.8)	(-1.1)	(4.6)	(3.7)	(16.0)	(1.5)
Coal	196.3	133.4	20.4	130.4	16.7	21.4	20.9
	(-13.7)	(-10.4)	(-10.0)	(-2.3)	(2.2)	(13.6)	(2.1)
Oil	2.3	1.1	0.2	2.6	0.2	0.3	0.1
	(-31.5)	(-53.2)	(-33.7)	(132.5)	(85.1)	(293.5)	(-42.5)
Gas	145.9	93.0	13.3	115.2	13.3	15.6	13.8
	(1.1)	(-2.0)	(6.0)	(23.8)	(41.1)	(50.9)	(4.0)
Nuclear	160.2	108.3	12.5	102.3	11.3	12.3	12.8
	(9.8)	(4.4)	(2.7)	(-5.6)	(-19.6)	(-10.3)	(2.0)
Hydro/other renewables	40.4	26.2	4.4	31.6	3.8	4.2	3.9
	(3.1)	(-5.5)	(13.9)	(20.6)	(22.6)	(39.0)	(-10.9)
Baseload	356.5	241.8	33.0	232.7	28.0	33.7	33.6
	(-4.5)	(-4.3)	(-5.6)	(-3.7)	(-7.9)	(3.5)	(2.1)

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

	2019	2020					2021			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
GDP (trillion won)	1 852.7 (2.2)	1 836.9 (-0.9)	893.5 (-0.6)	449.7 (-2.6)	- -	- -	928.9 (4.0)	476.5 (6.0)	- -	- -
Private consumption	894.1 (2.1)	849.1 (-5.0)	421.1 (-4.5)	208.6 (-4.2)	- -	- -	431.3 (2.4)	216.3 (3.7)	- -	- -
Facilities investment	155.3 (-6.6)	166.3 (7.1)	81.8 (5.9)	42.3 (4.5)	- -	- -	92.1 (12.6)	47.7 (12.8)	- -	- -
Construction investment	265.2 (-1.7)	264.1 (-0.4)	127.3 (1.6)	72.5 (-0.4)	- -	- -	125.4 (-1.5)	71.6 (-1.2)	- -	- -
Consumer price index (2015=100)	104.9	105.4	105.3	104.9	104.9	105.5	107.3	107.4	107.6	108.3
USD to KRW exchange rate (won)	1 165.4	1 180.3	1 203.5	1 210.0	1 198.9	1 186.9	1 126.1	1 121.3	1 144.0	1 160.3
Benchmark rate (%)	1.6	0.7	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.8
Coincident composite index (2015=100)	112.0	112.3	111.8	110.7	111.0	111.8	115.9	116.8	117.0	117.1
Mining & manufacturing production index (2015=100)	106.7	106.3	103.2	104.3	107.4	99.6	112.0	116.3	115.8	109.3
Manufacturing operation ratio index (2015=100)	98.4	95.6	93.0	94.3	97.3	89.1	98.8	103.0	102.4	96.1
Average temperature	13.4	13.0	14.2	22.7	22.5	26.4	14.2	21.7	26.0	24.8
- year-on-year difference	0.4	- 0.4	0.0	1.4	- 2.3	0.3	- 0.0	- 1.0	3.5	- 1.7
Heating degree days	2 370.9 (-8.7)	2 448.0 (3.3)	1 473.4 (-2.5)	- -	- -	- -	1 492.3 (1.3)	- -	- -	- -
Cooling degree days	120.4 (-42.4)	85.2 (-29.2)	83.5 (-26.9)	3.5 -	3.5 (-91.1)	76.5 (2.3)	101.3 (21.3)	- (-100.0)	67.3 (1 822.9)	34.0 (-55.6)
Energy intensity	0.16 (-3.6)	0.16 (-3.1)	0.16 (-3.4)	0.15 (-0.6)	- -	- -	0.16 (-0.6)	0.15 (-1.6)	- -	- -
Per capita consumption										
oil (bbl)	17.9 (-0.7)	16.8 (-6.0)	11.3 (-4.9)	1.4 (-1.0)	1.4 (-7.8)	1.4 (-12.1)	11.8 (4.1)	1.5 (8.0)	1.5 (9.0)	1.5 (8.7)
Electricity (MWh)	10.1 (-1.3)	9.8 (-2.3)	6.5 (-3.4)	0.8 (-2.3)	0.8 (-2.2)	0.9 (-6.4)	6.9 (5.2)	0.8 (5.6)	0.9 (9.2)	0.9 (9.6)
City gas (1 000 m ³)	0.5 (-4.3)	0.4 (-3.7)	0.3 (-6.8)	0.0 (-11.7)	0.0 (-9.1)	0.0 (-4.0)	0.3 (7.0)	0.0 (13.8)	0.0 (7.0)	0.0 (4.1)
Total energy (toe)	5.9 (-1.6)	5.6 (-3.9)	3.7 (-4.6)	0.4 (-2.2)	0.5 (-6.5)	0.5 (-6.6)	3.9 (4.0)	0.5 (4.7)	0.5 (9.0)	0.5 (4.2)

Note: Figures are based on the real price of 2010, p means provisional, () is year-on-year growth rates (%)
Source: BOK Economic statistics system, Korea Statistical Information Service, Monthly Energy Statistics

The Index of Production Ratio & Output by Sectors

(2015=100)

(2013=100)

	2019	2020					2021			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Industrial production index										
All industry	108.6 (1.0)	107.3 (-1.2)	105.0 (-1.6)	110.2 (0.4)	106.8 (-1.8)	102.3 (-3.9)	110.2 (5.0)	117.3 (6.4)	111.6 (4.5)	108.3 (5.9)
Mining & manufacturing	106.7 (0.3)	106.3 (-0.3)	103.2 (-1.4)	104.3 (-1.3)	107.4 (-2.9)	99.6 (-3.7)	112.0 (8.5)	116.3 (11.5)	115.8 (7.8)	109.3 (9.7)
Semiconductor	188.0 (11.7)	230.6 (22.6)	219.3 (27.3)	238.4 (22.3)	227.9 (16.8)	237.6 (20.4)	279.7 (27.6)	299.8 (25.8)	306.9 (34.7)	325.0 (36.8)
Iron & steel	98.3 (-2.2)	92.1 (-6.3)	90.4 (-8.9)	81.3 (-17.5)	86.0 (-16.0)	86.2 (-9.9)	97.7 (8.1)	98.3 (20.9)	102.6 (19.3)	98.9 (14.7)
Cement	94.3 (-5.7)	86.6 (-8.2)	83.0 (-12.0)	92.3 (-10.4)	81.1 (-15.7)	72.6 (-20.9)	89.5 (7.8)	97.3 (5.4)	93.2 (14.9)	83.6 (15.2)
Basic compound	108.9 (-1.4)	102.3 (-6.0)	103.5 (-4.7)	95.4 (-6.5)	103.8 (-9.8)	105.2 (-8.1)	109.3 (5.6)	105.0 (10.1)	114.2 (10.0)	116.2 (10.5)
Transport equipment	93.4 (-0.6)	84.1 (-9.9)	79.0 (-15.5)	79.3 (-15.4)	93.2 (-8.1)	68.9 (-10.6)	88.9 (12.5)	95.5 (20.4)	90.0 (-3.4)	73.2 (6.2)
Electric & electronic	109.6 (2.9)	108.7 (-0.8)	103.4 (-3.0)	108.6 (0.7)	111.6 (-2.5)	100.0 (-4.0)	112.9 (9.2)	120.1 (10.6)	119.0 (6.6)	110.3 (10.3)
Service	108.4 (1.4)	106.2 (-2.0)	104.5 (-2.3)	-	-1.2	-3.8	108.7 (4.0)	113.5 (4.9)	111.0 (4.0)	108.5 (4.2)
Wholesale and retail	104.6 (-0.4)	101.9 (-2.6)	99.8 (-3.6)	-	-2.0	-5.7	104.3 (4.5)	107.4 (3.5)	106.1 (5.5)	101.9 (5.3)
Food & Accommodation	97.5 (-1.0)	79.5 (-18.5)	81.5 (-15.7)	84.7 (-12.1)	90.4 (-9.1)	84.6 (-16.9)	76.6 (-5.9)	84.2 (-0.6)	83.2 (-8.0)	80.1 (-5.3)
Production output										
Iron & steel - Pig iron	47 520.7 (0.8)	45 359.6 (-4.5)	29 465.7 (-7.0)	3 482.2 (-10.9)	3 905.6 (-2.5)	4 090.6 (-0.3)	31 012.6 (5.3)	3 788.6 (8.8)	4 015.3 (2.8)	4 022.7 (-1.7)
Iron & steel - Crude steel	71 411.9 (-1.5)	67 078.8 (-6.1)	43 795.9 (-8.7)	5 089.2 (-14.5)	5 529.8 (-8.2)	5 773.4 (-2.2)	47 426.1 (8.3)	5 970.9 (17.3)	6 124.3 (10.8)	6 103.8 (5.7)
Petrochemical - Basic oil	31 804.1 (2.1)	30 323.6 (-4.7)	20 836.4 (-0.4)	2 490.8 (2.6)	2 559.3 (-11.1)	2 571.4 (-8.3)	22 216.5 (6.6)	2 649.2 (6.4)	2 950.2 (15.3)	2 974.0 (15.7)
Petrochemical - Intermediate raw material	16 014.0 (-5.7)	15 355.4 (-4.1)	10 505.0 (-1.2)	1 236.0 (5.7)	1 287.5 (-5.4)	1 261.9 (-13.9)	10 549.9 (0.4)	1 121.5 (-9.3)	1 337.5 (3.9)	1 445.4 (14.5)
Petrochemical - 3 major products	21 584.6 (-1.0)	21 252.7 (-1.5)	14 314.3 (-1.8)	1 665.5 (-2.2)	1 745.2 (-9.5)	1 806.3 (-5.4)	15 283.6 (6.8)	1 849.0 (11.0)	2 061.4 (18.1)	2 059.2 (14.0)
The number of cars	3 948.1 (-2.1)	3 506.8 (-11.2)	2 206.7 (-16.2)	297.0 (-10.8)	345.7 (-3.9)	233.4 (-6.4)	2 347.2 (6.4)	325.8 (9.7)	297.6 (-13.9)	234.9 (0.7)

Note: p means provisional

Source: Monthly Energy Statistics, Korea Petrochemical Industry Association, Automobile Manufacturers Association

International Energy Prices

	2019	2020					2021			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Crude oil (USD/bbl)										
WTI	57.0 (-11.9)	39.4 (-30.9)	38.2 (-33.1)	38.3 (-30.0)	40.8 (-29.2)	42.4 (-22.7)	64.0 (67.7)	71.4 (86.2)	72.4 (77.7)	67.7 (59.7)
Dubai	63.5 (-8.5)	42.2 (-33.6)	41.4 (-35.7)	40.8 (-34.0)	43.3 (-31.6)	44.0 (-25.6)	65.4 (58.0)	71.6 (75.5)	72.9 (68.4)	69.5 (58.0)
Brent	64.2 (-10.3)	43.2 (-32.7)	42.6 (-34.5)	40.8 (-35.3)	43.2 (-32.7)	45.0 (-24.3)	66.9 (57.0)	73.4 (80.1)	74.3 (71.9)	70.5 (56.6)
Unit value of import (C&F)	65.5 (-8.2)	44.8 (-31.7)	45.0 (-31.9)	29.8 (-56.0)	39.2 (-40.1)	44.7 (-30.6)	65.5 (45.5)	69.9 (134.2)	73.4 (87.1)	73.8 (65.3)
LNG										
From Indonesia (USD/MMBTU)	10.6 (-1.0)	8.3 (-21.3)	9.1 (-15.4)	9.0 (-10.7)	7.8 (-23.1)	6.3 (-41.6)	9.3 (2.1)	9.6 (7.2)	10.4 (33.0)	10.8 (70.3)
Unit value of import (USD/ton, CIF)	505.4 (-4.0)	390.2 (-22.8)	434.0 (-16.7)	443.7 (-5.7)	384.0 (-21.4)	317.4 (-33.8)	458.8 (5.7)	460.9 (3.9)	498.1 (29.7)	534.6 (68.4)
Bituminous coal (USD/ton)										
From Australia	77.9 (-27.2)	60.8 (-22.0)	58.6 (-29.6)	52.2 (-28.0)	51.6 (-28.5)	50.1 (-23.5)	114.9 (96.0)	130.0 (148.9)	152.0 (194.7)	169.6 (238.2)
Unit value of import (CIF)	100.7 (-11.3)	77.7 (-22.9)	81.3 (-24.3)	75.4 (-31.1)	68.8 (-28.8)	70.7 (-31.8)	93.3 (14.8)	97.9 (29.8)	102.8 (49.4)	114.7 (62.3)
Petroleum product (USD/bbl)										
Gasoline	72.5 (-9.3)	46.7 (-35.7)	45.8 (-35.7)	45.3 (-32.9)	46.6 (-36.7)	48.2 (-31.2)	74.8 (63.3)	80.4 (77.3)	85.4 (83.0)	81.0 (67.9)
Kerosene	77.3 (-8.9)	44.7 (-42.1)	44.5 (-42.6)	41.2 (-44.8)	43.9 (-44.0)	43.3 (-42.0)	69.5 (55.9)	75.9 (84.3)	77.3 (75.9)	74.1 (71.0)
Diesel	78.2 (-7.9)	49.4 (-36.8)	50.2 (-36.0)	46.6 (-38.0)	50.2 (-36.4)	49.5 (-34.4)	72.0 (43.3)	78.8 (69.1)	79.9 (59.3)	76.5 (54.8)
Bunker-C	57.5 (-11.8)	39.2 (-31.9)	37.3 (-40.2)	36.9 (-38.0)	39.4 (-40.5)	42.2 (-22.5)	60.6 (62.4)	64.7 (75.6)	66.2 (68.3)	65.2 (54.3)
Propane	434.6 (-19.8)	397.1 (-8.6)	393.1 (-12.0)	350.0 (-18.6)	360.0 (-4.0)	365.0 (-1.4)	580.6 (47.7)	530.0 (51.4)	620.0 (72.2)	660.0 (80.8)
Butane	441.7 (-18.1)	403.8 (-8.6)	401.3 (-11.0)	330.0 (-20.5)	340.0 (-4.2)	345.0 (-4.2)	564.4 (40.7)	525.0 (59.1)	620.0 (82.4)	655.0 (89.9)
Naphtha	56.9 (-15.1)	40.5 (-28.9)	39.1 (-30.4)	39.0 (-24.6)	43.5 (-21.8)	42.9 (-15.1)	65.8 (68.5)	70.5 (80.9)	75.5 (73.6)	70.7 (64.8)

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

Domestic Energy Prices

	2019	2020					2021			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Petroleum product										
Gasoline (won/liter)	1 471.9 (-6.9)	1 381.6 (-6.1)	1 400.7 (-2.6)	1 322.9 (-12.8)	1 360.3 (-8.8)	1 361.1 (-8.9)	1 543.3 (10.2)	1 577.3 (19.2)	1 629.3 (19.8)	1 645.8 (20.9)
Diesel (won/liter)	1 340.1 (-3.7)	1 189.8 (-11.2)	1 212.7 (-8.0)	1 127.9 (-18.3)	1 162.9 (-14.0)	1 163.6 (-13.9)	1 341.3 (10.6)	1 374.4 (21.9)	1 425.5 (22.6)	1 440.5 (23.8)
Bunker-C (won/liter)	743.9 (1.2)	573.6 (-22.9)	592.1 (-21.4)	462.8 (-42.1)	524.7 (-32.4)	553.7 (-33.1)	684.1 (15.5)	706.4 (52.6)	728.4 (38.8)	750.1 (35.5)
Propane (won/kg)	1 869.7 (-2.6)	1 850.7 (-1.0)	1 859.8 (-0.8)	1 794.5 (-7.0)	1 806.0 (-2.5)	1 806.0 (-1.9)	2 008.1 (8.0)	1 999.6 (11.4)	2 036.4 (12.8)	2 114.5 (17.1)
Butane (won/liter)	806.2 (-7.8)	791.1 (-1.9)	797.9 (-1.4)	749.5 (-12.0)	759.9 (-4.6)	760.4 (-3.2)	884.9 (10.9)	878.5 (17.2)	906.3 (19.3)	952.3 (25.2)
City gas(won/MJ)										
Residential	15.6 (3.9)	15.1 (-3.6)	15.5 (0.1)	15.9 (3.8)	14.2 (-10.7)	14.2 (-10.7)	14.2 (-8.3)	14.2 (-10.7)	14.2 -	14.2 -
General(1)	15.6 (4.9)	14.9 (-4.7)	15.4 (-0.8)	15.7 (4.7)	13.8 (-12.2)	13.8 (-12.2)	13.9 (-9.5)	13.8 (-12.2)	13.8 (-0.0)	13.8 (-0.0)
Commercial	16.1 (4.4)	15.1 (-6.4)	16.0 (0.8)	16.5 (4.7)	14.6 (-11.4)	14.9 (-9.5)	15.6 (-2.8)	15.6 (-5.5)	16.2 (10.7)	17.2 (15.7)
Industry	13.8 (6.0)	12.6 (-8.4)	13.7 (0.3)	13.9 (5.5)	11.7 (-15.5)	12.1 (-13.3)	12.9 (-5.9)	12.3 (-11.4)	12.9 (9.9)	14.0 (16.0)
Heat(won/Mcal)										
Residential	65.7 (1.8)	66.2 (0.7)	66.7 (2.6)	67.1 (3.8)	65.2 (0.8)	65.2 (-2.8)	65.2 (-2.1)	65.2 (-2.8)	65.2 -	65.2 -
Commercial	85.3 (1.8)	85.9 (0.7)	86.6 (2.6)	87.2 (3.8)	84.7 (0.8)	84.7 (-2.8)	84.7 (-2.1)	84.7 (-2.8)	84.7 -	84.7 -
Public	74.5 (1.9)	75.1 (0.7)	75.6 (2.6)	76.1 (3.8)	74.0 (0.8)	74.0 (-2.9)	74.0 (-2.2)	74.0 (-2.9)	74.0 -	74.0 -
Electricity(won/kWh)										
Residential	147.3 -	147.3 -	147.3 -	147.3 -	147.3 -	147.3 -	142.3 (-3.4)	142.3 (-3.4)	142.3 (-3.4)	142.3 (-3.4)
General	84.4 -	84.4 -	87.2 -	105.7 -	105.7 -	105.7 -	82.2 (-5.7)	100.7 (-4.7)	100.7 (-4.7)	100.7 (-4.7)
Industry	96.0 -	96.0 -	97.3 -	108.5 -	108.5 -	108.5 -	92.3 (-5.1)	103.5 (-4.6)	103.5 (-4.6)	103.5 (-4.6)

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

2.Electricity prices are based on Residential(High-voltage, 201~400kWh), General((A) I, Low-voltage), Industry((B), High-voltageB, option II mid-load)
Source: www.petronet.co.kr, www.seoulgas.co.kr, cyber.kepco.co.kr

Total Primary Energy Supply (TPES)

	2019	2020p					2021p			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Coal (Mton)	133.0 (-5.7)	116.6 (-12.4)	78.0 (-11.4)	9.6 (-8.8)	10.7 (-13.1)	11.3 (-10.7)	77.7 (-0.4)	9.5 (-1.0)	11.3 (5.4)	11.5 (1.2)
- Coking coal excluded	98.0 (-7.9)	82.8 (-15.6)	55.9 (-13.8)	6.9 (-9.0)	7.8 (-16.6)	8.4 (-13.3)	54.1 (-3.2)	6.7 (-3.8)	8.3 (6.0)	8.5 (0.6)
Oil (Mbbbl)	927.1 (-0.5)	872.3 (-5.9)	585.0 (-4.8)	71.1 (-0.9)	72.4 (-7.7)	71.6 (-12.0)	609.3 (4.2)	76.8 (8.1)	78.9 (9.0)	77.9 (8.8)
- Non-energy oil excluded	451.8 (1.4)	423.6 (-6.2)	277.8 (-7.0)	33.7 (-4.3)	34.3 (-5.3)	34.0 (-16.2)	282.2 (1.6)	36.9 (9.3)	36.1 (5.5)	34.0 (0.2)
LNG (Mton)	41.0 (-3.1)	42.1 (2.7)	26.9 (-0.8)	2.4 (0.5)	2.6 (-7.0)	3.0 (6.6)	30.6 (14.0)	3.1 (25.6)	3.4 (29.1)	3.1 (2.7)
Hydro (TWh)	6.2 (-14.1)	7.1 (14.4)	4.9 (16.5)	0.5 (6.7)	0.6 (8.0)	1.1 (78.8)	4.7 (-3.5)	0.7 (33.9)	0.7 (16.3)	0.6 (-43.6)
Nuclear (TWh)	145.9 (9.3)	160.2 (9.8)	108.3 (4.4)	14.1 (3.6)	13.7 (17.5)	12.5 (2.7)	102.3 (-5.6)	11.3 (-19.6)	12.3 (-10.3)	12.8 (2.0)
Others (Mtoe)	17.7 (3.3)	18.4 (4.3)	12.3 (3.1)	1.5 (3.7)	1.5 (-0.8)	1.6 (-1.4)	13.5 (9.4)	1.6 (9.9)	1.7 (16.3)	1.7 (6.7)
TPES (Mtoe)	303.1 (-1.5)	291.5 (-3.8)	193.6 (-4.5)	22.7 (-2.1)	23.7 (-6.4)	24.4 (-6.5)	201.4 (4.1)	23.8 (4.8)	25.9 (9.1)	25.5 (4.2)
- Non-energy oil excluded	244.0 (-1.3)	235.5 (-3.4)	155.3 (-4.9)	18.1 (-3.2)	19.0 (-5.3)	19.7 (-6.3)	160.5 (3.3)	18.8 (4.0)	20.5 (8.1)	20.0 (1.3)
- Non-energy oil&coal excluded	219.6 (-1.5)	212.0 (-3.5)	139.9 (-4.9)	16.2 (-2.6)	17.0 (-5.7)	17.7 (-6.7)	144.1 (3.0)	16.8 (3.7)	18.4 (8.6)	17.9 (1.1)

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

Share of TPES by Sources

(unit: %)

	2019	2020p					2021p			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Coal	27.1	24.8	25.0	26.0	28.0	28.6	24.0	24.7	27.0	27.8
- Coking coal excluded	19.1	16.7	17.0	17.9	19.5	20.3	15.8	16.5	18.9	19.5
Oil	38.7	37.8	38.1	39.7	38.3	36.9	38.2	40.8	38.4	38.5
- non-energy oil excluded	19.2	18.6	18.3	19.2	18.4	17.6	17.9	19.7	17.7	17.0
LNG	17.7	18.9	18.1	14.1	14.5	16.1	19.8	16.9	17.2	15.9
Hydro	0.4	0.5	0.5	0.5	0.6	0.9	0.5	0.6	0.6	0.5
Nuclear	10.3	11.7	11.9	13.2	12.3	10.9	10.8	10.1	10.1	10.7
Others	5.8	6.3	6.4	6.6	6.3	6.6	6.7	6.9	6.7	6.7
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)

	2019	2020p					2021p			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Industry	142.9 (-0.4)	137.3 (-3.9)	91.6 (-3.4)	11.0 (-2.6)	11.4 (-6.9)	11.4 (-6.4)	97.4 (6.3)	11.9 (8.7)	12.7 (10.6)	12.6 (10.7)
Transport	43.0 (0.0)	39.4 (-8.3)	26.0 (-10.5)	3.4 (-8.2)	3.4 (-4.4)	3.3 (-18.8)	26.2 (0.6)	3.5 (4.3)	3.4 (1.2)	3.3 (-0.2)
Residential	22.6 (-3.6)	23.0 (1.8)	15.1 (-1.1)	1.0 (4.1)	1.0 (3.3)	1.1 (-4.6)	15.8 (4.7)	1.1 (5.5)	1.0 (5.0)	1.2 (13.1)
commercial	17.5 (-2.3)	17.0 (-2.8)	11.4 (-3.4)	1.2 (2.8)	1.3 (-1.5)	1.4 (-5.2)	12.0 (4.7)	1.3 (6.3)	1.4 (8.8)	1.5 (6.6)
Public	5.4 (-3.2)	5.0 (-6.6)	3.3 (-8.1)	0.4 (-2.6)	0.4 (-5.9)	0.4 (-9.3)	3.5 (5.8)	0.4 (2.3)	0.4 (7.4)	0.4 (5.9)
TFC	231.4 (-0.9)	221.7 (-4.2)	147.5 (-4.6)	17.0 (-3.0)	17.5 (-5.5)	17.6 (-8.9)	154.9 (5.0)	18.2 (7.3)	19.0 (8.3)	19.1 (8.3)
Coal (Mton)	48.2 (-2.2)	45.8 (-4.9)	29.7 (-7.8)	3.6 (-10.3)	3.8 (-3.8)	3.9 (-5.7)	31.6 (6.3)	3.7 (3.4)	4.0 (5.5)	4.2 (6.5)
Oil (Mbbbl)	918.5 (-0.2)	865.7 (-5.7)	581.4 (-4.4)	70.7 (-0.7)	72.0 (-7.4)	71.1 (-11.9)	604.0 (3.9)	76.3 (7.9)	78.2 (8.5)	77.5 (9.0)
Electricity (TWh)	520.5 (-1.1)	509.3 (-2.2)	338.9 (-3.3)	39.8 (-2.1)	42.1 (-2.1)	44.6 (-6.2)	356.7 (5.2)	42.0 (5.7)	46.0 (9.3)	48.9 (9.7)
City gas (Bm ³)	23.3 (-4.1)	22.4 (-3.5)	14.9 (-6.7)	1.1 (-11.6)	1.1 (-9.0)	1.1 (-3.9)	16.0 (7.1)	1.3 (13.9)	1.2 (7.1)	1.1 (4.2)
Heat-others (1 000 toe)	11.6 (-2.0)	11.4 (-0.9)	7.6 (-2.1)	0.8 (-2.7)	0.8 (-1.6)	0.8 (-6.8)	8.2 (7.6)	0.9 (12.5)	0.9 (10.6)	0.9 (11.2)

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

Share of the Total Final Consumption by Sources

(unit: %)

	2019	2020p					2021p			
			M1~8	M6	M7	M8	M1~8	M6	M7	M8
Industry	61.8	61.9	62.1	64.5	65.4	64.7	62.9	65.4	66.8	66.1
Transport	18.6	17.8	17.6	19.8	19.3	18.8	16.9	19.2	18.0	17.3
Residential	9.8	10.4	10.2	6.1	5.5	6.1	10.2	6.0	5.3	6.3
Commercial	7.6	7.7	7.8	7.3	7.6	8.1	7.7	7.3	7.6	8.0
Public	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3
Final energy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Coal	13.9	13.7	13.4	14.0	14.6	14.7	13.6	13.6	14.2	14.4
Oil	50.2	49.3	49.7	52.7	51.7	50.7	49.2	52.9	51.9	51.0
Electricity	19.3	19.8	19.8	20.1	20.7	21.7	19.8	19.8	20.9	22.0
City gas	11.6	12.0	12.0	8.6	8.3	8.2	12.1	8.9	8.2	7.8
Heat-others	5.0	5.2	5.2	4.6	4.7	4.7	5.3	4.8	4.8	4.8

Note: p means provisional
Source: Monthly energy statistics

Statistics on Energy Production Facilities

	2018	2019	2020	2021			2021		
				M6	M7	M8	M6	M7	M8
Total capacity (GW)	119.1 (1.9)	125.3 (5.2)	129.2 (3.1)	127.3 (5.1)	127.8 (5.5)	128.1 (4.2)	131.1 (2.9)	131.3 (2.7)	131.6 (2.8)
Nuclear	21.9 (-3.0)	23.3 (6.4)	23.3 -	23.3 (6.4)	23.3 (6.4)	23.3 -	23.3 -	23.3 -	23.3 -
Bituminous coal	36.4 (0.7)	36.4 (0.1)	36.5 (0.1)	36.5 (0.1)	36.5 (0.1)	36.5 (0.1)	36.4 (-0.2)	36.4 (-0.2)	36.4 (-0.2)
Gas	37.9 (-0.0)	39.6 (4.5)	41.2 (4.1)	41.2 (7.5)	41.2 (7.5)	41.2 (7.5)	41.2 -	41.2 -	41.2 -
Refinery capacity (mil BPSD)	3.2 (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

	2018	2019	2020	2021			2021		
				M6	M7	M8	M6	M7	M8
The number of household demanding city gas (mil)	19.1 (3.1)	19.7 (2.8)	20.1 (2.3)	19.8 (2.5)	19.8 (2.6)	19.8 (2.6)	20.1 (1.8)	20.2 (1.9)	20.1 (1.6)
Registered cars (mil)	23.2 (3.0)	23.7 (2.0)	24.4 (2.9)	24.0 (2.5)	24.1 (2.5)	24.1 (2.5)	24.6 (2.6)	24.7 (2.5)	24.7 (2.5)
- gasoline	10.6 (2.5)	11.0 (3.1)	11.4 (4.1)	11.2 (4.1)	11.3 (4.3)	11.3 (4.2)	11.6 (3.5)	11.6 (3.4)	11.7 (3.4)
- diesel	9.9 (3.7)	10.0 (0.3)	10.0 (0.3)	10.0 (-0.2)	10.0 (-0.3)	10.0 (-0.3)	9.9 (-0.3)	9.9 (-0.4)	9.9 (-0.6)
- LPG	2.0 (-3.3)	2.0 (-1.5)	2.0 (-1.3)	2.0 (-0.5)	2.0 (-0.6)	2.0 (-0.7)	2.0 (-2.0)	2.0 (-2.0)	2.0 (-2.0)
- hybrid	0.4 (30.9)	0.5 (26.1)	0.6 (33.1)	0.6 (25.9)	0.6 (26.6)	0.6 (27.3)	0.8 (36.9)	0.8 (37.0)	0.8 (37.7)

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

Source: Monthly energy statistics